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1977
Concordia University
1977-78
Concordia University was established in August, 1974. Its two founding components, Sir George Williams University and Loyola College, share a tradition of service to part-time students, and Concordia continues to build on this expertise within the Quebec university system.

The University also serves a large full-time student population which accounts for nearly half of Concordia's undergraduate enrolment. A principal goal of the University remains excellence in undergraduate teaching.

The University offers numerous graduate programmes for both full-time and part-time students and in fact pioneered in the field of part-time graduate study, offering programmes in the late afternoon to accommodate working people.

Concordia's name reflects the University's place in Montreal. It is drawn from the city's motto "concordia salus". The University has two campuses. Sir George Williams campus, located in the heart of Montreal, is grouped around the Hall Building at 1455 de Maisonneuve Boulevard West and is often thought of as a 'sidewalk' campus.

Loyola campus, situated in the west end of the city at 7141 Sherbrooke Street West, is a large green campus. Its principal buildings were built in a Tudor and Early Renaissance style, partly inspired by buildings at St. Mary's College, Oxford, and the Royal Navy Academy in Osborne, England.

The University offers undergraduate degrees in six Faculties. The Faculty of Engineering, the Faculty of Commerce and Administration and the Faculty of Fine Arts give courses on both campuses. The other Faculties are: the Sir George Williams Faculty of Arts; the Sir George Williams Faculty of Science; the Loyola Faculty of Arts and Science. (The merger of science departments on both campuses into a single faculty is under discussion as this calendar is being prepared.)

Enrolment in the 1976-77 academic year was:
full-time undergraduate students ........................................... 9,400
part-time undergraduate students ........................................... 11,880
graduate students ................................................................... 4,460
other, non-degree students ................................................... 6,320

In addition to the programmes described in this Calendar and the Graduate Studies Calendar, the University offers a wide range of summer programmes on both campuses.

Libraries
The Concordia University Libraries contain a growing collection of approximately 800,000 items, which increase at an average rate of 65,000 items per year. There are two libraries on each campus and students may use facilities on both campuses. The annual Library Owner's Manual contains information on resources and services offered by the Concordia Libraries.

The Norris Library on the Sir George Williams campus is the largest of the libraries and contains a collection of books, microforms, periodicals, and non-print materials for students in all areas except those in science and technology. The Science and Engineering Library, in the Hall Building on the same campus, contains materials concerned with the pure and applied sciences. The Sir George Williams campus libraries have been designated a full depository for publications of the Canadian federal and Quebec governments, and also receive selected documents from a number of other provinces and countries. The bulk of this collection is located on the 5th floor of the Norris Library.

The Georges P. Vanier Library and the Drummond Science Library serve students and faculty on the Loyola campus. Resources include books, selected government documents of the province of Quebec, Canada and other countries; films and other non-print materials, microforms and periodicals.

Laboratories
The University has 100 laboratories on both campuses with modern equipment for teaching and research in Biology, Chemistry, Physics, Engineering, Statistics, Psychology, Geography, Languages and Communication Studies.

Art Collection and Galleries
The Concordia University collection of art is housed on both campuses. Portions of the collection are displayed in public areas of the Loyola campus and in the galleries and display areas of the Sir George Williams campus. The collection comprises an extensive survey of modern Canadian paintings, drawings, graphic art, sculpture and minor art.

There are three art galleries: The Weissmann Gallery, Gallery One and Gallery Two, located on the mezzanine floor of the Henry F. Hall Building. There are also open display areas on the same floor. There is a continuous programme of outside exhibitions and shows by students and faculty throughout the academic year. On occasion the galleries are also used for concerts, guest lectures and other cultural events.
Theatre, Music and Arts Studios

The Faculty of Fine Arts operates the Douglass Burns Clarke Theatre located in the Hall Building. It is a modern facility seating 380 people, and is used primarily for dramatic productions and musical performances. The 650-seat F. C. Smith Auditorium, located on the Loyola campus, is used for a wide variety of activities, including cinema, theatre and music performances. On the same campus, the Chameleon Theatre, a flexible teaching theatre facility, serves the theatre students.

Most of the specialized studios and workshops for undergraduate students are in the Hall Building or in the surrounding downtown area. The graduate studios are located in a separate downtown building.

Music students use ensemble rooms in the Refectory Building on the Loyola campus where a number of practice studios of various sizes are maintained. Performances are held in the large ensemble rooms and, occasionally, in the Chapel or in the D.B. Clarke Theatre.

Audio-visual Facilities

The Audio-visual Department has offices on both campuses, through which access can be arranged to the common pool of resources. These include television and sound studios, language laboratories, distribution centres for equipment and supplies, units for the production of materials in film, graphics, photography, TV and audio, and a visual media service specializing in the research and procurement of films and videotapes.
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Not all courses listed in this Calendar are offered in 1977-78. Students are advised to consult the Registration Handbook, issued at Registration, for a timetable of courses offered.

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11.1 ACADEMIC CALENDAR

The Academic Calendar is subject to change without notice. Effort will be made to publicize revisions.

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<tr>
<td>MARCH</td>
<td>Tuesday, March 1</td>
<td>Last day for applications Full Time Day Winter Session (1977/78) Course selection (Pre-Registration) begins Specific dates for each faculty to be published at a later date.</td>
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<td>Friday, April 22</td>
<td>Last day for applications Summer Session 1977</td>
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<td>MAY</td>
<td>To Be Announced</td>
<td>Evening Summer Session Registration</td>
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<td>Monday, May 9</td>
<td>Classes begin — Evening Summer Session — Course change period begins.</td>
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<td>Thursday, May 12</td>
<td>Course change period ends — Evening Summer Session.</td>
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<td>JUNE</td>
<td>Sunday, June 5</td>
<td>Loyola Faculty of Arts and Science</td>
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<td>Tuesday, June 7</td>
<td>Faculty of Fine Arts</td>
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<td>Wednesday, June 8</td>
<td>Faculty of Engineering</td>
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<td>Thursday, June 9</td>
<td>Sir George Williams Faculty of Science</td>
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<td>Saturday, June 11</td>
<td>Faculty of Commerce and Administration</td>
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<td>Sunday, June 12</td>
<td>Sir George Williams Faculty of Arts</td>
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<td>To Be Announced</td>
<td>Day Summer Sessions</td>
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<td>Tuesday, June 7</td>
<td>Classes end — first term courses — Evening Summer Session.</td>
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<td>Thursday, June 9</td>
<td>Classes begin — second term courses — Evening Summer Session — Course change period begins.</td>
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<td>Tuesday, June 14</td>
<td>Course change period ends — second term courses — Evening Summer Session.</td>
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<td>Thursday, June 15</td>
<td>Last day for submission of Preregistration forms — Fall/Winter Session 1977.</td>
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<td>Thursday, June 16</td>
<td>Last day for special and supplemental examination applications.</td>
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<td>JULY</td>
<td>Thursday, July 7</td>
<td>Classes end — Evening Summer Session.</td>
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<td>Monday, July 11</td>
<td>Examinations begin — Evening Summer Session.</td>
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<td>Friday, July 15</td>
<td>Examinations end — Evening Summer Session.</td>
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<td>AUGUST</td>
<td>Monday, August 1</td>
<td>Special and supplemental examinations begin — Winter Session 1976/77</td>
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<td>Wednesday, August 10</td>
<td>Special and supplemental examinations end — Winter Session 1976/77</td>
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<td>Friday, August 12</td>
<td>Last day for applications — Evening Session 1977/78</td>
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<td>Thursday, August 18</td>
<td>Registration for Pre-Registered students begins</td>
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<td>Monday, August 22</td>
<td>Registration for Pre-Registered students ends</td>
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<td>Thursday, August 25</td>
<td>General Registration begins (specific dates to be published in the time-tables)</td>
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<td><strong>SEPTEMBER</strong></td>
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<td>Monday, September 5</td>
<td>Labour Day</td>
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<td>Tuesday, September 6</td>
<td>General Registration ends</td>
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| Wednesday, September 7 | Classes begin — Day and Evening  
                      | Winter Session — Course change period begins                                      |
| Tuesday, September 20 | Course change period ends                                                         |
| **OCTOBER**         |                                                                                  |
| Monday, October 3   | Last day for applications — Special and supplemental examinations for Summer Session |
| Monday, October 10  | Thanksgiving Day — No classes day and evening                                      |
| Saturday, October 29| Special and supplemental examinations — Summer Session                            |
| **NOVEMBER**        |                                                                                  |
| Tuesday, November 1 | Last day for academic withdrawal from first term courses                           |
| Friday, November 11 | Last day for applications — January entry                                          |
| To Be Announced     | Fall Convocation                                                                  |
| **DECEMBER**        |                                                                                  |
| Wednesday, December 7 | Last day of classes — First term                                                  |
| Thursday, December 8 | Examination period begins                                                         |
| Thursday, December 22 | Examination period ends                                                          |
| To Be Announced     | Registration for January entry                                                    |
| **1978**            |                                                                                  |
| **JANUARY**         |                                                                                  |
| Tuesday, January 3  | Course change period begins for courses offered only in the second term            |
| Monday, January 9   | Classes begin — Second term                                                       |
| Friday, January 13  | Course change period ends                                                         |
| **FEBRUARY**        |                                                                                  |
| Wednesday, February 1 | Last day for applications for first term supplemental and special examinations — Graduating students |
| Saturday, February 25 | First term supplemental and special examinations — Graduating students            |
| Tuesday, February 28 | Last day for academic withdrawal from full courses and second term courses         |
| **MARCH**           |                                                                                  |
| Friday, March 24    | Good Friday — University closed                                                   |
| Monday, March 27    | Easter Monday — University closed                                                  |
| **APRIL**           |                                                                                  |
| Saturday, April 8   | Last day of classes                                                               |
| Saturday, April 8   | Final examinations begin                                                           |
| Wednesday, April 26 | Final examinations end                                                             |
| **JUNE**            |                                                                                  |
| Sunday, June 4      | Loyola Faculty of Arts and Science                                                 |
| Tuesday, June 6     | Faculty of Fine Arts                                                              |
| Wednesday, June 7   | Faculty of Engineering                                                            |
| Thursday, June 8    | Sir George Williams Faculty of Science                                             |
| Saturday, June 10   | Faculty of Commerce and Administration                                            |
| Sunday, June 11     | Sir George Williams Faculty of Arts                                               |
Governors, Senate, Councils, Faculty, Staff
## 12.1 Governors, Senate, Councils, Faculty, Staff

### 12.1.1 BOARD OF GOVERNORS

- Mr. H. J. Hemens, Q.C., *Chancellor*
- Mr. C. A. Duff, *Chairman*
- Mr. C. S. Malone, *Vice-Chairman*
- Mr. E. A. Lemieux, *Vice-Chairman*
- Mr. R. P. Duder, *Secretary*
- Prof. J. Bordan
- Mr. M. Bourgault
- Mr. R. Coveduck
- Mr. D. Dawson
- Prof. A. Dickie
- Rev. S. Drummond, S.J.
- Rev. S. Dubas, S.J.
- Mr. R. Evans

### 12.1.2 CONCORDIA SENATE (1976/77)

- Dr. J. W. O'Brien, *Chairman*
- Prof. J. Bordan, *Vice-Chairman*
- Mr. J. Noonan, *Secretary*
- Dr. G. Adams
- Mr. C. Ami
- Dean A. Berczi
- Dr. C. Bertrand
- Prof. L. Bessner
- Dean R. Breen
- Prof. G. Brink
- Mr. A. Bullard
- Dean J. C. Callaghan
- Dean I. L. Campbell
- Dr. J. Chaikelson
- Dr. M. Cohen
- Dr. A. Deland
- Dr. M. Despland
- Dr. M. Douglass
- Dr. H. Enesco
- Dean S. French
- Dr. D. Frost
- Rev. A. Graham, S.J.
- Prof. G. Gross
- Mr. D. Heath
- Dr. M. Hodgson
- Prof. A. Jordan
- Mr. S. Kutukian
- Prof. J. Locke
- Mrs. J. Lowenstyn
- Mr. A. McDonald
- Dr. S. McDonough
- Dr. S. McEvieene
- Dr. J. D. McLaughlin
- Prof. J. Moore
- Dr. J. Ornstein
- Dr. M. Osman
- Dean A. Pinsky
- Ms. R. Przestrzelski
- Prof. G. Sheps
- Dr. L. Smith
- Prof. R. Smith
- Dr. M. N. Swarny
- Dean R. H. Verschingel
- Prof. K. Waters
- Dr. E. West
- Prof. J. H. Whitelaw
- Prof. G. D. Xistris
- Twelve students to be named.

### 12.1.3 COUNCIL OF THE LOYOLA FACULTY OF ARTS AND SCIENCE

- Dean Rev. Dr. R. Breen, *Chairman*
- Dr. L. J. Sanders, *Secretary*
- Dr. S. A. Alvi
- Dean A. Audet
- Prof. M. Baldwin
- Ms. K. Barr
12.1.4 COUNCIL OF THE SIR GEORGE WILLIAMS FACULTY OF ARTS
Dean I. L. Campbell,
Chairman
Associate Dean M. Armstrong
Dr. J. Bhatnager
Dr. F. Bird
Associate Professor M. Brian
Dr. T. Buckner
Dr. J. Chaikelson
Dr. D. Charlton
Professor E. F. Cooke
Dr. R. Diubaldo
Dr. D. Frost
Dr. G. Huntley
Dr. H. Hutter
Associate Professor A. Jordan
Dr. A. M. Ketter
Dr. D. Laskey
Associate Professor J. Macaluso
Associate Professor E. MacLean
Associate Professor M. Marsden
Mr. J. McBride
Professor D. McDonald

Associate Dean D. McKeen
Dr. P. Morley
Ms. M. Osborne (Assistant to the Dean)
Dr. J. Palmer
Dr. E. Price
Mr. J. Princz
Dr. N. Segalowitz
Assistant Dean B. Slack
Mr. B. Smart
Dr. M. Steiniger
Dr. G. Taggart
Associate Professor M. Verthuy
Dr. R. Wall
Dr. R. Yorkey
Associate Professor J. Young
Dr. J. Zweig

To be Elected
1 — representative for Category III (Assistant Professors — Humanities & Social Sciences)
4 — day students
3 — part time students
1 — graduate student

12.1.5 COUNCIL OF THE FACULTY OF COMMERCE AND ADMINISTRATION
Dean A. Berczi,
Chairman
Prof. B. Barbieri,
Secretary
Ms. Judy Abbott
Prof. L. Bessner
Prof. J. Bordan
Ms. Patricia Bragaglia
Ms. Beverley Brucha
Prof. P. Brunet
Mr. A. Bullard
Prof. C. Cook
Dr. R. Crawford
Prof. G. R. Curnew
Ms. Suzanne Curtis
Prof. H. Dauderis
Mr. R. Davies
Ms. Barbara De Beaupré
Prof. A. Dickie

Prof. G. B. English
Prof. J. Flynn
Prof. Y. Geyikdagi
Prof. M. Gold
Mr. S. Gracioppo
Ms. Susan Hershman
Dr. N. Islam
Dr. G. Johns
Dr. V. Jones
Dr. J. Kelly
Mr. R. Kerkinan
Dr. L. Kryzanowski
Dr. P. Lynagh
Dr. H. Mann
Dr. L. McGown
Dr. J. W. O'Brien
Dr. C. Potter
Dr. S. Robbins
Prof. A. Sanders
Mr. B. Smart
Dr. R. Srinivasan
Ms. Patricia Tingle
GOVERNORS, SENATE, COUNCILS, FACULTY, STAFF
12.1.5 COUNCIL OF THE FACULTY OF COMMERCE AND ADMINISTRATION

12.1.6 COUNCIL OF THE FACULTY OF ENGINEERING
Dean J. C. Callaghan, Chairman
Dr. J. C. Giguere, Secretary
Mr. K. Adams
Dr. B. B. Bhattacharyya
Mr. J. Bordan
Mr. E. Cerny
Ms. M. Cloutier-Hayes
Dr. M. M. Douglass
Dr. M. P. duPlessis
Dr. P. Fazio

12.1.7 COUNCIL OF THE FACULTY OF FINE ARTS
Dean Alfred Pinsky, Chairman
Councillors to be appointed.

12.1.8 COUNCIL OF THE SIR GEORGE WILLIAMS FACULTY OF SCIENCE
Dr. R.H. Verschingel, Chairman
Prof. L. S. Adler, Secretary
Dr. S. Ashtakala
Prof. F. W. Bedford
Mrs. M. Cloutier-Hayes
Dr. M. Cohen
Dr. A. Deland
Dr. H. de Romer
Dr. T. Dwivedi
Dr. N. Eddy
Dr. H. Enesco
Mr. A. Gillich
Dr. Z. Hamlet

12.1.9 CONCORDIA COUNCIL ON STUDENT LIFE

To be announced
12.1.10 OFFICERS OF THE ADMINISTRATION

RECTOR: John W. O’Brien, PhD

EXECUTIVE ASSISTANT TO THE RECTOR: F. Michael Sheldon, MA

ASSISTANT TO THE RECTOR, PUBLIC RELATIONS AND DEVELOPMENT: J. Stirling Dorrance, MA

SECRETARY TO THE SENATE: John W. Noonan, BSc

VICE-RECTOR, ACADEMIC: Jack Bordan, MScEng

ASSOCIATE VICE-RECTOR, ACADEMIC: J. R. McBride, MA

ASSOCIATE VICE-RECTOR, ACADEMIC PLANNING: J. H. Whitelaw, MA

ASSOCIATE VICE-RECTOR, RESEARCH: Michel Despland, ThD

DIRECTOR OF CONTINUING EDUCATION: D. J. Potvin, BA BEd

UNIVERSITY RESEARCH OFFICER: Audrey J. Williams, MSc

FACULTY PERSONNEL OFFICER: Roslyn Muer, BA

SIR GEORGE WILLIAMS FACULTY OF ARTS:
DEAN: Ian L. Campbell, MSc
ASSOCIATE DEAN: Muriel Armstrong, MA
ASSOCIATE DEAN: David McKeen, PhD
ASSISTANT DEAN: Brian Slack, PhD

LOYOLA FACULTY OF ARTS & SCIENCE:
DEAN: Russell Breen, PhD
ASSISTANT DEAN: W. E. Akin, PhD
ASSISTANT DEAN: Robert Pallen, PhD
ASSISTANT DEAN: Eileen M. Preston, MA

SIR GEORGE WILLIAMS FACULTY OF SCIENCE:
DEAN: Roger Verschingel, PhD
ASSISTANT DEAN: L. S. Adler, MA

ASSOCIATE DEAN, LOYOLA CAMPUS:
G. B. English, MComm
ASSISTANT DEAN:
H. S. Tutsch, LLB
ASSISTANT DEAN:
Roland O. Wills, MBA

VICE-RECTOR AND PRINCIPAL OF LOYOLA CAMPUS:
A. Graham, S.J., MA STL

ASSISTANT TO THE VICE-RECTOR AND PRINCIPAL OF LOYOLA CAMPUS AND SECRETARY OF THE BOARD OF GOVERNORS:
R. P. Duder, MA DLitt

UNIVERSITY ARCHIVIST:
C. A. Sopstyle, MA MLS

ASSISTANT VICE-RECTOR AND UNIVERSITY REGISTRAR:
Kenneth D. Adams, BSc LMus

ASSOCIATE REGISTRAR, OPERATIONS:
Bruce Smart, BA

ASSISTANT VICE-RECTOR, ADMISSIONS AND LIAISON:
Gerald W. Tait, S.J., PhD
GOVERNORS, SENATE, COUNCILS, FACULTY, STAFF 12.1.10 OFFICERS OF THE ADMINISTRATION

DIRECTOR OF ADMISSIONS, LOYOLA CAMPUS: Grendon E. Haines, BA BPed
DIRECTOR OF ADMISSIONS, SIR GEORGE WILLIAMS CAMPUS: T. E. Swift, BA
DIRECTOR OF GUIDANCE: J. A. Sproule, MPsSc
DIRECTOR OF ATHLETICS: E. Enos, BSc EdD
DEAN OF STUDENTS, SIR GEORGE WILLIAMS CAMPUS: Magnus Flynn, MA
ASSISTANT DEAN: Jack Hopkins, BA MSW
ASSISTANT DEAN: A. D. Insleay, MSc
ASSISTANT DEAN: J. E. Richardson, BA
DEAN OF STUDENTS, LOYOLA CAMPUS: A. F. Audet, BPed LTh BA
ASSISTANT DEAN: Brian T. Counihan, BA MEd
ASSISTANT DEAN: Marilyn Taylor, MA
ASSISTANT DEAN: Bluma Rosenstein, MA

VICE-RECTOR, ADMINISTRATION AND FINANCE: Graham Martin, MSc (Eng)
ASSISTANT VICE-RECTOR AND TREASURER: William M. Reay, CA
ASSISTANT VICE-RECTOR, PHYSICAL RESOURCES: Jean-Pierre Petolas, BSc
ASSISTANT VICE-RECTOR, RELATIONS AND AUDIT: André J. Laprade, BEng
ASSISTANT VICE-RECTOR, SERVICES: J. Andrew Woodcock
ASSISTANT VICE-RECTOR AND DIRECTOR OF LIBRARIES: Paul-Emile Filion, S.J., MS DUL LLD
ASSOCIATE DIRECTOR OF LIBRARIES: Joseph Princz, BLS MA
DIRECTOR, COMPUTER CENTER: Ivan Fuchs, BSc
DIRECTOR, AUDIO-VISUAL DEPARTMENT: Bernard B. Queenan, MA MEd

UNIVERSITY LEGAL COUNSEL: Jean-Paul Dufour, BA BComm BCL
DIRECTOR OF PERSONNEL, SIR GEORGE WILLIAMS CAMPUS: John L. Hall, BSc
DIRECTOR OF PERSONNEL, LOYOLA CAMPUS: M. Emmett McMullan, BA
DIRECTOR OF PHYSICAL PLANT, SIR GEORGE WILLIAMS CAMPUS: Frank E. Papineau, BME
DIRECTOR OF PHYSICAL PLANT, LOYOLA CAMPUS: Charles N. McPherson, BEng
DIRECTOR, INSTITUTIONAL RESEARCH OFFICE: F. Douglas Hamblin, BSc MSc FI MechE PEng
12.1.11 FACULTY FULL TIME

ABRAMS, Patricia, Cert. Professionel de Coupe & Couture Ecole Cotnoir Capponi, Lecturer in Fine Arts (Theatre Arts)

ACHESON, P., BA Lond., MS PhD Indiana, Assistant Professor of Applied Linguistics

ADAMS, G., BA MA Tor., PhD Chic., Associate Professor of History

ADAMSON, A. H., BA Manil., PhD Lond., Professor of History

ADLER, Leonda S., BA SGW, MA McG., Associate Professor of Mathematics

ADLEY, T. J., BSc SGW, PhD DIC Lond., Associate Professor of Chemistry

AHMAD, J., BA Allg., Dipl Int'l School (Hague) MS Pitt., PhD M.I.T., Associate Professor of Economics

AHMAD, M. M., MA Punj, MA PhD Chic., Associate Professor of Philosophy

AIKEN, Robert S., BA Belf., MA McM., PhD Penn. Assistant Professor of Geography

AKIN, W., BA MA Univ. of Maryland, PhD Roch., Associate Professor of History

ALAGAR, V. S., BA MSc Madr., MA N.Y. State, PhD McG., Assistant Professor of Computer Science

ALBERT, P., BSc PhD New Br., Assistant Professor of Biology

ALLEN, Christine, BA Roch., PhD Claremont, Associate Professor of Philosophy

ALLISON, P. R., BA MA Calif., PhD Flor. State, Assistant Professor of Fine Arts (Theatre Arts)

ALVI, S. A., BA MA Karachi, PhD Colorado, Associate Professor of Economics

AMIT, Z., BA PhD McGill., Associate Professor of Psychology

ANAND, K. K., BA Punj., MA Delhi, Associate Professor of Mathematics

ANASTASIOPOULOS, A., BA Athens, MA PhD Roch., Associate Professor of Economics

ANDERSON, Jacqueline M., MA Dund., MSc Alta., Lecturer in Geography

ANDERSON, P. D., BA MSc W.Ont., PhD Oregon, Associate Professor of Biology

ANDRES, D. H., BA MA Texas, PhD Wat., Associate Professor of Psychology

ANDRUS, D. F. P., BA MA Tor., Associate Professor of Fine Arts

ANGEL, R. B., MA PhD McGill., Professor of Philosophy

ANGELL, H. M., BA SGW, MA McG., Associate Professor of Political Science

ANTOLIN, F., BA Leon, Spain, LesL DesL Madrid, Associate Professor of Modern Languages

ANTONIOU, A., BSc(Eng) PhD Lond., Professor of Engineering

ARMSTRONG, Muriel, BA BEd Alta., MA McG., Professor of Economics

ARNOPOULOS, P. J., BSc BA SGW, MA N.Y., MA Col., Associate Professor of Political Science

ARTHUR, K. J., BComm SGW, MBA W. Ont., Assistant Professor of Accountancy

ASHTAKALA, S., BSc Mad., PhD Tor., Associate Professor of Biology

ATWOOD, J. W., BEng McGill, MASc Tor., PhD Ill., Associate Professor of Computer Science

AUCHINACHE, G. M., BA Br. Col., MA Tor., Associate Professor of English

BABA, V. V., BS Madr., MBA W. Ill., PhD Br. Col., Assistant Professor of Management

BABARIK, P., BA MA Tor., PhD Chic., Associate Professor of Psychology

BAGCHI, S. N. BSc MSc DSc Calc., Professor of Physics

BALDWIN, Mary, BSc MSc Tas., Assistant Professor of Chemistry

BARBIERI, B., BA Montr., MBA Col., Assistant Professor of Marketing

BARKMAN, B. L., BA Middlesbury Coll., PhD Georgetown, Associate Professor of Applied Linguistics

BARLOW, L. M., BA Wales, MA Cinc., Assistant Professor of Geography

BARNES, T., Class "A", Teach Dipl McG., BA Montr., MBA Pitt., Lecturer in Finance

BARON, L. J., BA McG., MA Mich. State, Assistant Professor of Education

BARRY, F. L., NDD ATD Lond., MA SGW, Assistant Professor of Fine Arts (Art Education)

BARTON, C. R., BA Yale, PhD N.Y., Associate Professor of Classics and Linguistics

BAUER, J. H., BA SGW., MA PhD Manil., Associate Professor of Psychology

BAUM, Donald N. AB Calif., Sessional Lecturer in Economics

BAYNE, C. S., MA Br. Col., Associate Professor of Quantitative Methods

BECKMAN, C., AA Stockton Coll., Calif., AB MA Calif., PhD Rutgers, Assistant Professor of Biology

BEDARD, W., Rev., O.F.M., BA Montr., STD STL C.U.A., Associate Professor of Theological Studies

BEDFORD, F. W., BA Loyola, BSc SGW, MSc McGill., Professor of Mathematics

BEISSEL, H. E., BPhil Cologne, MA Tor., Professor of English

BELINSKY, M. M., BSc MSc McGill., Associate Professor of Mathematics

BELKIN, Roslyn, BA SGW, MA PhD Montr., Associate Professor of English

BERCZI, A., BA BSc SGW, MBA PhD McGill., Professor of Quantitative Methods

BERNSTEIN, Jeffrey I., BA SGW, MA PhD W.Ont., Assistant Professor of Economics

BERTRAND, C. H., BA Wash., MA Oregon, PhD Wis., Associate Professor of History

BESSNER, L., BComm LIA McGill., CA, Professor of Accountancy

BHATNAGAR, Jitendra K., BSc LLB Agra, MA Lond., Associate Professor of Education

BHATTACHARYYA, Bibhuti B., BTech MTech Kharagpur, PhD N.S.T.C., Professor of Engineering

BINDON, G., BA SGW, MPA Qu., Visiting Assistant Professor of Science and Human Affairs.
GOVERNORS, STAFF, FACULTY, FULL TIME

BIRD, F. B., BA BD Harv., PhD U.T.S. N.Y., Associate Professor of Religion
BIRD, P. H., BSc PhD Sheff., Associate Professor of Chemistry
BLAISE, C. L., BA Denison, MFA Iowa, Associate Professor of English
BOBETIC, M., Rev., BSc MSc Univ. de Zagreb PhD Wat., Assistant Professor of Mathematics
BODE, F. A., BA Calif., MA PhD Yale, Associate Professor of History
BORDAN, J., BEng MSc McG, Eng Que MEIC Professor of Engineering
BOSWALL, M., Alberta, BSc Dal., Assistant Professor of Mathematics
BOTTENBERG, W., BMus Edmonton, MMus DMA Cinc., Assistant Professor of Fine Arts (Music)
BOYARSKI, A. J., BEng ME PhD McG., Associate Professor of Mathematics
BOYD, G. Mcl., BSc Car., MSc Sask., PhD Br. Col., Associate Professor of Education
BOYLE, L. B, BComm Montr., MA McG., PhD Maryland, Associate Professor of Finance
BRAHAM, M., BA Goddard, Dipl Ed Lond., MA III., PhD Stan., Associate Professor of Education
BRANT, C. S., BA Reed, MA Yale, PhD Corn., Professor of Anthropology
BREEN, R. W. Rev. BA BTh STL Montr., MS, Fordham, PhD Stras., Associate Professor of Theological Studies
BRENTER, W. J., BA MSc PhD McG., Associate Professor of Psychology
BRESLAW, J. A., BA MA Camb., PhD Calif., Assistant Professor of Economics
BRETON, G. R., BA Maniti., MA Montr., PhD Mich., Associate Professor of Mathematics
BRIAN, Mary A., BA Tor., MA Byn-Mawr, Associate Professor of Mathematics
BRIAN, M., MA Oxon., Associate Professor of English
BRINK, G., BComm SW., MBA W.Ont., Professor of Management
BRODY, J., MSc RNDR Charles, Associate Professor of Mathematics
BROES, A., BA Manhattan Coll., MA Col., PhD Pitt., Associate Professor of English
BROSS, M., BA MA PhD Maniti., Assistant Professor of Psychology
BROWN, D., AB Xavier, PhD Tuebingen, Associate Professor of Classics
BRUNE, Audrey, BA N.Y., MA Iowa, Associate Professor of English
BRUNET, J. P., BComm Montr., MBA Que., Assistant Professor of Management
BRUSSELL, E. M., BA Hobart Coll., MA DePauw (Indiana), PhD New School for Social Research (N.Y.), Assistant Professor of Psychology
BRYANT, R. W. G., MA Aberd., MSc Lond., Town Planning Dipl Manc., Associate Professor of Geography
BUCKLEY, A. G., BSc Calg., MSc Alta., PhD Br. Col., Assistant Professor of Mathematics
BUCKNER, H. T., BS Louisville, MA PhD Calif., Associate Professor of Sociology
BUELL, J., BA Loyola, Montr., MA PhD Montr., Professor of Communication Studies
BUI, TIEN D., LesSc Saigon, BAsc Ott., ME Car., PhD York, (Carn.) Assistant Professor of Computer Science
BURNS, R. B., BA Loyola, MA Car., Associate Professor of History & Canadian Studies
BUTOVSKY, M., BA SGW, MA McG., Associate Professor of English
BYERS, V., MSc PhD McG., Professor of Mathematics
BYERS, W. P., BSc MSc McG., PhD Calif., Associate Professor of Mathematics
CALLAGHAN, J. CLAIR, BA St. Dun., BEng N.S.T.C., MS M.I.T., Eng Que, Professor of Engineering
CAMERON, E., BA Br. Col., MA New Br., PhD McG., Associate Professor of English
CAMPBELL, I. L., BA Car., MSc Lond., Professor of Sociology
CARTER, S. I., BA MA Tor., MEd EdD Mass., Assistant Professor of Applied Social Science & Commerce and Administration
CASEY, S. C., Rev., S.J., BA BPEd Manit., Ph.D STL Immaculate Conception, MA PhD McG., Assistant Professor of Classics
CATRY-VERRON, Marthe, J., BA Lille, Mount Holyoke Coll., Assistant Professor of Etudes Françaises
CAZALET, J. T., BA Brooklyn Coll., MFA Yale, Associate Professor of Fine Arts (Theatre Performance)
CERNY, E., BSc Montr., MEng PhD McG., Assistant Professor of Engineering
CHAIKELSON, June S., MA MSc PhD McG., Associate Professor of Psychology
CHALK, F. R., BS MS PhD Wis., Associate Professor of History
CHAMBERS, D. W., BA Oklahoma, MA PhD Harv., Associate Professor of History and Science & Human Affairs
CHAN, H., BComm Chinese H.K., MA Ill., PhD Penn. State, Assistant Professor of Accountancy
CHARLTON, D. E., BSc Durh., PhD Sask., Associate Professor of Physics and Director of C.S.
CHARPENTIER, G., BA Lesl, MA Laval, Assistant Professor of Etudes Françaises
CHENG, R. M. H., BSc Eng H.K., MSc Manc., PhD Birm., Associate Professor of Engineering
CHODAK, Szymon, MA Leningrad, PhD Warsaw, Professor of Sociology
CLARK, Donald R., BA St. Joseph's Coll., MA Fordham, MA Calif., Assistant Professor of Communication Studies
CLAUS, A., BA Heidelberg, MA M.I.T., PhD Tufts, Assistant Professor of Quantitative Methods
CLINCH, H. A., BA MA Tor., Associate Professor of Geography
COHEN, G. E., BSc MSc PhD McG., Associate Professor of Mathematics
GOVERNORS, COUNCILS, FACULTY, STAFF
12.1.11
FACULTY: FULL TIME

MSc Natal, PhD Alta., Eng Que, Professor of Engineering

DWIVEDE, T. D., BSc Ban., MSc Gorak., MSc Ott., PhD Clarkson, Associate Professor of Mathematics

Dwyer, L., BA Notre Dame, MS Ill., Assistant Professor of Fine Arts (Music)

EAPPEN, C. E., BSc Trav., MSc Bom., PhD McG., Associate Professor of Physics

EDDY, N. W., BA McM., MSc Mass., PhD Arizona, Associate Professor of Physics

EGAN, E., BA Manhattan, MA PhD Fordham, Associate Professor of Philosophy

EHMER, Ilse, BA, Assistant Professor of German

EKLER, K., BSc PhD McG., Associate Professor of Chemistry

ENESCO, Hildegard E., BA Reed, MA PhD Coll., Associate Professor of Biology

ENGEL, Elyse, BA McG., MesArts Montr., Sessional Lecturer in Applied Linguistics

ENGLISH, G. B., BA Montr., BCL McG., MCom Tor., Associate Professor of Finance

ENOS, E., BSc Conn., MEd EdD Boston, Associate Professor of Bio-Physical Education

ENTWHISTLE, H., BSc Lond., MEd Car., PhD Lond., Professor of Education

EUVRARD, M., LesL Dipl d’Et Sup Paris, Associate Professor of French

FAHEY, M. A., Rev. S.J., AB Boston Coll., MA Fordham, STL, Weston Coll., DTh Tübingen, Associate Professor of Theological Studies

FAMIRA, H., Staatsexamen German Phil, Staatsexamen Phys Ed Univ. of Innsbruck, PhD McG., Associate Professor of Modern Languages

FANCOTT, Terrill, BEng McG., MSc Ecole Nationale Supérieure de l’Aéronautique, DSc Paris, Assistant Professor of Computer Science

FARRELL, Mona, BA BEd Montr., MA PhD McG., Assistant Professor of Education

FAZIO, P. P., BASc Assum., MASc PhD Windsor, Eng Que, Professor of Engineering

FEHER, Kamilo, Dipl Eng Zagreb, MScA Montr., PhD Sher., Associate Professor of Engineering

FIDLER, Geoffrey C., BA Wales, MA Lond., Lecturer in Education

FIKSEL, J. R., BSc M.T., DEA Paris, MSc PhD Stan., Assistant Professor of Mathematics

FINK, H. R., MA McG., PhD Lond., Associate Professor of English

FISCHER, C., Rev., S.J., BA Montr., STL Immaculate Conception, MA Stan., Associate Professor of Communication Studies

FISHER, D., AB MA Pitt., PhD Chic., Professor of Economics

FLYNN, J., BCom Montr., MBA York (Can.), Assistant Professor of Finance

FONDA, C., PhD Paris, PhD Venice, PhD

Foster, M. B., BA Syr., MA Minn., Professor of English

Francis, Wynne, BA SGW, MA McG., Professor of English

Frank, B., MSc McG., PhD Br. Col., Associate Professor of Physics

FRANKLIN, D. R., BA BCL McG., Assistant Professor of Management

FRANKLIN, M. J., BA BCL McG., Associate Professor of Management

FRASER, Carol A., BA McG., MA Montr., Sessional Lecturer in Applied Linguistics

FRASER, D. A., BA PhD Tor., FAAAAS RPF PAg, Professor of Geography

FREEDMAN, Rosalyn, BA McG., MA Mich., Sessional Lecturer in Applied Linguistics

FRENCH, S. G., BA Car., MA Roch., PhD Virginia, Professor of Philosophy

FRIEDLAND, S., BM New England Conservatory of Music, MM Mass., Associate Professor of Fine Arts (Music)

FRIEDMAN, Frances P., BA McG., MA Coll., Associate Professor of Education

Frost, D. B., BA MSc McG., PhD Birm., Associate Professor of Geography

GABRIEL-LACKI, C., Baccalaureat Coll., Militaire, Courtine, Associate Professor of Fine Arts (Studio Art)

GARNET, P., BA MA Sheff., PhD McG., Associate Professor of Theological Studies

GAUCHER, Y. J., Associate Professor of Fine Arts (Studio Art)

GAVAKI, E., BA MBA Alabama, MA PhD Indiana, Assistant Professor of Sociology

GECSKI, Tilly, BA MA Prague, Assistant Professor of Communication Studies

GEORGE, H. S., BA Texas Christian, MA Calif., PhD Lond., Associate Professor of Fine Arts (Art History)

GERVAIS, M., Rev., S.J., BA Loyola (Montr.), LPH Immaculate Conception, MFA C.U.A., STL Regis, MA St. M., Associate Professor of Communication Studies

GUYKADGI, Y. M., BSc Ankara Academy, MBA Coll., Assistant Professor of Finance

GIBSON, T., Assistant Professor of Fine Arts (Studio Art)

GIDENGIL, B. Z., BA Istanbul, MBA N.Y., PhD Brad., Visiting Assistant Professor of Management

GIGUERE, J. C., BEng McG., ME PhD N.S.T.C. Associate Professor of Engineering

GILDSORF, W., BA Baldwin-Wallace, MA Bowling Green, PhD Mich., Assistant Professor of Communication Studies

GIMLIN, D. R., BS Okla. State, MS Northwestern, PhD Okla. State, Associate Professor of Engineering

GINTER, D., BA MA Stan., PhD Calif., Associate Professor of History

GLAZER, Howard I., BA Tor., PhD Texas, Assistant Professor of Psychology
HAR RISON, John, BA Stanislaus, Associate Professor of Fine Arts (Studio Art)

GOLD, Dolores, BA MA Man., PhD Sask., Associate Professor of Psychology

GOLD, Maurice, BComm, MA SGW, MSc Clarkson, CA, Assistant Professor of Accountancy.

GOLDMAN, C., BEng MEng McG., Eng Que., Associate Professor of Engineering

GOLDNER, J., BComm SGW, BSW McG., Assistant Professor of Social Science

GOLDSMAN, A. H., BA McG., MA Syr., PhD. N.Y., Professor of Psychology

GOODWIN, J. R., BA Br. Col., MBA Qu., Assistant Professor of Management

GORDON, R. T., BFA Temple, MS MFA Wis., Assistant Professor of Fine Arts (Studio Art)

GRACOVETSKY, S. A., Eng (Physics) Lausanne, PhD. Br. Col., Associate Professor of Engineering

GRAHAM, A., Rev., S.J., BA Montr., MA Tor., STL Greg., Associate Professor of Philosophy

GRAHAM, W. W., BSc Qu., Assistant Professor of Computer Science

GRAY, T., BA MA MCM., PhD S. Fraser, Associate Professor of Psychology

GRAYSON, J. D., MA PhD N.Y., Associate Professor of Spanish and Linguistics

GREENBERG, Reesa, BA McG., MA Tor., Assistant Professor of Fine Arts (Art History)

GROSS, G., BA McG., MFA Carnegie Mellon, Dipl Ed McG., MA Montr., Associate Professor of Fine Arts (Theatre Arts)

GUINDON, H., BA BPh PhL MA Ott., Professor of Sociology

HA, H. K., BASc Ott., MASc Br. Col., DEng SGW, Assistant Professor of Engineering

HABASHI, Wagdi G., BEng MSc McG., PhD Corn., Assistant Professor of Engineering

HABIB, H., BA American Univ. of Beirut, MA Fordham, PhD McG., Professor of Political Science

HACCOUIN, D. M., BA MA PhD Ohio State, Assistant Professor of Psychology

HALL, Richard L., BSc PhD Lond., AFIMA MinstP, Associate Professor of Mathematics

HALLET (Rahm), L., BA Wash., PhD Corn., Assistant Professor of English

HALTRECHT, D., BEng. McG., MBA Qu., Assistant Professor of Computer Science

HAMALIAN, Arpi, BBA MA American Univ. of Beirut, Assistant Professor of Education

HAMELIN, F. D., BSc MSc Durh., FIMechE PEMg Gask., Associate Professor of Engineering

HAMLET, Z., BSc Madr., MSc Agra, PhD Notre Dame, Associate Professor of Chemistry

HARRISON, John, BA Wat. Luth., BA Car., MFA Col., Assistant Professor of Communication Studies

HARRISON, J. L., BA SGW, MA McG., MLitt Camb., PhD Manc., Professor of Education

HARROW, M., MSc PhD McG., Professor of Mathematics

HAWKINS, D. N., BMet PhD Sheff., Visiting Assistant Professor of Engineering

HAYES, F., BSc Lond., PhD McG., Professor of Economics

HAYES, J. C., BSc Afa., MSc McG., Associate Professor of Mathematics

HEAPS, H. S., BSc Man., MA Tor., Professor of Computer Science

HENRIK, E., BA MA SGW. PhD Tulane, Assistant Professor of Psychology

HERMAN, A., BA Polish State Film & Theatre Academy, Professional Diploma Institut des Hautes Etudes Cinematographiques, Paris, Assistant Professor of Fine Arts (Cinema)

HERRINGTON, Muriel B., BSc McG., PhD McM., Assistant Professor of Biology

HERRMANN, K. J., BA AM PhD Minn., Associate Professor of Political Science

HERSCOVICS, N., BSc MSc McG., Associate Professor of Mathematics

HERZ, Judith, BA Barnard Coll., MA PhD Roch., Associate Professor of English

HEWITT, G. K., BComm Br. Col., MPhil PhD Yale, Assistant Professor of Economics

HILL, H., MA Aberd., Assistant Professor of English

HILL, J. L., BA Oklahoma, MA PhD Duke, Associate Professor of History

HILLEL, J., BSc MSc McG., PhD Br. Col., Associate Professor of Mathematics

HILTON, A., AB Brown, MA PhD McM., Associate Professor of Psychology

HLOPHE, S., BA Puis Xll Univ. Coll., MA Alta., Assistant Professor of Sociology

HODGART, M. J. C., MA Camb., Professor of English

HOFBECK, J., BA "Eichstatt Bavaria" CCES Sorbonne, STL STD Inst. Catholique Paris, Associate Professor of Theological Studies

HOFMAN, D., BFA Carnegie-Mellon, Assistant Professor of Fine Arts (Theatre Arts)

HOFMAN, S. de V., AB Temple, MA PhD Penn., Associate Professor of English

HOGGEN, M., BSc Lond., PhD Alta., Assistant Professor of Chemistry

HOLLAND, P., BA Well., MA Auck., MA PhD McM., Assistant Professor of English

HOOPER, W. R., BA PhD Tor., Associate Professor of Psychology

HOPKINS, J. B., BA Alta., MA Br. Col., Lecturer in Applied Social Science

HORNER, S. E., BA SGW, MSc Sry., Associate Professor of Fine Arts (Art Education)

HORWICH, H., BA MA Dal., Assistant Professor of Sociology

HUBBARD, W., BA Oregon, MA PhD Col., Associate Professor of History

HUI, D., BSc Loyola, MSc Tor., Lecturer in Chemistry

HUNTLEY, G. M., MA PhD Flor. State, Assistant Professor of Education

GOVERNORS, SENATE, COUNCILS, FACULTY, STAFF

12.1.11

FULL TIME

27
MacKAY, B. E., BA W. Ont., Lecturer in Fine Arts (Theatre Arts)
MacKAY, R., MA Aberd., Assistant Professor of Applied Linguistics
MacKINNON, J. A., BSc Quebec., MSc PhD McG., Associate Professor of Physics
MacLEAN, L. Elizabeth, BA Tor., MA Smith, Associate Professor of English
MacLEOD, C. F., BSc McG., MA Br. Col., PhD Minn., Associate Professor of Biology
MAHEUX, V., BA Montr., Lic Phil Laval, MA C.U.A., PhD McG., Post Doct Yale, Associate Professor of Psychology
MAHONEY, G. M., BSc SGW, MSc PhD McG., Professor of Psychology
MAJUMDAR, K., BSc MSc Calc., PhD Purdue, Associate Professor of Mathematics
MALIK, Mohd A., MSc Alg., PhD Montr., Associate Professor of Mathematics
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<th>Position</th>
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<td>BA Coll. Jesus-Marie, MA Teachers Coll. Col., Lecturer in Art Education</td>
<td></td>
</tr>
<tr>
<td>GAL, O.</td>
<td>BEng McGill, MEng CGW, Lecturer in Quantitative Methods</td>
<td></td>
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<tr>
<td>GALLER, Anne</td>
<td>BA CGW, MS Simmons, Lecturer in Library Science</td>
<td></td>
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<tr>
<td>GARDNER, B.</td>
<td>MA Edin., Lecturer in Library Science</td>
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<tr>
<td>GAREBIAN, K.</td>
<td>BA Thos. More, MA CGW, PhD Qu., Lecturer in English</td>
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<tr>
<td>GERMINARIO, R. J.</td>
<td>BA MS Seton Hall, PhD North Dakota, Lecturer in Biology</td>
<td></td>
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<tr>
<td>GILBERT, M.</td>
<td>BComm CGW, MBA Harv., Lecturer in Management</td>
<td></td>
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<tr>
<td>GILES, Jennifer</td>
<td>BMus McGill, Lecturer in Music</td>
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<td>GILLESPIE, G. W.</td>
<td>BSc Br. Col., Lecturer in Computer Science</td>
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<td>GOLD, G.</td>
<td>BComm CGW, MBA Commerce, Lecturer in Marketing</td>
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<tr>
<td>GOLDENBERG, M.</td>
<td>CGW, Lecturer in Accountancy</td>
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<tr>
<td>GOLDSMITH, Bernice</td>
<td>Lecturer in Social Aspects of Engineering</td>
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<tr>
<td>GOTHHEI, M.</td>
<td>BA CGW, MA York, Lecturer in English</td>
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<tr>
<td>GRADINGER, Judith</td>
<td>BA Boston, MSc C.U.N.Y., Lecturer in Psychology</td>
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<td>GRAUB, Sup Mei</td>
<td>BA Malaysia, EdD McGill, Lecturer in Health Education</td>
<td></td>
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<tr>
<td>GRAVEL, Francine</td>
<td>Dipl Ec. des Beaux Arts, Lecturer in Studio Art</td>
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<tr>
<td>GRAVENOR, G.</td>
<td>BA BCL McGill, Lecturer in Health Education</td>
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<td>GRAY, G.</td>
<td>BA CGW, Lecturer in Applied Social Science</td>
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<td>GRAYSON, M. R.</td>
<td>BSc Engineering, McGill, Lecturer in Civil Engineering</td>
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<td>GREEN, J. W.</td>
<td>BComm MBA CGW, Lecturer in Management</td>
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<td>GREENBERG, A. P.</td>
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<td>GREENSPAN, H.</td>
<td>BSc, MSc McGill, Lecturer in Mathematics</td>
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<td>GREGOIRE, R. B.</td>
<td>CSA Montr., Lecturer in Accountancy</td>
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<td>GUERRIERO, J.</td>
<td>BSc Loyola, MSc Qu., Lecturer in Mathematics</td>
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<td>HABERMANN, M.</td>
<td>BComm CGW, MBA McGill, Lecturer in Marketing</td>
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<tr>
<td>HANDLEMAN, O.</td>
<td>BComm CGW, CA Lecturer in Accountancy</td>
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<tr>
<td>HARDIMAN, M.</td>
<td>BSc St. And., Lecturer in Chemistry</td>
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<tr>
<td>HARE, Clara</td>
<td>BEd Alta., Cert. in Speech and Drama, Central Sch., Speech and Drama Lond., Lecturer in Theatre Arts</td>
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<tr>
<td>HARE, S.</td>
<td>BSc McGill, MS MTM CGW, Lecturer in Mathematics</td>
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<td>HARPER, R.</td>
<td>BA Vic. Tor., MA Tor., Visiting Associate Professor in Art History</td>
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<td>HARRISON, R.</td>
<td>Lecturer in Mathematics</td>
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<tr>
<td>HART, D.</td>
<td>BSc McGill, MS MTM CGW, Lecturer in Mathematics</td>
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<tr>
<td>HART, S. D.</td>
<td>BA CGW, BCL McGill, Lecturer in Management</td>
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<tr>
<td>HAYEK, A.</td>
<td>MSc Minn., Lecturer in Mathematics</td>
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<td>HENNE, W.</td>
<td>BEng Cairo, MEng CGW, Lecturer in Management</td>
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<td>HENKEY, C. H.</td>
<td>Rev. BCL STD PhD Greg., Lecturer in Theological Studies</td>
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<tr>
<td>HERSHEY, Vae</td>
<td>BA Dakota Wesleyan, MA Wash., Lecturer in Health Education</td>
<td></td>
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<tr>
<td>HILLEL, Shellehett</td>
<td>Dipl Ont., Coll. of Art, Lecturer in Cinema</td>
<td></td>
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<tr>
<td>HILLS, P. J.</td>
<td>BSc North Wales, MSc Sheff., PhD Sur., Lecturer in Biology</td>
<td></td>
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</tbody>
</table>
LAMBEK, Mrs. Hanna, BA MA McG., Lecturer in Marketing
LANGDON, P., Med SGW, MFA Concordia, Lecturer in Studio Art
LANGSTADT, R., Lecturer in Studio Art
LANTHIER, J. P., BA St. F.X., BCL McG., Lecturer in Management
LAPIN, J., BA SGW, M Ind Design Rhode Island School of Design, Lecturer in Studio Art
LASALLE, M., BSc Art Polyt., Lecturer in Management
LATTONI, E., BComm Loyola, Lecturer in Management
LAVELL, J. B., BComm SGW, CA Lecturer in Accountancy
LAVIGNE, B., Teaching Dipl Sask., Lecturer in Studio Art
LAVIGNEUR, H., BA McG., MA PhD Ill., Lecturer in Psychology
LAZAR, N., BA SGW, BCL LLB McG., Lecturer in Management
LEFEBVRE, Marthe, BA Loyola, Lecturer in Spanish
LENNOX, Gladys R.N., BA Concordia Lecturer in Health Education
LEVINE, C. F., AB Corn., MA Stan., Lecturer in Political Science
LEVINE, D., BEng McG., MPhEng Lond., MHA Montr., Lecturer in Health Education and in the DIA Programme
LIBERMAN, J. L., BSc BCL MSc McG., MBA SGW, Lecturer in Management
LIBROWICZ, O., BA MA Paris, PhD Col., Lecturer in Spanish
LINDSAY, R. L., BEng MEng McG., Eng Que, Lecturer in Civil Engineering
LINTON, R., BComm LIA McG., CA Lecturer in Accountancy
LISIEWICZ, A., BSc Montr., MSc McG., Lecturer in Health Education
LITVACK, I., BA SGW, MA McM., BCL McG., Lecturer in Economics
LITWIN, M., BSc BEng McG., Lecturer in Quantitative Methods and in Mathematics
LLOYD, Mavis, BEd MEd McG., Lecturer in Early Childhood Education
LOUCKS, D., BComm MBA SGW, Lecturer in Quantitative Methods
LOUIS, M., Dipl Civil Design Liverpool BArch McG., Lecturer in Civil Engineering
LOVASCO, F., BSc Loyola, MA W. Ont., Lecturer in Mathematics
LOWSKY, M., BSc McG., MBA Temple, Dipl Mgmt McG., Lecturer in Marketing
LUCAS, K., Lecturer in Studio Art
LUSSEYER, P., BA Ecole des Beaux Arts, Lecturer in Studio Art

MACDONALD, R., BSc Qu., Eng Que, Lecturer in Engineering
MACEY, M., BComm Loyola, CA Lecturer in Accountancy
MACLAURIN, Charlotte, BA MLS McG., Lecturer in Library Science
MacPHERSON, M., BSc Manil, BComm MBA SGW, Lecturer in Marketing
GOVERNORS, COUNCILS, SENATE, FACULTY, STAFF 12.1.15

PART TIME

MADALI, L., MA Chic., PhD Iowa, Lecturer in English

MAHALKA, G., BA SGW, Lecturer in Studio Art

MAHDALY, H., BS MA Arizona State, Lecturer in Computer Science

MAJEWSKI, D. B., BComm SGW, CA Lecturer in Accountancy

MALINA, M., BA McG, Lecturer in Cinema

MARIA, R., MS DSc Madrid, PhD U.C.L.A., Eng Que, Lecturer in Computer Science

MARKHAM, W. L., BComm McG, CA Lecturer in Accountancy

MAROUN, T., BSc State Univ. Coll, Potsdam, N.Y., MSc Canius Coll., Buffalo, N.Y., Med N.Y., EdD Indiana, Lecturer in Health Education

MARTINEZ, M., BA Med MA, Lecturer in English

MASON, Mary, BA Birm., Lecturers in Library Science

MATSON, Carol, BEd Br. Col., MA SGW, Lecturer in Studio Art

McELLIGOTT, P., MBA, Lecturer in Marketing

MCGILLIS, D., BSc Montr., BEng McG, Lecturer in Electrical Engineering

McLEOD, R. T., BComm SGW, CA Lecturer in Accountancy

MCLEOD, V., BASc Wat., Lecturer in Computer Science

MEADOWCROFT, J., BSc MA McG, Lecturer in English

MEARNS, R., BSc SGW., Lecturer in Mathematics

MELOCHE, G., BA DesD Ott., Lecturer in Management

MERCIER, M., BSc MSc Alta., Lecturer in Social Aspects of Engineering

MERSON, K., BComm SGW, CA Lecturer in Accountancy

MICHAEL-PAUL, Sister, Lecturer in Mathematics

MILKMAN, Lauretta J., Ileme Grand Prix (Honours), 1er Grand Prix Lycee Musical Marseille, Lic de concert, Lecturer in Music

MILLER, B., BSc MSc SGW, Lecturer in Biology

MILLER, Rosemary, Lecturer in Studio Art

MILLMAN WILSON, Doreen, BA MLS McG, Lecturer in Library Science

MILLS, M., Lecturer in Cinema

MIRZA, I. A., BA MA Punj., Lecturer in Economics

MOHABIR, K., MA McG, Lecturer in German

MONAHAN, Sherry, BScN Wash., Seattle, Lecturer in Health Education

MOORE, D, BA Dub., BA Québ., Lecturer in Studio Art

MOSZKOWSKI, D., BComm SGW, CA Lecturer in Accountancy

MOUSSEAU, J.-P., Lecturer in Studio Art

MUKHEEDKAR, D. N., BEng Osm., PhD Nancy, Lecturer in Electrical Engineering

MUKHERJEE, S., BSc Elect Eng Punj. Eng. Coll., MEng Jad., Lecturer in Computer Science

MUNRO, R. G., BComm SGW, CA Lecturer in Accountancy

MURPHY, Marie-Pascale, BSc Laval, Lecturer in Biology

MURRAY, R., BFA Cranbrook Acad. of Art, Lecturer in Studio Art

NARINE,Latchmy, BA Delhi, MA Del., Lecturer in Mathematics

NASU, M., BComm Concordia, Lecturer in Quantitative Methods

NEUMETH, G. A., BA SGW, MSc, PhD McG., Lecturer in Psychology

NEUMAOF, Greta, BA McG, MA Bos., Lecturer in Women’s Studies

NGUYEN, K. N., BS MS Georgia Inst. Tech.

Dipl Etudes Approfondies Toulouse, PhD.

MCM., Lecturer in Mechanical Engineering

NICHOLSON, O., FCIS, Lecturer in Institutional Management

NKLAV, E., BA Colorado, MA Maca., PhD McG., Lecturer in Political Science

NOVACK, Helen, BA SGW, MLS McG., Lecturer in Library Science

NOZETZ, H., BComm MBA SGW, CA Lecturer in Accountancy

O'BRIEN, P., BA Bishop's, LLL Laval, Lecturer in Management

O'CONNOR, A., BA Loyola, BSc McG., MA PhD Montr., Lecturer in Mathematics

O'CONNOR, E., Rev. BA St. M., MA Tor.

PhD Harv., STL Weston, Lecturer in Mathematics

OLISHANSKY, L., Lecturer in Quantitative Methods

ORK, J. E., BS MS Berkeley, Eng Que.

Lecturer in Mechanical Engineering

OTTOLENGHI, E., MA Middlebury, Lecturer in Spanish

PEARSON, J., BA Loyola, BEd St.Jos., Lic Ped Montr., MA Ohio, Lecturer in Quantitative Methods and in Mathematics

PHULL, P., MTM SGW., Lecturer in Mathematics

PHULL, S., BA BEd Panj. (I), MA Jab.

MTM SGW., Lecturer in Mathematics

PIERCE, C., BA Minn., MD Sask., Lecturer in Health Education

PLOTTEK, Lee, BFA SGW, Lecturer in Studio Art

PODESTO, B., BSc MS LAval, Eng Que.

Lecturer in Electrical Engineering

POIRIER, Maben W., BA Loyola, MA PhD McG., Lecturer in Political Science

POTTER, Jessica, BA McG, MA W. Ont.

Lecturer in Psychology

POTVIN, D., BA BEd Montr., Lecturer in Andragogy

PRATT, P. G., BA Loras, Is., MA Wayne State, Lecturer in Spanish

PREHOGAN, K., BComm BCL McG., Lecturer in Public Law
COUNCILS, STAFF, SENATE, FACULTY, PART TIME

VALDMANIS, J., BSc Dipl Mgmt McG., Lecturer in Management
VALLEY, Suzanne, Dipl Con d’Art Dramat. du Queb., Lecturer in Theatre Arts
VALLEJO, Mrs. C., BA SGW, MA McG., Lecturer in Spanish
VANDERSLUIS, C., IR Delft, Eng Que, Lecturer in Electrical Engineering
VANDYCKE, Jacqueline, Lic en philologie romane, Agregation en philologie romane, Louvain, Lecturer in French
VANVERI, R., BASc Tor., MEng McG., Lecturer in Management
VENOR, R., Lecturer in Studio Art
VERCHER, B., LLB Br. Col., Lecturer in Accountancy
VITALE, R., BA Loyola, Lecturer in Spanish

WAGSCHAL, Marion, BA SGW, Lecturer in Studio Art
WALKER, Margo, BA MLS McG., Lecturer in Library Science
WARD, D. A., BSc Alta., MBA W. Ont., Lecturer in Management
WASSERMAN, Rachael C., BA MA McG., AM Harv., PhD Corn., Lecturer in English
WATKINS, R., BSc SGW, MBA McG., Lecturer in Civil Engineering
WEINSTEIN, L., BA Manit., Lecturer in Education
WEINTRAUB, P., BComm SGW, MBA McM., Lecturer in Marketing
WEISS, Barbara, BA Med McG., Lecturer in Education
WEST, C., CA Lecturer in Accountancy
WHEELER, O., Lecturer in Art History
WHITEHALL, E. G., CA Lecturer in Accountancy
WILLIAMS, M., BComm McG., CA Lecturer in Accountancy
WILSON, P. H., BComm SGW, Lecturer in Management
WISEMAN, Marci, BA MA SGW, Lecturer in Music
WOOD, W. G., BASc Wat., MEngSc Melb., Lecturer in Civil Engineering
WORSWICK, R., Lecturer in Engineering
WRIGHT, AM., Lecturer in Mathematics
WRIGHT, W. A., BA Mt. All., Lecturer in DIA Programme
WYATT, J. N., BA Texas Tech., LLM Montr., LLM Texas (Austin), Lecturer in Management

YAFFEE, S. B., BA SGW, MBA W. Ont., Lecturer in Management
YORKE, R., BSc Wolverhampton Polytechnic MSc Essex, Lecturer in Computer Science

ZAROWNY, D., BSc MSc Manit., MD Lecturer in Health Education
ZUCCARO, C., BA BComm Loyola, MBA Concordia, Lecturer in Marketing
ZWAIG-ROSSNER, Marilyn, BA SGW, MA Syc., Lecturer in Education
ZWARTS, Margriet, BA SGW, MA Tor., Lecturer in English
13 Admission Regulations

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13.1 Admission to Concordia University

Concordia University has one admission policy for the Loyola and Sir George Williams campuses and provides admission facilities on each for the applicants' convenience. Candidates apply to their preferred Faculty and Campus by submitting the application forms and all pertinent documents to the appropriate Admissions Office. Applicants wishing to change their Faculty or Campus do not file another application; they contact the Admissions Office to make their request. In the few programmes where quotas limit enrolment, qualified applicants who have not been approved for their preferred programme will automatically be considered for their second choice as indicated on the application reference card. If because of limited space, a change of Faculty or Campus is involved, the application will be transferred accordingly. Applications and information regarding admission requirements may be obtained by contacting the Admissions Office.
13.2 Classification of Students

1) Undergraduate Students: Undergraduate students are those who meet the full admission requirements of the University and who have been formally accepted for admission to a Faculty of the University. These students enrol in either the Day or Evening Division with the intention of completing the work required for a degree. Those admitted to degree programmes will be classified as undergraduate students whether they take several subjects or only one in any given year.

2) Mature Students: Mature students are those who are at least twenty-one years of age, who do not possess the minimum academic requirements for admission to undergraduate studies, but who have been formally admitted to a programme of study leading to an undergraduate degree, on the basis of potential to undertake such studies.

3) Certificate Students: Certificate students are those who meet the full admission requirements of the University and who have been formally admitted into a certificate programme. These students enrol in either the Day or Evening Division with the intention of completing the work required for a certificate.

13.3 Faculties

<table>
<thead>
<tr>
<th>Faculty Name</th>
<th>Section</th>
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<tr>
<td>Sir George Williams Faculty of Arts</td>
<td>Section 41</td>
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<tr>
<td>Loyola Faculty of Arts and Science</td>
<td>Section 51</td>
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<td>Concordia Faculty of Commerce and Administration</td>
<td>Section 61</td>
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<td>Concordia Faculty of Engineering</td>
<td>Section 71</td>
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<tr>
<td>Concordia Faculty of Fine Arts</td>
<td>Section 81</td>
</tr>
<tr>
<td>Sir George Williams Faculty of Science</td>
<td>Section 91</td>
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</table>

13.4 Admission Requirements

13.4.1 QUEBEC

A) Successful completion of a two-year pre-university programme in a CEGEP, with the award of a Diploma of Collegial Studies.

B) Within this general programme, successful completion of whatever specific courses are required for entry into a given undergraduate programme. These pre-university "profiles", established through joint action of the Quebec Universities and the Department of Education of the Province, will be found in the Department of Education booklet, "Accueil 77-Structures..."
d'accueil aux études universitaires de premier cycle pour septembre 1977". For the convenience of applicants, requirements are listed in each Faculty section of this Calendar.

C) The completion of certain three-year technological programmes leading to a Diploma of Collegial Studies will also satisfy the requirements for admission.

13.4.2 OTHER CANADIAN PROVINCES

Non-Quebec students may be considered for admission to undergraduate programmes of 90 credits or approximately 120 credits leading to the above-mentioned degrees. The duration of the programme will be determined by the entrance qualifications.

Students from other Canadian Provinces who have completed Grade 12 with an overall average of at least 65% in appropriate subjects or the Junior Division at Memorial University, Newfoundland, will be considered for entrance into an extended undergraduate programme of approximately 120 credits. Ontario Grade 13* graduates with a minimum overall average of 65% in appropriate courses may be admitted into a 90 credit programme.

*Those applying from Grade 13 to Engineering or Computer Science (Electronics/Systems or General Science options) will, in general, require four years to obtain the degree.

13.4.3 UNITED KINGDOM AND COMMONWEALTH

In order to be considered for admission into a 90 credit undergraduate programme, applicants must present five General Certificate of Education papers including at least two at the Advanced Level. Those wishing to enter the Faculty of Engineering, Bachelor of Engineering or Bachelor of Computer Science (General Science Option or Electronic/Systems Option) — must offer Advanced Level passes in Mathematics and Physics. Applicants to the Faculty of Science are normally expected to have Advanced Level passes in Mathematics and one Science. Candidates for admission to the Faculty of Commerce or the Bachelor of Computer Science (General Business Option) should include an Advanced Level paper in Mathematics. Any two acceptable Advanced Level papers will satisfy the requirements for admission to the Faculty of Arts or the Faculty of Fine Arts.

For entrance to the Engineering Faculty, Higher National Certificates and Diplomas with passes at an appropriate level may be accepted in lieu of Advanced Level passes. Students with better than average results in five acceptable Ordinary Level papers plus one full year of formal schooling beyond Ordinary Level may be considered for admission to an extended undergraduate programme of approximately 120 credits.

Applicants from Hong Kong who have received the Hong Kong Certificate of Education (English) with good grades in five subjects and have completed one year of Form VI or hold the Hong Kong Certificate of Education (Chinese) with good grades in five subjects and have passed the Chinese University of Hong Kong Matriculation Examination may apply for admission to an extended undergraduate programme of approximately 120 credits.

Applicants to a four-year undergraduate programme in Engineering or the extended credit programme in Science are normally expected to have Mathematics and at least one Science subject; those applying to Commerce are advised to have Mathematics as part of their entrance qualifications.

13.4.4 UNITED STATES

High School graduates with high standards from accredited schools who have followed an academic programme designed for university entrance may apply for admission to an extended undergraduate programme of approximately 120 credits. Applicants are required to have a better than average school record and a 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 and 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 Commerce. The Admissions Office may approve slight deviations from the above pattern.

Students who have successfully passed Advanced Placement examinations in appropriate subjects with a grade of '3' or better will be granted some advanced standing.

An applicant seeking admission on the basis of one full year of undergraduate study may qualify for admission to a three-year or 90 credit programme. Students transferring with more than one year of undergraduate study, will be considered for an appropriate level of placement within the 90 credit undergraduate programme at this University. A minimum number of courses are required to fulfill degree residence requirements. Further information may be obtained by writing to the Admissions Office.

13.4.5 OTHER COUNTRIES

The following national certificates are recognized as suitable qualifications for making application to the university provided that better than average grades have been attained. In most cases, a specific minimum overall standard on the certificate is required. More specific information with respect to admission requirements and placement levels may be obtained by writing to the Admissions Office.
13.4.5 ADMISSION REQUIREMENTS: OTHER COUNTRIES

<table>
<thead>
<tr>
<th>Country</th>
<th>Certificate</th>
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<tbody>
<tr>
<td>Argentina</td>
<td>Bachillerato Universitario</td>
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<tr>
<td>Australia</td>
<td>Higher School Certificate or University Matriculation Certificate</td>
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<tr>
<td>Belgium</td>
<td>Certificat d'Humanites</td>
</tr>
<tr>
<td>Czechoslovakia</td>
<td>Vysevedeni o Maturitni Zkouse</td>
</tr>
<tr>
<td>France</td>
<td>Baccalauréat (2ième partie)</td>
</tr>
<tr>
<td>Germany</td>
<td>Zeugnis der Reife</td>
</tr>
<tr>
<td>Greece</td>
<td>Apolyterion</td>
</tr>
<tr>
<td>India</td>
<td>Intermediate Certificate or First Year of Three Year BA, BSc, BCom (with Class I or Class II or First or Second Division standing).</td>
</tr>
<tr>
<td>Iran</td>
<td>Sixth Year Secondary Education Certificate</td>
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<tr>
<td>Israel</td>
<td>Matriculation Certificate</td>
</tr>
<tr>
<td>Italy</td>
<td>Diploma di Maturita Classica</td>
</tr>
<tr>
<td>Lebanon</td>
<td>Lebanese Baccalauréat (2ième partie)</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>Getuigschrift (Gymnasium or Lyceum)</td>
</tr>
<tr>
<td>Norway</td>
<td>Examen Artium</td>
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<tr>
<td>Pakistan</td>
<td>Intermediate or Higher Secondary School Certificate</td>
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<tr>
<td>Poland</td>
<td>Swiadectwo Dojrzalosci</td>
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<tr>
<td>United Arab Republic</td>
<td>General Secondary School Certificate</td>
</tr>
<tr>
<td>Vietnam</td>
<td>Vietnamese Baccalauréat (2ième partie)</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>Chegorancitbo or Svedoansitvo</td>
</tr>
<tr>
<td>International Baccalaureat</td>
<td>Certificate of Baccalaureat</td>
</tr>
</tbody>
</table>

13.5 Application For Admission

It is recommended that application for admission be made as early as possible on forms provided by the Admissions Office. Academic certificates and other supporting documents not available at the time of application must be submitted as soon as they become available. Applicants are advised to apply early in order to allow sufficient time for evaluation and review of their application by the Admissions Office. Final dates for the receipt of applications may be obtained by contacting the Admissions Office.

13.5.1 ENTRY DATES
Students are admitted as full-time undergraduates in September and January. Part-time undergraduates are admitted in September, January, and May. Day under graduates are also admitted to the Loyola Campus for Summer School, Day or Evening.

The normal entry date for new foreign students is September.

13.5.2 JANUARY ADMISSION
Concordia University admits new students in January whenever possible. This entry date has been introduced primarily to accommodate the CEGEP December graduates but other categories of students may also apply for admission. Foreign applicants should note that new foreign students are admitted in September and not normally in January.

The maximum course load for the Winter Term (January to April) equals half of the normal load followed during the regular academic year. Students may utilize summer courses to accelerate their programme. In some programmes, entry in January may be contingent upon the student following courses during the subsequent summer session.

13.5.3 MEDICAL EXAMINATION REPORT
Each student who is admitted to full-time study must submit a medical examination report. The medical report is not required until the student has received formal notification of acceptance.

13.5.4 ADMISSION DEPOSIT
Each applicant who has been granted admission as a full-time student is required to submit a cheque or money order of $25.00 (Canadian) to confirm his intention of entering the University. This admission deposit is non-refundable, but will be applied towards tuition fees at this University.

Students who receive an early conditional acceptance but who do not successfully complete the minimum academic requirements for entrance, and are subsequently refused admission, will be refunded the admission deposit.
13.6 Criteria for Admission

13.6.1 TRANSCRIPTS FROM CEGEPs (OR SIMILAR NON-QUEBEC INSTITUTIONS)

Persons applying from CEGEP or corresponding institutions outside Quebec must have their institutions send transcripts of their records of study directly to the appropriate Admissions Office. The results of the previous semesters together with a certified list of courses being followed during the final semester must be submitted immediately. A final transcript showing the results of the final semester must also be submitted as soon as possible. Two copies of each transcript are required.

13.6.2 FORMER UNIVERSITY TRANSCRIPTS (OR EQUIVALENT)

Former university transcripts are not to be submitted by the applicant but must be sent directly to the Admissions Office from the Registrar of his/her previous university. Two copies of each transcript are required. Although an applicant’s records from several institutions may be summarized on one transcript, an application will not be considered until two official transcripts from each university attended have been received. These are required even though no credit may have been earned at an institution.

13.6.3 ACADEMIC LETTER OF RECOMMENDATION

Non-Quebec applicants to full-time study must have their high school submit an academic letter of recommendation on the form provided by the University. This form is to be returned directly by the school, not by the applicant.

13.6.4 ENGLISH LANGUAGE PROFICIENCY

The University reserves the right to require any applicant to demonstrate proficiency in the English language as a criterion for admission to the University. Applicants whose mother tongue is not English must prove their proficiency in English, as part of the criteria for admission to the University, by achieving satisfactory performance on one of the following tests:

1. Test of English as a Foreign Language (TOEFL)

Educational Testing Service
Princeton, New Jersey, 08540, U.S.A.

2. The University of Michigan English Language Test

English Language Institute
Testing and Certification Division
The University of Michigan
Ann Arbor, Michigan, U.S.A.

3. Concordia English Language Diagnostic Test

(available only to applicants applying from within the Montreal area)

In the case of TOEFL or University of Michigan tests, information and application forms must be obtained by writing directly to the appropriate test centre. It is the responsibility of the applicant to arrange to sit the TOEFL or University of Michigan test and to have the results reported directly to the Admissions Office. Applicants should therefore contact the TOEFL or University of Michigan test centre as soon as possible in order that the date of receipt of the results of their test does not delay or prevent consideration of their application.

Persons applying from within the Montreal area who are required to write an English language test will be automatically scheduled to sit the Concordia English Language Diagnostic Test upon making application to the University.

An application will not be considered before the test results have been received by the Admissions Office.

Those admitted will be required on arrival to take a diagnostic test to verify their level of proficiency and to determine the nature of instruction in the English language which they will normally require. Some students may be required to take a full or part-time credit or non-credit programme in English as a Second Language.

13.6.5 CONCORDIA ENGLISH LANGUAGE DIAGNOSTIC TEST

Non-Anglophones applying from within the Montreal area must write the Concordia English Language Diagnostic Test if so determined by the Admissions Office upon receipt of their application. Applicants whose mother tongue is not English, and who have attended four years of education in an English language secondary or post-secondary institution, are required to write the test.

The results of the test will be used to determine whether applicants have sufficient knowledge of the English language to follow their intended programmes of study. Those with acceptable academic qualifications and who have achieved satisfactory performance on the Concordia English Language Diagnostic Test will be advised of the nature of instruction in the English language which they will normally require.

Canadian applicants whose first language — or language of previous instruction — is French are not required to write an English language test unless they are applying for programmes in the Teaching of English as a Second Language. To help those unsure of their competence in the English language, the English Language Diagnostic Test is offered as a service. Students are advised to avail themselves of this testing facility. Only applicants intending to follow English lan-
13.6.5 CRITERIA FOR ADMISSION: CONCORDIA ENGLISH LANGUAGE DIAGNOSTIC TEST

English language courses will be required to follow the recommendations resulting from this test.
No special adjustments can be made in the case of students unable to continue in their programmes through lack of English language proficiency.

13.7 Selection Process and Notification

The University reserves the right to refuse admission to any programme even when the stated requirements for entrance have been satisfied.

Admission to undergraduate studies is based on a careful review of all credentials presented on behalf of a candidate. An application for admission is not given final consideration until all the required items have been submitted. However, the University does have an early conditional admission plan for applicants to the undergraduate programme.

13.7.1 EARLY CONDITIONAL ADMISSION

Applicants seeking admission to the undergraduate programmes may be granted a conditional acceptance on the basis of former records of study which should include mid-year results for the current year. Acceptance is contingent upon the student's successful completion of the final semester of study and upon meeting the prescribed academic admission requirements. Candidates admitted on the basis of early conditional admission are, in general, notified prior to May 15.

13.7.2 LIMITED ENROLMENT

In some programmes the number of qualified applicants may exceed the number of places available. The possession of the minimum requirements does not in itself guarantee admission to any of the programmes.

13.7.3 TRANSFER STUDENTS

An applicant who has attended another university and wishes to transfer to the undergraduate programme at Concordia should understand the following conditions:

1) Each application for admission with advanced standing is considered on its own merit.
2) A student will not be given credit for courses taken in another university during the same academic term in which he has registered for courses at Concordia University unless special permission has been obtained in advance from this University.
3) Any student who has registered at Concordia University and who wishes to take courses at another university for transfer of credit to Concordia University should contact the Admissions Office for the appropriate procedure to follow. Approval is normally required prior to taking courses for a transfer of credit.
4) A student may not apply transfer credits towards the residence years at the University unless special permission has been obtained from the appropriate Faculty Council (see Residence Requirements).

13.8 Mature Students

Admission to the first year of an undergraduate programme of a minimum of 120 credits may be granted to mature applicants. Mature students may enrol as either full-time or part-time students. A Mature Applicant is defined as a candidate for admission who:

a) does not satisfy the normal academic requirements for admission, but who seeks admission on the basis of potential to undertake an undergraduate programme.
b) will be at least twenty-one years of age within the calendar year in which the programme is entered.
c) either has been out of school for twenty-four months since the age of eighteen, or has been out of school for twelve months with no unfavourable academic record in the past twenty-four months.

Out of school should be interpreted as being away from full-time study in an educational institution.

Mature students, who are twenty-five years of age or older within the calendar year in which they commence the programme, may enter a 108-credit undergraduate programme in the Faculties of Arts, Arts and Science (BA), Fine Arts, and Commerce and Administration. Those entering the Faculties of Science, Arts and Science (BSc), and Engineering will have their requirements determined in consultation with an adviser.

Students will not normally be accepted into a field of course concentration until they have successfully completed 30 credits in the programme. Courses which have been taken as part of these 30 credits and which are required courses in a given undergraduate programme will be replaced by electives within the discipline or field.

Each application will be considered on its own merit. A birth certificate or other acceptable proof of age must be submitted together with all former records of study and any other documentation which may demonstrate potential to undertake undergraduate work.
13.9 Admission as an Independent Student

Those who satisfy the University admission requirements regardless of their age are eligible to register as independent students. University entrance requirements are expected, but may be waived, for independent students who will be at least twenty-one years of age in the calendar year in which they register and who have, through other experiences, the essential background for the course or courses. Nevertheless, the University reserves the right of decision as to the independent student's eligibility and, in certain cases, the right to ask for proof of appropriate University entrance requirements.

While independent students following single courses of interest are encouraged to enrol, priority will be given to students proceeding to a degree. Students should contact the Admissions Office for the proper procedure to follow.

13.10 The Process of Admission

How to Apply

Submit an application for admission to the appropriate Admissions Office as soon as possible.

It is the responsibility of the applicant to ensure that all the supporting documents are submitted as an application cannot be considered for admission until it is complete.

Enclose with your completed application forms all documents that are now available. You should submit copies of your High School Leaving Certificate which must include a certified list of final marks in each subject, if applicable. Readable photocopies are acceptable. Former CEGEP or university transcripts are not to be submitted by you but must be sent directly to the Admissions Office by the Registrar of your previous institution.

Applicants presenting Certificates in a language other than English and French:

(1) You are required to submit:
(a) the original certificate or, preferably, notarized photostatic copies of these certificates.
(b) notarized English translation of these certificates.

(2) When the certificates do not include the subjects and the grades achieved in the individual subjects, you must submit certified statements from authorized officials of the institutions attended, or submit statutory declarations giving the required information.
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14.6 INDEPENDENT COURSE STUDENTS
14.1 Mature Student Programme

General Information

In keeping with the traditional policy of the University towards older students, the Mature Student Programme is designed to enable individuals who are twenty-one years of age or older, and who have not satisfied the normal admission requirements, but have demonstrated potential, to take undergraduate programmes. The University assumes that the age of the students will have allowed them to acquire informally some of the general education given to younger students at the collegial level, and as a result the Mature Student Programme concentrates on the knowledge and skills which will be needed to undertake a given programme of specialization.

Successful completion of a specified number of credits will be required in addition to those required of students entering with a Diploma of Collegial Studies or the equivalent. While they are obtaining these additional credits, mature students are considered in every way to be undergraduates.

Twenty-Five-Year Mature Entry
(25 Years of Age and Over)

There is a special Mature Entry Plan for applicants 25 years of age and over, or who reach their twenty-fifth birthday in the calendar year in which they seek to enter the University.

Administrative Structure

For identification purposes within the University, students will be classified in one of the following categories — Pre-Arts, Pre-Commerce and Administration, Pre-Computer Science, Pre-Engineering, Pre-Fine Arts, Pre-Science. There is no separate administrative structure for the Mature Student Programme. Each Faculty is responsible for its students' programmes.

14.2 Admission to the Mature Student Programme

For detailed information on Admissions, please refer to § 13.

A mature applicant is defined as a candidate for admission who:

a) does not satisfy the normal academic requirements for admission, but who seeks admission on the basis of potential to undertake an undergraduate programme.

b) will be at least twenty-one years of age within the calendar year in which the programme is entered.

c) has either been out of school for twenty-four months since the age of eighteen, or has been out of school for twelve months with no unfavourable academic record in the past twenty-four months. "Out of School" should be interpreted as not being registered for full-time study in an educational institution.

Students will not be accepted into a field of concentration or specialization until they have successfully completed 30 credits. Courses which have been taken as part of these 30 credits and which are required courses in a given degree programme, or specialization within that programme, will be replaced in that programme by electives within the discipline or field.

Each application will be considered on its own merits. A birth certificate or other acceptable proof of age must be submitted together with all former records of study and any other documentation which may demonstrate potential to undertake undergraduate work.

Twenty-Five-Year Mature Entry (25 Years of Age and Over)

Mature applicants who are twenty-five years of age or older within the calendar year in which they commence the programme may enter a modified Mature programme, requiring 18 additional credits in the Faculties of Arts, Arts and Science (BA), Fine Arts, And Commerce and Administration, while those entering the Faculties of Science, Arts and Science (BSc), and Engineering will have their requirements determined in consultation with an adviser.

Transfer To The Mature Entry Programme

Students registered in the Mature Student Programme have the option on reaching their 25th birthday of profiting, within their first 30 credits, from the provisions of the Twenty-Five Year Mature Entry Plan.
14.3 Structure of Studies—Mature Student Programme (Under 25 Years of age)

For students in the Mature Student Programme, the additional credits are either specified as prerequisites, or otherwise determined by each individual Faculty. These additional credits may not be counted towards the student's eventual programme of specialization. Since a small number of programmes are subject to enrolment restrictions, the University cannot guarantee a student acceptance into a given programme of specialization of the student's choice on completion of the additional credits. The additional credits will be made up of required courses and electives, these requirements being as follows:

14.3.1 PRE-ARTS—SIR GEORGE WILLIAMS FACULTY OF ARTS

General Requirements:
6 credits in English (Language or literature)
24 credits (of which a maximum of 12 may be outside the Arts Faculty)

Specific Requirements for Entry to Programmes of Specialization in Arts:
14.3.1.1 PRE-ARTS-SIR GEORGE WILLIAMS FACULTY OF ARTS

Applied Social Science, Geography:
6 credits in Mathematics
German, Greek, Hebrew, Italian, Latin, Russian, Spanish:
6 credits (at least) and
12 credits (preferably) in the language(s) to be studied

Mathematics:
9 credits in Mathematics 103, 105, 205
Psychology:
6 credits in Mathematics
3 credits in Biology 101
6 credits in Psychology 111

NOTE: All other programmes have no specific requirements.

14.3.2 PRE-ARTS—LOYOLA FACULTY OF ARTS AND SCIENCE

General Requirements:
6 credits in English
6 credits in Mathematics or Natural Science
18 Elective credits

Specific Requirements for Entry to Programmes of Specialization in Arts:
14.3.2.1 PRE-ARTS-LOYOLA FACULTY OF ARTS AND SCIENCE

Applied Social Science, Geography:
6 credits in Mathematics
German, Italian, Russian, Spanish:
6 credits (at least) and
12 credits (preferably) in the language(s) to be studied

Mathematics:
9 credits in Mathematics 103, 105, 205
Psychology:
6 credits in Mathematics
3 credits in Biology 101
6 credits in Psychology 111

NOTE: For course description see § 41.

14.3.3 PRE-SCIENCE—LOYOLA FACULTY OF ARTS AND SCIENCE

Specific Requirements for Entry to Programmes of Specialization in Science:
14.3.3.1 PRE-SCIENCE—LOYOLA FACULTY OF ARTS AND SCIENCE

Biology and Bio-Physical Education:
3 credits in Biology 201A/B
6 credits in Chemistry 210Z
6 credits in Mathematics 215A/B, 216A/B
6 credits in Physics 211Z
9 Elective credits

Chemistry, Mathematics and Physics:
6 credits in Chemistry 210Z
9 credits in Mathematics 215A/B, 216A/B, 217A/B
6 credits in Physics 212Z
9 Elective credits

Computer Science:
6 credits in Computer Science 211, 241
9 credits in Mathematics 215A/B, 216A/B, 217A/B
15 Elective credits

Psychology:
3 credits in Biology 201
6 credits in Chemistry 211
9 credits in Mathematics 215A/B, 216A/B
6 credits in Physics 212
6 Elective credits

It is recommended that a Mathematics course be taken during the summer prior to registration. Please consult the Department Chairman.

14.3.4 PRE-COMMERCE AND ADMINISTRATION—CONCORDIA

General Requirements:
6 credits in Mathematics 108, 109 (SGW Campus) or in Mathematics 310 (Loyola Campus — see § 51.19.3)
6 credits in Humanities or Social Science
12 Elective credits

NOTE: Candidates entering Pre-Commerce and Administration without high school intermediate Mathematics (Functions) must also take Mathematics 101 (SGW) or Mathematics 111A/B (Loyola—see § 51.19) which will function as a 3-credit elective. Pre-Commerce and Administration students are advised to select Economics 109 and 110 (SGW) or Economics 300 (Loyola—see § 51.10).

14.3.5 PRE-ENGINEERING—CONCORDIA

General Requirements:
33 credits chosen as below:

SGW Campus Loyola Campus
Chemistry 101
Chemistry 210
MATURE STUDENT PROGRAMME
14.3.5 STRUCTURE OF STUDIES—MATURE STUDENT PROGRAMME: PRE-ENGINEERING —CONCORDIA

Computer Science 111
Mathematics 102
Mathematics 103
Mathematics 104
Mathematics 105

Physics 104 & 124
Physics 105 & 125

Computer Science 211
Computer Science 241
Mathematics 213
Mathematics 246
Mathematics 223
Mathematics 248

Physics 201

14.3.6 PAE-COMPUTER SCIENCE—SIR GEORGE WILLIAMS

General Requirements:
General Science and Electronics/Systems Options:
Same as for Pre-Engineering

General Business Option:
3 credits in Computer Science 111
15 credits in Mathematics 102, 103, 104, 105
12 Elective credits (chosen from outside the Faculty of Commerce and Administration and the Department of Computer Science)

*For Computer Science in the Loyola Faculty of Arts and Science, see 14.3.3

14.3.7 PRE-FINE ARTS—CONCORDIA

General Requirements:
6 credits in English (language is recommended)
24 Elective credits

NOTE: Students may complete courses which are part of their Major in an MSP programme. In such cases it will be the responsibility of the student in consultation with an adviser to select additional courses which will fulfill the requirements of the Major and the Bachelor of Fine Arts degree.

Specific Requirements for Programmes of Specialization:

Art Education, Art History and Studio Art,
Graphic Design, Studio Art:
6 credits in Art C200
6 credits in design C200
6 credits in art history C240
6 credits chosen from art history C232, C249, Cinema C211, Music History C200, Theatre C300 or 6-credit elective

Art History
6 credits in Art History C240
6 credits in Art C200
12 Elective credits

Music
The following courses are recommended:
3 credits in Music C221
3 credits in Music C222
6 credits in Integrative Music Studies C200
12 Elective credits

Drama, Drama in Education, Theatre Performance:
The following courses are recommended:
3 credits in Theatre C201 Scenography C201
6 credits in Theatre C300 or Dramatic Literature
15 Elective credits

Theatre Scenography:
The following courses are recommended:
3 credits in Theatre C201 Scenography C201
6 credits in Theatre C300 or Dramatic Literature
6 credits in Art C200
9 Elective credits

14.3.8 PRE-SCIENCE—SIR GEORGE WILLIAMS FACULTY OF SCIENCE

General Requirements:
6 credits in Chemistry N-201, N-202
12 credits in Mathematics n-202, N-203, N-204, N-205
8 credits in Physics N-204, N-205, N-224, N-225
3-4 credits in Physics N-206, and N-226, or Biology N-201 or Geology N-215

*Students not having the equivalent of Mathematics N-201 will take that course in place of N-202.

14.4 Structure of Studies—Mature Entry Plan (Over 25 Years of Age)

14.4.1 SCIENCE, ENGINEERING AND COMPUTER SCIENCE

General Requirements:
Persons entering Science, Engineering and Computer Science may be permitted to seek exemptions from part or all of the qualifying part of the programme on the basis of their knowledge. In the case of the General Business Option in the Bachelor of Computer Science programme, this involves the Mathematics courses normally required for entry to that programme.

Engineering and Computer Science will offer a special testing programme to establish exemptions. Science will interview and/or test candidates to determine exemptions.

14.4.2 ARTS, COMMERCE AND ADMINISTRATION, AND FINE ARTS

General Requirements:
Arts:
6 credits in English (language or literature)
12 Elective credits

Commerce and Administration:
6 credits in Mathematics (College Algebra and Calculus I)
12 Elective credits

Fine Arts:
6 credits in English (language or literature)
12 Elective credits

NOTE: Candidates entering Pre-Commerce and Administration without high school Inter-
mediate Mathematics (Functions) must also take Functions which course will count as an elective. Pre-Commerce and Administration students are advised to select Introductory Economics and a course from the Social Sciences to complete the 18-credit profile.

14.5 Courses

The courses listed below are offered by the respective Faculties. Inclusion of a course in this list does not guarantee that it will be given every year.

14.5.1 SIR GEORGE WILLIAMS FACULTY OF ARTS

Courses are grouped under the respective headings of Centre for Interdisciplinary Studies, Humanities and Social Sciences.

NOTE: For full course descriptions, refer to the section indicated.

Centre For Interdisciplinary Studies

§ 41.5

The following courses may be accepted as either Humanities or Social Science credits.

CANADIAN STUDIES 111 (S211)
Introduction to Canadian Studies.
(6 credits)

SCIENCE AND HUMAN AFFAIRS 101 (S201)
Introduction to Science and Human Affairs I
(3 credits)

SCIENCE AND HUMAN AFFAIRS 102 (S202)
Introduction to Science and Human Affairs II
(3 credits)

SCIENCE AND HUMAN AFFAIRS 110
Contemporary Image of Science I: The Physical Sciences
This course provides a general humanistic understanding of the physical sciences. The three main themes are man and the universe; the reality and unreality of matter and energy; man and the dynamic earth. (6 credits)

NOTE: Students who have credits for Natural Science 210 or Humanities of Science 010 or 210 may not take this course for credits.

SCIENCE AND HUMAN AFFAIRS 112
Contemporary Image of Science II: The Biological Sciences
This course provides a general humanistic understanding of the biological sciences. The three main themes are biology and evolutionary theory; evolution of life and man; man, ecology and society. (6 credits)

NOTE: Students who have credits for Natural Science 210 or Humanities of Science 010 or 210 may not take this course for credits.

SCIENCE AND HUMAN AFFAIRS 121 (S221)
Environmental Issues I
(3 credits)

SCIENCE AND HUMAN AFFAIRS 122 (S222)
Environmental Issues II
(3 credits)

HUMANITIES

Classics § 41.8

ANCIENT GREEK 110 (S210)
Introductory Course in Greek
(6 credits)

ANCIENT GREEK 141 (S241)
Ancient Greek Language and Literature
(6 credits)

CLASSICS/HISTORY 112 (S212)
History of Greece and Rome
(6 credits)

CLASSICS/HISTORY 114 (S214)
History of the Roman Empire
(6 credits)

CLASSICS 141 (S241)
Greek Literature in Translation
(3 credits)

CLASSICS 142 (S242)
Latin Literature in Translation
(3 credits)

LATIN 110 (S210)
Beginner’s Latin
(6 credits)

LATIN 140 (S240)
Latin Composition and Translation
(6 credits)

LATIN 141 (S341)
Latin Literature
(6 credits)

Modern Languages § 41.8

LITERATURE IN TRANSLATION 150 (S350)
Literature in Translation
(6 credits)

GERMAN 110 (S210)
Introductory Course in German
(6 credits)

GERMAN 111 (S311)
Advanced German Language and Stylistics
(6 credits)

GERMAN 115 (S215)
German for Reading Knowledge
(6 credits)

GERMAN 141 (S241)
German Language and Literature (Intermediate)
(6 credits)

HEBREW 110 (S210)
Introductory Course in Hebrew
(6 credits)

HEBREW 141 (S241)
Intermediate Course in Hebrew
(6 credits)

ITALIAN 110 (S210)
Introductory Course in Italian
(6 credits)

ITALIAN 121 (S221)
Italian Civilization
(6 credits)
COURSES:
MATURE STUDENT PROGRAMME
14.5.1 COURSES: SIR GEORGE WILLIAMS FACULTY OF ARTS

ITALIAN 141 (S241)
Intermediate Italian (6 credits)

RUSSIAN 110 (S210)
Introductory Course in Russian (6 credits)

RUSSIAN 115 (S215)
Reading Course in Russian (6 credits)

RUSSIAN 131 (S311)
Advanced Russian Language and Stylistics (6 credits)

RUSSIAN 141 (S241)
Intermediate Russian (6 credits)

SPANISH 101 (S201)
Introduction to Spanish I (3 credits)

SPANISH 102 (S202)
Introduction to Spanish II (3 credits)

SPANISH 121 (S221)
Spanish Civilization (6 credits)

SPANISH 122 (S222)
Cultural Aspects of Latin America (6 credits)

SPANISH 131 (S311)
Advanced Spanish, Composition and Stylistics
Prerequisite: Spanish 141 (N-241) (6 credits)

SPANISH 141 (S241)
Spanish Language and Literature (Intermediate) (6 credits)

LINGUISTICS 121 (S221)
Introduction to Linguistics (6 credits)

ENGLISH 105 (131)
Basic Language Skills—Stage I
A course in English composition for students who need basic training in written and spoken English. Emphasis will be placed on grammar, sentence structure and other fundamentals of good usage. (3 credits)

ENGLISH 106 (132)
Basic Language Skills—Stage II
A course in language skills and research techniques for students who need basic training in the preparation of effective reports, term papers and other written accounts of their work for business and academic purposes. (3 credits)

ENGLISH 111 (S211)
English Composition
This course is designed to help the students to develop skills in writing, research, and documentation, so that they may be able to prepare written accounts of their work clearly, concisely, and in a logically organized way. (6 credits)

ENGLISH 121
Introduction to English Literature
This course in the development of English Literature will introduce the student to a selection of works from Chaucer to the present. (6 credits)

NOTE: Students who plan to take a Major or Honours programme in English are strongly urged to take English 121.

ENGLISH 133
The Novel and the Short Story
Selections for study will be grouped around some major theme or idea of particular relevance to the world today. Specific themes and reading lists will be chosen by individual instructors. (3 credits)

ENGLISH 134
Drama and Poetry
Selections for study will be grouped around some central theme of particular relevance to life in the present age. Specific themes and reading lists will be chosen by individual instructors. (3 credits)

ESPANOL 100 (S201)
English Language and Composition (6 credits)

French
FRENCH 101 (S201)
Beginners’ French (Language I) (6 credits)

FRANÇAIS 110 (S310)
Composition avancée I (6 credits)

FRANÇAIS 111 (S211)
Langue II et composition élémentaire (6 credits)

FRANÇAIS 113 (S313)
La phonétique française (3 credits)

FRANÇAIS 114 (S214)
Langue III et composition (6 credits)

FRANÇAIS 121 (S321)
Panorama de la littérature française (6 credits)

FRANÇAIS 122 (S222)
La littérature française moderne (6 credits)
It is the purpose of this course to enlarge and enrich the student's comprehension of his cultural heritage by the study of man as a unique creative being. The sources for this study of man are drawn primarily from the fields of history, philosophy, religion, literature and the arts with a view toward examining those experiences and ideas of enduring power which have shaped the nature of modern man from the age of Greece to the present century. (6 credits)

PHILOSOPHY § 41.12
PHILOSOPHY 110 (S210)
Problems of Philosophy (6 credits)
PHILOSOPHY 111 (S211)
Philosophical Classics (6 credits)
PHILOSOPHY 121 (S221)
Introduction to Logic (6 credits)
PHILOSOPHY 131 (S231)
Problems of Morals (6 credits)
PHILOSOPHY 171 (S271)
Contemporary Philosophy (6 credits)
PHILOSOPHY 173 (S273)
Existentialism (6 credits)

Religion § 41.13
RELIGION 111 (S211)
Understanding Religion (6 credits)
RELIGION 113 (S213)
Major Religious Traditions of the World (6 credits)
RELIGION 122 (S222)
Judaic Studies: History of the Jewish People (6 credits)
RELIGION 129 (S329)
Sefardic Judaism (3 credits)
RELIGION 130 (S331)
Contemporary Ethical Issues: Personal (3 credits)
RELIGION 132 (S332)
Contemporary Ethical Issues: Societal (3 credits)
RELIGION 133 (S333)
Women and Religion I (3 credits)
RELIGION 134 (S334)
Women and Religion II (3 credits)
RELIGION 140 (S341)
Religion and Literature (6 credits)
RELIGION 151 (S301)
Biblical Studies I: The Hebrew Bible (3 credits)
RELIGION 152 (S302)
Biblical Studies II: The New Testament (3 credits)

SOCIAL SCIENCES
Anthropology § 41.21.4
ANTHROPOLOGY 111 (S211)
Introduction to Anthropology (6 credits)

Economics § 41.15
ECONOMICS 109 (S209)
Introduction to Microeconomics (3 credits)
ECONOMICS 110 (S210)
Introduction to Macroeconomics (3 credits)
ECONOMICS 130 (S221)
Introduction to Economic History (6 credits)

Education § 41.16
EDUCATION 101 (S201)
The Nature and Function of Teaching
EDUCATION 110 (S210)
Psychology of Education
EDUCATION 130 (S230)
Introduction to the Philosophy of Education

Geography § 41.17
GEOGRAPHY 101
The Ecology of Man
A general introduction to the relationship between physical and cultural distributions of the earth's surface. Global pattern of human economic and natural resources will be examined. (6 credits)
NOTE: (Not offered in 1976-77)
GEOGRAPHY 111 (N-211)
Introduction to Human Geography (6 credits)
GEOGRAPHY/INTERDISCIPLINARY STUDIES 112 (S212)
Early Man (6 credits)
GEOGRAPHY 160 (S260)
Introduction to Cartography I (3 credits)
GEOGRAPHY 161 (N-261)
Introduction to Cartography II (3 credits)
GEOGRAPHY 171 (S271)
The Natural Environment (6 credits)
GEOGRAPHY 173 (N-273)
The Sea (6 credits)

History § 41.18
HISTORY 110 (S210)
History of Europe in the Modern World (6 credits)
MATURE STUDENT PROGRAMME

14.5.1 COURSES: SIR GEORGE WILLIAMS FACULTY OF ARTS

HISTORY/CLASSICS 112 (S212)
History of Greece and Rome
(6 credits)

HISTORY/CLASSICS 114 (S214)
History of the Roman Empire
(6 credits)

HISTORY 121 (S221)
History of Canada
(6 credits)

HISTORY 151 (S251)
History of the United States
(6 credits)

HISTORY 161 (S261)
History of Asia
(6 credits)

HISTORY 181 (S281)
Historical Perspectives on Contemporary Issues
(6 credits)

Political Science § 41.19

POLITICAL SCIENCE 130 (S330)
Government and Politics of Canada
(6 credits)

POLITICAL SCIENCE 131 (S231)
Public law
(6 credits)

POLITICAL SCIENCE 140 (S240)
Comparative Politics
(6 credits)

POLITICAL SCIENCE 170 (S270)
International Relations
(6 credits)

Psychology § 41.20

PSYCHOLOGY 111 (S211)
Introductory Psychology
(6 credits)

Social Science

SOCIAL SCIENCE 110
General Course in the Social Sciences
This course has a dual purpose: to introduce the student to some of the basic concepts and subject matter of the various social sciences and to demonstrate their interrelation; and to provide the student with some knowledge of contemporary society and the social problems which confront it.
(6 credits)

Sociology § 41.21

SOCIOLGY 111 (S210)
Introduction to Sociology
(6 credits)

14.5.2 LOYOLA FACULTY OF ARTS AND SCIENCE

NOTE: For full course descriptions, refer to the section indicated.

Andragogy § 51.3

ANDRAGOGY L200
Introduction to Adult and Continuing Education
(6 credits)

Biology § 51.4

BIOLOGY 201A/B
Introduction to Biology
(3 credits)

BIOLOGY 300Z
Fundamentals of Human Biology
(6 credits)

BIOLOGY 304Z
Concepts of Modern Biology
(6 credits)

BIOLOGY 331A
Environmental Biology I
(3 credits)

BIOLOGY 333B
Environmental Biology II
(3 credits)

BIOLOGY 335A/B
Elementary Genetics
(3 credits)

BIOLOGY 341A
Fundamental Nutrition
(3 credits)

BIOLOGY 343B
Applied Nutrition
(3 credits)

Bio-Physical Education § 51.5

BIO-PHYSICAL EDUCATION L201
Philosophical and Sociological Foundations of Health, Physical Education and Recreation
(3 credits)

BIO-PHYSICAL EDUCATION L211
Introduction to Motor Learning
(3 credits)

BIO-PHYSICAL EDUCATION L241
Recreation and Leisure in Contemporary Society
(3 credits)

BIO-PHYSICAL EDUCATION L251
Sports Science
(3 credits)

Chemistry § 51.6

CHEMISTRY 210Z
General Chemistry
(6 credits)

CHEMISTRY 300Z
Concepts in Science
(6 credits)

Classics § 51.7

CLASSICS L211
The Beginnings of European Literature (Greek Literature)
(3 credits)

CLASSICS L212
The Beginnings of European Literature (Latin Literature)
(3 credits)

CLASSICS L220
Greek Drama: Theatre and Democracy in Fifth Century Athens
(6 credits)

CLASSICS L222
The Comic Art
(3 credits)

CLASSICS L224
Homer and The Epic Hero - I
(3 credits)

CLASSICS L225
Homer and The Epic Hero - II
(3 credits)
History
CLASSICS L230
The Ancient Near East - I
(3 credits)
CLASSICS L231
The Ancient Near East - II
(3 credits)
CLASSICS L240
Greek History
(3 credits)
CLASSICS L241
Roman History
(3 credits)

Culture and Civilization
CLASSICS L250
Greeks and the After Life
(3 credits)
CLASSICS L251
Romans and the After Life
(3 credits)
CLASSICS L252
Love, Hate and Friendship in the Classical World - I
(3 credits)
CLASSICS L253
Love, Hate and Friendship in the Classical World - II
(3 credits)
CLASSICS L254
Women in Classical Antiquity
(6 credits)
CLASSICS L256
A Comparative Study of Judaic and Greek Traditions
(6 credits)
CLASSICS L260
Myth and Mythmaking
(6 credits)
CLASSICS L262
Chinese Myths
(3 credits)
CLASSICS L264
An Introduction to Archaeology
(3 credits)
CLASSICS L265
Greek and Roman Art and Archaeology
(3 credits)
CLASSICS L266
Civilization, Barbarism and Savagery
(3 credits)
CLASSICS L268
Mesoamerican Archaeology
(3 credits)
CLASSICS L269
South American Archaeology
(3 credits)

Classical Philology
CLASSICS L270
Elementary Hebrew
(6 credits)
CLASSICS L272
An Introduction to Biblical Hebrew
(6 credits)
CLASSICS L280
Elementary Greek
(6 credits)
CLASSICS L290
Elementary Latin
(6 credits)

Computer Science § 51.9
COMPUTER SCIENCE 211
Introduction to Scientific Computing
(3 credits)
COMPUTER SCIENCE 221
Introduction to Business Computing
(3 credits)
COMPUTER SCIENCE 301
Computers in Society
(3 credits)

Economics § 51.10
ECONOMICS L202
Principles of Economics
(6 credits)
ECONOMICS L209
Introduction to Microeconomics
(3 credits)
ECONOMICS L210
Introduction to Macroeconomics
(3 credits)

English § 51.11
ENGLISH L200
Introduction to Literature and Composition
(6 credits)
ENGLISH L204
Essay Writing
(6 credits)
ENGLISH L205
Style in Writing
(3 credits)
ENGLISH L212
Shakespeare
(6 credits)
ENGLISH L223
Modern American Fiction
(3 credits)
ENGLISH L225
Contemporary American Fiction
(3 credits)
ENGLISH L233
Canadian Literature I
(3 credits)
ENGLISH L235
Canadian Literature II
(3 credits)
ENGLISH L256
The Short Story
(6 credits)

French § 51.12
LANGUAGE
FRENCH L200
Basic French
(6 credits)
FRENCH L201
Elementary I
(6 credits)
FRENCH L202
Elementary II
(6 credits)
FRENCH L303
L’art de vivre au Québec I
(6 credits)
FRENCH L304
Intermediate I
(6 credits)
FRENCH L305
L’art de vivre au Québec II
(6 credits)
### French Courses

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<td>FRENCH L307</td>
<td>French for Community Health Services I</td>
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<td>French for Community Health Services II</td>
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<td>FRENCH L309</td>
<td>French used in Physical Education and sports</td>
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<td>FRENCH L311</td>
<td>French for Recreology</td>
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<td>FRENCH L313</td>
<td>French for Social Sciences I</td>
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<td>FRENCH L315</td>
<td>French for Industry I</td>
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<td>French for Commerce I</td>
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<td>FRENCH L322</td>
<td>Français oral avancé</td>
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<td>FRENCH L324</td>
<td>Problèmes fondamentaux de l’écrit pratique</td>
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<td>L’art de parler en public I</td>
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<td>L’art de parler en public II</td>
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<td>FRENCH L333</td>
<td>Initiation à la terminologie du droit I</td>
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<td>FRENCH L336</td>
<td>Cours avancé de langue et civilisation</td>
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<td>FRENCH L338</td>
<td>Cours avancé de la langue des affaires</td>
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<td>FRENCH L352</td>
<td>Ressources stylistiques du français</td>
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<td>Histoire de la langue et linguistique</td>
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<td>Principes de la linguistique appliquée</td>
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<td>FRENCH L448</td>
<td>Pédagogie de l’audio-visuel</td>
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<td>FRENCH L452</td>
<td>Stylistique et traduction</td>
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### Literature

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<td>Introduction aux études littéraires</td>
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<td>FRENCH L396</td>
<td>Littérature comparée - Comparative Literature</td>
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<td>Littératures canadiennes - Canadian Literatures</td>
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### Geography

#### Geography § 51.13

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<td>Foundations of Geography: Environment and Man</td>
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<tr>
<td>GEOGRAPHY L215</td>
<td>Cultural Geography I: Man The Hunter</td>
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<td>GEOGRAPHY L216</td>
<td>Cultural Geography II: Man’s Rise to Civilization</td>
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<tr>
<td>GEOGRAPHY L265</td>
<td>Maps and the Presentation of Statistical Data I</td>
<td>3</td>
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<td>GEOGRAPHY L266</td>
<td>Maps and the Presentation of Statistical Data II</td>
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<td>GEOGRAPHY L275</td>
<td>Climate and the Biosphere</td>
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<td>Landforms and the Biosphere</td>
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### Geology § 51.14

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<td>GEOLOGY 202B</td>
<td>Elementary History of Earth</td>
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<td>GEOLOGY 203Y</td>
<td>Introductory Laboratory Course in Geology</td>
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<td>GEOLOGY 205A</td>
<td>Environmental Geology</td>
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<td>GEOLOGY 206B</td>
<td>Continental Drift</td>
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<td>GEOLOGY 207A</td>
<td>Geology of Resources</td>
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<td>GEOLOGY 221B</td>
<td>Physical Oceanography</td>
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<td>HEALTH L201</td>
<td>Cell Functions in Health and Disease</td>
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<td>HEALTH L208</td>
<td>Nutrition in the 70’s</td>
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<td>HEALTH L209</td>
<td>Personal Interrelations</td>
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<td>Hunger in the Classroom: The School’s Role</td>
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<td>HISTORY L200</td>
<td>The Nature and Practice of History</td>
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<td>HISTORY L201</td>
<td>Introduction to European History, 1400-1789</td>
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<td>HISTORY L203</td>
<td>History of Canada, Pre-Confederation</td>
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<td>HISTORY L205</td>
<td>History of Canada, Post-Confederation</td>
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<td>HISTORY L206</td>
<td>History of Quebec</td>
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<td>HISTORY L211</td>
<td>History of the United States, to 1877</td>
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<td>History of the United States, since 1877</td>
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<td>History of England, 1485 to the Present</td>
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<td>INTERL L201</td>
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<td>INTERL L204</td>
<td>Aesthetics: An Interdisciplinary Approach</td>
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<td>INTERL L212</td>
<td>Introduction to the Methods of the Humanities and Social Sciences</td>
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<td>INTERL L220</td>
<td>Comparative Literature</td>
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<td>Women in Christianity</td>
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<td>INTERL L224</td>
<td>Comparative Literature - Canadian Literatures</td>
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<td>INTERL L226</td>
<td>Alienation - English and French Canadian Literature</td>
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<td>LIBRARY L201</td>
<td>Principles of Library Service</td>
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<td>Organization of Library Services</td>
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<td>GERMAN L200</td>
<td>Introduction to German Studies I</td>
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<tr>
<td>GERMAN L206</td>
<td>Reading German and Introduction to Translation I</td>
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**History § 51.16**

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<td>LIBRARY L202</td>
<td>Organization of Library Services</td>
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**Interdisciplinary Studies § 51.17**

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**Modern Languages § 51.20**

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**MATURE STUDENT PROGRAMME**

14.5.2 COUNCILS:

LOYOLA FACULTY OF ARTS AND SCIENCE
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<td>Intermediate German I</td>
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<td>GERMAN L209</td>
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<td>GERMAN L270</td>
<td>Advanced Composition and Stylistics I</td>
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<td>Advanced Composition and Stylistics II</td>
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<td>GERMAN L481</td>
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<td>Introduction to Italian Studies</td>
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<td>Elementary Italian Conversation</td>
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<td>Basic Intermediate Italian</td>
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<td>Intermediate Spanish II</td>
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<td>Advanced Composition and Stylistics II</td>
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<td>The Spanish Language in America II</td>
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<td>Prayer as Seen by Contemporary Theologians</td>
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<td>THEO 215</td>
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<td>Christianity and Marxism</td>
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<td>THEO 225</td>
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<td>6</td>
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<td>THEO 231</td>
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<td>3</td>
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<td>THEO 232</td>
<td>Nineteenth Century Criticism of Christianity</td>
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<td>THEO 237</td>
<td>The Problem of Evil</td>
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<tr>
<td>THEO 240</td>
<td>Theology and the Arts I: The Mythic Image</td>
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<td>THEO 241</td>
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<td>THEO 287</td>
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<td>6</td>
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<tr>
<td>THEO 293</td>
<td>Introduction to Orthodox Christianity</td>
<td>6</td>
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**MATURE STUDENT PROGRAMME**

**14.5.2 COURSES:**

**LOYOLA FACULTY OF ARTS AND SCIENCE**
14.5.3 CONCORDIA FACULTY OF COMMERCE AND ADMINISTRATION

ADMINISTRATION 101
Introduction to Administration
This course is designed to develop a basic understanding of the role of administration in our society (the efficient organization and employment of people in the technostructure). (3 credits)

ADMINISTRATION 102
Perspective on Business
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, to study some of the problems facing Canadian business today, the dehumanizing aspect, pollution problems, large vs. small firms, foreign ownership, competition, etc. (3 credits)

14.5.4 CONCORDIA FACULTY OF ENGINEERING

COMPUTER SCIENCE 111 (N-211)
Introduction to Computers and Computing
An introduction to the essential features of computers and computing systems. Problem solving, algorithms, and flowcharts. Detailed specifications of Fortran with numerical and non-numerical applications. Lectures: 3 hours per week, 1 term. Laboratory: 1 1/2 hours per week, 1 term. (3 credits)
NOTE: Students who have credit for Computer Science 011 or equivalent may not take this course for credit.

14.5.5 CONCORDIA FACULTY OF FINE ARTS

NOTE: For full course descriptions, refer to the section indicated.

VISUAL ARTS
Studio Art § 81.5.1; 81.6.1
ART C200
Studio Art I
(6 credits)
DESIGN C200
Introduction to Design
(6 credits)

Art History § 81.8.2
ART HISTORY C232
Introduction to Architecture and Sculpture
(6 credits)
ART HISTORY C240
Introduction to Art History
(6 credits)
ART HISTORY C249
Canadian Sculpture and Architecture
(6 credits)

Cinema § 81.9.2
CINEMA C211
History of Film
(6 credits)

PERFORMING ARTS
Music § 81.11.2
MUSIC C221
Theory/Aural Training
(3 credits)

MUSIC C222
Theory/Aural Training
(3 credits)
MUSIC C230
Private Study B I
(6 credits)
MUSIC C231
Private Study A I
(3 credits)

Music History § 81.11.2
MUSIC HISTORY C200
Music History and Society
(6 credits)

Integrative Music Studies § 81.11.2
INTEGRATIVE MUSIC STUDIES C200
Theory/Composition/Analysis I
(6 credits)

Music Performance Studies § 81.11.2
MUSIC PERFORMANCE STUDIES C201
Choir/Orchestra
(3 credits)

Theatre § 81.10.3
THEATRE C201
Introduction to the Theatre
(3 credits)
THEATRE C300
Theatre History
(6 credits)

Scenography § 81.10.3
SCENOGRAPHY C201
Stagecraft I
(3 credits)

14.5.6 SIR GEORGE WILLIAMS FACULTY OF SCIENCE

NOTE: For full course descriptions, refer to the section indicated.

Biology § 91.6
BIOLOGY N-201
General Biology I
(3 credits)
BIOLOGY N-202
General Biology II
(3 credits)

Chemistry § 91.7
CHEMISTRY N-201
General Chemistry I
(3 credits)
CHEMISTRY N-202
General Chemistry II
(3 credits)

Geology § 91.11
GEOLOGY N-215
Introductory Geology
(3 credits)
GEOLOGY N-231
Mineralogy I
(3 credits)

Mathematics § 91.12
MATHEMATICS N-200
Fundamental Concepts of Algebra
(3 credits)
MATHEMATICS N-201
Elementary Functions
(3 credits)
MATHEMATICS N-202
College Algebra
(3 credits)
MATHEMATICS N-203
Differential and Integral Calculus I  
(3 credits)

MATHEMATICS N-204
Vector Analysis and Analytical Geometry  
(3 credits)

MATHEMATICS N-205
Differential and Integral Calculus II  
(3 credits)

MATHEMATICS N-206
Linear Algebra for the Social Sciences  
(3 credits)

MATHEMATICS N-207
Statistics for the Social Sciences  
(3 credits)

MATHEMATICS N-208
Fundamental Mathematics I  
(3 credits)

MATHEMATICS N-209
Fundamental Mathematics II  
(3 credits)

Physics § 91.13

PHYSICS N-204
Mechanics  
(3 credits)

NOTE: See Physics N-224 for Laboratory associated with this course.

NOTE: Students with credits for CEGEP Physics 101 or equivalent may not take this course for credits.

PHYSICS N-205
Electricity and Magnetism  
(3 credits)

NOTE: See Physics N-225 for Laboratory associated with this course.

NOTE: Students with credits for CEGEP Physics 102 or equivalent may not take this course for credits.

PHYSICS N-206
Waves and Modern Physics  
(3 credits)

NOTE: See Physics N-226 for laboratory associated with this course.

NOTE: Students with credits for CEGEP Physics 103 or equivalent may not take this course for credits.

PHYSICS N-210
Discoveries in Physics  
(6 credits)

PHYSICS N-224
Introductory Experimental Mechanics  
(1 credit)

NOTE: Students with credits for CEGEP Physics 101 or equivalent may not take this course for credit.

PHYSICS N-225
Introductory Experimental Electricity  
(1 credit)

NOTE: Students with credits for CEGEP Physics 102 or equivalent may not take this course for credit.

14.6 Independent Course Students

Where places are available, after regularly admitted students have been registered, individuals may register on an individual course basis as independent students in courses for which they have the qualifications. Registration dates will be published in the daily press in the month of August.
DR. K. E. NORRIS
PRINCIPAL 1929-1936
BY
ORSON WHEELER, R.C.A.
PRESENTED TO THE UNIVERSITY
BY
THE ASSOCIATION OF ALUMNI
S. C. W. U.
15 Tuition and Fees
15.1 Tuition and Fees

The University reserves the right to change the published scale of fees without notice.

Tuition—
Engineering courses— $45.00 per course
All other courses— $15.00 per credit

Other Fees—
Associate Diploma Fee $5.00
Copy of Registration Certificate 1.00
Duplicate of receipt 2.00
Graduation Fee 10.00
Late Registration Fee 10.00
Re-reading of paper 10.00
Removal of “Incomplete” 10.00
Special Examination Fee 15.00
Supplemental Examination Written at Concordia 10.00
Written elsewhere—
plus invigilation fee when applicable 15.00
Transcript of academic record 1.00

In addition to the fees set out above, students are required to pay certain Student Service Fees, Student Association Fees and other miscellaneous charges. The current rate of these fees and charges can be obtained from the Student Accounts Offices.

15.2 Payment of Tuition and Fees

Fall Registration—
Payment of tuition and other fees may be made in accordance with one of the following options:

a) payment in full at registration.

b) payment in two instalments—
1. at registration—one half tuition plus all other fees plus $5.00 deferred payment fee.
2. on November 1—balance.

c) payment in four instalments—
1. at registration—one quarter of tuition plus all other fees plus $10.00 deferred payment fee.
2. on November 1—one quarter of tuition.
3. on December 1—one quarter of tuition.
4. on January 1—balance.

Summer and Winter Registration—
Payment of tuition and other fees may be made in full at registration or in two instalments similar to those set out in b) above.

An additional charge of $5.00 will be made if instalment payments are not made on their due dates.

A charge of $5.00 will be made for cheques returned for any reason.

Failure to make payment, or to arrange satisfactory 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 diploma, scholastic certificate or transcript of record until the debt is adjusted with the University.

Registration is not considered complete until satisfactory arrangements have been made for the payment of fees.

All contracts are subject to revision for the adjustment of errors or omissions.

15.3 Course Cancellations, Withdrawals and Adjustment

Students who withdraw from courses or from the University must comply with the requirements set out in the Timetable of Classes published before each academic session in order to qualify for a rebate of tuition according to the following scale:

1. Students who withdraw from the University before the end of the fall course change period - full rebate of tuition less 6%.
2. All others -

<table>
<thead>
<tr>
<th>Rebate of Tuition</th>
<th>for courses of</th>
<th>1st Term</th>
<th>2nd Term</th>
<th>2nd Term</th>
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<tr>
<td>Prior to the end of the fall course change period</td>
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<td>Full rebate</td>
<td>Full rebate</td>
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<tr>
<td>End of fall course change period to September 30</td>
<td>3/4</td>
<td>7/8</td>
<td>Full rebate</td>
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<td>October 1 to November 1</td>
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<td>Full rebate</td>
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<td>December 1 to end of January course change period</td>
<td>1/2</td>
<td>Full rebate</td>
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<tr>
<td>End of January course change period to January 31</td>
<td>3/8</td>
<td>3/4</td>
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<tr>
<td>February 1 to February 28</td>
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<td>1/2</td>
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The above rebates apply to the net reduction of courses within each category. Different course categories are not combined for purposes of tuition rebate calculations.

Student Service fees are subject to the same schedule of rebates as tuition. All other fees are not refundable.
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These regulations are in effect as of June 1, 1977 and apply to all students. In some instances, former regulations will still apply. These exceptions will be noted where appropriate.

It is the responsibility of the student to know the academic regulations.

16.1.1 ACADEMIC YEAR

Fall/Winter Session:
The day and evening winter session of the University is divided into two terms of fifteen weeks, each including the examination period. Dates marking the opening and closing of these terms are found in the Academic Calendar § 11.

Summer Session:
A nine-week session is operated during the summer in the Evening Division primarily for Evening Division students. Summer Sessions and Special Day summer Sessions are considered part of the following Fall/Winter Session for record purposes.

16.1.2 DEFINITION OF CREDIT

In accordance with the recommendations of the Quebec Council of Universities, effective 1974-75, the credit base takes into account the total activity of the student, in terms of lectures, conferences, laboratories, studio or practice periods, examinations, and personal work. One credit represents, for the average student, a minimum of 45 hours spread across the various activities listed above. This system does not apply to the Engineering programme where the definition of degree components is still listed in terms of years and courses.

16.1.3 STATUS

Full-time students are those registered for the equivalent of 24 credits or more a year, or the equivalent of 12 credits or more each term.

Part-time students are those registered for the equivalent of less than 24 credits a year, or the equivalent of less than 12 credits each term.

An Independent student is one who is not proceeding to a degree, diploma or certificate.

16.1.4 COURSE LOAD

Fall/Winter Session—Full-Time Status
The course load varies according to the faculty in which the student is enrolled.
1) Sir George Williams Faculty of Arts and Faculty of Fine Arts

First year students in the Faculty of Arts will take a maximum of thirty credits. A student may take thirty-six credits during one or both of his final two fall/winter sessions providing:

a) There are no failures in the previous academic year (minimum thirty-credit programme) and
b) The average grade of the previous academic year (minimum thirty-credit programme) is 'B' or 75%.

2) Sir George Williams Faculty of Science and the Department of Computer Science
Students enrolled in the Bachelor of Science or the Bachelor of Computer Science will normally register for a maximum of thirty credits each fall/winter session.

3) Commerce and Administration
A student may register for a maximum of thirty credits in any fall/winter session.

4) Engineering
See under Engineering Faculty § 71

5) Loyola Faculty of Arts and Science
Full-time students in the degree programme will normally require three (3) calendar years to obtain a Bachelor's degree. The normal course load for each year is thirty (30) credits. A student may accelerate his/her programme by taking an increased work load. This requires the permission of the Department Chairman and of the Dean and is limited to six credits more than the year's load prescribed in the departmental programmes. Courses taken during the regular session at another university or campus must be counted as part of the year's work load. Courses taken in the Summer School are not included. Permission for accelerated programmes is reserved for students who have maintained a 'B' or 75% average or more in the previous year on a full work load.

Fall/Winter Session—Part-Time Status
Students in this division may register for a maximum of three six-credit courses or their equivalent equally divided between the terms.

Summer Session
Students may not take more than a total of twelve credits of work during a summer session. The course load for Special Day Summer Sessions may be further restricted by departmental regulations.

16.1.5 RESIDENCE REQUIREMENTS
1. In addition to the specified courses, there is a residence requirement of 45 credits.
16.2.1 CURRICULUM OBLIGATIONS

Where a student acquires credit toward a degree, diploma or certificate in a discontinuous manner and over a protracted period of time subsequent to his admission, the University reserves the right, at any time, to require such student to take further credits in order to obtain that degree, diploma or certificate.

16.2.2 CURRICULUM REGULATIONS

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

- Faculty of Commerce and Administration — § 61
- Faculty of Engineering — § 71
- Faculty of Fine Arts — § 81
- Sir George Williams Faculty of Arts — § 41
- Loyola Faculty of Arts and Science — § 51
- Sir George Williams Faculty of Science — § 91

16.2.3 CONCENTRATION REQUIREMENT

Since the CEGEP programme is designed to give all students the opportunity to explore different fields and thus acquire a broad general basis for future study, the undergraduate programme requires some degree of concentration, according to the interests and capacities of the student. There are several forms of concentration, ranging through Honours, which requires success in a programme of high concentration accompanied by a prescribed level of performance; the Specialization and the Major requiring varying degrees of concentration without a prescribed performance requirement; and the Double Minor, involving a lesser degree of concentration in two disciplines or fields, and without a prescribed performance requirement.

In order to graduate, therefore, a student must have completed one of the following types of programme: a Double Minor; an Interdisciplinary Major; a Departmental Major; a Specialization programme; a combined Honours programme; an interdisciplinary Honours programme; a Departmental Honours programme.

Prior to registration, students will be required to select one of the types of programme outlined above. In the case of Honours, students will register upon entry in an Honours programme, but their acceptance as Honours students will depend on their performance during their first year. Students failing to meet requirements for Honours standing will proceed in either a Specialization or a Major programme.

16.2.4 HONOURS PROGRAMMES (NEW CONCORDIA REGULATIONS)

These regulations represent a minimum academic standard for Honours Programmes. All Programmes and additional Faculty regulations, including those with higher standards, are listed in the Faculty sections under "Honours Programmes".

The University has approved programmes leading to an Honours degree in certain selected fields. The Honours programme consists of 60 or more credits in a discipline or field, with superior performance being required to enter and remain in the programme. 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.
2. An Honours student must maintain an average of 'B' or 75% in all Honours courses; the minimum acceptable grade in any single Honours course is C or 65%.
3. An Honours student must have a minimum average of 'B' or 71% over Honours courses taken in each academic year. For part-time students this will be calculated in eighteen credit blocks.
4. In the non-Honours courses of the degree programme, an Honours student must
have an average of no less than 'C' or 65%.
5. Students who are required to withdraw from the Honours programme will pro-
ceed in the Major or Specialization pro-
grame. Reinstatement in the Honours programme is possible only by appeal to
The Faculty Honours Committee.

These new regulations will apply to those
students entering Honour Programmes as of
June 1, 1977. Students already in an Hon-
ours programme may continue under the old
regulations established prior to June 1,
1977, set forth below:

16.2.5 OLD HONOURS REGULATIONS

1. Sir George Williams Faculty of Arts; Sir
George Williams Faculty of Science; Fac-
ulty of Commerce and Administration;
and the Faculty of Fine Arts

The University has approved pro-
grames leading to an Honours degree in
certain selected fields. These Honours pro-
grames consist of 60 or more credits in a
discipline or field, with superior performance
being required to enter and remain in the
programme. It is recognized that a small
number of courses may be designated as
being open only to Honours students (e.g.,
Honours Essay, Honours Seminar, etc.). In
order to qualify for an Honours degree a
student must meet all of the academic
qualifications and comply with the regula-
tions set forth below:

1. A candidate for an Honours degree
should indicate such intention at registra-
tion and consult the Honours representa-
tive of the department(s) concerned as
soon as possible. Acceptance as an Honours student will depend on perfor-
ance during the first year. The Honours standing will be reviewed annually.

A student who has followed the courses
prescribed for the Honours programme
and has met all the requirements may enter
the programme with the approval of the
Honours representative any time be-
fore the beginning of the final 30 credits.
No retroactive approval may be made.

2. A student who enters with advanced
standing may apply proportionately which
are applicable to the Honours degree
requirements, upon approval by
the department(s).

A transfer student must complete a mini-
mum of 30 credits in the basic Honours
programme in residence to receive a
degree with Honours.

3. An Honours student must maintain a 'B'
or 75% average with no grade lower than
a 'C' or 65% in all courses in the basic
Honours programme.

An Honours student must meet the gen-
eral degree requirements as well as the
specific requirements for an Honours de-
gree, and must obtain at least a 'C' or
65% average over the total degree pro-
grame.

Failure in any course will mean suspen-
sion or withdrawal from the Honours pro-
grame. Students who fail to meet acceptance requirements and who are
required to withdraw from the Honours

programme will proceed in the Major or
Specialization programme. Reinstate-
ment into the Honours programme is
possible only by recommendation by the
Honours representative.

4. A student shall be allowed to qualify for
only one Honours degree in either a single
or combined Honours programme.

5. A degree with Honours in any pro-
grame is granted upon graduation only
with the approval of the Senate.

2. Loyola Faculty of Arts and Science

Honours: A programme which consists of
a minimum of 60 credits in a discipline or
field, with superior performance in the pro-
grame. It is recognized that "field" may be
interpreted as two separate disciplines hav-
ing a rational relationship (e.g., Philosophy
and Religion) or an interdisciplinary field
(e.g., Urban Studies). In most cases stu-
dents who wish to pursue graduate studies
will require an Honours programme. The
requirements for Honours programmes vary
by Departments, and Departments must be
consulted concerning specific regulations.

16.2.6 SPECIALIZATION PROGRAMMES

The Specialization, in keeping with the
structure recommended by the Quebec
Council of Universities, is an approved se-
quence of courses including 60 or more
credits without a prescribed performance
requirement.

16.2.7 MAJOR PROGRAMMES

The Major, again in keeping with the
structures recommended by the Quebec
Council of Universities, is an approved se-
quence of courses including 36 or more
credits. As in the case of the Specialization,
the Major may include certain approved
courses in other closely related fields.

16.2.8 MINOR PROGRAMMES

A programme, again in keeping with the
structures recommended by the Quebec
Council of Universities, is an approved se-
quence of 24 or more credits in a specific
discipline.

16.2.9 DOUBLE MAJORS

Double Major programmes are made up of
two approved sequences of 36 or more
credits in two specific disciplines or fields.
(Only available in the Loyola Faculty of Arts
and Science)

16.2.10 DOUBLE MINOR PROGRAMMES

Double Minor programmes are made up of
two approved sequences of 24 or more
credits in two specific disciplines or fields.
A student may combine any two Minors to
form a Double Minor. (Only available in the
Sir George Williams Faculty of Arts, Sir
George Williams Faculty of Science, Faculty
of Commerce and Administration, Faculty of
Fine Arts)

16.2.11 MAJOR-MINOR COMBINATIONS

A Major programme may be combined
with a Minor programme.
An Undergraduate Certificate programme is a coherent programme of 30 credits made up of regular undergraduate courses, which are, in turn, applicable to the appropriate Bachelors Degree.

16.3 Evaluation, Grading, Examinations and Advancement

16.3.1 EVALUATION

A university degree certifies that its holder has attained a measurable level of achievement, as established by a recognized system of evaluation. It is consequently required that the performance of each student in each course be evaluated by the instructor (or instructors) responsible for the course.

The final grade which assesses the performance of each student in each course will take into account the total measurable performance of the student in that course. Specifically, the grade will be given on the basis of one or more of the following:

i) Assigned work, term papers, projects, etc.

ii) Class participation, which in the case of certain disciplines may justify an attendance requirement.

iii) Progress tests.

iv) Laboratory tests and/or laboratory work.

v) Mid-term and/or final examinations.

Where appropriate, a level of written expression may be given consideration in determining the final grade.

The weighting of the various evaluative elements is the responsibility of the instructor. At the beginning of the course the instructor will inform the class of the evaluative scheme to be used.

While the language of instruction in Concordia University is normally English, students have the right to write their assignments and examinations in French. It must be understood, however, that in a case where an instructor cannot read French, the assignments or examinations will have to be read by another person, with possible resulting disadvantages and delays for the student. Students are advised to enquire of the instructor at the beginning of their course whether he or she will personally read assignments and/or examinations in French. Notwithstanding the above, language and literature departments may require assignments and examinations to be written in the language being studied.

The instructor has the option of submitting grades on either a percentage scale or a letter grade scale, subject to the decision of each Faculty Council.

If a Faculty member assigns a percentage it will be converted to a letter grade in accordance with Table A. Both grades will appear on record and transcript.

If a letter grade is assigned it will be converted to a numerical mark shown in Table B. Both grades will appear on record and transcript.

The numerical grades will be used for evaluation of academic achievement levels.

16.3.2 GRADING SYSTEM

<table>
<thead>
<tr>
<th>TABLE A</th>
<th>TABLE B</th>
</tr>
</thead>
<tbody>
<tr>
<td>From</td>
<td>To</td>
</tr>
<tr>
<td>90-100</td>
<td>A+</td>
</tr>
<tr>
<td>85-89</td>
<td>A</td>
</tr>
<tr>
<td>80-84</td>
<td>A-</td>
</tr>
<tr>
<td>77-79</td>
<td>B+</td>
</tr>
<tr>
<td>73-76</td>
<td>B</td>
</tr>
<tr>
<td>70-72</td>
<td>B-</td>
</tr>
<tr>
<td>67-69</td>
<td>C+</td>
</tr>
<tr>
<td>63-66</td>
<td>C</td>
</tr>
<tr>
<td>60-62</td>
<td>C-</td>
</tr>
<tr>
<td>57-59</td>
<td>D+</td>
</tr>
<tr>
<td>53-56</td>
<td>D</td>
</tr>
<tr>
<td>50-52</td>
<td>D-</td>
</tr>
<tr>
<td>40</td>
<td>F</td>
</tr>
<tr>
<td>20</td>
<td>FF</td>
</tr>
</tbody>
</table>

F—Failing Grade *

The grade submitted will either be 'F' or 40.

For courses in which supplemental examinations are not precluded, a student to whom an 'F' grade has been assigned and who is in good academic standing, may, subject to the regulations of the Faculty, write a supplemental examination.

For courses in which supplemental examinations are precluded, this grade will be recorded as FNS to draw attention to the absence of supplemental privilege for the course in question.

FF—Failing Grade *

The grade submitted will either be 'FF' or 20.

For courses in which supplemental examinations are not precluded, a student to whom an 'FF' grade has been assigned, and who is in good academic standing, may, subject to the regulations of the Faculty, write a supplemental examination.

For courses in which supplemental examinations are precluded, this grade will be recorded as FFNS to draw attention to the absence of supplemental privilege for the course in question.

* The matter of supplemental examination privilege will be considered by Senate during the 1976/77 academic year. Pending legislation, if any, may require a restatement of the F and FF grade.
16.3.3 GRADING—PROCEDURES AND SPECIAL CASES

In each course the instructor is expected to make an evaluation and submit a grade for every student registered.

If the student has not completed all necessary work, or has not written the required examinations, the instructor submits a grade based on the weighted sum of grades on completed work and zero for incompleted work. (See examples i, ii and iii below). It should be noted that an instructor may stipulate that in order to achieve a passing grade in a course, a student must have demonstrated a specified level of competence in particular components required for evaluation in that course. (See examples (iv)a, (iv)b, and (iv)c below).

(In the event that a student appears to have withdrawn, unofficially, from a course, and no material is available for evaluation, the instructor will clearly not be able to submit a grade. The Registrar will indicate this situation with the notation NR (Not Reported). This notation carries no numerical weighting but denotes a failure for purposes of counting the number of failed courses in assessing academic standing.

INC and DNW

If the work for a course has not been completed, the following notations will be made after the grade given for that course:

INC (Incomplete) denotes that, though the final examination, if any, was written, work essential for evaluation of a student’s performance, such as a term paper or a laboratory, was not completed.

DNW (Did Not Write) denotes that, though the instructor marked the term work, the final examination was not written.

In some circumstances both INC and DNW may be used simultaneously.

Examples

The following examples demonstrate application of the system. They are all based on the assumption that the final mark is composed of 20% assignments, 40% term paper, 40% examination, for illustrative purposes only.

<table>
<thead>
<tr>
<th>Assignment Weighting</th>
<th>Term Paper Weighting</th>
<th>Examinations Weighting</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>Term Paper</td>
<td>Examinations</td>
<td></td>
</tr>
<tr>
<td>(i)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighting</td>
<td>20%</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Specific mark out of 100</td>
<td>90</td>
<td>not written</td>
<td>80</td>
</tr>
<tr>
<td>Contribution to final grade</td>
<td>18</td>
<td>—</td>
<td>32</td>
</tr>
<tr>
<td>The final grade is 50 or ‘D-’, and INC is noted if the instructor is prepared to accept a late term paper.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assignment Weighting</td>
<td>Term Paper</td>
<td>Examinations</td>
<td>Total</td>
</tr>
<tr>
<td>(ii)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighting</td>
<td>20%</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Specific mark out of 100</td>
<td>85</td>
<td>85</td>
<td>not written</td>
</tr>
<tr>
<td>Contribution to final grade</td>
<td>17</td>
<td>34</td>
<td>—</td>
</tr>
<tr>
<td>The final grade is 51 or ‘D-’, and DNW is noted.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assignment Weighting</td>
<td>Term Paper</td>
<td>Examinations</td>
<td>Total</td>
</tr>
<tr>
<td>(iii)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighting</td>
<td>20%</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Specific mark out of 100</td>
<td>90</td>
<td>not written</td>
<td>not written</td>
</tr>
<tr>
<td>Contribution to final grade</td>
<td>18</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>The final grade is ‘FF’ (weighted 20), and DNW is noted as well as INC if the instructor is prepared to accept a late term paper.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(iv) a. The instructor has stipulated that at least 45% be achieved on the final examination in order that a passing grade be obtained in the course:

<table>
<thead>
<tr>
<th></th>
<th>Assignments</th>
<th>Term Paper</th>
<th>Examinations</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighting</td>
<td>20%</td>
<td>40%</td>
<td>40%</td>
<td>100%</td>
</tr>
<tr>
<td>Specific mark out of 100</td>
<td>90</td>
<td>70</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Contribution to final grade</td>
<td>18</td>
<td>28</td>
<td>14</td>
<td>60</td>
</tr>
</tbody>
</table>

While the weighted sum is 60, the stipulated 40% was not achieved on the final examination, and so the final grade is submitted as 'F', and weighted at 40.

b. The instructor has stipulated that at least 45% be achieved on the final examination in order that a passing grade be obtained in the course:

<table>
<thead>
<tr>
<th></th>
<th>Assignments</th>
<th>Term Paper</th>
<th>Examinations</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighting</td>
<td>20%</td>
<td>40%</td>
<td>40%</td>
<td>100%</td>
</tr>
<tr>
<td>Specific mark out of 100</td>
<td>90</td>
<td>85</td>
<td>not written</td>
<td></td>
</tr>
<tr>
<td>Contribution to final grade</td>
<td>18</td>
<td>34</td>
<td>—</td>
<td>52</td>
</tr>
</tbody>
</table>

While the weighted sum is 52, the final examination was not written, and hence the stipulated 45% was not achieved, and so the final grade is submitted as 'F', and weighted at 40, with the notation DNW added.

c. The instructor has stipulated that at least 45% be achieved on the term paper in order that a passing grade be obtained in the course:

<table>
<thead>
<tr>
<th></th>
<th>Assignments</th>
<th>Term Paper</th>
<th>Examination</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighting</td>
<td>20%</td>
<td>40%</td>
<td>40%</td>
<td>100%</td>
</tr>
<tr>
<td>Specific mark out of 100</td>
<td>90</td>
<td>not written</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>Contribution to final grade</td>
<td>18</td>
<td>—</td>
<td>34</td>
<td>52</td>
</tr>
</tbody>
</table>

While the weighted sum is 52, the term paper stipulation has not been met, and so the final grade is submitted as 'F' and weighted at 40, with the notation INC added.

Replacement of 'F', DNW and INC Entries

The method of recording changes from 'F', DNW and INC entries will be as follows:

I) In cases where a supplemental examination or a late completion has been allowed on medical or compassionate grounds, the new grade will replace the original entry.

II) In all other instances the original entry will be retained on the transcript. A second entry of the course code will be made along with the final grade. An (X) beside this final grade will indicate the late completion or supplemental. (X) will be explained at the foot of the transcript.

III) A student failing a supplemental examination will receive the grade 'FF' or 20.

Deadlines for Late Completions and Supplementals

The limiting dates for the submission of late work are:

a) For Fall Session courses not later than April 1st.
b) For all other courses in the Fall/Winter Session not later than August 1st.
c) For all courses in the Summer Session not later than November 1st.

The limiting date for the writing of supplemental examinations is the official supplemental examination period following each session. This period is approximately three months after writing the original examination.

The student may have grounds to request a deferment of the deadline. In this case the Dean’s Office will inform the Records Office of the extended deadline.

Special Note Re INC

Students are advised that work completed for an INC grade and reported to the Registrar’s Office before the submission of the list of failed students to the Deans will not count as a failure when assessing academic standing. The date for the submission of this list will appear in the University Calendar.

NOTE: The University is not responsible for providing facilities to enable students to clear INC grades by this date.

16.3.4 HIGH ACADEMIC ACHIEVEMENT

The following regulations will be in force for the current academic year.

Loyola Campus

Honourable Mention:

Degrees may be awarded with one of the following designations, provided that a minimum of 60 credits have been taken at this institution:

- Summa Cum Laude - For an overall average of 90% or more in the courses taken at this University.
- Magna Cum Laude - For an overall average of 80% to 90% in the courses taken at this University.

Courses for which the student received “Credit” or which were graded on a Pass-Fail basis will not enter into the calculation of this average.

Sir George Williams Campus

A degree with distinction may be achieved by students registered in any programme in the new three-year structure by achieving a grade point average of 3.20 during their last two years (approximation) of study or a grade point average of 3.10 over the complete three years. Failure on record (F, R, INC, ABS) during the period of evaluation disqualifies the student from Graduation with Distinction. Specific details of these regulations as well as the regulations for the old four-year programme may be obtained from the Records Office. The achievement of Distinction is recorded on the degree certificate.

Concordia University

Effective January 1, 1978 the following regulations will be in force:

Distinction

A degree With Distinction or With Great Distinction may be achieved by obtaining the following levels:

- With Distinction ‘A’- or ‘A’ or 80-90%
- With Great Distinction ‘A+’ or 90-100%

The average will be calculated over the student’s last 90 credits, or, in the case of transfer students, all courses taken at Concordia. However, a transfer student must have taken a minimum of sixty credits at Concordia in order to be eligible for distinguished mention.

16.3.5 FAILURE REGULATIONS*

These failure regulations are to be considered as defining the minimum standard acceptable to the University. Subject to the approval of Senate, higher standards may be established by any Faculty. For purposes of these regulations, “failure” includes the grades F, FF, FNS, FFNS and NR.

i) 90 Credit Programme

a. Any student who fails courses equivalent to more than twelve credits before obtaining thirty credits on record, or who fails courses equivalent to more than twenty-four credits before obtaining sixty credits on record is a failed student.

Such a student will have entered on record:

“Failed. Must obtain permission to re-register from the Faculty Dean.”

b. Any student who fails courses equivalent to more than thirty credits is a failed student. Such a failed student may not apply for readmission.

Such a student will have entered on record:

“Failed. May not re-register.”

ii) Extended Credit Programmes (MSP, MEP, ECP)

a. Any student who fails courses equivalent to more than twelve credits before obtaining thirty credits on record, or who fails courses equivalent to more than twenty-four credits before obtaining sixty credits on record, or who fails courses equivalent to more than thirty-six credits before obtaining ninety credits on record is a failed student.

Such a student will have entered on record:

“Failed. Must obtain permission to re-register from the Faculty Dean.”

b. Any student who fails courses equivalent to more than forty-two credits is a failed student. Such a failed student may not apply for re-admission.

Such a student will have entered on record:

“Failed. May not re-register.”

iii) Regulations for Failed Students

a. Failed students are neither eligible to write supplemental examinations nor entitled to late completion of courses.

b. Failed students who are given permission to re-register are placed on Academic Probation.

c. Students placed on Academic Probation must pass the next thirty credits on the first attempt and satisfy any other condi-
New Concordia Academic Regulations related to the following items are under study and may be enacted by the Senate prior to the 1977/78 academic year. In the interim the appropriate governing regulations are listed below classified by degrees.

It is stressed that in addition to these regulations, students are bound by the Concordia Regulations in Section 16.1 (General Information), Section 16.2 (Programmes and Regulations), Section 16.3 (Evaluation, Grading, Examinations, and Advancement).

16.4.1 LOYOLA CAMPUS (Students registered in BA; BSc; B Comm)

External Credit
A student who is registered as a full-time student at this University may obtain credit towards his/her degree for courses taken at another university, provided he/she has received prior approval of the course of study from his/her Chairman and Dean. It is the responsibility of the student to ensure that the course of study will satisfy the requirements of his/her programme. Only in exceptional circumstances may a student complete his/her final year at another university.

Para-Academic Activity
A student may undertake a research project in conjunction with a para-academic activity for academic credit if the project is accepted by the Para-Academic Credit Board.

Para-Academic Activity is any ongoing activity which is not sponsored by departments or disciplines per se, but which allows within its range the possibility of research and reflection on the activity, and whose merit can be measured by a sponsor.

A Para-Academic Project is an undertaking by a single student which can be evaluated by a sponsor. Each project may last no more than one (1) academic year, and shall be the equivalent of three credits. The number of credits given for Para-Academic Activity shall be no more than six (6) spread over three (3) university years. A project may take the place of an elective, but not of a required course.

The Sponsor of a project must be a full or part-time member of the faculty, and may be a sponsor normally for not more than three (3) people.

The student selects the project and possible sponsor(s), and with the approval of the sponsor(s) submits a coherent outline of the proposed project to the Para-Academic Credit Board.

To be accepted, the project must meet the criteria of activity, reflection and presentation. With sufficient activity, resources and innovative ideas, the student must demonstrate that he/she has the means of completing the project, and that it will benefit him/her as a person within the context of his/her experience.

A student doing a Para-Academic Activity Project presents the final report to the sponsor, who grades the project and submits the grade to the Para-Academic Credit Board. The Board submits the grade for credit, together with a brief description of the project, to the Registrar.

Independent Studies
It is the intention of this programme to provide encouragement to those students who show extraordinary commitment to independent studies and/or research as well as to remedy a lack of efficient channels for processing, evaluating and accrediting worthy independent research projects — whether they be carried out in academic, governmental or business institutions. It is hoped that I.S.P. projects will take into account not only the student's prior formal education but prior life experience, work and independent studies as well as his/her future objectives; and to do this in a way that is not possible within the proper limits of established disciplinary boundaries. It is envisioned that credits obtained through the I.S.P. will be integral of the student's regular academic programme.

For detailed information concerning this programme (i.e., rules for project eligibility) please apply to the Director of the programme.

Supplemental Examinations
In certain cases where a student has failed the final examination, he/she may be given a second opportunity to write a final examination paper.

Supplemental Privileges are restricted to Science courses which are prerequisite.

To be eligible any student must have a failing grade of not less than 35% and must have the approval of the department in which the course is offered as well as the approval of the Chairman of the department in which he/she is registered. Not more than two Supplementals will be granted in any one academic year (not including Summer School). It is the responsibility of the student to make written application to the Assistant Registrar by the deadline specified in the Academic Calendar.

Special Examinations
If a student is unable to write a final examination or to complete the required
work in a course because of accident, short illness, death in the family or for some other valid reason, he/she may apply to write a Special Examination. The application, accompanied by the pertinent documentation, should be made in writing to the Registrar. The application must be made within the prescribed time limit. In certain cases, a department may recommend an alternative course of action.

**Appeals**

Every student has the right to appeal against the grade assigned to him/her in a particular course or a Para-Academic Activity project. He/she should contact the Student Ombudsman for information and assistance.

The procedures for Student Appeals (Academic) adopted by Senate are as follows:

The student’s first step for any appeal is to consult with the professor. It is every student’s right to meet with his/her professor and discuss his/her work, exams, etc., and have them re-evaluated by the professor.

Should the first step prove unsatisfactory to the student, his/her second choice is to appeal in writing to the Departmental Chairman. The student may or may not have already consulted the Student Ombudsman at this point.

The student must submit his/her appeal in writing to the Registrar within two weeks of the mailing of marks from the Records Office.

The Chairman, upon notification by the Registrar shall:

(i) set up a Departmental Committee to review the student’s term work, exams, projects, etc. It shall consist of two (2) faculty members from the same discipline (other than the professor concerned), and either one (1) student chosen by the Chairman or a third faculty member chosen by the chairman should the student so desire.

(ii) request from the student the written grounds for appeal, and also from the professor a written response to the appeal.

The Departmental Committee will meet within seven (7) days after the Chairman has constituted it, and make its report within fourteen (14) days.

The Committee will invite the two (2) parties involved in the appeal (together if either party so requests), and all others who wish to testify, to appear before it for a personal interview. It shall arrive at a conclusion by meeting as often as necessary and reviewing any information offered on behalf of the professor or the student. The Committee shall, where possible, review the work of other students whose performance has been better, worse or equal to that of the student in question.

The Departmental Committee will convey in writing the decision of the Committee to the Student, Professor, Chairman, Dean, Registrar and the Student Ombudsman.

The next channel for appeals shall be open to appeals from either the student or the professor. The student/professor may appeal a departmental decision. This must be done within seven (7) days after notification. An appeal in writing should be sent to the Secretary of Council.

The appeal will be considered by the Board of Appeals. This Board will consist of two (2) faculty members and two (2) students. The four (4) members of the Board will receive a copy of the written appeal from the Secretary of Council. The Nominating Committee of Council will establish a panel of professors and students to serve on the Appeals Board on a rotational basis. The Board will itself select a fifth member, who may be a student or a faculty member, and who may or may not be a member of Loyola Campus. The Board will elect one of its own members to serve as Chairman.

In making an appeal to the Board of Appeals, the student/professor must give the grounds for the appeal. If the Board decides that the grounds are insufficient then it may refuse to hear the appeal.

If the Board agrees to consider the appeal, then it will investigate the whole appeal thoroughly: procedures, the Departmental Committee report, and all relevant documentation. It will investigate any irregularities which it finds. If new evidence is presented for either student or professor, it will be sent back to the Board and if it is judged to be substantial, it will be referred to the Departmental Committee for hearing. Then the Board will have the authority to call in any
Supplemental Examinations

1. A failed student may not write supplemental examinations.

2. A student may not write a supplemental examination in a repeated course, nor may he write a second supplemental examination in the same course.

3. If a student is granted permission to write a supplemental examination, absence from the examination is counted as a failure and recorded as an 'R' grade.

4. Medical reasons (certified by a physician on his letterhead) constitute a valid excuse for exemption from most of the regulations concerning supplemental examinations. Such medical reasons must be submitted to the Examinations Office within ten days of the missed examination.

(a) A student absent from a regular examination for medical reasons may, if he wishes, write the supplemental examination as his final examination. If he passes, he will receive a letter grade and will not be charged with a failure nor a supplemental under the maximum permissible allowances. If he fails, he may apply to the Examinations Office to write an additional supplemental examination.

(b) A student absent from a supplemental examination for medical reasons is not considered to have failed the examination and may apply to the Examinations Office for an alternate date.

(c) A student taken ill during an examination and unable to complete the examination must obtain verification from the nurse on duty. Such certification must be submitted to the Examinations Office within ten days of the date of occurrence.

5. Supplemental examinations in courses taken during the regular session must be written during the following July. Supplemental examinations in courses taken during the Summer Session must be written the following December.

6. Supplemental examinations may be written only at one of the following external examination centres in Canada: St. John's, Nfld.; Sackville, N.B.; Murray Bay, Quebec; Montreal, Quebec; Toronto, Ontario; Sudbury, Ontario; Thunder Bay, Ontario; Winnipeg, Manitoba; Saskatoon, Saskatchewan; Banff, Alberta; Vancouver, B.C. Any student wishing to write a supplemental examination at an external centre (outside of Canada) must arrange an appointment with the Director of Examinations before submitting an application.

7. Supplemental examinations are graded by the new Grading System (Section ...).

8. Application to write a supplemental examination must be submitted by November 1 for Summer Session, March 7 for graduating students, and June 17 for Winter Session to the Examinations Office. The required fee must accompany all applications. The required fee must accompany all applications. The required fee must accompany all applications. The required fee must accompany all applications. The required fee must accompany all applications.

Completion of Courses Graded Incomplete

1. A failed student may not complete a course graded incomplete (Inc).

2. A student is ineligible to complete an 'Inc' in a repeated course.

3. Application to complete a course graded 'Inc' must be submitted by October 4 for Summer Session, March 7 for graduating students, and June 17 for Winter Session to the Examinations Office. The required fee must accompany all applications. The required fee must accompany all applications. The required fee must accompany all applications. The required fee must accompany all applications. The required fee must accompany all applications.

Repetition of Courses

1. A student who has received credit for a completed course may not repeat that course and may not write a supplemental for purposes of upgrading, except as provided by the Additional Regulations in the Faculty of Engineering.

2. A student may repeat a failed course only once.

3. A student who fails a course that is specifically required for a degree must take the course during the Session in which he next registers. If a required course is taken for the first time during the Summer Session and is failed, the student may postpone his registration for repetition of the course until the session following the regularly scheduled supplemental examination period for Summer Session Courses.

4. If a student repeats a course that is specifically required for a degree and fails it a second time, he/she may apply to Faculty Council for permission to substitute an alternate course. Unless such permission is granted, he/she will not be allowed to continue in the University toward that degree.

Student Request Committees of Faculty Councils

Each of the faculties has a Student Request Committee which is authorized to consider applications from students on matters relating to academic regulations.

The academic regulations for the degree of Bachelor of Computer Science shall be the same as those for the Faculties of Arts, Science, and Commerce and Administration. Any undergraduate student seeking adjust-
ment of an academic regulation should apply
on the appropriate form available at the
following Faculty offices:
Arts
Asst. Dean of Arts
Fine Arts
Asst. Dean of Fine Arts
Science
Assoc. Dean of Science
Commerce and Administration
Asst. Dean of Commerce
Engineering and Computer Science
Asst. Dean of Engineering

MSP and Independent Students
MSP and Independent students, including
those taking courses in the Engineering Fac-
ulty, are governed by the academic regu-
lations specified for the Faculties of Arts,
Science and Commerce and Administration.
MSP students seeking adjustment of an
academic regulation should submit requests
to the Student Request Committee of their
Faculty.

Independent students must submit all re-
quests relating to University regulations to
the Registrar and not to a dean or faculty

council.

Academic Re-Evaluation
I. General
1. Two alternative methods for handling
academic re-evaluation are set out below.
The first requires the appointment of a mod-
erator for each course in a department. The
second requires the appointment of a reader
to each application. Each chairman shall
decide which system is more suitable for his
own department, and so inform the dean of
his faculty.
2. Nothing in these regulations shall be
taken to prescribe the right of a faculty
member or chairman of a department to
review a grade upon request by a student
before formal application for a re-read or
re-evaluation is made.
3. The term "re-read" refers to the pro-
cess whereby a student appeals against a
grade received within a course, i.e., for a
research paper, or examination. The term
"re-evaluation" refers to the process where-
by a student appeals against his final grade
in a given course.

II. Appointment of Course Moderators
1. A moderator shall be appointed by the
department chairman for each course the
department offers.
2. The moderator for a course will normal-
ly be named from within the University, but
should have no responsibilities in the presen-
tation of the course. However, there may be
special circumstances which require the ap-
pointment of a moderator from outside.
3. To cover adequately multi-sectional
courses it may be necessary to appoint
several moderators.
4. The responsibilities of the moderator
shall be:
(a) To be aware of the objectives of the
course and its evaluation procedure prior to
its presentation;
(b) To be aware of the formal examina-
tion paper(s) of the course in the event of a
candidate applying for a re-read in it;
(c) To attend all formal oral examinations
in the course;
(d) To re-read all work representing a
major part of the final mark in the course in
the event of a candidate applying for a
re-read in it.

III. Appointment of Readers
1. A reader shall be appointed by the
chairman of the department on the receipt of
an application for a re-read. He will normally
be named from inside the University, but
may be named from outside.
2. The reader shall make himself aware of
both the nature and structure of the course
and the characteristics of the particular ex-
amination.
3. Should the chairman of the department
be the instructor of the course, he shall be
replaced by the dean.

IV. Re-Reading and Re-Evaluation
Procedures
1. The following procedures shall govern
the re-reading of examinations whether final
or supplemental and the re-evaluation of
grades:
2. Any application for a re-read or re-
evaluation must be made to the Registrar.
3. An application must be made within 14
days of the release of the grade in question.
This delay may be extended in particular
cases by the Registrar, but it shall not be
extended unless the person applying for a
re-read could not reasonably have acted
within fourteen days.
4. The application must be submitted to
the Registrar's office, and should be present-
ated on the special form obtainable there. It
must specify the nature of the re-read or
re-evaluation claimed — e.g., for examina-
tion or course, and the grounds for the
application. The Registrar may require fur-
ther explanation from the student.
5. The application must be accompanied
by a fee of $10.00, which is refundable if the
grade is raised.
6. The Registrar shall file the application,
and send a copy to the chairman of the
department concerned so that the re-read or
re-evaluation can be carried out.
7. The chairman of the department shall
then have the re-read or re-evaluation carried
out by the course moderator if one has been
appointed and is available, or by a reader if a
moderator has not been appointed or is
unavailable.
8. The re-read or re-evaluation shall be
carried out privately, not in the presence of
the applicant or his representative.
9. When the moderator or reader has
completed the re-read or re-evaluation he
shall return the work that he has re-read or
re-evaluated to the chairman with his own
grade.
10. If the moderator or reader agrees with
the original grade, the chairman shall return
the paper or papers to the Registrar with a
statement to this effect.
11. If the moderator or reader changes
the grade, the change should be agreed to
by both the instructor who gave the original
grade and the chairman before the material
is returned to the Registrar. If the instructor is
not available, the agreement of the chairman shall suffice.
12. If the original instructor disagrees with the change, the decision as to what grade is to be given devolves on the chairman of the department, who will indicate this fact in his statement to the Registrar.
13. The Registrar shall inform the applicant of the re-read or re-evaluation decision.
14. A grade can be either raised or lowered by a re-read or re-evaluation.
15. The re-reading or re-evaluation procedure should normally be completed within 21 days of the receipt of an application.
16. Either a moderator or a second member of faculty must be present at any formal oral examinations. Application for a re-read or re-evaluation shall be referred to the moderator or the member of faculty who was present at the oral.
17. There is no further appeal once a re-read or re-evaluation decision has been rendered.
18. An application for re-evaluation of a course grade may be refused if the student has not either handed in two copies of all term papers to the instructor or left the original papers with him.
19. Examination scripts shall be retained on the university premises for a period of six months from the close of the examination period.
20. Department chairmen are responsible for ensuring that examination scripts are available for re-reading, and that an appropriate person is always available to carry out re-reads within the time period established.

V. Notes
1. In order to minimize the number of re-read or re-evaluation applications, any faculty member who has papers graded by a teaching assistant shall personally check all failing papers as well as papers close to the borderline for grades or classes before submitting the results.
2. The Student Request Committees of the various faculties shall not be involved in re-reads or re-evaluations.

Conduct During Exams Undergraduate
I. General
1. The candidate taking any form of examination shall not use or attempt to use any material in any form except that which is expressly authorized by those conducting the examination.
2. A candidate shall not speak or otherwise communicate with another candidate or with any person other than the invigilator(s) or instructors except when such communication is expressly authorized by those conducting the examination.
3. Every examination paper shall expressly indicate the materials that a candidate is permitted to have with him during the examination, such as text books with notations, text books without notations, slide rules, etc.
4. Every examination paper shall expressly indicate the length of the examination and special conditions, if any, such as permission for students to work together, etc.
5. The invigilators or other persons conducting an examination may at their discretion transfer a candidate from one location in the examination room to another.
6. It is the duty of invigilators or of other persons conducting an examination to report to the Registrar in writing any apparent instance of cheating as defined in section II. 1 below.
7. Where the word “examination” is used in these regulations it shall be taken to mean “examination, test or similar evaluative exercise”.

II. Cheating
1. Cheating means any dishonest or deceptive practice relating to an examination, and more particularly, but not restrictively, includes the following:
(a) Making use of any book, paper, script, writing, drawing or anything else not expressly authorized by those conducting the examination;
(b) Communicating during an examination with any person other than one of those conducting the examination for the purpose of obtaining for oneself or providing to another candidate unauthorized assistance in the taking of the examination;
(c) Attempting to do any of the above;
(d) The possession of any unauthorized book, paper, script, writing, drawing or anything else not expressly authorized by those conducting the examination will be accepted as proof of attempting to cheat.
2. A candidate who is to be charged with cheating during an examination shall be so informed by one of the persons conducting the examination, and his taking of the examination shall be suspended forthwith. One of the persons conducting the examination shall take the candidate’s examination book, where there is one, as well as any other evidence relating to the charge, and the candidate shall be required to leave the examination room immediately.
3. As soon as is reasonably possible after examination, evidence shall be delivered to the Registrar, who, if he deems it appropriate to proceed, shall see that a written charge is prepared and transmit it to the dean of the faculty in which the candidate is registered.
4. The charge shall be made in writing, and must be dated and signed by the person who is making it. The allegations must be stated therein in such a way as to inform the candidate with precision what allegations are being made against him.
5. The dean shall send, as soon as is reasonably possible, a copy of the charge to the candidate, and shall inform the candidate of the procedures and sanctions relating to the charge. The dean shall also ask the candidate, in writing, whether he admits or denies the charge.
6. The candidate shall admit or deny the charge, in writing, within 14 days of the date of its mailing to him at the last address given by him to the University. This delay may not be extended unless the candidate could not reasonably have acted within the 14 days.
7. Where the candidate admits the charge, the dean shall apply one of the sanctions set out in II.14 below.
8. Where the candidate does not admit or deny the charge as provided above, the
ACADEMIC REGULATIONS: SIR GEORGE WILLIAMS CAMPUS

16.4.2

CAMPUS IDENTIFIED REGULATIONS:

16.4.2

(a) a hearing by the dean himself, or;
(b) a hearing by a committee of three persons, selected by the dean from a panel nominated by the candidate's faculty council.

Where the candidate chooses the latter form of hearing, he may choose that the committee consist of three faculty members, or two faculty members and one student, or one faculty member and two students. Where he does not make this choice, the dean shall make it.

10. The candidate has the right to be present at the hearing on the charge.

11. The decision of the dean of the committee, as the case may be, shall be in writing and shall be a reasoned one. A copy of the decision shall be sent to the candidate.

12. The candidate and the Registrar shall have a right of appeal to Senate either against the decision of the dean or the committee, as the case may be, or against the sanction imposed. A notice of such appeal shall be made in writing to the Secretary of Senate within 21 days of the decision referred to above in the case of the candidate, and within 7 days in the case of the Registrar. These delays may be extended in exceptional cases by Senate.

13. The appeal shall be heard and decided in the manner deemed most appropriate by Senate.

14. Where a candidate admits or is found to have cheated the dean shall impose one of the following sanctions:

a. The imposition of a failing grade for the course related to the examination in which the cheating occurred, inability to write a supplemental examination in that course, and the obligation to take and pass the equivalent of one six-credit course, in addition to the total number of credits required for the programme in which the candidate is registered;
b. The sanction provided in subsection (a) above and the obligation to take and pass the equivalent of a further one, two, or three six-credit courses in addition to the total number of credits required for the programme in which the candidate is registered;
c. The sanction provided in subsection (a) above, together with loss of all credits for courses taken during the year in which the cheating occurred and suspension from the University for the remainder of that year;
d. The sanction provided for in subsection (c) above and suspension for an additional period of not more than one year;
e. Loss of all credits for courses taken during the year in which the cheating occurred and expulsion from the University.

A year shall begin on September 1 and end on August 31 if the charge relates to an act occurring in the winter session, and from June 1 to May 31 if the charge relates to an act occurring in the summer session.

15. Should a candidate either admit or be found to have cheated as provided above for the second time he shall be expelled from the University.

16. A sanction of suspension or expulsion as provided above is subject to confirmation by the Rector of the University.

17. Should a charge against a candidate not be proceeded with or upheld, the dean of the candidate's faculty and the Registrar shall take the appropriate steps for the candidate to be evaluated.

18. Wherever reference is made above to a dean or any other official of the University, and the dean or other official is unable to exercise his functions, the person who is replacing him shall carry out those functions.

Plagiarism Undergraduate

I. General

Plagiarism, for the purpose of these regulations, includes the presentation or submission by a student of another person's work as his own.

II. Procedures and Sanctions

1. If an instructor has reason to believe that a student has committed plagiarism, as defined above, he shall immediately inform the student concerned and discuss the circumstances with him.

2. After such discussion, the instructor shall:

(a) decide that no further action is necessary, or;
(b) require that the work be resubmitted with appropriate changes, or;
(c) give the student an "R" grade in the course for which the work was done, or;
(d) refer the matter to the chairman of the department.

3. If the instructor's decision is that set out in 2(a) or 2(b), the matter shall be considered closed. If the decision is that set out in 2(c), the student may appeal it to the chairman of the department.

4. Should a student appeal a decision as set out in 2(c), the chairman of the department shall:

(a) uphold the award of the "R" grade, or;
(b) cancel the "R" grade and decide no further action is necessary, or;
(c) cancel the "R" grade, and require that the work be resubmitted to the instructor with appropriate changes.

The chairman's decision shall be final.

5. If the matter is referred to the chairman of the department, as set out in 2(d), and an appropriate departmental committee exists, he shall refer it to that committee.

6. If an appropriate committee exists, the committee shall review all the circumstances with the instructor and the student, and shall:

(a) decide that no action is necessary, or;
(b) require that the work be resubmitted with appropriate changes, or;
(c) decide that a formal charge shall be made against the student.

If the committee's decision is that set out in 6(a) or 6(b), the matter shall be considered closed.

7. If the matter is referred to the chairman of the department as set out in 2(d) and no appropriate departmental committee exists,
the chairman shall review all the circumstances with the instructor and the student, and shall:

(a) decide that no action is necessary, or;
(b) require that the work be resubmitted with appropriate changes, or;
(c) decide that a formal charge shall be made against the student.

If the chairman’s decision is that set out in 7(a) or 7(b), the matter shall be considered closed.

8. If either the appropriate committee or the chairman of the department decides that a formal charge shall be made against the student, the chairman shall send that charge to the dean of the faculty in which the student is registered.

9. The formal charge to the dean shall be made in writing, and be dated and signed by the chairman of the department. The allegations must be stated there in such a way as to inform the student with precision what allegations are being made against him.

10. In the event that the instructor is himself chairman of the department, the dean of his faculty shall appoint another member of the department to act in his place.

11. The dean shall send, as soon as is reasonably possible, a copy of the charge to the student and shall inform the student of the procedures and sanctions relating to a formal charge. The dean shall also ask the student, in writing, whether he admits or denies the charge.

12. The student shall admit or deny the charge, in writing, within 14 days of the date of its mailing to him at the last address given by him to the University. This delay may be extended in exceptional cases by the dean, but it shall not be extended unless the student could not reasonably have acted within the 14 days.

13. Where the student admits the charge, the dean shall apply the sanction set out below.

14. Where the student does not admit or deny the charge, the dean himself shall conduct a hearing on the charge.

15. Where the student denies the charge, the dean shall offer him a choice of:
(a) a hearing by the dean himself, or;
(b) a hearing by a committee of three persons, selected by the dean from a panel nominated by the student’s faculty council.

Where the student chooses the latter form of hearing, he may choose that the committee consist of three faculty members, or two faculty members and one student, or one faculty member and two students. Where he does not make this choice, the dean shall make it.

16. The instructor and the student have the right to be present at the hearing on the charge.

17. The decision of the dean or of the committee, as the case may be, shall be in writing and shall be a reasoned one. A copy of the decision shall be sent to the instructor and the student.

18. The student shall have the right of appeal to Senate against the decision of the dean or of the committee, as the case may be. A notice of such appeal shall be made in writing to the Secretary of Senate within 21 days of the decision referred to above. This delay may be extended in exceptional cases by Senate.

19. The appeal shall be heard and decided in the manner deemed most appropriate by Senate.

20. A student who admits that he has committed plagiarism or is found to have committed plagiarism as set out in a charge under paragraph 9 shall be expelled or suspended from the University for the remainder of the year and not more than one additional year, such year beginning on September 1 and ending on August 31 if the charge relates to an act occurring in the winter session, and from June 1 to May 31 if the charge relates to an act occurring in the summer session; or have imposed any of the lesser penalties available to the instructor as set out in 2 (b) or 2 (c). All credits for courses taken during the full year as described herein shall be cancelled.

21. Should a student either admit or to be found to have committed plagiarism as set out in a charge under paragraph 9, for the second time, he shall be expelled from the University.

22. A sanction of suspension or expulsion as provided above is subject to confirmation by the Rector of the University.

23. Should a charge of plagiarism as set out under paragraph 9 against a student not be upheld, the dean of the student’s faculty shall take the appropriate steps to have the work that was the subject of the charge evaluated.

24. Wherever reference is made above to a dean or any other official of the University, and the dean or other official is unable to exercise his functions, the person who is replacing him shall carry out those functions.
17 Medals and Prizes
17 Medals and Prizes

17.1 Loyola Campus

17.1.1 GRADUATION
The Loyola Campus Medal — presented to a student who has displayed distinctive leadership ability through both academic and non-academic achievement.
The Governor General's Medal — presented by His Excellency, the Governor General of Canada, and awarded to the highest ranking student graduating with the degree of Bachelor of Arts.
The Loyola Science Medal — awarded to the highest ranking student graduating with the degree of Bachelor of Science.
The Loyola Commerce Medal — awarded to the highest ranking student graduating with the degree of Bachelor of Commerce.
The Loyola Engineering Medal — awarded to the highest ranking student graduating with the degree of Bachelor of Science (Engineering).
The Malone Medal — presented by the Loyola Students' Association in honour of Rev. Patrick G. Malone, S.J., and awarded to the graduating student who has made the outstanding contribution to non-academic activities on the Loyola Campus.
The Michael Watson Prize — awarded to the graduating student with the highest standing in Biology.
The Celanese Canada Limited Prize for Chemistry — awarded to the graduating student with the highest standing in Chemistry.
Merit Award, The Society of Chemical Industry — Canadian Section — awarded to the student majoring or honoring in Chemistry with the highest standing in the final year of this programme.
The Celanese Canada Limited Prize for English — awarded to the graduating student with the highest standing in English.
The Economics Medal — awarded to the graduating student with the highest standing in Economics.
The Accountancy Prize — awarded to the graduating student with the highest standing in Accountancy.
The Business Administration Prize — awarded to the graduating student with the highest standing in Business Administration.
The French Language Prize — presented by the Government of France and awarded to the graduating student who has shown the most progress in French language courses.
The German Language Prize — presented by the Government of the Federal Republic of Germany, and awarded to the graduating student who has shown the most progress in German language courses.
The Philosophy Medal — awarded to the graduating student with the highest standing in Philosophy.
The Physics Medal — awarded to the graduating student with the highest standing in Physics.
The Renee Vautelet Prize for Political Science — awarded to the graduating student with the highest standing in Political Science.
The Mme. Alfred Thibaudet Prize for Political Science — presented by Miss Madeleine Thibaudet, and awarded to the graduating student with the second highest standing in Political Science.
The Theology Medal — presented by the Most Reverend Leonard J. Crowley, and awarded to the graduating student who has been most creative and productive in the field of Theology.
The Brodrick Award — established in honour of Dr. Robert Brodrick, and awarded to a graduating student athlete who has been outstanding in academic and extracurricular endeavours.
The Dr. Jacques Smith Memorial Prize — presented by Dr. Kurt Ekler in memory of Dr. Jacques Smith, and awarded to the graduating student with the highest standing in Biology, who is planning to pursue a career in medicine.
The Loyola English Medal — presented by the Loyola Foundation in honour of Rev. Gerald MacGuigan, S.J., and awarded to the graduating English Honours student who has written the best English Honours essay.
The O'Connor-O'Hearn History Prize — awarded to an outstanding graduating student in History, who has combined leadership with academic achievement.
The William H. Atherton Prize for History — awarded to a student for outstanding research in Canadian History.
The A. G. Hooper Prize — awarded for the best essay on a given subject in the literature of the Middle Ages, the Renaissance or the xviith Century.

17.2 Sir George Williams Campus

17.2.1 GRADUATION
The Birks Medal — presented by Henry Birks & Sons (Montreal) Ltd., and awarded to the highest ranking student graduating with the degree of Bachelor of Arts.
The Mappin Medal — presented by Mappin’s Ltd., and awarded to the highest ranking student graduating with the degree of Bachelor of Science.
The Frost Medal — presented by Charles E. Frost & Co., and awarded to the highest ranking student graduating with the degree of Bachelor of Commerce.
The Chair Medal — awarded to the highest ranking student graduating with the degree of Bachelor of Engineering.
The Alfred Pinsky Medal — awarded to the highest ranking student graduating with the degree of Bachelor of Fine Arts.
The Computer Science Medal — awarded to the highest ranking student graduating with the degree of Bachelor of Computer Science.
Civil Engineering Medal — awarded to the graduating student with the highest standing in Civil Engineering.
Electrical Engineering Medal — awarded to the graduating student with the highest standing in Electrical Engineering.
Mechanical Engineering Medal — awarded to the graduating student with the highest standing in Mechanical Engineering.
Association of Alumni Award — awarded to the graduating student who, in the opinion of the Scholarship Committee, has by his activities, achievements and interests won the outstanding commendation of his fellows and of the faculty.
The Robert C. Rae Prize in Applied Social Science — awarded to the graduating student with the highest standing in Applied Social Science.
The Sun Life Prize in Economics — presented by the Sun Life Assurance Company of Canada, and awarded to the graduating student with the highest standing in Economics.
The Governor-General’s Medal — presented by His Excellency, the Governor General of Canada, and awarded to the graduating student showing the highest achievement in English language and literature.
The French Prize — awarded to the graduating student with the highest standing in French.
The Bogdan Zaborski Medal — awarded to the graduating student with the highest standing in Geography.
The Martin Lewis Memorial Prize in History — awarded to the graduating student with the highest standing in History.
The Interdisciplinary Studies Prize — awarded to the graduating student with the highest standing in Interdisciplinary Studies.
The Modern Languages, Classics, or Linguistics Prize — awarded to the graduating student with the highest standing in Modern Languages.
The W. R. Fraser Medal for Philosophy — presented in memory of W. R. Fraser, professor emeritus, and awarded to the graduating student with the highest standing in Philosophy.
The Herbert F. Quinn Medal for Political Science — awarded to the graduating student with the highest standing in Political Science.
The J. W. Bridges Medal for Psychology — presented in honour of Dr. J. W. Bridges, professor emeritus, and awarded to the graduating student with the highest standing in Psychology.
The Boyd Sinyard Prize for Religion — awarded to the graduating student with the highest standing in Religion.
The Everett C. Hughes Medal — presented in honour of Professor Everett C. Hughes, and awarded to the graduating student with the highest standing in Sociology.
The Canadian International Paper Company Prize in Biology — awarded to the graduating student with the highest standing in Biology.
Merit Award, The Society of Chemical Industry — Canada Section — awarded to the student majoring or honouring in Chemistry with the highest standing in the final year of this programme.
The Corporation of Professional Chemists of Quebec Prize — awarded to the graduating student with the highest standing in any one of the programmes accepted by the Corporation of Professional Chemists of Quebec.
The Geology Medal — awarded to the graduating student with the highest standing in Geology.
The Mathematics Medal — awarded to the graduating student with the highest standing in Mathematics.
The Physics Medal — awarded to the graduating student with the highest standing in Physics.

17.1.2 UNDERGRADUATE
The Chemical Institute of Canada Prize — awarded to the student majoring, specializing or honouring in Chemistry with the highest standing in the penultimate year of this programme.

MEDALS AND PRIZES
17.2.1 SIR GEORGE WILLIAMS CAMPUS: GRADUATION


**MEDALS AND PRIZES**

17.2.1 SIR GEORGE WILLIAMS CAMPUS: GRADUATION

The **Ross Medal** — awarded to the graduating student with the highest standing in Accountancy.

The **Finance Medal** — awarded to the graduating student with the highest standing in Finance.

The **Management Medal** — awarded to the graduating student with the highest standing in Management.

The **Marketing Medal** — awarded to the graduating student with the highest standing in Marketing.

The **Quantitative Methods Medal** — awarded to the graduating student with the highest standing in Quantitative Methods.

17.2.2 UNDERGRADUATE

The **Chemical Institute of Canada Prize** — awarded to the student majoring, specializing, or honouring in Chemistry with the highest standing in the penultimate year of this programme.

The **Helen McNicoll Art Prize** (Helen Galloway McNicoll, Canadian Painter - 1879-1915) — to be awarded annually to an undergraduate student entering the third year in Fine Arts. The prize will be awarded in alternate years to students who have shown outstanding talent in Visual Arts and to students who have excelled in Art History (preferably Canadian or North American). The prize will be awarded upon the recommendation of the Faculty of Fine Arts.

The **Montreal Economics Association Award** — awarded to the student majoring, specializing, or honouring in Economics with the highest standing in the penultimate year of the programme.

The **Hebrew Culture Organization of Canada Prizes** — The Samuel Kizell Memorial Prize and another prize, both awarded for excellence in the study of the Hebrew language.

Prix du Département de Français

Prix du Consul général de Belgique

Prix du Consul général de France

Prix du Consul général de Suisse

17.2.3 SPECIAL

**First Graduating Class Award** — presented by the first graduating class of the Faculty of Arts, Science and Commerce, known as the Guinea Pig Club, for the most outstanding new contribution, either academic or extracurricular, to student life.

**NOTE:** Awards will be made when merited only.
18 Student Services

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  18.6.9 Security

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  18.7.2 Rights and Responsibilities of Members
  of the University — SGW Campus
  and the SGW Ombudsman Office
18.1 Department of Physical Education & Athletics

The Department of Physical Education and Athletics is designed to offer a complete and diversified programme to meet the varied interests of today's students. The programme has been cited as one of the outstanding contemporary models in the country. The aim is to provide an opportunity for all students to participate and not just the dextrous few who play varsity sports.

18.1.1 INTRAMURALS
The Intramural programme, which operates on both the Loyola and Sir George campuses, offers a varied selection of popular and individual sports for men and women under the supervision of professionally-trained instructors. The program is divided into three separate classifications: Co-ed Recreational — provides students with recreational physical activity in a relaxed social setting. Co-ed Instructional — provides students with expert instruction in the fields of martial arts, modern dancing and sports. Competitive Intramurals — designed to accommodate the entire student body, and to provide keen competition in both team and individual sports.

The activities offered include: Aikido, Archery, Badminton, Basketball, Bodybuilding, Boxing, Broomball, Cheerleading, Curling, Fencing, Fitness Classes, Floor Hockey, Football, Golf, Hockey, Ice Skating, Jazz Ballet, Judo, Karate, Kung Fu, Modern Dance, Netball, Outdoors Club, Riflery, Ringergette, Rock Jazz, Ski-Conditioning, Soccer, Softball, Table Tennis, Tae-Kwon-Do, Tai Chi, Tennis, Volleyball, Weightlifting and Yoga.

Concordia students may sign up for activities at either campus.

18.1.2 INTERCOLLEGIATE
Because varsity teams are limited in number the junior varsity level has been set up to allow greater numbers of students to participate. It operates as an extension of men's intramurals, and acts as a training ground for the varsity level.

The traditionally strong Varsity programme is primarily for students with playing experience. The 1975-76 academic year marked the first time that there was one unified department representing both the Sir George and Loyola Campuses. The new Concordia Varsity Squads are expected to maintain the excellent reputation enjoyed by Loyola and Sir George in the past. Any student wishing to participate in Varsity Athletics is subject to QUAA and CIAU eligibility rules, which state that the student must be enrolled as a full-time student at the University. The Women's Varsity Programme offers women students the opportunity of competing at the intercollegiate level within the Quebec University Athletic Association.

18.1.3 FACILITIES
The south campus is the focal point of all Physical Education action on the Loyola
Campus, and includes full-length playing fields, outdoor activities, and a modern $3,000,000 physical education centre.

The centre contains facilities for men and women, a spacious gymnasium, and an ice arena. Other areas include a training and rehabilitation centre equipped with ultra-sonic and hydro-therapeutic equipment; an activities room; administration offices; numerous dressing rooms; a press box; snack bar; table tennis; a combatives room for individual contact sports and a weight-training room equipped with a 16 station universal gym.

The Sir George intramural programme is centered in Birks Hall and in the Downtown YMCA on Drummond St. The other facilities include the Royal Montreal Curling Club, H.M.C.S. Donnaconna and the Concordia Ice Rink. Details on all activities are included in the Department of Physical Education and Athletics Calendar which is issued at registration. For further information, call 482-0320, Ext. 730 (Loyola Campus) or 879-5840 (Sir George Campus).
18.2 Office of Guidance Services
Concordia University

Director
J. A. SPROULE, BA, MPsSc

Assistant Directors
F. W. DENTON, MA
J. P. HALE, BA

Counsellors
R. C. BONCORE, BA, MAsc
A. J. CONLON, BA, BTh., MEd
J. C. GELLERT, BA, MSc
J. GOLDNER, BA, BCom., BSW
S. M. GRAUB, MA, DEd
D. P. KREDL, BA, MEd
D. M. PLUMMER, BA, MEd

Counsellors, Evening Staff
B. BULTZ, MA, PhD
E. GUTBRODT, BA, PhD

Consultant Psychiatrist
G. DA SILVA, MD

Guidance Librarians
V. CUMMINS, BA, MLS
D. GOLDBERG, BA, MLS

Reading and Study Skills Counsellor
D. P. OSBORNE, BA

Canada Manpower Counsellors
J. AMESSE
P. DAGENAIS, BA
G. RAIL, BCom—Manager
O. RAYSON

OFFICE OF GUIDANCE SERVICES

Loyola Campus
Centennial Hall
6935 Sherbrooke St. W.
Room M10
Phone 482-0320 Local 473

Sir George Williams Campus
1455 de Maisonneuve Blvd. W.
Room H-440
Phone 879-2879

The Concordia Office of Guidance Services had its origin in the establishment of an office of student counselling in the early years of the University. Its functions have widened in scope to include: (1) provision of individual and group counselling (2) an information service with special emphasis upon graduate and career planning (3) reading skills development and study skills programmes (4) research into factors affecting student progress and into the programmes and practices used in the Office of Guidance Services.

18.2.1 COUNSELLING

As practiced in the Office of Guidance Services, counselling covers the full range of problems inherent in the human experience. Specifically they may be grouped as follows:

Academic Counselling: which includes such problems as course planning, planning a major or honours programme, university familiarization and decisions pertaining to post-graduate training.

Vocational Counselling: the individual is helped to make a realistic career choice based upon his interests, abilities and other needs, reconciled with the available opportunities. In fact, there are many combinations of abilities, personality factors and needs that will lead to success in the same job for different reasons. Similarly there are many jobs that might fulfill the needs of one individual.

Personal Counselling: many students have problems that don’t devolve directly from their role in the University, but nevertheless affect their sense of well-being, e.g., family problems, social problems, depression, feelings of isolation and others.

Discussion with a trained counsellor is usually helpful in clarifying the issues and finding a way of coping with these problems. In practice students’ problems overlap into all three areas mentioned above. Needless to say anything revealed to a counsellor is held in the strictest confidence.

18.2.2 READING TRAINING CENTRE

The Reading Training Centre offers sev-
eral courses a year, each course has four schedules of day and evening sessions. These programmes are planned to help the student develop the skills necessary for the maintenance of acceptable academic standards.

The main focus is on the techniques of efficient reading and study skills since printed material is still the primary source of learning. Some direction is given, however, in the associated learning skills of listening, note-taking and using the library.

The basic aims of the Effective Reading Programmes are:

1. To teach the skills of effective reading:
   a) rapid reading
   b) skimming and scanning
   c) study reading
2. To demonstrate study methods and to stimulate self-development in these skills.
3. To create awareness of purpose in all reading activities and to retain flexibility in adapting rate and technique to such purposes.

When acquired, these skills lead to an increase in the rate of reading and to improvement in the ability to understand and process materials at a faster rate. Skills are learned and developed through lecture, demonstration and practice. Controlled reading films, skimmers and reading accelerators are used to help the student gain facility in reading tasks.

18.2.4 CANADA MANPOWER CENTRE — SGW CAMPUS
2020 Mackay Street 283-5177

This service, staffed and operated in cooperation with the Canada Manpower Centre, functions to assist students in exploring opportunities for part-time, summer and full-time employment. Notices from employers are posted and students are invited to discuss these with a Placement Officer who will assist in arranging interviews with employers’ representatives as appropriate.

The extensive information services of the Canada Manpower Centre and the Guidance Information Centre are of particular interest to those undergraduates, graduating students and graduates who wish to fully explore career opportunities with a view to permanent employment.

All those who wish to use the services of the Canada Manpower Centre should register early. Those seeking permanent employment should register soon after the academic session opens as many employers begin recruiting visits in mid-October. Students seeking temporary summer work are advised to register as early as January. An open invitation is extended at all times of the year to students who wish to discuss their employment and career plans.

For Canada Manpower Centre — Loyola Campus, please see § 18.4.8.

18.2.3 GUIDANCE INFORMATION CENTRE

It is the aim of this centre to provide students with information as an aid to their making appropriate choices and decisions, particularly as related to graduate and career planning.

The centre maintains an extensive and up-to-date library of educational and occupational information, including a collection of university announcements from Canada and abroad, directories of universities, disciplines and programmes, compilations of financial aid for postgraduate studies, information on graduate school admission tests, a collection of career materials, guides to special service, travel and work programmes abroad, information on companies offering employment and pamphlets written to assist in the preparation of curriculum vitae and personal résumés. There is also a collection of books and pamphlets treating the general themes of love, family life and personal development.
18.3 Scholarship and Financial Aid Information

Financial Aid and scholarship information is available on both campuses of Concordia University.

These offices exist solely to help students find the sources of financial aid available to them, to explain the current regulations and norms of eligibility and to assist students in solving individual budgetary problems.

18.3.1 CONCORDIA WIDE SCHOLARSHIPS

A scholarship is awarded in recognition of outstanding academic achievement.

If a student holding a scholarship decides to change faculty, he will retain the scholarship only on condition that he receives the approval of the Scholarship Committee.

No student may hold more than one scholarship from the university at any one time.

Concordia University Entrance Scholarships

A number of Tuition Scholarships are available to students entering University 1. They are awarded by the Scholarship Committee on the basis of academic achievement during the first three semesters of CEGEP. Applications are available from the Financial Aid offices and must be returned prior to March 1. These scholarships have a value of $500, and are renewable as long as the same high level of achievement is maintained.

BP Canada Scholarship: Number 2, value $500 each. To be awarded to students in a discipline related to the petroleum industry.

General Motors of Canada Limited Scholarships: Concordia University has been allocated $1,000.00 scholarships for each of two students who are in the final two years of their program. Ideally, there should be one student in the penultimate year and one student in the final year of study. Students eligible for scholarships must be in one of the following disciplines: Engineering, Business Administration, Economics, Commerce or Finance. The student must have career objectives applicable to the automotive industry and the scholarship will be conditional that the students work for the company prior to receiving the scholarship award.

Scholarships Offered by Companies' Associations and Societies

Bank of Nova Scotia Bilingual Exchange Scholarships: Six annual one-year undergraduate and graduate awards are available, three to French-speaking candidates and three to English speaking candidates. Undergraduate awards are for $1,500.00 tenable in the second to last year of a first university degree programme. Graduate awards are for $3,000.00 and graduate students will be expected to outline their proposed programmes of study. English-speaking winners may attend any Canadian French-speaking university or college and French-speaking winners may attend any Canadian English-speaking university or college provided it is a member, or federated with, or affiliated to, a member of the Association of Universities and Colleges of Canada. Apply to the Director of Awards, Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario. Completed applications must be sent to the above address to arrive not later than March 1st.

Harry F. Bennett Education Fund: The purpose of this Fund is to make loans to deserving students who need financial assistance to enable them to study Engineering Sciences at university level and who have proved themselves by successfully completing their first year in Engineering or the equivalent. The Engineering Institute of Canada, 2050 Mansfield Street, Montreal, Quebec.

The Building Trades Joint Committee Scholarship: A five-year scholarship is available to a student entering into the Faculty of Engineering. This award covers full tuition
fees for five years subject to a satisfactory academic standing. Applicants must be the sons of employees engaged in the construction industry in the District of Montreal. Mr. Armand Bristebois, Personnel and Office Manager, The Construction Industry Joint Committee of the Region of Montreal, 3530 Jean-Talon St. West, Montreal, Quebec.

Canadian Federation of the Blind Bursary: Bursary assistance is awarded to a registered blind person or his parents. In awarding this bursary, preference will be given to members of the Canadian Federation of the Blind and in particular to those people domiciled in the Province of Quebec. Mr. Gordon L. Mc. Gitlon, Corresponding Secretary, Montreal Branch, Canadian Federation of the Blind, 1172 St. Matthew Street, Montreal, Quebec.

Canadian Forces Benevolent Funds: The Canadian Forces Benevolent Funds consider applications from veterans for bursaries on behalf of their sons or daughters who are full-time students. Apply to the nearest local office of the Department of Veterans' Affairs.

Celanese Canada Limited: Several entrance scholarships in any course leading to a baccalaureate degree offered to the children of employees or annuitants of Chemcell or its subsidiary companies. Further information and application forms should be requested directly from the Director of Awards, Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario. Completed forms, in triplicate, are to be sent directly to the same address to arrive not later than June 1st.

Consumers Glass Company Limited University Education Awards Plan: Open to children or wards of employees and retired employees of Consumers Glass Company Limited for a full-time course of study in any Canadian university or college recognized by the Association of Universities and Colleges of Canada. Value: $750.00 per year for a maximum of four academic years, or until a first degree is obtained, whichever occurs first. Awards are automatically renewed provided the students establish continuing eligibility and successfully complete the preceding academic year. Further information and application forms, which must be submitted by June 30th, may be obtained from the Director of Awards, Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario.

Continental Can Company Limited (Canadian Scholarship Plan): The Carie C. Conway Scholarship is offered to the children or grandchildren of the Company's employees. Application forms should be requested from the plant managers or district sales managers. The completed forms, in triplicate, are to be sent to the Director of Awards, Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario.

The Continental Insurance Companies (Canadian Scholarship Plan): University entrance scholarships in courses leading to baccalaureate degrees may be applied for by the natural or adopted children, step-children or legal wards of one of the Continental Companies operating in Canada. Further information and application forms may be obtained from the Director of Awards, Association of Universities and Colleges of Canada, 151 Slater Street, Ottawa, Ontario. Applications must be sent directly to the same address no later than June 1st.

Government of Quebec Department of Natural Resources Scholarships: The Department of Natural Resources of Quebec offers bursaries to enable students to take a university degree in geology in the Province of Quebec. Further information may be obtained from the Secretary, Scholarship Committee, Quebec Department of Natural Resources, Parliament Buildings, Quebec, Quebec. Also open to graduate students in Metallurgy, Mining, Engineering and Geology.

Gulf Oil Canada Limited: Several university entrance scholarships are awarded annually to the children, natural or adopted, of employees and annuitants of Gulf of Canada and its subsidiary companies in Canada. Further information and application forms should be requested from the Director of Awards, Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario. Completed applications, in triplicate, are to be sent directly to the same address to arrive not later than June 1st.

Imperial Oil Higher Education Awards: Imperial Oil Limited offers, annually, free tuition and other compulsory fees to all children or wards of employees and annuitants who proceed to higher education courses. The courses may be taken at any Canadian university or other approved institution of higher learning. Each award is tenable until the attainment of a first degree or for a maximum of four years. To be eligible a student must attain an average of 70% or more in a college year upon which application is based. Further information and application forms may be obtained from The Secretary, Committee on Higher Education, Imperial Oil Limited, 111 St. Clair Avenue West, Toronto, Ontario.

Iron Ore Company of Canada (Scholarship Plan): A limited number of entrance scholarships for study towards a first degree are offered to children or wards of employees or annuitants or deceased annuitants of the parent or subsidiary companies. Further information and application forms should be requested from the Director of Awards, Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario. Completed applications, in triplicate, are to be sent directly to the same address to arrive not later than June 1st.
Lebanese Syrian Canadian Association: The Lebanese Syrian Canadian Association award annually a series of scholarships to students of Lebanese, Syrian descent. The Chairman, Scholarship Committee, Lebanese Syrian Canadian Association, 40 Jean-Talon East, Montreal, Quebec.

Leonard Foundation Scholarships: Applications for scholarships must be filed before March 31st of each year. Preference in the selection of students for scholarships shall be given to the sons and daughters of clergymen, school teachers, Officers, Non-Commissioned Officers and Men (active or retired) who have served in Her Majesty’s Military, Naval or Air Forces, graduates of the Royal Military College of Canada, members of the Engineering Institute of Canada, members of the Mining and Metallurgical Institute of Canada. Mrs. R. B. White, Senior Trust Officer, Canada Permanent Trust Company, 253 Bay Street, Toronto 1, Ontario.

Quebec Cartier Mining Company: A limited number of four-year or first degree entrance scholarships are offered to candidates whose parents or legal guardians have been employees of the company for at least four years. Further information and application forms may be obtained from the Director of Awards, Association of Universities and Colleges of Canada, 151 Slater Street, Ottawa, Ontario.

R.C.A.F. Benevolent Fund: The Royal Canadian Air Force Benevolent Fund has made provisions for loans for the benefit of former R.C.A.F. personnel or their dependents. Apply to R.C.A.F. Benevolent Fund, 685 Cathcart Street, Montreal, Quebec.

Texaco Canada Merit Scholarship Programme: Several entrance scholarships to provide up to a maximum of the first four years of undergraduate study may be applied for by dependent children, natural or legally adopted, of employees or annuitants or of deceased employees who died while employed by Texaco Canada. Application forms are obtainable by an employee from his supervisor. Completed applications, in triplicate, must be sent to the following address to arrive not later than June 1st: Director of Awards, Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario.

Financial Aid

Government Loan Plans: In all the Canadian Provinces a basic qualification for financial aid is that the applicant be a Canadian citizen or landed immigrant with one year’s residence and domicile in the province to which he is applying. This would be the province where his/her parents make their home.

The Province of Quebec: The Province of Quebec has an extensive program of student loans and bursaries available to students. For applications contact the Director, Financial Aid.

Physically Handicapped: Students in any faculty who are Canadian citizens and have been resident and domiciled in Quebec for two years, may apply for an outright grant if they have suffered from poliomyelitis, tuberculosis, certain forms of cardiac trouble, or some other physical disability. Apply to the Director, Financial Aid.

Ontario: Apply to the Director, Financial Aid.

New Brunswick: Apply to the Department of Youth and Welfare, Fredericton, New Brunswick.

For the Provinces of Alberta, British Columbia, Manitoba, Newfoundland, Nova Scotia, Prince Edward Island and Saskatchewan, write to the Provincial Department of Education.

Children of War Dead (Education Assistance) Act: Under this Act fees up to $800.00 and monthly allowances are provided for children of Canadian war veterans whose death was attributed to military service in World War I, World War II, or the Korean War. Apply to the Superintendent of Welfare Services at the nearest DVA District Office.

United States Students: Due to new statutory regulations required by the Education Amendments of 1972 all parents of students who wish to apply for Federal interest benefits must file a Parent’s Confidential Statement with the College Scholarship Service, Box 176, Princeton, New Jersey 08540. Request that it be sent to Concordia University, Loyola Campus, CSS Code No. 0932.

Maine and Oregon — Apply through the United Student Aid Fund, form 1070, available at your bank.

Students from other states — Apply to the Higher Education Assistance Corporation. Applications are available at your bank.

Due to the tight money situation, it is essential that you apply to the bank where your parents have an account, as early as possible.

NOTE: APPLICATIONS FOR GOVERNMENT AID SHOULD BE MADE AS SOON AS POSSIBLE. DO NOT WAIT FOR REGISTRATION.

Bursaries

Due to the greatly increased demand for financial aid, all students must apply first to their own province and/or state and accept maximum loan and bursary aid from these sources. Thus, Concordia University funds cannot normally be used to compensate for a student’s failure to apply for and accept the maximum government assistance available to them. If a student needs more than his maximum government assistance, a bursary may be granted.

The basic principle in awarding financial aid is the primary obligation to pay for an education rests with the students and...
their parents. This means that a student is expected to have savings from his summer employment and that parents must contribute according to their ability.

The Financial Aid Office exists solely to assist students and to help them find financial aid should they need it.

The IBM Canada Bursaries: Donated by the IBM Company as part of the IBM Canada Bursary Program. Awarded annually to needy undergraduates in any year and in any faculty who are in good academic standing. Value: $1000. Apply as soon as possible to the Director, Financial Aid.

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. The bursaries are awarded by the Foundation on the recommendation of the University Scholarship Committee and are not restricted to faculty or year and may be renewed. The number and amount of such awards may vary annually, depending upon the funds available for the purpose from the Foundation.

B’nai B’rith Hillel Foundation: A limited number of bursaries are available. Amount of each bursary granted from this fund may vary according to the need of the deserving student in any year or any faculty. Apply to Hillel House.

Canadian Italian Business & Professional Men’s Association: Bursaries are awarded to students of Italian origin or descent by the Association. Apply to the President, Trust Fund Committee. Application forms may be obtained from the Association at 892 Crescent Blvd. W., Montreal.

National Council of Jewish Women of Canada, Montreal; Section, Bursaries: A limited number of bursaries are awarded by the Council upon the recommendation of the Financial Aid Director. Academic standing and financial need are considered in making the award. Although there is no legal obligation, the Council hopes that the holder will, if possible, return the money at some future time so that other students may be helped.

Lebanese Syrian Canadian Association: The Lebanese Syrian Canadian Association award annually a series of scholarships to students of Lebanese, Syrian descent. Apply to The Chairman, Scholarship Committee, Lebanese Syrian Canadian Association, 40 Jean-Talon East, Montreal, Quebec.

The St. Andrew’s Society Bursary: $200.00 — Established by the St. Andrew’s Society of Montreal, for a needy student, preferably of Scottish blood, proceeding to a degree. Administered by the St. Andrew’s Society. Apply: Director, Financial Aid.

Financial Aid for Overseas Students

The scholarships, bursaries and loans offered by companies, associations, societies, foundations, departments of education and other government agencies are generally not available to students from overseas. Therefore, students studying on a student visa who require financial aid should contact their own department of education.

The Canadian International Development Agency offers training assistance to most developing countries with which Canada has a cooperation agreement; however, the student must be nominated by his/her own government.

Students should make sure of adequate finances before coming to Canada.

A minimum of $3000.00 Canadian would be required for one academic year. If a student does not plan to return home during the summer, four months of living expenses as well as summer tuition should also be provided for.

Concordia University Graduate Fellowships

A number of graduate fellowships have been established and will be awarded on the basis of academic achievement and the recommendation of the program in which the student is registered.

General Information

The Concordia Graduate Fellowships are awarded on a one-year basis. The amount of the awards varies from $2000 to $3500.

Eligibility

Candidates must be registered full-time in a graduate program with at least one year of residence remaining, and must have shown above average academic achievement.

How to Apply

A student applying simultaneously for admission to graduate studies at Concordia and for a Concordia Fellowship should send a copy of the Fellowship application form (available from the Research Officer or the graduate program director); a copy of the graduate studies application form together with a copy of all post-secondary transcripts and two reference form letters to the graduate program director of his/her department.

Deadline

The deadline for receipt by the graduate program director of the Fellowship application form with the appropriate documents is February 1.

Evaluation

Applications and transcripts are evaluated by the Graduate Awards Committee.

Announcement Date

It is expected that the names of the winners of the Concordia Graduate Fellowships will be announced on April 1.

Further Information

For further information, please contact Ms. A. Williams, Research Officer, Concordia University, Sir George Williams Campus, 879-5852.
Providence of Quebec Graduate Fellowships
The Minister of Education of the Province of Quebec has a generous programme of Graduate Fellowships available to students presently residing in Quebec. It is important to stress that these Fellowships are based primarily on High Academic Standing. Candidates requiring financial assistance and not having a high academic record should apply to the Province of Quebec, regular loans and bursary department. Forms are available from the Financial Aid Office on each campus.

Guidance Information Centre
The Centre collects information and application forms, if available, on loans, bursaries, scholarships, fellowships, grants-in-aid, etc. This includes aid offered by private foundations, associations and companies, from both Canadian and foreign sources.

Liaison Office
Opportunities exist for some students to assist the Liaison Office visiting CEGEPs and High Schools. Other help is required by the office from time to time during the year assisting in mailing, packaging and typing. Payment varies according to project. For more information contact the Liaison Office, Room N211 (Norris Building) or 879-4233, or Room AD-510 (Administration Building) or 482-0320, local 264.

18.3.2 LOYOLA CAMPUS ONLY
Scholarships:
Funded by The Loyola Foundation and restricted by the donors to Loyola Students.

The Malone Scholarships
The Malone Scholarships are awarded to students on the Loyola Campus who have combined high academic achievement with leadership ability, commitment to and involvement in the community. Three scholarships. Value full-tuition. One in each year.

Endowed Scholarships
Avon Products of Canada Scholarship: Book Bursary $50.
The Lilley F. Barry Scholarships: Number: Four. Value: $500 each.
The Gordon Bennett Memorial Scholarship: From the estate of the late Mr. Gordon Bennett. Number: 7. Value: $500 each.
The Charles J. Brown Scholarship: Donated by Mr. William J. Brown in memory of his father. Number: Two. Value: $400 each.
Ursula Carling Scholarship: From the estate of Mrs. U. Carling. Number: Two. Value: $500 each.
The Francis J. Dowling Scholarship: From the estate of the late Francis J. Dowling. Number: One. Value: $150.
The Kenneth J. McArdle Memorial Scholarship: Donated by Mrs. Mary McArdle. Offered to students in Science. Number: Two. Value: $400 each.
The R. C. Moore Memorial Scholarship: Open to a Loyola Campus student who does not already possess a scholarship, enrolled in either Honours Mathematics or Specialization in Mathematics (formerly Major in Mathematics) and entering U3 to be awarded on the basis of the marks obtained in Mathematics courses taken during U1 and U2. Number: One. Value: $150.
The Clarence G. Smith Memorial Scholarship: From the estate of Mrs. Elizabeth M. Smith in memory of her son, Clarence G. Smith. Number: Two. Value $500 each.
The James Weber Memorial Scholarships: Awarded in memory of a member of the Class of 1970. Number and value varies.

Bursaries
The Loyola News Memorial Bursary: Awarded annually to a student who has combined community involvement and a 70% average. The student may apply or be nominated. Number: One. Value: $450.
The George V. Uihlein Memorial Bursary: Awarded annually to a student who has an outstanding record in nonathletic extra-curricular activities and not less than a "B" average. The student may apply or be nominated. Number: One. Value: $100.
Touche Ross & Co. Bursary: Awarded annually to a student who is completing his penultimate year and will be entering his final year, majoring in accountancy in the Faculty of Commerce, and who intends to pursue the qualification of Chartered Accountant. Number: One. Value: $200.

Loan Funds
Through the generosity of the Birks Family Foundation, the B'nai B'rith Hillel Foundation and the National Council of Jewish Women, a certain amount of money has been placed with Loyola Campus to help students who demonstrate need and responsibility. Apply to Director, Financial Aid, Loyola Campus.

Loyola Campus Alumni Student Loan Fund: The loan fund exists to aid students who are in financial difficulties. Because of limited resources, the trustees of the loan fund will consider loans to students who: 1) have been successful in their set of final examinations at Loyola; 2) are prepared to

Part-time Students Loan Fund: The LESA has placed funds on deposit to enable part-time students to borrow up to $200 for 3 months. Apply to Director, Financial Aid.

18.3.3 SIR GEORGE WILLIAMS CAMPUS ONLY

Undergraduate Scholarships

Note: These awards are made on the basis of academic standing and recipients are selected from the Academic Honours List. No applications are necessary unless otherwise indicated.

Association of Alumni Presidents’ Scholarship: A scholarship in the amount of $100.00 is awarded to any student in any year or faculty on the basis of outstanding academic achievement during the preceding academic year.

The Late Captain Melville Greenshields Scholarship: This scholarship in the amount of $500.00 will be awarded to a deserving student of Art for the furtherance of his studies on the recommendation of the Fine Arts Faculty.

Compton-Lamb Memorial Fund: This scholarship established in memory of the late Neil Compton and Sidney Lamb shall be awarded annually in the Department of English. The recipient must be registering in the last five courses of an English Honours Programme. Application should be made to the Chairman, Department of English.

John A. Hale Memorial Scholarship: This scholarship has been established in memory of the late John A. Hale, a student of Sir George Williams University. This scholarship will be awarded annually to a deserving student entering the third year of a Bachelor of Computer Science programme on the recommendation of the Chairman, Department of Computer Science.

Henry F. Hall Scholarship: Established 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. This scholarship is awarded annually on the basis of merit to a student in any faculty of the University day or evening division.

Lucille Irvine Memorial Scholarship: This scholarship is awarded annually on the recommendation of the Chairman, Department of Psychology to an outstanding student of Psychology in either the day or evening division. This scholarship was established by Mrs. William Broidy in loving memory of the late Lucille Irvine, a devoted teacher and a former member of the university staff.

Kodak Scholarship: These scholarships will be awarded to Cinema students of outstanding merit upon the recommendation of the Faculty of Fine Arts.

Maynard Metcalf Scholarship: In the day division, a scholarship of $100.00 is awarded to a student in any year or faculty for outstanding scholastic achievement during the preceding academic year.

Helen MonicaI Art Prize: This prize is to be awarded in alternate years to third year students who have shown exceptional talent in Visual Arts and to third year students who have excelled in Art History (preferably Canadian or North American). Both selections are to be made upon the recommendation of the Faculty of Fine Arts. Value according to funds on hand.

The P. T. R. Pugsley Memorial Scholarship: Established by friends of the late Professor Pugsley to commemorate his many years of service as senior Professor of the Faculty of Commerce of Sir George Williams University. The scholarship of $150.00 is awarded annually to an outstanding student in the Faculty of Commerce, day or evening division.

Weldon Scholarship: Awarded annually to a deserving student in the Faculty of Engineering. The value of this scholarship fluctuates depending on current interest rates.

Zeller’s Scholarship: In the day or evening division, one scholarship of $100.00 to be awarded on the basis of high scholastic achievement in the third year of the Commerce degree curriculum.

Undergraduate Scholarship-Bursaries

Note: These awards are made on the basis of financial need and high academic standing. Applications for these awards should be forwarded to the Financial Aid Officer unless otherwise stated.

Arthur Andersen Company Scholarship-Bursary: A sum of money made available to students in any faculty with good academic standing who demonstrate financial need.

Association of Alumni Scholarship-Bursary: $100.00 is awarded annually to an undergraduate student in any faculty on the basis of need and academic standing.

Joel Birenbaum Memorial Bursary: This bursary of $450.00 is awarded each year, in memory of Joel Birenbaum, a student of Sir George Williams University. This award will be made to a needy, worthy student in the Faculty of Science. The value of this bursary may fluctuate depending on the current interest rates.

Henry I. Chinks Memorial Scholarship or Bursary: Awarded annually on the basis of need and academic standing to an evening student in the Faculty of Science, in the field of Chemistry. Recipient is chosen by the Chairman, Department of Chemistry.

Joseph Gilbert Joyce Memorial Scholarship or Bursary: This scholarship or bursary shall be awarded to an evening student in any faculty or year. The basis of award shall be academic standing, financial need and promise in his chosen field of study. The late Rev. J. G. Joyce, during his twenty-four years...
years' ministry at Verdun United Church, maintained a deep interest in the evening division of the University. This scholarship is established according to his conviction that knowledge and higher education should be available to those who seek to make a creative contribution to the development of mankind.

Alvin J. Gutman Scholarship-Bursary: A sum of $100.00 is available annually to a student from Africa or Asia.

Michael Hendriks Memorial Scholarship-Bursary: This award shall be granted to a final year student in the Faculty of Fine Arts based on academic excellence and financial need.

Marsh & McLennan Centennial Scholarship or Bursary: The Marsh and McLennan Limited Centennial Scholarship or Bursary shall be awarded annually to an undergraduate student who has completed at least one year at Concordia University. Selection shall be made based upon need and academic standing. (Preference will be given to a Commerce student.)

Nathan H. Messer Scholarships: Two scholarship-bursaries shall be awarded annually to needy, worthy students entering their final year and majoring or honoring in Accountancy.

Ela Moll Memorial Bursary: This bursary of $50.00 is awarded each year in memory of Ela Moll, a Fine Arts student of Sir George Williams University. This award will be made to a needy, worthy student in his/her second year, day division, B.F.A. programme in the Faculty of Fine Arts. Apply to the Fine Arts Faculty.

P.E.O. Scholarship: In the day or evening division, a scholarship of $50.00 is awarded annually to a female student in any year who demonstrates scholastic ability and has the need of financial assistance to pay her tuition fees.

Walter H. Pike Scholarship-Bursary: This bursary of $150.00 will be awarded to a deserving all-round student from any faculty.

Myer F. Pollock Scholarship: Awarded annually, to a needy, worthy student in the Faculty of Engineering. The value of this award fluctuates depending on the current interest rates.

The Anne Savage Memorial Fund: This bursary of $50.00 is awarded each year in memory of Anne Savage, painter and art educator. It is given to a deserving student in the Faculty of Fine Arts, upon the recommendation of the Faculty of Fine Arts Faculty Council. Applications should be made through the Fine Arts Faculty.

Walter Stenhouse Bursary: This bursary of $75.00 established by Mrs. E. Pavey and Mrs. J. Tombs, and awarded under the auspices of the Arts Club of Montreal, is available annually to a final year student in the Faculty of Fine Arts, on the recommendation of the Faculty of Fine Arts. Apply to the Fine Arts Faculty.

Undergraduate Bursaries

Note: These awards are made on the basis of financial need subject to passing grade. All applications should be submitted to the Financial Aid Officer unless otherwise indicated.

Birks Family Foundation Bursaries: These bursaries are available to students recommended by the University, in any faculty. They may be renewed annually, until graduation, for successful students. The number and amount of awards may vary from year to year depending on the funds available from the Foundation.

The Ethel Campbell-P.E.O. Memorial Bursary: Established by Colin C. Campbell in loving memory of his wife, Ethel May Routledge Campbell, and in recognition of her dedication to the aims, objectives, and the moral principles of the P.E.O. Sisterhood. This award is to assist a female student toward the financing of her university programme.

The J. P. Copland Memorial Bursaries: In the day and evening division to be awarded on the basis of financial need and academic standing.

Ralph B. Hood Bursary Fund: In the day and evening division, to be awarded on the basis of financial need and academic standing.

Theodore Ronis Memorial Bursary: This bursary of $50.00 is established by the friends of the late Theodore Ronis to perpetuate the memory of his friendship through the annual gift of a bursary to a deserving student. The recipient should be studying preferably but not necessarily towards a Bachelor of Commerce degree, and be a male student.

Royal Albert Lodge Bursary: The sum of $400.00 to be awarded as scholarships and bursaries to: a) children of members of the Royal Albert Lodge, b) children of members of other Masonic Lodges. If neither a nor b qualify, any worthy student may apply and receive the scholarship or bursary.

Student Loan Fund

This Fund is administered on behalf of students by the Office of the Dean of Students. The Fund is to provide students with short term assistance with the maximum amount not exceeding $150.00. Students must demonstrate an ability to repay as contracted. Under no circumstances will loans be made for the purpose of paying tuition or registration fees. Application forms and additional information may be obtained from the Financial Aid Office — Room H-405.
18.4 Student Services Loyola Campus

Dean of Students
ALFRED AUDET, BA BPed LTh

Assistant Deans
BRIAN T. COUNIHAN, BA M.Ed.
BLUMA LITNER, BA MA

18.4.1 OFFICE OF THE DEAN OF STUDENTS

The Student Services is that dimension of the campus staff which works, on a day-to-day basis, primarily with
-Specialized Services to Students
-Learning Opportunities Outside the Classroom
-Campus Life in General

The objective of the Student Services Staff is to work with others to make life on campus an educationally rewarding, exciting and enjoyable experience. People in Student Services are not teachers or students or administrators "per se". They are counsellors, community workers, doctors, nurses, programme consultants, organizational resource people and educators in a broad sense. Particularly in the Dean of Students Office we deal with para-academic events in a co-ordinating or initiating role. Our objectives are to complement the classroom in helping development of personal objectives. We have people in Student Services who can help, who can give a cohesive unity to the university experience.

18.4.2 MUSIC-LOYOLA

Music-Loyola, a cultural animation programme of the Dean of Students Office, provides the Loyola community with many opportunities for personal musical development.

Areas are available to individual students for instrumental practice, and use of the listening facilities is provided by the considerable record library.

Individual instrumental lessons may be arranged by consulting the Dean of Students Office. Increased emphasis has been laid on this aspect of personal artistic development and understanding.

Lunchtime listening programmes are provided during the academic year.

The larger ensembles available are the Choral Society and the Loyola Orchestra. Entrance to all activities is by audition. Small ensembles, e.g. Recorder groups, vocal ensembles, are provided on demand.

The Loyola Orchestra, a unique amateur group in the city, has attained a reputation for musicianship and high standards of performance, and has accompanied solo artists of international standing in concert performances. The Choral Society, a 50-voice ensemble, shares with the orchestra a standard of achievement in the presentation of major choral works, and the two groups provide the basis of Loyola's contribution to music-making in Montreal.

Music-Loyola also provides examples of the best in professional performances of music in their invited artists programmes during the year. For further information call 482-0320, local 249.

18.4.3 PROGRAMME DEVELOPMENT

The Programme Development Sector of the Dean of Students Office has the primary objective of creating events and opportunities for students that have substantial learning value outside the classroom environment. While the staff of the Programme Development Sector initiates and organizes some of its own programs and events, the staff, as well, is available to help any person or group with interesting ideas. The office also serves as a resource and information centre and can provide students, faculty or staff with the necessary links and contacts that may be required.

The Programme Development staff is particularly interested in exploring the area of education and learning experiences at the Loyola campus. In past years a variety of workshops and events were offered in relation to LEARN, a year long project initiated and sponsored by Programme Development.
As well as being involved with Lacolle and Learning Development programmes on and off campus, the Programme Development Sector actively collaborated in the creation of the Conversations with Arts and Science series and coordinated all the events during the "Under the Influence Week." In the summer of 1976, the "Light and Easy" Outdoor Film Series was launched in collaboration with the Communication Arts Department. In 1976-77 the staff pursued its activities with the Faculty of Arts and Science as well as collaborated in the creation and maintenance of a Learn Co-op.

The Programme Development Sector is located in the Dean of Students Office, Administration Building, Room 135. Phone 482-0320, locals 341 and 343.

18.4.4 THE WORKSHOP

The Workshop is a unique para-academic experience in the fields of photography and silk screen printing. Open for membership to students, artists and the entire community at large, Workshop members have an opportunity to use excellent darkrooms, silk screening equipment resource material, as well as participate in weekly silk screen classes, group exhibitions and numerous other workshops throughout the year.

The Workshop has a permanent exhibition gallery with year round exhibitions in photography and silkscreen prints.

The Workshop is staffed by a full-time Director and part-time experts in the fields of photography and silk screen. It is located at 7308 Sherbrooke St. W. and is opened from 10:30 a.m. to 10:00 p.m. Monday through Friday.

18.4.5 FOREIGN STUDENTS

Foreign Students' Insurance: Students who are neither Canadian citizens nor landed immigrants are not eligible for the provincial medical programme. The high cost of hospital care in Québec has prompted Concordia to arrange for an insurance policy which covers hospital expenses up to $5,000.00 in the event of an illness. The premium for this policy is approximately $65. It is included in your fees. This policy is required of all Foreign Students. Students from the United States who have comparable coverage at home may be exempted. For details about the coverage or exemption, contact the Foreign Student Advisor at Student Services.

Foreign Students' Finance: It is most important for a student to have sufficient financial resources to cover his total expenses for at least one year of study. As you are no doubt aware, immigration regulations normally do not permit student visa holders to accept any form of employment during the academic year. A guideline of expenses which a student may expect to incur, in addition to his tuition fees, follows: (It should be noted that these figures can be considered minimal).

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books and Supplies</td>
<td>$200.00</td>
</tr>
<tr>
<td>Lodging</td>
<td>$900.00</td>
</tr>
<tr>
<td>Food</td>
<td>$700.00</td>
</tr>
<tr>
<td>Insurance</td>
<td>$54.00</td>
</tr>
<tr>
<td>Clothing</td>
<td>$200.00</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>$350.00</td>
</tr>
<tr>
<td>Plus Tuition Fees</td>
<td></td>
</tr>
<tr>
<td>Cost for one year</td>
<td>$3000.00</td>
</tr>
</tbody>
</table>

These costs have been calculated on the basis of Canadian currency and cover only the academic year.

Overseas students are expected to present evidence to immigration authorities that they have adequate funds for their studies in Canada.

CONCORDIA OR THE CANADIAN GOVERNMENT DOES NOT GIVE FINANCIAL ASSISTANCE TO OVER-SEAS STUDENTS. YOU MUST BE A CANADIAN CITIZEN, LANDED IMMIGRANT, OR HOLD A VALID WORK PERMIT IN ORDER TO WORK IN CANADA.

Foreign Students' English Requirements: All classes at Loyola are conducted in English. Students are expected to have sufficient facility in the use and understanding of the English language to be able to handle his or her programme. No exceptions can be made for students whose fluency is poor; this would probably entail "slowing down" the normal progress of the class. Please be aware of this before making a commitment with us.

18.4.6 HEALTH SERVICES

Located in the Centennial Building across the hall from the Guidance Services, the Health Services is open to all students for confidential health care, information and advice from 9 a.m. to 7 p.m. Monday through Thursday. Friday 9 a.m. to 5 p.m. Closed for lunch from 12 to 1:30 except for emergencies. There are four registered nurses and six doctors of different specialties who come in at varying times throughout the week. Please feel free to drop in or call us at local 480.

18.4.7 CAMPUS MINISTRY

BELMORE HOUSE

Belmore House is a Place of Welcome for anyone who wants to feel at home on Campus. It's an old house with a bit of family atmosphere about it, a place to meet other and make new friends, to find out what is going on around the Campus, and a place to get involved in what appeals to you. If your thing is sports, there are intramural teams for that, a ski week, hiking and camping; if it's celebrating life, there is sharing and liturgy,
folk singing and prayer; if it's social issues, there is the grape and lettuce boycott. Ar­
chambault Federal Prison, needy families at Christmas, blind children... among others.
There are weekends for those who want to get away from it all, go out into the country, and try to put it all together. What is different about Belmore is that it is a house on Campus that is yours, that you can be part of and have a share in running.
Dan Berrigan, Cesar Chavez, John Howard Griffin, Jean Vanier, Lanza del Vasto — these are some of the people who call us to celebrate life, with its challenges and disappointments, success and failures — with a vision towards others and the world around us.
Our aim at Belmore is to offer a variety of ways to deepen our own personal awareness and stir up a sense of social responsibility. All of this through the celebration of being alive.
Drop by sometime. Belmore House is just behind the Campus Centre at 3500 Belmore Avenue (484-4095).

18.4.8 CANADA MANPOWER CENTRE
The Canada Manpower Centre on the Loyola campus has a staff of 5 permanent employees. Their aim is to be of service to students and the Loyola community. It includes 2 professional Counsellors whose essential duties are Career counselling and Placement of Graduates. Their assistant is responsible for placing students in Casual, Part-time, Christmas and Summer jobs.
The CMC(OC) provides facilities to all employers who wish to come on campus to recruit students. This On Campus Recruiting Program begins in November and normally ends in February.

Information Sessions for Loyola Graduates on job search techniques are organized during the academic year in each faculty department. Topics range from writing a resume to the art of selling one’s self to the potential employer.

Day and Evening students and Alumni may use our Services. Appointments are arranged for those students who are unable to come during the day.

Career Library: Students are made aware that they have at their disposal a Career Library and reading room in our office situated at 6935 Sherbrooke W.
The Canada Manpower Centre is located on the top floor of the Centennial Building at 6935 Sherbrooke St. W., Montreal—489-3885.

For Canada Manpower Centre—Sir George Williams Campus, please see § 18.2.4.

18.4.9 RESIDENCE — LOYOLA CAMPUS
On campus accommodations are available to approximately 240 day division students. The facilities are versatile by division and can house students in a traditional dormitory style or apartment-suite style room; co-ed or single sex floors and special living groups can be accommodated.

While every effort is made to meet students’ requests for single rooms, roommates or particular halls, assignments are made as space allows. Students applying should be advised that rooms on campus are very limited and acceptance to the University does not guarantee admission to the residence. Separate application for on-campus housing must be made to the Director of Residence.

Because of its location and convenience preference would be given to those students taking courses at the Loyola campus.

Off-Campus Housing
Many students choose or are forced because of lack of space on campus, to live in an apartment or private home in the campus vicinity. All students seeking information about apartment and home listings, legal aid and other services available, please contact:

The Off-Campus Housing Service
Hingston Hall, room 101
Loyola Campus
Concordia University
7141 Sherbrooke St. W.
H4B 1R6

Residence Fees
General: Rates for rooms are the same at both Hingston and Langley Hall. These rates do not include meals. Meals may be contracted for separately.

<table>
<thead>
<tr>
<th>RESIDENCE</th>
<th>SINGLE</th>
<th>DOUBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room*</td>
<td>$760</td>
<td>$650</td>
</tr>
<tr>
<td>Activity Fee*</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>
| Damage & Develop-
| ment Fee*      | 15     | 15     |
| Damage Deposit |
| (refundable)   | 50     | 50     |
| TOTAL          | 850    | 740    |

*Payable at registration and subject to change.

A room deposit of $50 must accompany each application and will be deducted from the payment due on entrance. The $50 deposit serves as indication for the University that you are a serious applicant for Residence. It does NOT guarantee the student a room. PLEASE DO NOT ASSUME THAT YOU ARE ACCEPTED INTO RESIDENCE UNTIL YOU HAVE RECEIVED A LETTER OF ACCEPTANCE FROM THE RESIDENCE OFFICE.
The money will be refunded on request, if the student is not accepted or cancels the room reservation by August 1. Students cancelling after the August 1 deadline will forfeit the $50 deposit.
The room contract covers the rental of linen, blankets and pillows and local telephone service.

The University reserves the right to place the student in whatever room seems to be in the best interests of the student's programme as a whole, but careful consideration will be given to expressed preferences.

No student will be permitted into residence before settlement of his or her account has been made. For this purpose, a receipt covering at least the first term must be shown to the Director of Residence.

Feas do not cover the Christmas holidays. Students who intend to remain in residence over the holidays are required to apply to the Director of Residence by December 1. There is an extra charge made to remain in residence at this time.

Residence fees may be paid in two installments. The first installment covering the first term, including compulsory fees, must be paid at registration. The second must be paid before January 10.

In cases where cheques are returned to the University marked "Non Sufficient Funds", there will be a $5.00 charge. A $15.00 surcharge will be added onto all unpaid FEES as of January 15. Post-dated cheques will not be accepted.

All residence fees are payable in Canadian Funds or Canadian equivalent and cheques should be made payable to Concordia University.

The University reserves the right to make changes without notice in the published scale of fees, if in the opinion of the University, circumstances so require.

To ensure favourable consideration of your application it is recommended that you apply before June 1.

**Meal Plan**

Meals may be contracted for on a yearly basis at a cost of approximately $562.50 for two meals a day, 5 days a week (lunch and dinner) and $757.50 for three meals a day, 5 days a week. Several other plans are in effect and the student may choose the one most suited to his needs. He may also prefer to pay as he goes on an 'a la carte' basis anywhere on campus. Meal plan tickets are honoured at both Hingston Hall Dining Room and the Campus Centre.

*The Meal Plan rates are also subject to change.*

**18.4.10 LOYOLA CAMPUS CENTRE**

The “Centre”, which opened in 1973, is designed to meet the social and recreational needs of students.

The Campus Centre includes a large Main Lounge, the Quiet Bar, three multi-purpose Conference Rooms, The Pub, The Games Room, and a cafeteria.

The operation of the Centre is dictated by a Board of Directors, on which both day and evening students predominate.

Douglas Devenne is the Director of the Loyola Campus Centre.

**18.4.11 LEGAL INFORMATION SERVICE**

Legal advice and help are offered to all students who may require assistance on matters relating to their legal rights. A student charged with a criminal offence may have an attorney appear for him in all criminal proceedings as well as those originating from infractions of the Highway Code and municipal by-laws. These services are free and confidential. This service may also extend to civil proceedings in which a student is involved as either plaintiff or defendant, the costs of which may be defrayed for students without the necessary financial means.

**18.4.12 OFFICE OF THE JUDICIAL OFFICER**

Set up to handle misconduct and disruptive behaviour, Student Court is a three-level judicial system, whereby a student accused of having violated the rights of others can be heard and tried by his fellow students. He must be informed in writing of the charges laid against him, and given sufficient time to prepare his defense. Under the guidance of a Student Court Officer, and chosen from a pool of applicants, it is composed of three units: A Preliminary Hearing Board, The College Court, and a Court of Appeals.

The Preliminary Hearing Board is composed of three members and can either dismiss a complaint, or turn the complaint over to the College Court for the hearing.

The College Court consists of five members drawn from the pool, and hears representations for and against the defendant. It must find for or against the defendant and impose an appropriate sentence.

The Court of Appeals is the Court of Final Hearing. It is composed of seven members drawn from the pool and may confirm or reverse the decision of the court, increase or reduce the sentence, or return the case for a new Court hearing. If a sentence of temporary suspension or expulsion is maintained by the Court of Appeals, there is an automatic appeal to the University Board of Governors.

Complaint forms may be obtained from the Legal Information Service Office in Hingston Hall, Room 228B, local 512.
The Lacolle Centre for Educational Innovation is an off-campus facility located 40 minutes from Loyola Campus near Lacolle, Quebec. It provides an environment in which people can explore new avenues of learning, and by working collaboratively, enhance their educational experiences on the Loyola Campus.

The Centre, which is in its sixth year of successful operation, functions under the auspices of a 15 member council comprised of students, staff and faculty representatives. This council is responsible to the Vice-Rector and Principal of Loyola campus, and sets the general policies and direction of the centre during regular monthly meetings.

The operational direction is provided by a co-ordinating team which includes Linda Allan, Office Manager, and Marilyn Callan, Co-ordinator. Linda may be contacted for help in scheduling programmes or to provide information concerning the centre and its operation, as well as to receive requests for resource personnel. Marilyn, as well as providing overall co-ordination of the centre, is available for consultation concerning programme design and evaluation. She is also able to provide skills as a resource person to groups wishing to enhance their functioning in areas such as problem-solving and decision making, group leadership, conflict management, goal setting and inter-personal or inter-group communication.

Although each programme at Lacolle produces its own unique group, team or personal experiences, there are general areas into which some of the past programmes may be categorized:

1. Professor and student initiated programmes; class members may spend a weekend at Lacolle relating to each other in a relaxed atmosphere which extends the time and space of the classroom situation. Almost every department on campus has made use of Lacolle in this manner with great success.

2. Courses which are taught in a concentrated period of time at the Centre, such as summer courses in Biology (Ecology) and Astronomy.

3. Student, faculty and administrative associations and organizations use the facility for programme planning, team building and organizational development.

4. Lacolle initiated programmes on and off campus; some of the past programmes have included: an annual Harvest festival at the Centre in October, to which all members of the Loyola community have been invited in order to meet one another and share a festival atmosphere; a "Life Planning Weekend" during which participants dealt with setting personal goals and planning for their attainment; a "Couple's Weekend" which involved individuals in examination of their values and a clarification of how these may be dealt with in the couple relationship; and a five day teaching improvement workshop for faculty members.

On campus, Lacolle has sponsored or co-sponsored several successful events; a week with Lois Phillips examining feminism and Humanism, guest speaker John Holt, prominent author and specialist in education, and R. D. Laing, well known for his contributions to modern psychiatry.

All programme initiators are interviewed by the co-ordinating team prior to going to Lacolle for purposes of goal clarification and planning, and again on return to discuss results of the workshop and reactions to the experience.

Proposals for the use of the centre should be made well in advance. The co-ordinator and office manager are located at 7306 Sherbrooke St. W, and may be reached by phoning 482-0320, local 344.
18.6 Student Life
Sir George Williams Campus

Dean of Students
MAGNUS FLYNN.BCom

Assistant Deans
JACK HOPKINS. BA MSW
DOUGLAS INSLEY.MSc
JOAN RICHARDSON.BA

18.6.1 STUDENT LIFE
The Sir George Williams Campus of Concordia offers a wide variety of out-of-class programmes. Most of these are sponsored and carried out by the different student associations; and many opportunities are created for students to participate in social, special interest groups, student government, informal training in radio, television, newspaper, drama, and many other useful experiences.

In addition to the social and cultural opportunities mentioned above, the University sponsors special support programmes called Student Services. These are described in the following paragraphs. Many students use these resources under varied circumstances, such as a need for more finances, legal, counselling, housing, child care and other needs as required.

Subject to the authority of the Board of Governors, the Concordia Council on Student Life is the body responsible for student service policies and budgets. The Council, replacing U.C.S.L. is scheduled to begin operations in September 1976 and shall also have the authority to study the range of student life on both the Loyola and Sir George campuses of Concordia University.

The Council is composed of 15 students, 5 faculty, 10 student services staff and one non-voting member of the Board of Governors.

Council meetings are open and notices of meetings will be given on both campuses.

18.6.2 STUDENT SERVICES

Orientation
Orientation at Sir George Williams Campus is designed to familiarize new students with the various services and facilities available to them, and to help new students resolve any problems which may be encountered during the initial introduction to university life.

Financial Aid Officer
JUDY STYMEST.BA

Advisor to Overseas Students
DAVID CHAN BFA

Legal Aid
A number of alumni lawyers have generously offered service to students in need of legal advice. The service does not cover legal fees which may be incurred. Appointments to see a lawyer may be made through the Office of the Dean of Students.

Off-Campus Housing
As there are no residence facilities at the Sir George Williams Campus, the Office of the Dean of Students maintains an off-campus Housing Registry for students seeking accommodations. The Registry represents listings of rooms, room and board, and apartments. The cost, location and particulars of each listing are included.

When considering accommodation, students are strongly urged to refer leases to the Office of the Dean of Students before signing. Students should also be sure to obtain their own copy of a lease immediately.

18.6.3 STUDENT HEALTH AND ACCIDENT INSURANCE

Out-Of-Country Students
The group health and accident insurance plan is COMPULSORY for all out-of-country students attending the Sir George Williams Campus as full-time students.

The plan is compulsory as out-of-country students are not eligible for coverage offered under the Quebec Provincial Hospital Insurance Service. The plan is available for single or married coverage.

18.6.4 CHILD CARE

The Sir George Williams Campus offers Child Care Services for children of students, faculty and staff. Parents may enroll children 2½ to 5 years of age in the Child Care Centre located at 2305 St. Marc St. Application forms and details may be obtained in the Office of the Dean of Students or at the Centre (879-4577).
18.6.5 HEALTH SERVICES

Health Centre
Location: 2145 MacKay Street
Telephone: 879-4010, 4011, 4012
Office Hours:
9:00 a.m. to 10:00 p.m. Monday through Friday during University terms and Summer sessions.
9:00 a.m. to 5:00 p.m. at all other times.

Medical Director:
DR. H. ABRAMOVITCH
6 staff doctors
Registered Nurses:
MRS. J. JOHNSTONE
MRS. P. HUZA
MISS PENNY SOPER
Secretary:
MISS D. WARNOCK

To be seen other than in an emergency situation, or with an acute problem, please telephone for an appointment (generally there is only a day’s wait).

Services of the Health Centre are available to all staff, students and faculty members, full or part-time.

The Health Centre is staffed with registered nurses and doctors and is run on a clinic programme. It is open Monday through Friday with a varying schedule of doctor coverage. Multiple, paramedical, and referral agencies in the immediate downtown area are utilized, as well as the general hospitals in this area.

On location the Health Centre provides:
—immediate attention and evaluation of accidents, or any other acute health problem.
—health care information.
—general medical check-ups.
—contraceptive guidance and teaching.
—gynecology, urology.
—periodic blood pressure checks, evaluation and/or referrals for breast clinics, speech therapy, fertility screening, etc.
—immunization for travellers (for total immunization a three month period of time is needed.)
—social disease medicine, infectious diseases. VD DIAGNOSIS AND TREATMENT (MEDICATIONS SUPPLIED FREE OF CHARGE).
—nutrition counselling.
—allergy injections. Patient must provide serum and instruction schedule from the allergist and return to the allergist annually.
—human sexuality and relationship counselling.
—evaluation and referral for all medical specialities, eg. dermatology, ophthalmology, orthopedics, obstetrics, family practice, etc.

18.6.6 BOOKSTORE SGW CAMPUS

P. GORE

Books and supplies including art materials may be bought at the Bookstore located on the mezzanine of the Hall Building.

At the beginning of each academic year, required texts are also available from an auxiliary sales location in the Birks Auditorium on the main floor of the Norris Building.

It is recommended that students review the return book policy before making any purchases.

18.6.7 FOOD SERVICES

The Food Service Centre ("Cal") is located on the 7th floor of the Hall Building and is open for breakfast, lunch and dinner daily except Saturdays and Sundays. "A la carte" service and special hot meals are provided. Food for special events and parties can be arranged by telephoning Mr. John Douglas, (Saga Food Service Manager) at 879-5807 or 5860. Applications for use of this cafeteria for dances and similar occasions are made to the Dean of Students Office.

The seating capacity is 700. Hours of operation are as follows:
Monday through Thursday
8:00 a.m. - 9:00 p.m.
Friday
8:00 a.m. - 8:00 p.m.

A small eating area is provided in the Norris Building (2nd floor) and is served by vending machines.

Student Pub (7th Floor)
Applications for the use of the Pub are made to the DSA.

18.6.8 CHAPLAINS

University life consists of more than mere "academic". One of the most important non-academic elements in its life is the "pastorale". A truly major concern of the campus ministry is one of meaning and purpose as well as a deep involvement in the matter of the quality of life both within the university community as well as outside, in life in general.

At Sir George there are two full-time Chaplains and five part-time members of the team (often referred to as "The God Squad") working in this area.

In the last few years, our Chaplains have represented the Anglican, Eastern Orthodox, Jewish, Lutheran, Pentecostal, Presbyterian, Baptist, Roman Catholic, and United Church traditions. Although the work of the team has been ecumenical in approach (this has proved to be the most successful in general), the various religious heritages are well-respected and clearly upheld.

During the academic year, the chaplains organize various programmes that generate interest among members of the university community. They are also available for personal religious guidance and counselling.

In various endeavours, the chaplains use an informal and personalized approach. They are an integral part of the community and are ready to assist in any way they can, be it through a simple rap, an intellectual dialogue
18.6.9 SECURITY

Thefts: The best way of preventing thefts is to lock your door, desk, and cabinet. Experience has revealed that equipment, materials and personal belongings may disappear within a matter of minutes when left unattended. Should a theft occur, the Security Department is to be informed immediately. It is stressed that when the above recommendations are followed, there is a reduction in losses.

Identification: Since it is necessary to identify persons on campus, you are required to carry your Concordia Identification Card at all times.

Removal of Equipment and Materials: "Equipment and Materials Pass" must be filled out and signed by the Head of Department for removal of all equipment and materials from this campus. Forms may be obtained at the Security Desks.

Access to Campus After Closing Hours: "After Hours Pass" must be filled out for all undergraduate students requiring access to the campus after closing hours. Forms may be obtained from the Security Desks and Departmental Offices. Security will inform the Health Centre and call police assistance if necessary. They will also direct the ambulance, nurse, doctor or police to the scene of the accident. For minor accidents, the patient should be directed to the Health Centre.

Evacuation of Buildings: Acquaint yourself with the policy of prevention on the job, shop or area of work. Good housekeeping and clean premises are the first essentials in the elimination of fire and accidents.

on issues, a request for direction or a personal hassle. In brief, they are concerned with the total person, for they have a healthy respect for individual points of view.

a. Familiarize yourself with the emergency exits in your area. They all have red exit signs.
b. When the fire bells ring Continuously, leave the building using the closest emergency exit.
c. Do not run.
d. Do not use elevators.
e. Stay calm.

In the event of a hazard or emergency, please call the Safety Officer at 879-2668, or the Hall Building Security Desk at 879-4545 or the Norris Security Desk at 879-4515.

Requests for Additional Security: Additional security may be required for conferences, socials, etc. Such requests are to be directed to the Security Department in writing at least 36 hours in advance. The request is to be forwarded to H-116-4.

Parking: There are no parking facilities to students on the S.G.W. Campus.

Cloak Room Services: Requests for Cloak Room services are to be directed in writing to H-116-4.

Lost & Found: All items found are to be turned over to the Security Desks for safekeeping. All claims for lost articles are to be made at these desks.

SAFETY

Emergencies: All emergency situations are to be reported to Security, whether the cause be an accident, sickness, fire, smoke, water leakages, etc. The numbers to call are:

Hall Building and Annexes: 879-4545
Norris Building: 879-4515

Accidents: Call Security immediately for major accidents. The numbers to call are:

Hall Building and Annexes: 879-4545
Norris Building: 879-4515
18.7 Ombudsman

18.7.1 OMBUDSMAN — LOYOLA CAMPUS

Upon the recommendation of the Loyola Students' Association, the Office of the Ombudsman was introduced to the Loyola community in 1972. The position is occupied by a Loyola graduate who is selected by a Search Committee comprised of student and faculty members, who were appointed by the Loyola Faculty Council.

As of 1975 the position will be a full-time one, with the term of office for a single Ombudsman having been extended from one to two years.

The primary role of the Ombudsman is to act as a liaison officer and mediator, in the variety of conflicts that may arise within the Loyola community. The position independent of the usual structures and influences, allows for a certain lack of bias and relative freedom of operation.

A great majority of the cases brought to this office are related to professor-student conflicts, arising over issues including those of grading, personality clashes, and conduct. In cases involving grade appeals, (and these are the most frequent problems), the student, after having discussed the question with his/her professor, may if dissatisfied, contact the Ombudsman. When attempts at resolving the problem informally fail, Departmental Review Committees, comprised of 2 professors and 1 student from that department, are set up to review the situation. If, upon receiving the decision of the Departmental Committee, the student is not fully satisfied, he/she may take the case to a Board of Appeals, consisting of 5 members, 3 professors and 2 students, from outside the department involved. The decision of the Board of Appeals, which will review the procedures used by the department in dealing with the case, is final. The role of the Ombudsman throughout this period is that of coordinator and mediator.

The duties of the Ombudsman also include attempting to resolve difficulties relating to administrative procedures and technicalities. The Office of the Ombudsman when unable to resolve a situation by itself, will act as a resource centre supplying those involved with the channels that will be able to deal with that particular problems.

In the past, this service has been made use of primarily by the student body. It is hoped that other members of the Loyola community will make full use of this Loyola service as well. This year the Ombudsman’s Office will be open every day, morning and afternoon, with special hours for evening students, as yet undetermined. The office is located in the Administration Building—AD 105, and the Ombudsman can be reached by dialing the Loyola number — 482-0320, local 257.

18.7.2 Rights and responsibilities of members of the University (SGW Campus) and the SGW Ombudsman Office

General

1. The system set out herein consists of two related parts: a statement of rights and responsibilities of all who study, teach or work at the University, with associated complaint procedures; a statement governing the setting up and functioning of the SGW Ombudsman office.

2. These regulations apply to the Sir George Williams Campus, not to the Sir George Williams schools.

3. The system applies to students, faculty, administrators and all other employees of the University. However, it does not replace or supersede the terms of the University tenure regulations, the existing official grievance procedures, or any collective agreement that may apply to particular individuals or groups within the University.

a) These regulations do not replace or supersede the regulations relating to Termination of Employment of Faculty Members except as hereinafter expressly provided.

b-i) Whenever a complaint has been lodged against a faculty member under these Regulations, no dismissal procedures arising from the same circumstances shall be set in motion against such
facy member under the Regulations Relating to Termination of Employment and Suspension of Faculty Members, except in the case provided for in paragraph 7 (a) below.

Paragraph (b) above shall not apply where a complaint, lodged against a faculty member under these Regulations, has been discontinued prior to its final disposition.

c) Whenever formal dismissal procedures have been initiated against a faculty member under the Regulations Relating to Termination of Employment and Suspension of Faculty Members, no complaint arising from the same circumstances shall be lodged against such faculty member under the present Regulations.

4. The ombudsman office is an essential part of this system. The manner in which the ombudsmen are to be appointed and their functions are set out in Section IV.

5. It is not only the right but the duty of faculty members and administrators to exercise their authority in areas that fall within their spheres of responsibility. Thus, for example, a faculty member has a responsibility to take whatever immediate action may be necessary to ensure the continuing order of his course just as the person responsible for an area of administration must take whatever immediate action may be necessary to ensure its proper functions.

6. Although a faculty member or an administrator may take immediate action in the exercise of his responsibilities, such as referred to in the preceding paragraph, a person against whom such an action is directed may have recourse to the ombudsman office or to the complaint procedures set out below should he believe that the action was unjustified and that his rights were infringed upon.

7. Any disciplinary action taken by a faculty member or by an administrator other than the kind of immediate action referred to in paragraph 5 shall be taken by way of the complaint procedures set out below, subject to the Rector's right to suspend an individual pending the completion of such procedures.

a) Where the Rector suspends a faculty member, otherwise than upon a final recommendation flowing from a complaint lodged against such faculty member under Regulations Relating to Termination of Employment and Suspension of Faculty Members shall apply.

8. All those who study, teach or work at the University are subject to the laws of the land, and have recourse to those laws. The same holds true for the University as a corporate entity. In the event of an act which appears to be an infringement of an individual's legal rights, it must be the decision of that individual whether or not to take legal action, irrespective of whether he has recourse to the procedures set out herein. Similarly, the University, acting through its duly authorized representatives, itself has the right to take at any time any legal action considered appropriate.

9. Wherever there is doubt or ambiguity regarding any provision in these regulations, or the procedure to be followed, that interpretation or procedure shall be adopted which appears most equitable, consistent with the general purposes and philosophy of these regulations.

10. It is desirable that recourse be had to the procedures in Section III only when it has been impossible to reach an informal settlement of differences, with or without the assistance of the ombudsmen, or when the issue is clearly one that demands formal action.

Rights and Responsibilities

1. A university is an institution of higher education dedicated to the pursuit of truth, and to the advancement and dissemination of knowledge. All those who study, teach or work there must be concerned with maintaining the freedoms essential to these purposes, notably the freedoms to teach; to engage in research; to create; to learn; to study; to speak; to associate and to assemble; to write and to publish. Rights and responsibilities emanate from these freedoms; the rights cannot be maintained unless the responsibilities are accepted.

2. A university has the rights of a duly incorporated institution of higher education, and it has responsibilities to those who are part of it. Each individual member also has rights and responsibilities.

3. To pursue its goals, a university requires protection against disruption. Neither repression of minorities nor denial of the rights of the majority can be tolerated. Mutual consideration is vital if the freedoms set out above are to be preserved.

4. The individual may exercise his rights only to the extent that they do not infringe upon those of his fellows or of the University. This requires the acceptance of personal responsibility and in particular refraining from such acts as: destruction of property; invasion of premises; disruption of classes or meetings; prevention of free access to or these Regulations, the provisions of the egress from property belonging to or rented by the University; violence; assault and the threat of assault; libel and slander; discrimination against any person on the basis of sex, race, colour, creed or ethnic origin.

Complaint Procedures:

1. These procedures are applicable when there has been an alleged infringement of the rights of an individual or of a group of persons, or of the University itself.

2. Procedures are commenced upon the lodging of a formal complaint. The complaint must be made in writing, and must be signed by the complainant or complainants. The allegations must be stated therein with precision, including specific details as to date, time and place. The complaint must be
delivered to the appropriate authority as defined below within a reasonable delay, and in no case more than three months after the incident or decision complained of.

a) Where the complaint involves an allegation of deception or dishonesty, the above delay shall begin to run from the date of the discovery by the complainant of the alleged deception or dishonesty.

b) The Rector in the event of a complaint against:
Assistant Vice-Rector, Ancillary Services;
Assistant Vice-Rector and Director of Finance;
Executive Assistant to the Rector;
Assistant to the Rector, Public Relations;
Dean of Students (SGW);
Secretary of Senate;
or anyone working directly for him on the Sir George Williams campus.

c) The Vice-Rector, Academic in the event of a complaint against:
Sir George Williams Dean of Arts;
Sir George Williams Dean of Science;
Dean of Commerce and Administration;
Dean of Engineering;
Associate Vice-Rector, Academic;
Associate Vice-Rector, Academic Planning;
Assistant Vice-Principal, Academic;
or anyone working directly for him on the Sir George Williams campus.

d) The Vice-Rector, Administration and Finance, in the event of a complaint against:
Associate Vice-Rector, Administration;
Associate Vice-Rector, Communications;
Assistant Vice-Rector, Relations and Audit;
Assistant Vice-Rector and Treasurer;
Assistant Vice-Rector and Director of Libraries;
Director of Guidance (SGW);
or anyone working directly for him on the Sir George Williams campus.

e) The Vice-Rector and Principal of Loyola Campus in the event of a complaint against:
Registrar;
or anyone working for him on the Sir George Williams campus.

f) The Associate Vice-Rector, Administration in the event of a complaint against:
Assistant Vice-Rector, Physical Resources;
Assistant Vice-Rector, Ancillary Services;
or anyone working directly for him on the Sir George Williams campus.

g) The appropriate Dean in the event of a complaint against a member of faculty, whether full-time or part-time, or in the event of a complaint against anyone else employed in the Faculty for which he is responsible.

h) The administrator listed above as reporting to either the Rector or one of the Vice-Rectors in the event of a complaint against an individual employed in the department or departments for which he is responsible. In this connection, the following allocation of responsibility should be noted:
Executive Assistant to the Rector — Information and Bookings Centre; Assistant to the Rector, Public Relations — Information and Development Offices; Dean of Students (SGW) — Athletics Department; Health Centre; Associate Vice-Rector, Administration — Security Purchasing, Receiving and Shipping, Mail and Printing Departments; Assistant Vice-Rector, Communications — Personnel Department; Computer Centre; Centre for Instructional Technology; Telephone Services; Assistant Vice-Rector, Ancillary Services — Food Services; Bookstore.

i) The Dean of the Faculty in which the student is enrolled, in the event of a complaint against a student by a non-student member of the University.

j) The Dean of Students (SGW), in the event of a complaint by one student against another.

4. When a complaint has been made by a non-student member of the University against a student the Dean of the Faculty in which the student is enrolled shall so inform the Dean of Students, and he shall keep him informed of the progress of the case.

5. When a complaint has been made by one student against another, the Dean of Students shall so inform the Dean of the Faculty in which the student is enrolled, and he shall keep him informed of the progress of the case.

6. In the event of a complaint against a graduate student, the Dean of Students shall so inform the Dean of Graduate Studies, and he shall keep him informed of the progress of the case.

7. If one of the persons named as an appropriate authority wishes to lay a complaint against an individual who comes within his own sphere of authority he must address himself to his own immediate superior.

8. The appropriate authority shall acknowledge receipt of the complaint as expeditiously as possible. He shall send copies both of the complaint and of his acknowledgement to the person complained against.

9. If the complaint has been made against a student, a copy of the acknowledgement shall also be sent to the Dean of Students.
1. Any one who studies, teaches or works at the campus have the right to apply to the Ombudsman office on any matter of concern.

2. The complaint shall be enquired into in whatever manner the appropriate authority considers most suitable. The appropriate authority may conduct the enquiry himself or she may assign the enquiry to another individual or to a committee named by him. If the appropriate authority or the individual or the committee concludes that the allegations are founded in whole or in part, the appropriate authority shall take whatever action he deems suitable in so far as he is empowered to do so, or recommend such action to those who have the power to implement it. If the appropriate authority has assigned the enquiry to an individual or to a committee, he may also assign to that individual or committee the function of taking or recommending appropriate action in cases where it is concluded that the allegations are well founded in whole or in part. Since a student can be suspended or expelled from the University only by action of the Rector, any such recommendation must be forwarded to the Rector.

3. Where the appropriate authority, or an individual or a committee assigned by him has concluded that the allegations were founded in whole or in part and has recommended that a faculty member be dismissed, the dismissal provisions of the Regulations Relating to Termination of Employment and Suspension of Faculty Members and not the provisions of paragraphs 12 to 17 below shall apply.

4. Both the complainant and the person complained against must be given the opportunity to make any relevant representations, in person or in writing as they see fit.

5. The decisions referred to in paragraph 9 must be written, signed and dated, and must be reasoned. The appropriate authority shall deliver such decisions to the complainant the person complained against, the administrator to whom the appropriate authority, himself, reports and to the Dean of Students if a student is involved. The Chairman of the Board of Governors shall deliver his decisions to the Board as a whole.

6. Both the complainant and the person complained against must be informed of the decision, the right of appeal, the names of the members of the Board of Governors responsible for the decision which is being appealed to, to the opposite party, and to the Dean of Students if a student is involved. The appeal shall be placed on the agenda of the next meeting of the Board.

7. Should the appeal be lodged by the complainant, or should it be lodged by the person complained against in a case where action other than a sanction of suspension, expulsion or dismissal has been imposed or recommended, the Board of Governors shall decide whether to deal with it directly or to set up a review board, composed of persons from either within or without the University or from both, as the Board of Governors judges fit. The decisions of the Board of Governors in the former case or of the review board in the latter case shall be final.

8. Should the person complained against wish to lodge an appeal in a case where a sanction of suspension, expulsion or dismissal has been imposed or recommended, he may choose either that the appeal be dealt with according to the procedure set out in the above paragraph or he may require the Board of Governors to appoint a committee of three persons from outside the University, one of whom must be a lawyer not otherwise in the employ of the University, to hear the appeal. Its decision shall be final.

9. Wherever reference is made above to an official of the University, and that official is unable to exercise his functions, the person who is replacing him shall carry out those functions.

10. Apart from the requirements to inform set out above, any proceedings or decisions in accordance with the provisions of Section III shall be treated as confidential unless all the parties involved expressly agree that they be made public.

The Ombudsman Office

1. The Ombudsman Office shall be composed of three persons already in the employ of the University. They shall be appointed by the Rector acting on the advice of a search committee named by him. The search committee shall be representative of all who study, teach and work at the Sir George Williams campus. Ombudsmen shall be eligible for reappointment by the Rector on the advice of a search committee.

2. Anyone who studies, teaches or works at the campus shall have the right to apply to the Ombudsman office on any matter of
concern to him. The members of the office shall decide between them which of them will handle any particular application or whether they will handle it jointly.

3. The ombudsmen shall be free to enquire into any matter thus brought to their attention, and to make whatever recommendations they judge appropriate.

4. It is expected that the ombudsmen will be able to resolve many problems and conflicts before they reach a stage where formal procedures are necessary. Once formal procedures have commenced, their role shall be limited to conciliation.

5. The appointment of the ombudsmen shall be for two years, and they will be released on a part-time basis from their regular functions.

6. On the conclusion of an enquiry, the Ombudsman Office shall provide the individual who applied for its services with a written report on its disposition of the matter.

7. The ombudsmen shall have the right to refuse to take up any case if for any reason they judge intervention inappropriate.

8. Recommendations of the ombudsmen may bear either on the actions or decisions of an individual or group or on the policies or practices which gave rise to such actions or decisions.

9. Any application to the Ombudsman office and any subsequent enquiries or recommendations, shall be treated as confidential unless all the parties involved expressly agree that the information be made public.

10. The ombudsmen shall have immediate access to all University records, reports or other documents other than those which cannot be released for reasons of confidentiality. If the ombudsmen wish to challenge the decision of an officer of the University with regard to confidentiality they shall have the right of appeal to the Board of Governors. The ombudsmen shall maintain the confidentiality of confidential materials to which they have access.

11. The ombudsmen shall issue a report annually to the University in such a way as to indicate the nature and extent of their operations, while protecting the anonymity and confidence of any individuals who have applied to them or with whom the ombudsmen have been in contact regarding particular cases.
19.1 Student Associations

19.1.1 LOYOLA STUDENTS' ASSOCIATION

1) To achieve organization and order.
2) To achieve cohesion between all groups in attaining common goals within the association.
3) To increase the level and quality of orientation; to build a foundation for the future.

These are the goals of the Loyola Students' Association — YOUR association. The L.S.A., which is financed mostly through a student activity fee, tries to be aware of students' needs — both social and academic. They strive to be informed in order to comply with these needs. For this reason, the L.S.A. stresses involvement. They invite the students to express their needs — to use the L.S.A. as a sounding board, as a means of communication, as a voice of expression.

The L.S.A. is composed of 3 elements: the Executive, the Board of Directors, and Senate.

Executive: The Executive is headed by two elected co-presidents, who in turn appoint their vice-presidents. The Executive, in an attempt to comply with every aspect of student life, is divided into several departments:
- Co-Presidents: The role of the Co-presidents is basically to act as the chief administrative officers of the L.S.A. They oversee all functions and act as spokesmen for the students.
- Campus Services: This department concerns itself with services for students on campus. The priorities include the Campus Orientation Program, Carnival, the Yearbook and the Grad Dance.
- Education: The Education vice-president oversees such activities as student research projects and all other academic aspects which affect the students. He ensures that students' educational needs are adequately expressed through student representation on University committees.
- Financial: The Financial Vice-president handles the finances of the L.S.A. and its member associations. The main objective of this department is to see that all spending is done with the students' interests in mind.

Information Services: The goal of this department is to keep both the students and the general public informed of L.S.A. activities, and to open communication channels to and from the association.

Internal: This department makes sure that the L.S.A. operates efficiently. It also handles complaints or questions from the various member associations, clubs, and societies.

External: The External Vice-president acts as liaison between the L.S.A. and outside bodies. His office maintains contact with Quebec and national student associations. He is concerned with obtaining and supplying information and input on decisions involving education at the provincial level.

Board of Directors

The Board is the legislative body of the association. It consists of sixteen members elected annually. Representation is in proportion to the number of students enrolled in each faculty. It is the function of the Board to regulate and co-ordinate the policies and activities of the association.

Senate

The Student Senate is the judicial body of the L.S.A. It has jurisdiction over matters affecting student discipline and constitutional interpretation. It acts as guarantor of students' rights as defined by the Bill of Rights of the L.S.A.

Associations

Over forty organizations on campus cover most interest areas. They range in nature and scope from dramatic, musical and recreational to ethnic, academic, professional and political. These associations serve to supplement the student's education, by allowing him to be actively involved in those areas of interest to him.

Publications

The Board of Publications, now in the process of reorganization, will act as a Supervisory Board for all campus publications. These include Loyola News, the official student newspaper, Radio Loyola, Student
19.1.2 THE LOYOLA EVENING STUDENTS' ASSOCIATION INC.

In March of 1973, the Loyola Evening Students' Association (L.E.S.A.) was incorporated under a Quebec provincial charter. During the same period, the Association Constitution was revised to better reflect changes in Evening Student objectives since the last major change in 1969.

Objectives

The Association has, as its stated objectives:

1) The representation, promotion, and furtherance of the academic interests of Loyola Evening Students.

2) The encouragement of the evening students to participate actively in the Loyola community.

Organization

Through a system of class representatives, elected in the first two weeks of the Winter Session, and an Association Council (a nine member Executive and ten general Coordinators) elected in March of each year, present and future needs of evening students can be identified and acted upon.

Activities

Within the framework of Loyola, members of Council serve as representatives on the main Concordia Administrative Councils.

Council believes it of great importance to maintain a strong representation on these committees as this participation is considered one of the most effective means of advancing Evening Student aims to the Administration.

A further strengthening of L.E.S.A. as an Evening Student body is seen in its participation in an organization of part-time university students.

Meetings and Information

The primary concern of the Association is its member students. Council members may be contacted through the answering service at 488-4048 or in writing, to 2501 West Broadway, Montreal H4B 1R6.

They are also present at:

1) Registration — to assist students to the fullest extent possible.

2) Regular meeting — Agenda, etc. are posted on various bulletin boards throughout the campus.

3) Class representative meetings of which there are at least four per year, one of which is the annual general election in March, where evening students who are not class representatives may participate as non-voting members. Details are posted on bulletin boards.

Council Executive

The titles and functions of the Executive body of Council are detailed below, enabling students to address their queries to the specific officer responsible.

President

Vice-President (Academic)

Vice-President (Communications)

Vice-President (Operations)

Executive Secretary

Treasurer

Senators

19.1.3 LOYOLA OF MONTREAL ALUMNI ASSOCIATION INC.

The objectives of this Association shall be to advance the interests and to promote the welfare of Concordia, of the Association and its members, and to provide a vehicle through which former students of the Loyola Campus of Concordia University may maintain their interest and express their support of their alma mater, to disseminate information among former students relating to developments at the University, to foster continuing contacts between former students, and to conduct projects, organize events and to do all other things necessary and useful for the University.

During the course of the year, the Loyola of Montreal Alumni Association Inc. sponsors the Golf Tournament, the Oyster Party, the Sports Hall-of-Fame, social activities, cultural activities, sports activities, the Past-Presidents' Dinner, an exchange programme between students and members of the Business/Professional community, information sessions by well-known speakers for the benefit of University students and many other events catering to both men and women graduates. The Association also sponsors the selection and presentation of the Loyola Medal to outstanding Canadians.

A general meeting is held each year. At this meeting officers and directors for the coming year are elected and all other matters of general business are transacted.

Annual giving by Alumni represents the largest simple source of support to universities and colleges in North America. A regular yearly contribution to the Association aids a variety of programmes at the University.

The Alumni Office is located at 7141 Sherbrooke Street West, in the Loyola Administration Building (AD-233). Information may be obtained at 482-0320 local 421 or 313.

19.1.4 CONCORDIA GRADUATE STUDENTS' ASSOCIATION

The Graduate Students' Association is run by graduate students who have volunteered their time not only to make life more interesting and enjoyable for students at Concordia University, but also to help better student life in all areas within the University. We are here to help you and to see that your needs are met.
Further to our involvement within the academic structures of the University, the Association sponsors two main events for the social enjoyment of the students — the Annual General Meeting and the Orientation Party. Many more activities are presently being planned for the fall. These events are being set with the sole purpose of entertaining graduate students and their families. If you are dissatisfied with what we are doing or have ideas to help make these events better, please let us know.

A Council meeting is held once a month and if you wish to attend please feel free to do so. There is always a need for new ideas and fresh faces.

The Graduate Students' Association is here for you and to help you in any way we can. If you have any suggestions or problems, please do not hesitate to come up and see us at 2145 MacKay Street, room 306 or call us at 879-7219.

19.1.5 DAY STUDENTS': ASSOCIATION—SIR GEORGE WILLIAMS CAMPUS

The D.S.A. is comprised of all full-time undergraduates of the Sir George Williams Campus. It has three basic goals — to provide services and activities needed by students, to act as the spokesman for students in the University, and to provide opportunities for student involvement.

A student fee finances the operation — therefore, priority is placed on giving the students what their money is worth in services and activities. A large part of the budget goes into programming, media, orientation and course evaluation.

There is another need — the wants and desires of the students in the university. Whether it is in the academic or para-academic field, the D.S.A. can be YOUR tool to make your voice heard. Most university bodies have student representatives on them. In addition, the small size of Sir George and its tradition of being especially oriented towards students gives the D.S.A. an advantage few associations have.

But most important of all, the D.S.A. needs involvement. If you have a gripe, come down to the D.S.A. office. If you want to gain some experience in budgeting, management, politics, law, public relations, or who knows what else, then the D.S.A. is the place for you. Or if you're just fed up with sitting on the sidelines, then walk right in. The D.S.A. needs you.

The D.S.A. is governed by a council made up of representatives from each faculty in proportion to their enrolment. Elections are held in March. Then the executives are chosen by election from within the new council.

There are also associations in each faculty: Commerce, Fine Arts, Arts, Science and Engineering. Besides acting in basically the same way as the D.S.A. within their own milieu, they also sponsor departmental clubs. Elections for their councils are in March. They are financed by a fee collected directly from their students.

Pub: The D.S.A. runs a pub near the seventh floor cafeteria jointly with SAGA Foods. It is responsible for capital equipment and keeps a close eye on conditions to ensure that they are what the students want.

Course evaluation: The D.S.A. has recognized the need for a complete and comprehensive course evaluation system at Sir George. Such a system has been instituted, employing a full-time director. A steering Committee oversees the operation made up of both students and faculty, ensuring input from all concerned. The D.S.A., of course, bankrolls and controls the whole system.

There exist, in most departments, councils which are made up of students and faculty. Also, student reps. sit on faculty councils, the Senate, and various committees. This provides for a great student input into such issues as what courses are offered and how the library is run. The representatives are usually elected in September by the various student councils and all full-time undergraduates are more than welcome to apply.

Student Services: Close cooperation between the Dean of Students Office and the D.S.A. is a tradition at Sir George. Together, the two ensure that students' rights are not violated. Also the University Council on Student Life closely oversees the funding and operation of student services. Student representatives are chosen by the D.S.A. Council.

External Affairs: The D.S.A. works closely with the other four Students' Associations of Concordia, recognizing the frequent need for student cooperation. Also, through A N.E.Q. (l'Association Nationale des Etudiants du Québec) the D.S.A. interacts with CEGEP and university students throughout the province.

Media: The D.S.A. runs a student newspaper (the Georgian), radio station (C.R.S.G.) and television station (C.U.T.V.). Also a student handbook and course evaluation guide is published over the summer. All three media invite student participation.

Programming: We realize that, with the hard pressures of university life, students often need a "break" from the grind. To ensure that they get this, a program committee of the D.S.A. council exists to gather ideas for social activities, with a full-time Programme Director to help carry them out. The emphasis in programming is placed on student cooperation, with a balance between "Quasi-academic" and "pure entertainment" events. Every student is welcome to come in and help with this facet of the D.S.A., whether it be contributing ideas, helping with publicity, or preparing for the programme.
There are certain programs which are run: Your Orientation to University (Y.O.U.) is run in the fall to welcome both new and old students to the concrete campus. Many activities take place, and a handbook is published. Work on this usually begins in the fall.

Winter Carnival takes place in mid-February. This involves about two weeks of fun and frolic to divert students from the mid-winter doldrums. Preparations for Carnival start around September.

Academic Matters: The main priority in university is, of course, education. Therefore, the D.S.A. is vitally interested in matters affecting the academic side and you should be also.

19.1.6 ASSOCIATION OF ALUMNI—SIR GEORGE WILLIAMS CAMPUS

The Association of Alumni was begun informally by the “Guinea Pig Class” of 1937, the first of many thousands to receive degrees from what was first a College and then a University, both known as Sir George Williams (now part of Concordia University).

The Association was officially incorporated as a non-profit organization on September 21, 1957.

The aims and objectives contained in the charter are to preserve the fellowship of graduates of Sir George Williams; to preserve, extend and promote the interests of the University; and to assist in the furthering of student welfare.

With the merger of Sir George Williams and Loyola producing Concordia University, a new dimension has been added, and for the time being graduates of Concordia from the Sir George Williams Campus are being asked to continue their association with their alma mater through the Sir George Williams Alumni Association.

The Association is guided by a Board of Directors, numbering 30, elected from graduates of the University. Until recently the Association financed its operations through alumni support but it recently concluded an agreement with the University whereby it joined the Development Office and is now financed through that department but retaining its autonomy in all areas except campaigning.

All graduates are automatically members of the Association and receive a monthly newspaper “The Garnet”. There is a special classification called Active Members consisting of alumni who make a financial contribution in the current year. Their support entitles them to free library privileges, special social activities such as invitations to the annual Rector’s Reception, invitations to concerts, art exhibitions etc. Active alumni members in the Toronto area receive special privileges at York University.

From time to time the Association holds reunions when it is deemed to be timely and appropriate.

The Association of Alumni has for many years provided a special award for a graduating student who in the opinion of the Faculty and students, has made a significant contribution to campus life.

The Association’s office is located at 2150 Bishop Street and is under the supervision of Matthew Ram, BA ‘43. Further information may be obtained by writing the office or calling (514) 879-5698.

19.1.7 SIR GEORGE WILLIAMS PART-TIME STUDENTS’ ASSOCIATION

An Advisory Committee consisting of 5 students, 2 faculty members and 1 administrator is the body recognized by the University and authorized to represent part-time students on the Sir George Williams Campus.

An office where part-time students may go for assistance is maintained in H-603. Telephone 879-2832.
Centre for Continuing Education
20.1 Centre for Continuing Education

The Centre for Continuing Education is currently developing and administering courses which fall under one of the two general categories: off-campus university credit programmes and non-credit programmes.

20.1.1 OFF-CAMPUS UNIVERSITY CREDIT PROGRAMMES

University credit courses are offered off-campus during the winter and summer sessions. Students who take their courses through Continuing Education will receive their credits according to the regular university programmes in which they are enrolled.

The purpose of this programme is to attempt to meet the needs of various segments of the public by offering courses in more convenient locations. Continuing Education is prepared to offer courses from the university programmes wherever there is a sufficient demand, provided qualified lecturers are available.

Individuals interested in establishing off-campus courses in their areas should contact the Coordinator of Teacher Training and Certification of Concordia University, Sir George Williams Campus, at 1455 de Maisonneuve Blvd. West, Montreal, Quebec H3G 1M8.

Admission

Admission to credit work through Continuing Education is the same as for regular admission to the university undergraduate programmes. For details refer to the section on Admission Regulations, §13. The courses offered through Continuing Education are oriented towards those individuals who wish to improve their qualifications. A specific effort has been made by Concordia University to meet the needs of teachers seeking courses for "perfectionnement".

20.1.2 NON-CREDIT PROGRAMMES

A wide variety of special programmes and courses is available through the Centre for Continuing Education for individuals who are not necessarily interested in following regular graduate or undergraduate programmes. For most of these, a certificate of achievement will be issued in the name of the Centre to students who successfully complete the required work. Course offerings are reviewed and supplemented frequently to ensure that they satisfy the changing needs for professional development in the community.
21 Programmes of Particular Interest to Teachers
21.1 Introduction

Included in this section is a list of programmes which may be of particular interest to teachers some of which fall outside the offerings of the Department of Education of Concordia University. There are also numerous specific courses which may be of interest to teachers. Potential students are advised to consult each Department.

Continuing Education at 879-8402 is prepared to offer courses off-campus from this section wherever there is sufficient demand, provided suitable lecturers are available.

Teachers who have had problems obtaining scholarship from the Quebec Government for university level courses successfully completed at Concordia University should contact their local Teacher's Association. In the event that further information is required the coordinator of teacher training and certification should be contacted at 879-8402.

21.2 Specific Programmes for the Teaching Sector

(a) Certificate Programmes

2. Certificate d'enseignement de l'anglais langue seconde au niveau élémentaire (programme intensif de perfectionnement) (30 credits) See §41.6.2
3. Certificate in Education (for Practising Teachers) (30 credits) See §41.16.2
4. Certificate in Mathematics for Teachers (Elementary School Level), (30 credits) See § 91.12.2
5. Certificate in Mathematics for Teachers (Junior Secondary School Level), (30 credits) See § 91.12.3

NOTE: A certificate programme is one in which the courses offered are at the Bachelor level.

(b) Bachelor's Degrees

1. Bachelor of Arts (Major in Early Childhood Education), (90 credits) See §41.16.1
2. Bachelor of Education (English as a Second Language), (90 credits) See §41.6.1

(c) Diploma Programmes

1. Diploma in Early Childhood Education (33 credits) See Diploma Programmes, Graduate Calendar
2. Diploma in Instructional Technology (33 credits) See Diploma Programmes, Graduate Calendar
3. Diploma in Institutional Administration (33 credits) See Diploma Programmes, Graduate Calendar
4. Diploma in the Teaching of Mathematics (33 credits) See Diploma Programmes, Graduate Calendar
5. Diploma in Art Education (33 credits) See Diploma Programmes, Graduate Calendar
6. Diploma in Ethics (33 credits) See Diploma Programmes, Graduate Calendar

NOTE: A Diploma programme is one in which the courses offered are at a level between the Bachelor's and Master's degree.

(d) Master's Degree Programmes

1. Master in the Teaching of Mathematics (M.T.M.) (45 credits) See Graduate Programmes, etc., Graduate Calendar
2. Master of Science in Biology (Teaching Option) (45 credits) See Graduate Programmes, Graduate Calendar
3. Master of Science in Chemistry (Teaching Option) (45 credits) See Graduate Programmes, Graduate Calendar
4. Master of Science in Physics (Option B) (45 credits) See Graduate Programmes, Graduate Calendar
5. Master of Arts in Art Education (45 credits) See Graduate Programmes, Graduate Calendar
6. Master of Arts in Applied Linguistics (45 credits) See Graduate Programmes, Graduate Calendar
7. Master of Fine Arts (90 credits) See Graduate Programmes, Graduate Calendar
8. Master of Arts in Educational Studies (45 credits) See Graduate Programmes, Graduate Calendar
9. Master of Arts in Educational Technology (90 credits) See Graduate Programmes, Graduate Calendar
41 Sir George Williams
Faculty of Arts

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HUMANITIES DIVISION

41.8 DEPARTMENT OF CLASSICS, MODERN LANGUAGES AND LINGUISTICS

41.9 DEPARTMENT OF ENGLISH

41.10 DEPARTMENT OF FRENCH

41.11 MATHEMATICS (FACULTY OF SCIENCE, SGW)

41.12 DEPARTMENT OF PHILOSOPHY

41.13 DEPARTMENT OF RELIGION

SOCIAL SCIENCES DIVISION

41.14 DEPARTMENT OF APPLIED SOCIAL SCIENCE

41.15 DEPARTMENT OF ECONOMICS

41.16 DEPARTMENT OF EDUCATION

41.17 DEPARTMENT OF GEOGRAPHY

41.18 DEPARTMENT OF HISTORY

41.19 DEPARTMENT OF POLITICAL SCIENCE

41.20 DEPARTMENT OF PSYCHOLOGY

41.21 DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY
41.1 Sir George Williams
Faculty of Arts

<table>
<thead>
<tr>
<th>Dean</th>
<th>Associate Dean (Curriculum)</th>
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<tbody>
<tr>
<td>IAN L. CAMPBELL</td>
<td>DAVID McKEEN</td>
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<tr>
<th>Associate Dean (Priorities)</th>
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<tr>
<td>MURIEL ARMSTRONG</td>
<td>BRIAN SLACK</td>
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<tr>
<th>Assistant to the Dean</th>
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<tr>
<td>MONA OSBORNE</td>
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41.2 Curriculum for the Degree of Bachelor of Arts

Admission Requirements
General admission requirements are listed in § 13.

Specific requirements for admission to the various programmes leading to the degree of Bachelor of Arts are listed below. Students lacking one or more of these prerequisites may be admitted, but must include the designated prerequisite courses among the courses followed in their undergraduate programmes.

Programme titles refer to honours, specializations, majors and minor components where these exist.

Bachelor of Arts

NOTE: One full course represents two term courses.

<table>
<thead>
<tr>
<th>Programme Title</th>
<th>Asian Studies</th>
<th>No requirement besides the Diploma for Collegial Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Social Science</td>
<td>Canadian Politics</td>
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</tr>
<tr>
<td>Geography</td>
<td>Canadian Studies</td>
<td></td>
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<tr>
<td>Psychology</td>
<td>Early Childhood</td>
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<td>Mathematics</td>
<td>Education</td>
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<tr>
<td>Education (Minor)</td>
<td>Economics</td>
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<tr>
<td>English</td>
<td>Education (Minor)</td>
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<tr>
<td>French</td>
<td>English</td>
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<tr>
<td>French/Translation</td>
<td>French</td>
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<td>German</td>
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<td>Greek</td>
<td>French/Translation</td>
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<td>Hebrew</td>
<td>German</td>
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<tr>
<td>History</td>
<td>Greek</td>
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<tr>
<td>International Affairs</td>
<td>Hebrew</td>
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<td>Italian</td>
<td>History</td>
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<tr>
<td>Journalism</td>
<td>International Affairs</td>
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<tr>
<td>Judaic Studies</td>
<td>Italian</td>
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<tr>
<td>Latin</td>
<td>Journalism</td>
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<tr>
<td>Russian</td>
<td>Religion</td>
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<tr>
<td>Russian Studies</td>
<td>Religious</td>
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<tr>
<td>Science and Human Affairs</td>
<td>Russian</td>
<td></td>
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<tr>
<td>Social Welfare</td>
<td>Science</td>
<td></td>
</tr>
<tr>
<td>Sociology and Anthropology</td>
<td>Social Welfare</td>
<td></td>
</tr>
<tr>
<td>Spanish</td>
<td>Sociology and Anthropology</td>
<td></td>
</tr>
<tr>
<td>Urban Studies</td>
<td>Spanish</td>
<td></td>
</tr>
<tr>
<td>Women's Studies</td>
<td>Urban Studies</td>
<td></td>
</tr>
<tr>
<td>Bachelor of Education</td>
<td>Women's Studies</td>
<td>See § 41.6.1</td>
</tr>
</tbody>
</table>

The designation "minor in . . .", "major in . . .", "specialization in . . .", or "honours in . . ." will be given to candidates for
the degree of Bachelor of Arts whose programmes meet both the requirements of the Sir George Williams Faculty of Arts for a minor, major, specialization or honours programme, and the departmental requirements for such a programme in the particular discipline. Students should therefore consult the statement of the Faculty's degree requirements contained in the next section of this calendar, and should also consult the programme requirements of the departments, which are set out within the sections devoted to the various faculties.

41.3 Degree Requirements

Definition of Credit
Up to and including the academic year 1973-74, degree programmes have been expressed in terms of courses, with one credit being applied to a "full course" (normally two terms) and one half-credit being applied to a "half-course" (normally one term).

Starting in 1974-75, in accordance with the recommendations of the Quebec Council of Universities, the credit-base was modified to take into account the total activity of the student. Students preparing for the degree of Bachelor of Arts take a minimum of 90 credits. Each credit represents, for the average student, a minimum of 45 hours spread across lectures, conferences, laboratories, studio or practice-periods, tests, examinations and personal work.

Graduation with the degree of Bachelor of Arts requires:

1. Successful completion of a programme of concentration in the form of a specialization, a double minor, a major or an honours programme as listed below.
2. A maximum of 48 credits at the 200-level out of the 90 credits required for the degree.
3. Students taking a double minor, an interdisciplinary major, a departmental major, a specialization, or a departmental honours may take no more than 66 of their 90 course-credits in one department, and no more than 78 in one division (i.e. Humanities Division or Social Sciences Division).
4. Students taking an interdisciplinary honours programme or a combined honours programme must take at least 18 course-credits outside of their division, and outside of their departments of concentration if the respective departments are in different divisions.

Concentration Requirement
Since the CEGEP programme is designed to give all students the opportunity to explore different fields and thus acquire a broad general basis for further study, the undergraduate programme in Arts requires some degree of concentration, according to the interests and capacities of the student. The four main forms of concentration are the minor, the major, the specialization, all of which require that the student be successful in a prescribed pattern of courses, and honours, which involves not only a greater degree of concentration, but also a high level of academic performance.

In order to graduate, therefore, a student must have completed one of the following types of programmes: a double minor; an interdisciplinary major programme; a departmental major programme; a specialization; a combined honours programme; an interdisciplinary honours programme; a departmental honours programme.

Prior to registration, students will be required to select one of the types of programmes outlined above. In the case of honours: students will register upon entry in an honours programme; but their acceptance as honours students will depend on their performance during their first year. Students failing to meet requirements for honours standing will proceed as majors. The requirements of selecting upon entry a programme of concentration should not be thought of as being necessarily a final commitment. The Arts programme is designed to be flexible enough to allow for changes of orientation, subject, of course, to limitations in the case of certain programmes in great demand.

41.4 Programmes

Honours, Specializations, Majors and Minors are listed with their respective Departments.

Programme Advisers
Anthropology
C. BRANT
Majors Programmes

A “major” is an approved sequence of courses. It includes a minimum of 42 credits and a maximum of 60. The concentration may include certain approved courses in other closely related fields. The term “major” as used by Concordia University implies that the student has followed, within the requirements for the degree, a planned programme in a specialized field.

Honours Programmes

The university has approved programmes leading to an honours degree in certain selected fields. An honours degree indicates specialization within a field, and high academic standing. In order to qualify for an honours degree a student must meet all of the academic qualifications and comply with the regulations set forth below.

1. A candidate for an honours degree should indicate such intention at registration and consult the honours representative of the department(s) concerned as soon as possible. Acceptance as an honours student will depend on performance during the first year. The honours standing will be reviewed annually.

A student who has followed the courses prescribed for the honours programme
and has met all the requirements may enter the programme with the approval of the honours representative any time before beginning the final 30 credits. No retroactive approval of entry may be made.

2. A student who enters with advanced standing may apply pro tanto credits which are applicable to the honours degree requirements, upon approval by the department(s).

A transfer student must complete a minimum of 30 credits in the basic honours programme in residence to receive a degree with honours.

3. An honours student must maintain a 'B' average with no grade lower than 'C' in all courses in the basic honours programme.

An honours student must meet the general degree requirements as well as the specific requirements for an honours degree, and must obtain at least a 'C' average over the total degree programme. Failure in any course will mean suspension or withdrawal from the honours programme. Students who fail to meet acceptance requirements and who are required to withdraw from the honours programme will proceed as majors. Reinstatement into the honours programme is possible only by recommendation by the honours representative.

4. A student shall be allowed to qualify for only one honours degree in either a single or combined honours programme.

5. A degree with honours in any programme is granted upon graduation only with the approval of the Senate.

Honours Committee

B. SLACK, Associate Professor (Chairman)
A. B. DOYLE, Associate Professor
E. PECHTER, Associate Professor
S. MULLETT, Assistant Professor
C. FOSTER, For the Registrar
M. OSBORNE, Secretary

Departmental Honours Representatives

Economics
MORTON STELCNER, Associate Professor of Economics

Education
WILLIAM KNITTER, Assistant Professor of Education

English
E. RONQUIST, Assistant Professor of English

French
ALBERT JORDAN, Associate Professor of French

Geography
HARRY CLINCH, Associate Professor of Geography

History
IRVING SMITH, Associate Professor of History and Russian Studies

Mathematics
M. MALIK, Associate Professor of Mathematics

Philosophy
SHEILA MULLETT, Assistant Professor of Philosophy

Political Science
BLAIR WILLIAMS, Associate Professor of Political Science

Psychology
ED BRUSSELL, Assistant Professor of Psychology

Religion
MICHAEL OPPENHEIM, Assistant Professor of Religion

Russian Studies
IRVING SMITH, Associate Professor of History and Russian Studies

Sociology and Anthropology
CHARLES BRANT, Professor of Sociology and Anthropology

John JACKSON, Associate Professor of Sociology

Undergraduate Scholars Programme
MAIR VERTHUY, Associate Professor of French and Coordinator of Undergraduate Scholars Programme

Urban Studies
A. MELAMED, Assistant Professor in the Centre for Interdisciplinary Studies and Coordinator of Urban Studies
41.5 Centre for Interdisciplinary Studies

Associate Professor of Physics and Director of the Centre for Interdisciplinary Studies
DAVID CHARLTON

Professor of Science and Human Affairs
FRED KNELMAN

Professor of History and Coordinator of Canadian Studies
RICHARD WILBUR

Associate Professor of Philosophy and Coordinator of Women’s Studies
CHRISTINE ALLEN

Associate Professor of History and Science and Human Affairs
WADE CHAMBERS

Associate Professor of History and Coordinator of Asian Studies
JOHN HILL

Associate Professor of History and Coordinator of Russian Studies
IRVING SMITH

Associate Professor of English and Canadian Studies
ROBERT SORFLEET

Associate Professor of French and Coordinator of the Undergraduate Scholars Programme
MAIR VERTHUY

Visiting Assistant Professor and Coordinator of Science and Human Affairs
GEORGE BINDON

Assistant Professor in the Centre for Interdisciplinary Studies and Coordinator of Urban Studies
ANSHEL MELAMED

Adjunct Professor of Science and Human Affairs
CHRISTIAN de LAET

41.5.1 THE CENTRE FOR INTERDISCIPLINARY STUDIES

The Centre for Interdisciplinary Studies offers a variety of interdisciplinary programmes. Each programme allows a student to study in a number of disciplines and relate these to the study of a complex area or problem. The area programmes include Canada, Russia and Asia. The programmes that confront issues are Science and Human Affairs, Urban Studies, and Women’s Studies. The Centre also offers an Undergraduate Scholars Programme which encourages promising students to develop an individual programme of study in consultation with a faculty adviser.

All Interdisciplinary Studies courses, as well as some other courses offered within the Centre for Interdisciplinary Studies, may be regarded as courses in the Humanities or in the Social Sciences.

41.5.2 COURSES IN INTERDISCIPLINARY STUDIES

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

INTERDISCIPLINARY STUDIES — GEOGRAPHY S212

Early Man
An examination of the scientific evidence for the unwritten part of man’s evolutionary history. The course will study both food-gathering and food-producing man. Biological and cultural evolution will be considered from both a temporal and a spatial viewpoint against a background of changing natural environment. (6 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Science and Human Affairs Programme.

INTERDISCIPLINARY STUDIES — PHILOSOPHY S281

Introduction to General Systems Theory
An elementary survey of the trans-disciplinary general systems approach. Such basic concepts as structure, information and regulation will be explored and a teleological framework suited to the social and behavioral sciences will be developed. (6 credits) NOTE A/See § 200.1

INTERDISCIPLINARY STUDIES S300

Faculty of Arts Lecture Series
This course provides a flexible context for study in a field of immediate or specific interest. The theme or topic discussed will vary from year to year. (3 credits) NOTE A/See § 200.1
INTERDISCIPLINARY STUDIES — ANTHROPOLOGY S333
Introduction to Archaeology

An introduction to the archaeology of the ancient civilizations of the Mediterranean world.

41.5.3 ASIAN STUDIES

As Canada strengthens her relationships with the nations of Asia, she will need young men and women who have been trained in Asian Studies to provide leadership in such fields as education, foreign service, banking, international law, overseas industry and business. The Asian Studies Programme seeks to meet this need by offering an interdisciplinary course of study involving the departments of Economics, History, Political Science, Religion and Sociology-Anthropology and the Faculty of Fine Arts.

Asian Studies Committee
JOHN HILL, History, Coordinator
LALITA SINGH, Political Science
CHARLES BRANT, Sociology-Anthropology
PHILIP COHEN, Fine Arts (Music)
SHEILA MCDONOUGH, Religion
DAVID MILLER, Religion
SHRIE KANT PALEKAR, Economics
MARTIN SINGER, History

Programmes

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3.

The superscript indicates credit value.

60 BA Major in Asian Studies

6 Asian St S495
6 Hist S261
6 Pol Sc S355
6 Chosen from Rel S311, S312, S313
6 Chosen from Anth S464, S465, S466, S467
18 Chosen from Arabic S411; Econ S440; Hist S361, S362, S363, S451; World Music C310; Pol Sc S485; Rel S311, S312, S313
12 Chosen from Asian content Elective credits (in consultation with Asian St Major Adviser)

30 Minor in South Asian Studies

12 Chosen from Hist S261, Asian St S495 or any other Asian St course approved by the Coordinator of Asian St
18 Chosen from Hist S362, S363, S461, Rel S312, World Music C310, Pol Sc S355, Anth S466
NOTE: Students may take no more than 12 of these credits in a single department.

COURSES IN ASIAN STUDIES

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

ASIAN STUDIES

ASIAN STUDIES S295
Introduction to an Asian Language

Prerequisite: Enrolment in the Asian Studies major or minor programmes or permission of the Coordinator of Asian Studies. This course allows individual or group instruction in the basic vocabulary and grammar of an approved Asian Language with a qualified instructor approved by the Coordinator and the Department of Modern Languages. Students should understand that fees will vary with individual instructors and the mode of instruction. (6 credits)
NOTE A/See § 200.1

ASIAN STUDIES S395
Study of an Asian Language

Prerequisite: Asian Studies S295 or permission of the Coordinator of Asian Studies. This course allows individual or group instruction at an intermediate level in an approved Asian Language with a qualified instructor approved by the Coordinator and the Department of Modern Languages. Students should understand that fees will vary with individual instructors and the mode of instruction. (6 credits)
NOTE A/See § 200.1

ASIAN STUDIES S495
Seminar in Asian Studies

Prerequisite: Permission of the Coordinator. A seminar designed for majors in Asian Studies. The seminar will vary in content depending upon the interests of the majors taking the course. (6 credits) NOTE A/See § 200.1

NOTE: With the permission of the Coordinator, a student may take this course twice for credits, provided that a different subject is dealt with the second. He will register the second time under Interdisciplinary Studies S496.
ASIAN STUDIES S496  
Seminar in Asian Studies  
Prerequisite: Permission of the Coordinator. A student repeating Asian Studies S495 registers for credits under Asian Studies S496. (6 credits) NOTE A/See § 200.1

CLASSICS, MODERN LANGUAGES AND LINGUISTICS

ARABIC S411  
Literary Arabic  
Prerequisite: Linguistics S221 or permission of the instructor. This course is designed to give the student in one year a thorough understanding of modern literary Arabic through a linguistic analysis of its structure. (6 credits) NOTE A; B/See § 200.1

ECONOMICS

ECONOMICS S440  
Economic Development  
Prerequisites: Economics S209 and S210, S311. The course investigates comparative economic development with special attention to problems of capital formation, population growth, quality of the 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. (6 credits) NOTE A/See § 200.1

FACULTY OF FINE ARTS

WORLD MUSIC C310  
Music in the Non-Western World  
Prerequisite: Permission of the Music Section. A survey of the art, religious and folk music of non-European cultures. The study includes an examination of cross-cultural parallels and influences, instruments, notations, textures, techniques of performance and problems of interpretation. Illustrated with recordings and slides. (6 credits) NOTE A/See § 200.3

HISTORY

HISTORY S261  
History of Asia  
A survey of the major intellectual traditions, social structures and political institutions of South and East Asia, with particular attention to the changes in the societies of India and China during the past two centuries. (6 credits) NOTE A/See § 200.1

HISTORY S361  
History of Modern India  
Prerequisite: History S210 or S261 or permission of the Department. A study of India, Pakistan and Bangladesh. The legacy of divergent cultural, linguistic and political experiences, the crisis of colonialism, and the emergence of national imperatives in the 20th century. (6 credits) NOTE A/See § 200.1

HISTORY S362  
Modern China  
Prerequisite: History S210 or S261 or permission of the Department. An intensive study of Chinese history since 1800 with emphasis on problems in political and intellectual history. (6 credits) NOTE A/See § 200.1

HISTORY S363  
Traditional China  
Prerequisite: History S210 or S261 or permission of the Department. An examination of Chinese history from the beginning to the Ch'ing dynasty (c. 1800). Emphasis will be placed on China's political, intellectual and cultural heritage. (6 credits) NOTE A/See § 200.1

HISTORY S461  
Advanced Study in Asian and African History  
Prerequisite: A "300" level course in History or permission of the Department. Seminar in a selected topic in the history of Asia or Africa. The emphasis will be on encouraging students to conduct historical investigation on their own under a professor's guidance. The specific content will vary from year to year depending on the instructor. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE

POLITICAL SCIENCE S355  
The Politics of Developing Areas  
A study of the politics and structure of government in developing areas such as Asia, Africa or South America against the background of social and economic change since World War II. The specific area which will be studied will vary from year to year depending on the interests of the instructor. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S485  
Diplomacy and Foreign Policy  
Prerequisite: Political Science S270. Foreign and defence policies of the Great Powers; diplomacy, military strategy and intelligence; methods and techniques of policy-making and enforcement. (6 credits) NOTE A/See § 200.1

RELIGION

RELIGION S311  
The Religions of India, Ceylon, Southeast Asia  
An historical study of the major religious traditions native to the Indian sub-continent, Ceylon and Southeast Asia. Although the course will concentrate upon the development of Hindu and Buddhist religious thought and institutions, consideration will be given to the influence of Jainism, Islam and Christianity upon Hinduism and Theravada Buddhism. The course will end with an analysis of the contemporary religious situation in India and Burma. (6 credits) NOTE A/See § 200.1

RELIGION S312  
The Religions of China and Japan  
Prerequisite: Second year standing. An historical study of the religious traditions of pre-modern China, Tibet and Japan. After a brief introduction to the origin of Buddhism in India, the course will focus upon the development of religious thought and institutions in Mahayana Buddhism, Taoism, Confucianism and Shinto. The course will end with an analysis of the contemporary religious situations in China and Japan. (6 credits) NOTE A/See § 200.1
41.5.4 CANADIAN STUDIES

The Canadian Studies Programme is designed to introduce the student to a number of disciplines as they apply to Canada. It provides the opportunity to obtain a liberal arts education given direction and depth by a focus on Canada. After completing the introductory core of courses, the student develops a proposal for an interdisciplinary research project and then in consultation with the Coordinator plans a programme of studies relevant to it. The research project is completed under the supervision of an advisor and is formally reported in the Canadian Studies Seminar.

Canadian Studies Committee

RICHARD WILBUR, History, Coordinator
HARRY ANGELL, Political Science
ROBIN BURNS, History
HARRY CLINCH, Geography
BARBARA OPALA, English
SANDRA PAIKOWSKY, Fine Arts
ROBERT SORFLEET, English
ANTHONY SYNNOTT, Sociology
BLAIR WILLIAMS, Political Science

Programme

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3

The superscript indicates credit value.

48 BA Major in Canadian Studies

6 Can St S211
6 Engl S244
6 Fr S211

upon the interrelations of techno-economic, social, structural and ideological aspects, with considerable attention to recent and prospective changes. (3 credits) NOTE A/See § 200.01

ANTHROPOLOGY S466
Peoples and Cultures of Japan and Korea
Prerequisite: Anthropology S211 or its equivalent. This course will deal with the development of these cultures from their earliest manifestation to the present. Emphasis will be upon the interrelations of techno-economic, social, structural and ideological aspects, with considerable attention to recent and prospective changes. (3 credits) NOTE A/See § 200.1

ANTHROPOLOGY S467
Peoples and Cultures of Southeast Asia
Prerequisite: Anthropology S211 or its equivalent. This course will deal with the development of these cultures from their earliest manifestation to the present. Emphasis will be upon the interrelations of techno-economic, social, structural and ideological aspects, with considerable attention to recent and prospective changes. (3 credits) NOTE A/See § 200.1

6 Hist S221
6 Can St S411
18 Chosen from Engl S343, S344, S444; Art Hist C249, C444; World Music C300, Fr S331, S431, S432, S465; Geog S341; Rel S362; Econ S434, S446; Ed S442; Hist S321, S322, S323, S326, S421; Pol Sc S330, S335, S343, S437; Soc S445, S470, S471; Anth S462
NOTE: If students have taken equivalent courses at CEGEP they must substitute courses with suitable Canadian content to add up to 48 credits. Substitutions may be made with permission of the Coordinator.

COURSES IN CANADIAN STUDIES

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

CANADIAN STUDIES

CANADIAN STUDIES S211
Introduction to Canadian Studies
Prerequisite: First-year standing Canadian Studies Major, or permission of the Coordinator. An introduction to some of the problems which have been explored by the humanities and social sciences in the study of Canada. The themes will vary from year to year and could cover topics such as the industrialization of Quebec, immigrant and ethnic traditions and the Americanization of Canada. (6 credits) NOTE A/See § 200.1

SIR GEORGE WILLIAMS
FACULTY OF ARTS
41.5.4 CENTRE FOR INTERDISCIPLINARY STUDIES: CANADIAN STUDIES
CANADIAN STUDIES S411
Seminar in Canadian Studies
Prerequisite: Registration in the second year of the major in Canadian Studies. This is a seminar course in Canadian Studies which involves participation by interested members of the staff as well as by students in the third year of the major in Canadian Studies. (6 credits) NOTE A/See § 200.1
NOTE: With the permission of the Coordinator, a student may take this course twice for credits, provided that a different subject is dealt with the second time. A student repeating Interdisciplinary Studies S411 for credits will register under Interdisciplinary Studies S412.

CANADIAN STUDIES S412
Seminar in Canadian Studies
Prerequisite: Registration in second or third year of the major in Canadian Studies. A student repeating Canadian Studies S411 registers for credits under Canadian Studies S412. (6 credits) NOTE A/See § 200.1

ECONOMICS
ECONOMICS S304
Canadian Economic Policy I
Prerequisites: Economics S209 and S210. A study of the effects of government policies on resource allocation with emphasis on Canadian policy problems. Topics will include government regulation of business, agriculture policy, transportation policy, and tariff policy. (3 credits) NOTE A/See § 200.1

ECONOMICS S305
Canadian Economic Policy II
Prerequisite: Economics S209 and S210. A study of trade, government stabilization, growth, and welfare policies with emphasis on Canadian policy problems. Topics will include government regulation of business, agriculture policy, transportation policy, and tariff policy. (3 credits) NOTE A/See § 200.1
NOTE: Students who have credits for Economics N-405, or Economics N-431 before 1969-70 may not take this course for credits.

ECONOMICS S343
Economic History of Canada
Prerequisite: Economics S209 and S210. This course is designed to introduce the student to Canadian economic development from the early period of settlement to the present day. Emphasis will be placed on the economic history of Canada since Confederation. (6 credits) NOTE A/See § 200.1

ECONOMICS S344
Modern Canadian Literature
Prerequisite: English S244. A study of prose, poetry and drama, principally written in English from the 1930's to the present, including such writers as Laurence, MacLennan, Richler, Lowry, Klein, Callaghan, Layton, Livesay, Birney, Avison, Reaney, Nowlan and Ryga. (6 credits) NOTE A/See § 200.1

ECONOMICS S446
The Economic Development of Quebec
Prerequisites: Economics S209 and S210. This course will review past and present trends in the economic development of Quebec, though emphasis will be placed on the economic growth of Quebec since the Second World War. Attention will be given to the regional and political aspects of its growth problems. (3 credits) NOTE A/See § 200.1

EDUCATION
EDUCATION S442
Education in Canada
Prerequisite: 6 credits in Canadian History. It is advisable that students have a reading knowledge of French. This course will study the history of Canadian education and, more particularly, the history of education in Quebec. (3 credits) NOTE A/See § 200.1

ENGLISH
ENGLISH S244
Canadian Literature
An introductory survey of Canadian prose and poetry written in or translated into English, from their origins to the present. (6 credits) NOTE A/See § 200.1

ENGLISH S343
Canadian Literature
from the 1820's to the 1930's
Prerequisite: Second-year standing. A study of prose, poetry and drama, principally written in English, including such writers as McCulloch, Haliburton, Moodie, DeMille, Kirby, Lampman, Roberts, Pratt, Grove and Stead. (6 credits) NOTE A/See § 200.1

ENGLISH S344
Modern Canadian Literature
Prerequisite: English S244. A study of prose, poetry and drama, principally written in English from the 1930's to the present, including such writers as Laurence, MacLennan, Richler, Lowry, Klein, Callaghan, Layton, Livesay, Birney, Avison, Reaney, Nowlan and Ryga. (6 credits) NOTE A/See § 200.1

ENGLISH S448
Special Studies in Canadian Literature
Prerequisite: One of English S343, S344. An intensive study of a limited aspect of Canadian literature which may deal, from year to year, with an individual author or work, or a particular problem, such as "Regionalism and the Diction of Canadian Poetry", "Prairie Fiction" or "Canadian Drama". (3 credits) NOTE A, C/See § 200.1

ENGLISH S449
Special Studies in Canadian Literature
A student repeating English S448 for credits registers under English S449. (3 credits) NOTE A/See § 200.1

FACULTY OF FINE ARTS
ART HISTORY C249
Canadian Sculpture and Architecture
A study of the more important developments of Canadian architecture and sculpture from indigenous forms to contemporary work. (6 credits) NOTE A/See § 200.3

ART HISTORY C444
The Arts in Canada
Prerequisite: Art History C249 or enrollment in the Canadian Studies Major. A history of the arts in Canada from the 17th century to the present day. Where relevant, special attention will be given to those European and American influences which have shaped its growth. (6 credits) NOTE A/See § 200.1

WORLD MUSIC C300
Folk Music of the Americas
Prerequisite: Permission of the Music Section. A survey of the roots and development of
traditional music in the New World. The study examines aboriginal as well as transplanted and hybrid styles: urban and rural musics with special attention to European and African antecedents; the relationship of folk musics to popular and cultivated styles; transcription and arrangement, ethnomusicological method. (6 credits) NOTE A/See § 200.3

FRENCH

FRANÇAIS S211
Langue II et composition élémentaire
Préalable: Français S201 ou 211. Ce cours offre un aperçu général de l'histoire — politique, économique, sociale et culturelle — du Québec, toile de fond de la production littéraire; il analyse les courants nouveaux nés du processus de décolonisation et leurs reflets dans l'expression littéraire. (6 crédits) NOTE A/See § 200.1

FRANÇAIS S331
Littérature et culture québécoises
Préalable: Français S311 ou 211. Ce cours étudie les romanciers les plus importants du Québec: Aquin, Bessette, Blais, Ducharme, Hebert, Langelier, Roy; leur vocation du monde; leur manière de se rattacher aux courants littéraires de notre époque; leurs conceptions littéraires. (6 crédits) NOTE A/See § 200.1

FRANÇAIS S431
Le roman québécois contemporain
Préalable: Français S331. Étude des romanciers les plus importants du Québec: Aquin, Bessette, Blais, Ducharme, Hebert, Langelier, Roy; leur vocation du monde; leur manière de se rattacher aux courants littéraires de notre époque; leurs conceptions littéraires. (6 crédits) NOTE A/See § 200.1

FRANÇAIS S432
La poésie québécoise contemporaine
Préalable: Français S331. Étude des poètes les plus importants du Québec: Chamberland, Duguay, Hebert, Giguère, Godin, Grandbois, Lasnier, Miron, Nelligan, Saint-Denys-Garneau; leurs thèmes; leur vocation du monde. (6 crédits) NOTE A/See § 200.1

FRANÇAIS S465
Théâtre québécois
Préalable: Français S331. Étude du théâtre québécois à partir de 1945. Analyse des pièces les plus importantes pour en dégager les lignes de force et établir leurs relations avec le contexte social du Québec contemporain. (3 crédits) NOTE A/See § 200.1

GEOGRAPHY

GEOGRAPHY S341
Regional Geography of Canada
Prerequisite: Geography S211 or S271 or second-year standing in an honours or departmental major programme in the Social Sciences or the Faculty of Commerce.

A study of Canada, past and present, based on the various natural regions into which the country is divided. In the first half of the course an historic-geographical approach will be taken to bring to the student's attention the main trends in Canadian cultural and historical development from aboriginal times to the present. The changing nature of man-land relationships at different periods of time, and under different forms of occupation, will receive particular attention. In the second half of the course the present day pattern of human occupation on a regional and national basis will be analysed. (6 credits) NOTE A/See § 200.1

HISTORY

HISTORY S221
History of Canada
A study of the growth of Canada from the age of exploration to the present time. Emphasis is placed on the political, economic and cultural developments which are of significance in the understanding of the problems of today. (6 credits) NOTE A/See § 200.1

HISTORY S321
British North America: 1760-1873
Prerequisite: History S210 or S221. An advanced study of the history of British North America from the British conquest and American Revolution to Confederation. The course will focus on historical topics and problems of interpretation, organized according to the regions of British North America. (6 credits)

HISTORY S322
Modern Canada: 1840 to the Present
Prerequisite: History S210 or S221. An intensive study of the political, economic and cultural development of Canada since the Act of Union. (6 credits) NOTE A/See § 200.1

HISTORY S323
French Canada to 1763
Prerequisite: History S210 or S221. An intensive study of Canada during the colonial regime. Much of the material will be in French. (6 credits) NOTE A/See § 200.1

HISTORY S325
French Canada: 1763-1867
Prerequisite: History S210 or S221. An intensive study of French Canada from the Conquest to Confederation. Much of the material will be in French. (6 credits) NOTE A/See § 200.1

HISTORY S326
Quebec: 1867 to the Present
Prerequisite: History S210 or S221 previously or concurrently. An intensive study of Quebec since Confederation. While due attention will be paid to the political history of Quebec, the purpose of the course is to provide a study of
41.5.5 SCIENCE AND HUMAN AFFAIRS

This programme is concerned with the social dimensions of science and technology. Its teaching and research provide an interdisciplinary examination of the ethical, cultural, political and environmental problems associated with scientific and technological change. Attention is also focused on analysis of the social systems of science from historical, sociological, economic and philosophical perspectives.

The programme is designed for students interested in science and technology, but...
who do not plan careers in scientific research or the technical professions. Rather it prepares them for constructive careers which involve a grasp of scientific methods, an understanding of scientific principles, and an appreciation of the nature, content and implications of scientific research, technological innovation and industrial development. For students working toward degrees in science or engineering, the programme provides the opportunity to develop important additional perspectives and capabilities.

There are a number of streams or areas within the programme. In the History and Philosophy of Science, for example, students may concentrate so as to prepare themselves for graduate work. Another stream examines the social impact of science and technology by focusing on policy problems. Students may develop a variety of approaches for dealing with public policy in either the areas of science and technology or environment. These also are preparatory for existing graduate programmes.

In addition to courses in Science and Human Affairs, Concordia offers related courses in many other departments. A major and minor in Environmental Biology, Social Aspects of Engineering courses in the faculty of Engineering and a minor in Social Responsibility of Science on the Loyola Campus.

Science and Human Affairs Committee

GEORGE BINDON, Science and Human Affairs, Coordinator
DAVID WADE CHAMBERS, History/Science and Human Affairs
DAVID CHARLTON, Physics
JEFFREY CRELINSTEN, Social Responsibility in Science (Loyola)
GORDON EDWARD, Science and Human Affairs
HORST HUTTER, Political Science
EDWARD KERRIGAN, Science and Human Affairs
FREDERICK KNELMAN, Science and Human Affairs
CHRISTIAN de LAET, Science and Human Affairs
HUGH McQUEEN, Engineering

Programmes

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3.

The superscript indicates credit value.

60 Specialization in Science and Human Affairs
12 SCHA S201, S202, S221, S222
6 Chosen from SCHA S312, S351 or Sc electives approved by the Department

18 SCHA S401, S446, S472
18 Chosen from SCHA S447, Phil/IDS S281, Phil S221, S421, Rel S433, Soc S422, Hist S333 or Elec approved by the Department.

6 SCHA S493

NOTE: Students may be required by their adviser to take an English writing course at an appropriate level.

42 BA Major in Science and Human Affairs
12 SCHA S201, S202, S221, S222
6 Chosen from SCHA S312, S351: Int St S212, S333, or Sc Elective credits approved by the Centre
18 Chosen from SCHA S401, S446, S447, S472, Phil S281, S421, S376, S421, Rel S433, Soc S422, Hist S333, or Elective credits approved by the Centre
6 SCHA S493

30 Minor in Science and Human Affairs
12 SCHA S201, S202, S221, S222
18 Chosen from SCHA S312, S351, S401, S446, S447, S472

COURSES IN SCIENCE AND HUMAN AFFAIRS

CENTRE FOR INTERDISCIPLINARY STUDIES

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

SCIENCE AND HUMAN AFFAIRS S201
Introduction to Science and Human Affairs I

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. (3 credits) NOTE A/See § 200.1

SCIENCE AND HUMAN AFFAIRS S202
Introduction to Science and Human Affairs II

A continuation of Science and Human Affairs S201. This course may be taken independently. (3 credits) NOTE A/See § 200.1

SCIENCE AND HUMAN AFFAIRS S221
Environmental Issues I

The scientific, social and cultural nature of man’s relationship to his environment. Emphasis will be placed on pollution, conservation, population resources and human ecology. (3 credits) NOTE A/See § 200.1
SCIENCE AND HUMAN AFFAIRS S222  
Environmental Issues II  
A continuation of Science and Human Affairs S221. This course may be taken independently. (3 credits) NOTE A/See § 200.1

SCIENCE AND HUMAN AFFAIRS S312  
Case Histories in Experimental Science  
Readings will concentrate on the original scientific texts (e.g. Harvey, Galileo, Newton, Faraday, Pasteur, Crick and Watson). Prerequisite: permission of the Coordinator or the Department. Students will follow the original experimental procedures which will also be examined in classroom demonstrations on film and videotape. (6 credits) NOTE A/See § 200.1

SCIENCE AND HUMAN AFFAIRS S351  
Astronomy, Cosmology and the Space Age  
The nature of the universe as described in both contemporary and historical astronomical theories; cosmology and its cultural context; the nature of scientific method in astronomy; life on other worlds; the social implications of space flight. (6 credits) NOTE A/See § 200.1

SCIENCE AND HUMAN AFFAIRS S401  
Advanced Study in Technology and Society  
Prerequisites: Science and Human Affairs S201, S202, or permission of the Coordinator. The social role and impact of technology in modern society; alienation in the technological age; the critique of technology; the sources and processes of discovery; invention and innovation; methods of technological assessment and forecasting. (6 credits) NOTE A/See § 200.1

SCIENCE AND HUMAN AFFAIRS—  
HISTORY S446  
Advanced Study in the History of Science  
Prerequisite: Permission of the Coordinator. Seminar in a selected topic in the History of Science. The emphasis will be on encouraging students to conduct historical investigation on their own under a professor's guidance. The specific content will vary from year to year depending on the instructor. (6 credits) NOTE A/See § 200.1  
NOTE: With permission of the Coordinator, a student may take this course twice for credits provided that a different subject is dealt with the second time. A student repeating Science and Human Affairs S446 for credits will register under Science and Human Affairs S447.

SCIENCE AND HUMAN AFFAIRS—  
HISTORY S447  
Advanced Study in the History of Science  
Prerequisite: Permission of the Coordinator. A student repeating Science and Human Affairs S446 registers for credits under Science and Human Affairs — History S446. (6 credits) NOTE A/See § 200.1

SCIENCE AND HUMAN AFFAIRS—  
POLITICAL SCIENCE S472  
Science and Public Policy  
Prerequisite: Science and Human Affairs S201, S202, one course in Political Science or permission of the Coordinator or the Department. This course will deal with the relationship between science and government. Particular emphasis is placed on such problems as the role of the scientist in political decision-making, the making of Canadian science policy, the mix of basic, applied and mission-oriented research, the relationships of science and the military, the nature of technocracy and the role of science in economically developing nations. (6 credits) NOTE A/See § 200.1

SCIENCE AND HUMAN AFFAIRS S493  
Seminar in Science and Human Affairs  
Prerequisite: Enrollment in Major or Specialization in Science and Human Affairs, or permission of the Coordinator. Taught by all members of staff, this seminar affords an opportunity for intensive examination of an explicitly interdisciplinary theme. (6 credits) NOTE A/See § 200.1  
NOTE: With permission of the Coordinator, a student may take this course twice for credits provided that a different subject is dealt with the second time. A student repeating Science and Human Affairs S493 for credits will register under Science and Human Affairs S494.

SCIENCE AND HUMAN AFFAIRS S494  
Seminar in Science and Human Affairs  
Prerequisite: Permission of the Coordinator. A student repeating Science and Human Affairs S493 for credits will register under Science and Human Affairs S494. (6 credits) NOTE A/See § 200.1

ECONOMICS  
ECONOMICS S304  
Canadian Economic Policy I  
Prerequisites: Economics S209 and S210. A study of the effects of government policies on resource allocation, with emphasis on Canadian policy problems. Topics will include government regulation of business, agriculture policy, transportation policy, and tariff policy. (3 credits) NOTE A/See § 200.1

ECONOMICS S305  
Canadian Economic Policy II  
Prerequisites: Economics S209 and S210. A study of trade, government stabilization, growth, and welfare policies with emphasis on Canadian policy problems. Topics will include government regulation of business, agriculture policy, transportation policy, and tariff policy. (3 credits) NOTE A/See § 200.1  
NOTE: Students who have credits for Economics N-405, or Economics N-431 before 1969-70 may not take this course for credits.

ECONOMICS S307  
Economics of the Environment  
Prerequisites: Economics S209 and S210. The subject of this course is environmental quality. It proceeds through an analysis of the relationship between 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 will be 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. (3 credits) NOTE A/See § 200.1
ECONOMICS S308
Economics of Natural Resources
Prerequisite: Economics S209 and S210. 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). (3 credits) NOTE A/See § 200.1

GEOGRAPHY

GEOGRAPHY—INTERDISCIPLINARY STUDIES S212
Early Man
An examination of the scientific evidence for the unwritten part of man's evolutionary history. The course will study both food-gathering and food-producing man. Biological and cultural evolution will be considered from both a temporal and a spatial viewpoint against a background of changing natural environment. (6 credits) NOTE A/See § 200.1

NOTE: Students who have taken Geography—Interdisciplinary Studies N-321 may not take this course for credits.

GEOGRAPHY S357
Resource Utilization and Conservation
Prerequisite: Geography S211 or second year standing in an honour's or departmental major programme in the Social Sciences or the Faculty of Commerce. The resource concept and concepts of conservation. The regional approach to resource management. Case studies of the problems in developing particular natural resources and of interstate areas of poor economic health, with emphasis on the regional and national parts of such developments. Special emphasis will be given to Canadian problems and those of selected underdeveloped countries. (6 credits) NOTE A/See § 200.1

HISTORY

HISTORY S333
Enlightenment and Revolution, 1640-1848
Prerequisite: History S210. European history in the age of the French Revolution, including a study of the scientific and industrial revolutions. (6 credits) NOTE A/See § 200.1

HISTORY S335
Social and Intellectual History of Early Modern Europe
Prerequisite: History S210. 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 will be emphasized. (6 credits) NOTE A/See § 200.1

HISTORY S336
Social and Intellectual History of Modern Europe
Prerequisite: History S210. The intellectual systems arising in Europe since the 17th century will be explored in the context of the economic and social circumstances which engendered them. This course will begin with the rise of theories of "possessive individualism" and will end with the contemporary cultural crisis. While attention will be paid to the general dynamics of culture, special attention will be devoted to the social functions of particular ideologies. (6 credits) NOTE A/See § 200.1

HISTORY—SCIENCE AND HUMAN AFFAIRS S446
Advanced Study in the History of Science
Prerequisite: Permission of the Department. Seminar in a selected topic in the History of Science. The emphasis will be on encouraging students to conduct historical investigation on their own under a professor's guidance. The specific content will vary from year to year depending on the instructor. (6 credits) NOTE A, C/See § 200.1

PHILOSOPHY

PHILOSOPHY S221
Introduction to Logic
This course introduces the student to the nature and function of formal logic through an examination of both syllogistic logic and immediate inference. In addition there will be an extensive treatment of informal or material fallacies and an elementary presentation of propositional logic. (6 credits) NOTE A/See § 200.1

PHILOSOPHY S321
Modern Logic
An introduction to modern logic, its techniques and applications. Coverage of sentential logic, first order predicate logic, naive set theory, relations and functions (6 credits) NOTE A/See § 200.1

PHILOSOPHY S376
Philosophy of the Social Sciences
Philosophical examination of the structure and methodology of the social sciences. Special attention to problems of functionalism, teleological explanation and the testing of social theories. (3 credits) NOTE A/See § 200.1

PHILOSOPHY S421
The Philosophy of Science
Prerequisite: One course in logic or permission of the Department. A critical examination of problems pertaining to the structure and status of scientific theories and the logic of
POLITICAL SCIENCE

POLITICAL SCIENCE S330
Government and Politics of Canada
A study of the parliamentary system in Canada with emphasis placed upon the development and judicial interpretation of the British North America Act, the federal system, the nature and organization of political parties, the evolution of cabinet rule, the judicial structure and contemporary problems in Canada. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S333
Problems of Public Administration
Prerequisite: Political Science S240 or S330. This course deals with the nature and function of the administrative branch of government. The student is introduced to such problems as the organization of government departments, the management of government corporations, budgeting, selection and training of personnel, maintenance of morale and discipline, relationship between legislature and administration, relationship between the administration and the public. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE—SCIENCE AND HUMAN AFFAIRS S472
Science and Public Policy
Prerequisites: Science and Human Affairs S201, S202, one course in Political Science or permission of the Coordinator of the Department. The relationship between science and government. Particular emphasis is placed on such problems as the role of the scientist in political decision-making, the making of Canadian science policy, the mix of basic, applied and mission-oriented research, the relations of science and the military, the nature of technocracy and the role of science in economically developing nations. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE—SCIENCE AND HUMAN AFFAIRS S473
Introduction to Archaeology
An introduction to the archaeology of the ancient civilizations of the Mediterranean world. Special emphasis will be given to the methodological approach to archaeology. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY/INTERDISCIPLINARY STUDIES S333
Introduction to Archaeology
An introduction to the archaeology of the ancient civilizations of the Mediterranean world. Special emphasis will be given to the methodological approach to archaeology. (6 credits) NOTE A/See § 200.1

41.5.6 RUSSIAN STUDIES

The Russian Studies Major prepares students for professional and academic careers in Civil Service, Trade and Commerce, External Affairs and other areas of relationship between Canada and the Soviet Union. A wide variety of courses in Russian language, politics, economics, history, philosophy and geography is taught by specialists who work closely with students in designing programmes which best fit their needs.

Russian Studies Committee
IRVING SMITH, History, Coordinator
TATIANA SIDOROW, Russian Language
VLADIMIR ZEMAN, Philosophy

Programmes
Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3.

The superscript indicates credit value.

66 BA Honours in Russian Studies

6 Chosen from Econ S209, S210, S211, Hist S210a
6 Chosen from Econ S464, S465
18 Russ S210, S241, S311
18 Hist S210a, S431, S445b
6 Geog S345a
12 Chosen from Russ S351, S452, S453, S454, S455, Phil S365, Pol Sc S353a

*Geog S345a may be taken for credits in the programme only when the subject matter is relevant to Russian Studies. A student who
has already taken it in a year when the subject matter was not thus relevant, regis-
ters under Geog S346 in meeting the degree require-
ments.

48 BA Major in Russian Studies
18 Russ S210, S241, S311
12 Hist S210, S341
6 Geog S345
12 Chosen from Russ S351, S452, S453, S454, S455; Econ S464, S465; Hist S445; Phil S365; Pol Sc S356;

*Geog S345 may be taken for credits in the programme only when the sub-
ject matter is relevant to Russian Stud-
ies. A student who has already taken it in
a year when the subject matter was not thus relevant, registers under Geog S346 in meeting the degree require-
ments.

COURSES IN RUSSIAN STUDIES

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

CLASSICS, MODERN LANGUAGES AND LINGUISTICS

RUSSIAN S210
Introductory Course in Russian
A beginners' course in the Russian language which is designed, in one year, to acquaint the student with pronunciation, the main grammatical aspects and a basic vocabulary. Emphasis is placed on speaking, reading and writing Russian. Lectures and laboratory. (6 credits) NOTE A, B/See § 200.1

RUSSIAN S241
Intermediate Russian
Prerequisite: Russian S210 or equivalent.
This course consists of a complete review of Russian grammar, composition, reading and conversation. Through reading of short stories and additional material, the student is given the opportunity of acquainting himself with Russian culture and literature. (6 credits) NOTE A, B/See § 200.1

RUSSIAN S311
Advanced Russian Language and Stylistics
Prerequisite: Russian S241 or permission of the instructor. This course is intended to give increased fluency and a firmer command of the language. The emphasis of the course is on stylistics and composition. Through additional reading students are given the opportunity to acquaint themselves with the various aspects of Russian civilization. Selected texts will be dis-
cussed and analysed in Russian. (6 credits) NOTE A/See § 200.1

RUSSIAN S351
Introduction to 19th Century Russian Literature through the Short Story
Prerequisite: Russian S241 or equivalent.
The short story will be used both as a subject for literary study and as a reflection of the history and social preoccupation of the period. Opportunity will be provided for discussion and some attention will be paid to composition. This course is conducted in Russian. (6 credits) NOTE A/See § 200.1

RUSSIAN S452
Soviet Literature
Prerequisite: Russian S241 or equivalent. A general survey of Soviet prose, drama and poetry from 1917 to the present day. The aim of the course is to familiarize the student not only with the literature itself but also with its origins and development. Opportunity will be provided for discussions and some time will be devoted to advanced composition. This course is conducted in Russian. (6 credits) NOTE A/See § 200.1

RUSSIAN S453
Russian Drama
Prerequisite: Russian S241 or permission of the instructor. The course traces the develop-
ment of Russian drama from the end of the 18th centu-
ry to the present day. Such authors as D. Fonvisin, A. Gribkojedov, A. Pushkin, M. Ler-
montov, N. Gogol, A. Ostrowski, A. Chekhov, A. Tolstoi, M. Gorki, A. Arbuzov and V. Maja-
kovski will be discussed. This course is con-
ducted in Russian. (6 credits) NOTE A/See § 200.1

RUSSIAN S454
Study of an Individual Russian Author I
Prerequisite: Russian S241 or equivalent. This course will consist of the detailed study of a Russian author, e.g., L. N. Tolstoy, F. M. Dostojevski, N. V. Gogol. The chosen author will vary from time to time, in accordance with the needs of the students. (3 credits) NOTE A/See § 200.1

RUSSIAN S455
Study of an Individual Russian Author II
Prerequisite: Russian S241 or equivalent. This course will consist of the detailed study of a Russian author, e.g., A. S. Pushkin, M. Ju. Lermontov, I. A. Goncharov. The choice of author will vary from time to time, in accordance with the needs of the students. (3 credits) NOTE A/See § 200.1

ECONOMICS

ECONOMICS S209
Introduction to Microeconomics
Introduction to the functioning of the market system; concepts of supply and demand; the role of prices in resources allocation; production decisions by firms. Analysis of differences between competition and monopoly and the im-
lications for economic efficiency; theories of labour markets and wage determination. (3 credits) NOTE A/See § 200.1

ECONOMICS S210
Introduction to Macroeconomics
An introductory analysis of aggregate eco-
nomic 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 analyzes the principles which govern the trade relations among countries. These topics are integrated by a discussion of government monetary and fiscal policies to stabilize economic activity. (3 credits) NOTE A/See § 200.1

**ECONOMICS S221**

**Introduction to Economic History**

This course deals with the development of industrial economics from the industrial Revolution to the present. Emphasis is on long-term forces such as demographic, technological, and institutional evolution. (6 credits) NOTE A/See § 200.1

**ECONOMICS S464**

**Marxian Economics**

Prerequisite: Economics S209 and S210. A general survey of Marxian theory; Marx’s role and influence; his predecessors and followers. The topics that will be discussed include historical and dialectical materialism, the role of the proletariat in Marxian teaching, Marx and the Socialist International, the evolution of a Marxian thought, Marx and the labour movement, the labour theory of value, the theory of economic development, and the breakdown of capitalism. (3 credits) NOTE A/See § 200.1

**ECONOMICS S465**

**Soviet Economics**

Prerequisites: Economics S209 and S210. The evolution of the Soviet economic system and the policy measures adopted to deal with the problems of establishing and consolidating a socialist state. Special attention is given to Lenin’s role in the early phase of the Soviet system and early economic measures such as the collectivization of farms. Other topics covered are: the nature of economic planning and progress under Stalin, and the important recent reforms and modifications of the Soviet system under the impact of Liberman’s proposals. (3 credits) NOTE A/See § 200.1

**GEOGRAPHY**

**GEOGRAPHY S345**

**The Geography of a Selected Region**

Prerequisite: Geography S211 or S271, or second year standing in Arts. A detailed examination of the physical environment, the people, their history, and the present political and economic patterns within the region. The course will provide a deep understanding of the interrelationships between the constituents of the region, an appreciation of those factors responsible for regional unity and will also illustrate the holistic nature of the geographical discipline (6 credits) NOTE A/See § 200.1

**HISTORY**

**HISTORY S341**

**History of Russia**

Prerequisite: History S210. This course traces the origin of the Slavic-speaking peoples in Europe and the emergence of the Russian Empire. After a discussion of the ideology and history of Bolshevism, it studies the history of communist government in the U.S.S.R. and among the Slavic peoples. (6 credits) NOTE A/See § 200.1

**HISTORY S445**

**Advanced Study in Russian and Soviet History**

Prerequisites: History S210; History S341 or permission of the Department. This course deals with specific problems in Tsarist and Soviet Russia. In the Pre-Revolutionary period attention is focussed on the emancipation of the peasantry, industrialization and the growth of the opposition parties. In the Soviet period emphasis is placed on the problems of economic growth, the changing pattern of Soviet Marxism and the nature of Soviet foreign policy. (6 credits) NOTE A/See § 200.1

**PHILOSOPHY**

**PHILOSOPHY S365**

**Studies in Russian Philosophy**

Prerequisite: Second-year standing or permission of the Department. Study of the main topics in the development of Russian philosophy. Topics to be discussed include: Nihilism and Anarchism, Tolstoy’s Philosophy of History, Dostoyevsky’s idea of evil, Marxism. Lectures and seminars. (6 credits) NOTE A/See § 200.1

**POLITICAL SCIENCE**

**POLITICAL SCIENCE S353**

**Soviet and East European Politics**

A study of the constitutional, political and administrative system of the Soviet Union and the East European states. Emphasis will be placed on the continuing evolution of the Communist system and the changing relationship between the Soviet Union and the other states. (6 credits) NOTE A/See § 200.1

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**41.5.7 URBAN STUDIES**

The Urban Studies Programme introduces the student, through such disciplines as economics, sociology, geography and political science to the many areas of research and theory relevant to the modern city and its problems. It also provides the necessary background for later post-graduate specialization in some aspect of urban research, planning or administration.
Programmes

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3.

The superscript indicates credit value.

72 BA Honours in Urban Studies

18 Urban St S260*; Urban St—Geog S401*; Urban St S491*
6 Soc S210* or Geog S211**
9 Econ S209*, S210*, S426*
9 Soc S441*, S450*
6 Pol Sc S240*, or S330*
6 Pol Sc S334*
6 Geog S331*

NOTE: If a student has taken in CEGEP any of the introductory courses required in the Major, Specialization, or Honours programme, course substitutions from the Cognate List must be made to add up to 60 credits for the Majors programme.

*NOTE: Urban Studies S260 will serve as prerequisite for Urban courses in Sociology or Geography.

72 BA Specialization in Urban Studies

18 Urban St S260*; Urban St—Geog S401*; Urban St S491*
6 Soc S210* or Geog S211**
9 Econ S209*, S210*, S426*
9 Soc S441*, S450*
6 Pol Sc S240*, or S330*
6 Pol Sc S334*
6 Geog S331*
12 Chosen from Cognate list in consultation with the Coordinator of Urban Studies.

NOTE: If a student has taken in CEGEP any of the introductory courses required in the Major, Specialization or Honours programme, course substitutions from the Cognate List must be made to add up to 60 credits. *NOTE: Urban Studies S260 will serve as prerequisite for Urban courses in Sociology or Geography.

60 BA Major in Urban Studies

18 Urban St S260*;

Urban St—Geog S401*;
Urban St S491*
6 Soc S210* or Geog S211**
9 Econ S209*, S210*, S426*
9 Soc S441*, S450*
6 Pol Sc S240*, or S330*
6 Pol Sc S334*
6 Geog S331*

NOTE: If a student has taken in CEGEP any of the introductory courses required in the Major, Specialization or Honours programme, course substitutions from the Cognate List must be made to add up to 60 credits. *NOTE: Urban Studies S260 will serve as prerequisite for Urban courses in Sociology or Geography.

30 Minor in Urban Studies

24 Urban St S260*; Geog S331*; Urban St—Geog S401*; Urban St S491*

*NOTE: Urban Studies S260 will serve as prerequisite for Urban courses in Sociology or Geography.

Cognate List:

Students are advised to take note of the prerequisite requirements for some of these courses.

Int St S221*, S222*
Urban St S492*
Econ S274*, S304*, S305*, S375*, S420*, S427*
Pol Sc S320*, S333*
Admin C350*
Fin C215*, C314*, C418*
QM C243*, C244*, C313*, C314*
Civ Eng C472*, C571*, C572*, C573*
Comp Sc C211*, C220*, C223*
Art Hist C249*, C446*
Cinema C211*, C311*, C411*

COURSES IN URBAN STUDIES

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

CENTRE FOR INTERDISCIPLINARY STUDIES

URBAN STUDIES S260

Urban Development

An introductory course in Urban Develop-
ECONOMICS S304
Canadian Economic Policy I
Prerequisites: Economics S209 and S210. A study of the effects of government policies on resource allocation with emphasis on Canadian policy problems. Topics will include government regulation of business, agriculture policy, transportation policy, and tariff policy. (3 credits) NOTE A/See § 200.1

ECONOMICS S305
Canadian Economic Policy II
Prerequisites: Economics S209 and S210. A study of trade, government stabilization, growth, and welfare policies with emphasis on Canadian policy problems. Topics also include monetary and fiscal policies, policies to encourage growth, and social security policies. (3 credits) NOTE A/See § 200.1

NOTE: Students who have credits for Economics N-405, or Economics N-431 before 1969-70 may not take this course for credits.

ECONOMICS S375
Introduction to Statistics for Economists
Prerequisite: Mathematics S207. The course is an introduction to the application of statistical techniques to economic data. Topics discussed will include, among others, time series, statistical inference, analysis of variance, correlation and regression (3 credits) NOTE A/See § 200.1

NOTE A / See § 201.1

ECONOMICS S426
Urban Economics
Prerequisites: Economics S209 and S210. This course will focus 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 and urban renewal, and zoning. (3 credits) NOTE A/See § 200.1

ECONOMICS S427
Regional Economics
Prerequisites: Economics S209 and S210. Economics S311 or S318 previously or concurrently, or Economics S426. 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 micro-economic topics covered are location of business, household behaviour of firms and households and the factors determining the allocation of land among alternative 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. (3 credits) NOTE A/See § 201.1
ECONOMICS S446
The Economic Development of Quebec
Prerequisites: Economics S209 and S210.
This course will review past and present trends in the economic development of Quebec, though emphasis will be placed on the economic growth of Quebec since the Second World War. Attention will be given to the regional aspects of its growth problems. (3 credits) NOTE A/See § 200.1

GEOGRAPHY
GEOGRAPHY S355
Spatial Organization
Prerequisite: Geography S211 or second year standing in an honours, specialization, or major programme in the Social Sciences or in the Faculty of Commerce. A study of how man organizes spatial activities with the emphasis on the concepts of spatial interaction, location of activities, diffusion and individual decision. (6 credits) NOTE A/See § 200.1

GEOGRAPHY S382
Quantitative Geography I
Prerequisite: Geography S261. An introductory course in the applications of descriptive and analytical statistical techniques in Geography. Lectures and laboratory. (3 credits) NOTE A/See § 200.1
NOTE: Only 6 credits will be given from Economics S375; Geography S362 and S363; Mathematics N-241; Quantitative Methods C243 and C244; Sociology S241; Psychology S241 and S242.

GEOGRAPHY—URBAN STUDIES S401
Applied Urban Studies
Prerequisites: Geography S211 or Urban Studies S260; Geography S331 previously or concurrently. A study of the contemporary city with emphasis on the problems arising from urban growth. Attention will be given to the possibilities for planned development including New Towns. The material will be presented by films, tapes and special readings and there will be a discussion each week. (6 credits) NOTE A/See § 200.1

GEOGRAPHY S457
Geography of Transportation
Prerequisite: Geography S211, S331 or S355 or permission of the Department. A study of patterns of transport facilities and traffic flows. Emphasis will be on general concepts of route alignment, network layouts, and on applications of spatial interaction models to economics flows. (6 credits) NOTE A/See § 200.1
NOTE: Prior to 1976-77 this course was a 3 credit course.

POLITICAL SCIENCE
POLITICAL SCIENCE S240
Comparative Politics
A course in comparative politics with special emphasis on the dynamics of the political process. Going beyond constitutional and institutional procedures, this course will include the study of informal realities of decision-making. Most of the illustrative content is based on a comparative study of Canada, the United States, Great Britain and France. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S320
Problems and Concepts in Political Theory
A course in political theory emphasizing key concepts such as equality, liberty and power. The content of the course will include basic methodology and terminology to the extent that the thematic orientation in any given year requires its inclusion. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S330
Government and Politics of Canada
A study of the parliamentary system in Canada with emphasis placed upon the development and judicial interpretation of the British
North America Act, the federal system, the nature and organization of political parties, the evolution of cabinet rule, the judicial structure and contemporary problems in Canada. (6 credits) NOTE A/See § 200.1

**POLITICAL SCIENCE S333**

Problems of Public Administration

Prerequisite: Political Science S240 or S330. This course deals with the nature and function of the administrative branch of government. The student is introduced to such problems as the organization of government departments, the management of government corporations, budgeting, selection and training of personnel, maintenance of morale and discipline, relationship between legislature and administration, relationship between the administration and the public. (6 credits) NOTE A/See § 200.1

**POLITICAL SCIENCE S334**

Urban Politics

Prerequisite: Political Science S240 or S330. A course in the problems and prospects in urban politics with special emphasis on the processes of the local community. This course, although primarily dealing with urban politics in Canada, will also go beyond national boundaries for its comparative treatment. (6 credits) NOTE A/See § 200.1

**SOCIOLOGY**

**SOCIOLOGY S210**

Introduction to Sociology

This course analyzes social problems in modern society and introduces the student to the basic concepts and most important approaches in Sociology. (6 credits) NOTE A/See § 200.1

**SOCIOLOGY S241**

Statistics

Prerequisites: Sociology S210; and high school Algebra. An introductory course in descriptive and analytical statistical methods for students of Sociology. Lectures and laboratory. (6 credits) NOTE A/See § 200.1

NOTE: Only 6 credits will be given from: Economics S471, S375, Geography S362, S363, Mathematics N-241, Quantitative Methods C243, C244, Sociology S241, Psychology S241, S242

**SOCIOLOGY S411**

Research Techniques

Prerequisites: Sociology S210, S241 or equivalent, and S310. This course is an advanced consideration of the design of research, the methods of data collection, and the techniques of analysis. (3 credits) NOTE A/See § 200.1

**SOCLIOLOGY S412**

Field Work Research

Prerequisites: Sociology S210 and S310. Methods of fieldwork research in Sociology will be explored and examined in detail. (3 credits) NOTE A/See § 200.1

**SOCIOLOGY S413**

Survey Research Methods

Prerequisites: Sociology S210, S241 or equivalent, and S310. Methods of conducting survey research will be examined, such as research design, sampling methods, design and pre-testing of instruments, methods of data collection, logic of analysis and techniques of multivariate analysis and report writing. (3 credits) NOTE A/See § 200.1

**SOCIOLOGY S440**

Community Studies

Prerequisite: Sociology S210. Based upon selected community studies, this course will focus upon an interpretation of the findings of these studies within the larger context of urbanization and industrialization with special emphasis given to the methodology of community studies. (3 credits) NOTE A/See § 200.1

**SOCIOLOGY S441**

Sociology of Urban Regions

Prerequisite: Sociology S210. The physical and social characteristics of urban communities are studied with special attention paid to ecological patterns and ecological process. Forms of adjustment, co-operation and control are included in these studies. (3 credits) NOTE A/See § 200.1

**SOCIOLOGY S448**

Population and Society

Prerequisite: Sociology S210, or an introductory course in a social science. This course consists of a brief survey of population theory and an introduction to the techniques of population analysis. It will cover the size, distribution, and composition of the population; changes in these characteristics; the relationship between population trends and social and economic conditions, with special reference to recent trends. (3 credits) NOTE A/See § 200.1

**SOCIOLOGY S450**

Seminar in Urban and Metropolitan Studies

Prerequisite: Sociology S441. Intensive study of a few theories and selected monographs dealing with aspects of urbanization. (6 credits) NOTE A/See § 200.1

**41.5.8 WOMEN'S STUDIES**

This programme is designed to present a comprehensive view of women in society and to stimulate an interest in the study of women.

Women's Studies Committee

CHRISTINE ALLEN, Philosophy, Co-ordinator

ROSLYN BELKIN, English

DOLORES GOLD, Psychology

DEBORAH GREENSPOON, Political Science

ELIZABETH HENRIK, Psychology

SHEILA MCDONOUGH, Religion

CERISE MORRIS, Sociology

GRETA NEMIROFF, Women's Studies

LEWIS POTEET, English
The superscript indicates credit value.

30 Minor in Women's Studies

3 Wom St S241 1
3 Wom St S242 1
24 Rel S333 1 and S334 6; Hist S328 6; Psyc S363 6; Soc S458 6; Pol Sc S321 6; Econ S310 6; Engl S251 1, S252 1

NOTE: Substitutions may be made with permission of the Women's Studies Coordinator.

COURSES IN WOMEN'S STUDIES

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1

CENTRE FOR INTERDISCIPLINARY STUDIES

WOMEN'S STUDIES S241
Woman's Identity and Image: Historic Attitudes
An interdisciplinary study of the nature of woman as understood by western society from its Greek origins to the mid-nineteenth century. Sample topics are: the Greek myths, the Bible (Eve and Mary), Greek philosophy (Plato and Aristotle), courtly love, medieval mysticism and Victorianism (Kierkegaard, Schopenhauer, Queen Victoria and Ibsen). (3 credits) NOTE A/See § 200.1

WOMEN'S STUDIES S242
Woman's Identity and Image: Recent Approaches
An interdisciplinary study of the nature of woman as understood by western society from the mid-nineteenth century to the present. Sample topics are: the effect of the Industrial Revolution on the family (Marx and Engels), the emancipation of women (John Stuart Mill, Virginia Woolf), the psychology of woman (Freud and Jung), and contemporary attitudes towards women and Women's Liberation. (3 credits) NOTE A/See § 200.1

ECONOMICS

ECONOMICS S310
Economics of Discrimination
Prerequisites: Economics S209 and S210. The purpose of this course is to examine some economic issues of discrimination with particular reference to women in a Canadian context. Among the topics so examined are: techniques for measuring discrimination and poverty, review of empirical studies, traditional and radical approaches to the study of discrimination, and policies to combat discrimination and poverty. (3 credits) NOTE A/See § 200.1

ENGLISH

ENGLISH S251
Selected Topics in Literature Written by Women
This course explores the ways in which women have employed conventions of such literary genres as poetry, the novel and the drama to define their own lives and those of their contemporaries. The emphasis will be on literary analysis of the works; the course will also deal with the social and historical circumstances which are relevant to the works in question. The texts studied, the themes and concepts pursued, will vary from year to year. (3 credits) NOTE A/See § 200.1

ENGLISH S252
Selected Topics in Literature Written by Women
A student repeating English S251 for credits will register under English, S252. (3 credits) NOTE A/See § 200.1

HISTORY

HISTORY S328
Women in Western History
A review of the position and roles of women in Western history prior to the 17th century. Beginning with the 17th century, a more detailed discussion of these themes and close scrutiny of selected problems having to do with the roles of women in Europe, Canada and the United States during the last two centuries. Among the problems to be treated will be the history of the Feminist movements, the relationship of women to the process of industrialization and the impact of the world wars of this century on the condition of women. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE

POLITICAL SCIENCE S321
Women and the Law
A historical and comparative study of the status of women as seen in different legal systems. The course will deal with women in relation to private, family and public law. The framework will be primarily legal, but will also include a consideration of the social and political implications of women's legal status. Special attention will be directed to Quebec and Canadian law. (6 credits) NOTE A/See § 200.1

PSYCHOLOGY

PSYCHOLOGY S383
Sexual Differentiation
Prerequisites: Psychology S211 and second year standing. This course will examine the physiological, genetic and social factors that determine sex identity and will consider how sex identity influences life patterns. The effects of these factors on social, motivational and cognitive development and adjustment will be studied. (6 credits) NOTE A/See § 200.1
RELIGION

RELIGION S333
Women and Religion I
An examination of the roles and images of women in the history of religions. Topics might include: the development of patriarchal religion, religion and sexuality, women and myth, the roles of women in different religious communities. This course will include an integrated sequence of lectures (minimum three weeks) by an anthropologist on matriarchal and patriarchal societies. (3 credits) NOTE A/See § 200.1

RELIGION S334
Women and Religion II
An examination of the religious and ethical questions raised by contemporary discussions of women’s experience. Topics might include: the recent beginnings of a feminist theology, the feminist critique of organized religion and society, the effects of male perspective upon philosophy and theology and women in the ministry. (3 credits) NOTE A/See § 200.1

SOCIOLOGY

SOCIOLOGY S458
The Sociology of Sex Roles
Prerequisite: Sociology S210. This course will focus on sociological aspects of sex roles. Modern social trends will be analyzed, with special attention to emerging egalitarian patterns and changes in the socio-economic system. (6 credits) NOTE A/See § 200.1

41.5.9 UNDERGRADUATE SCHOLARS PROGRAMME

The Undergraduate Scholars Programme of the Sir George Williams Faculty of Arts is designed to meet the needs of responsible students with high academic standing whose educational goals can best be achieved through an individually tailored programme of study. Such students must register in a programme leading to the Bachelor of Arts degree with a major, specialization, or honours in an area of concentration, although the approach may be of an interdisciplinary nature.

Each programme of study is planned through consultation between the scholar and a faculty adviser from his main field of interest. As many as 54 of the 90 credits required for the degree may be taken as Undergraduate Scholars Programme credits or tutorials. This work might take the form of guided independent study, independent field or laboratory research or creative activity. Its precise nature will depend on the scholar’s educational goals, interests and area of specialization.

Since this programme involves a great deal of individual attention on the part of faculty members, the number of entrants is necessarily limited. Students wishing to apply are therefore encouraged to prepare their applications as early as possible. Each student should submit a written statement of educational goals and arrange to have a collegial transcript and two letters of recommendation forwarded to:

The Coordinator
Undergraduate Scholars Programme
Room Q-103
Concordia University
Sir George Williams Faculty of Arts
1455 de Maisonneuve West
Montreal, P.Q. H3G 1M8

Undergraduate Scholars Programme Committee

MAIR VERTHUY, French, Co-ordinator
RICHARD DIUBALDO, History
DALLAS LASKEY, Philosophy
MICHAEL OPPENHEIM, Religion
BRUCE SMART, Assoc. Registrar
NAREJDA RAJDEV, Student Representative
RONALD OGILVIE, Student Representative
41.6 Centre for the Teaching of English as a Second Language

Professor and Director of the Centre
RICHARD C. YORKEY

Professor
ANNE M. STOKES

Associate Professor
JOE DARWIN PALMER
BRUCE BARKMAN
JEAN McCONOCHIE

Visiting Associate Professors
ALAN DAVIES
JEAN PRANINSKAS

Assistant Professors
PALMER ACHESON
PATSY LIGHTBOWN
RONALD MACKAY
GWEN S. NEWSHAM
BRIAN MICHAEL SMITH

Lecturers
B. MARY PETRIE
V. ALEX SHARMA

Sessional Instructors
ELYSE ENGEL
ROSALYN FREEDMAN
CAROL FRASER

41.6.1 CURRICULUM FOR THE DEGREE OF BACHELOR OF EDUCATION (English as a Second Language)

Elementary School Option
Secondary School Option

The Centre for the Teaching of English as a Second Language offers the Degree of Bachelor of Education (English as a Second Language).

Admission Requirements
General admission requirements are listed in § 13.
Specific requirements are as follows:

1. Satisfactory completion of a two-year pre-university programme in a CEGEP or equivalent. Within the programme 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 programme, no more than 30 pro tanto credits will normally be permitted, and the University reserves the right to determine which ones these should be.
3. Language competence: Students will be required to have reasonable fluency in the target language. An English language diagnostic test will be administered to determine English language competence. Students planning to teach in the French school system are expected to have reasonable fluency in French. A test for French language competence will be administered.

Degree Requirements

Definition of Credit:
Up to and including the academic year 1973-74, degree programmes have been expressed in terms of courses, with one credit being applied to a "full-course" (normally two terms) and one half-credit being applied to a "half-course" (normally one term).

Starting in 1974-75, in accordance with the recommendations of the Quebec Council of Universities, the credit-base was modified to take into account the total activity of the student. Students preparing for the degree of Bachelor of Education (English as a Second Language) take a minimum of 90 credits. Each credit represents, for the average student, a minimum of 45 hours of work spread across lectures, conferences, laboratories, studio or practice-periods, test, examinations and personal work.

90 BEd (English As a Second Language)

36*

a) Elementary Option
   TESL S211, S221, S231, S318,
   S322, S341, S382, S411, S415,
   S422, S482

b) Secondary Option
   TESL S211, S221, S231, S318,
   S323, S341, S383, S412, S415,
   S423, S483

c) Adult Option
   TESL S211, S221, S231, S318,
   S323, S341, S384, S412, S415,
   S423, S484
The Centre for the Teaching of English as a Second Language offers a 30 credit programme leading to the Certificat d'enseignement, langue seconde au niveau secondaire. Successful candidates who are certified elementary school teachers will also obtain a specialist teaching permit from the Quebec Ministry of Education.

**Admission Requirements**

Applicants must apply to their school boards and be approved by the Ministry of Education. Successful candidates are granted a five-month sabbatical with full pay during which time they follow intensive courses at the University in the Day division. These five-month periods extend from September to January and February to June. Candidates in both terms return for additional courses during the summer session of the same year of study. Supervised internship takes place during the five-month training period and for a further period after the students have returned to the school in which they are employed.

Other applicants may be considered for admission to the programme on the basis of their experience and additional criteria deemed appropriate by the Centre. However, such students, while eligible for the certificate if they meet the demands of the programme, may not obtain a teaching permit from the Ministry of Education.

**Courses**

- **Au niveau élémentaire**
  - ESL S203
  - ESL S204
  - TESL S221
  - TESL S322
  - TESL S323
  - TESL S411
  - TESL S415
  - TESL S422
  - TESL S479
  
  **NOTE:** Native speakers of English may, with the approval of the Centre, take a substitute course for ESL S203.

- **Au niveau secondaire**
  - ESL S203
  - TESL S221
  - S231
  - S233
  - S231
  - S315
  - S318
  - S412
  - S423
  - S479
  
  **NOTE:** Native speakers of English may, with the approval of the Centre, take a substitute course for ESL S203.

**Admission Requirements**

1. Candidates must have an appropriate teacher's certificate or must have the equivalent of one year's experience as a full-time language teacher.
2. Candidates must demonstrate competence in spoken and written English through formal tests and an interview at the TESL Centre.
3. Candidates planning to teach in Quebec will be expected to have reasonable fluency in French. Those who feel deficient should arrange to improve their French proficiency to an appropriate level.
4. Candidates who meet these admission requirements but who have never taught English as a second language in a classroom for a minimum of 400 hours must complete TESL S382, TESL S383, or ESL S384 before certification.

**NOTE:** Candidates who wish to obtain un certificat de spécialisation must have a teaching diploma recognized by Quebec, at either the elementary or secondary levels. In Quebec, the holder of the Certificate is granted one year's scolarité (D.G.E.E.S. Adm. 73-54 sec. 1.1.1.6). Upon successful
completion of this programme, it is the responsibility of the individual to apply to the TESL Centre for le certificat de specialization.

Elementary, Secondary or Adult Options
This is a 30-credit programme comprising courses in Applied Linguistics and English. It is offered in the day and evening divisions and the special summer session. The 30 credits which comprise this certificate are an integral part of the 90-credit requirement for the BEd (TESL) degree.

41.6.4 COURSE DESCRIPTIONS
Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

All TESL courses may be regarded as courses in the Humanities or in the Social Sciences.

ESL 100
English Language
A course for students whose first language is other than English and who require additional training in order to achieve a level of expression acceptable to the university. The focus of the course is primarily on the development and improvement of writing skills. All candidates will be tested prior to entry. (6 credits) NOTE A/See § 200.1

ESL S201
English Language and Composition
Prerequisite: Successful completion of ESL-100 or proven equivalent competence in English. This course is designed for non-English students who have completed secondary school or its equivalent in a language other than English. The course encourages the development of effective written communication and improved reading comprehension so that the student may perform competently in his other university work. (6 credits) NOTE A/See § 200.1

ESL S203
Effective Communication I
This course is offered only to students enrolled in the programme, Certificat d’enseignement de l’anglais, langue seconde (programme intensif de perfectionnement). The aim of the course is to develop a high degree of proficiency in both oral communication, and aural and reading comprehension. (6 credits) NOTE A/See § 200.1

ESL S204
Effective Communication II
This course is offered only to students enrolled in the programme, Certificat d’enseignement de l’anglais, langue seconde (programme intensif de perfectionnement). The aim of the course is to encourage the development of clear, effective writing. Aspects of styles such as appropriate levels of usage, choice of diction, and tone will be studied. (3 credits) NOTE A/See § 200.1

TESL S201
Speech
This is an introductory course for non-native speakers of English who have difficulty with the English sound system. It is a practical application of the knowledge of the sound, stress, intonation, and rhythm patterns of English in effective oral communication. (3 credits) NOTE A/See § 200.1

TESL S211
Introduction to Language and Applied Linguistics
This course is an introduction to the study of language and linguistics. The course includes an overview of the nature and function of communication; speech and writing; socio-linguistics, psycho-linguistics, historical and descriptive linguistics; and the relevance and application of these areas of scholarship to second-language teaching. (3 credits) NOTE A/See § 200.1

TESL S221
Comparative Phonetics
This course is for students who intend to be English teachers. It teaches the phonetic and phonemic features of English and the methodology of corrective practice. A comparison of the phonological systems of English and French is emphasized. A proficiency test of spoken English will be administered at the beginning of the course. (3 credits) NOTE A/See § 200.1

TESL S231
Modern English Grammar
This course is for students who intend to be English teachers. The course includes a review of the analytical grammar of English, both traditional and modern, with emphasis on how language is used to express meaning, and a detailed description of English morphology and syntax. A proficiency test of written English will be administered at the beginning of the course. (3 credits) NOTE A/See § 200.1

TESL S318
The Teaching of Reading and Writing
Prerequisite: 9 TESL credits. This course analyzes the relationship between speech and writing, and surveys the structure and function of written English. Techniques and procedures for teaching reading and writing skills are studied and demonstrated, and current ESL materials are evaluated. Students are expected to prepare specimen materials for developing reading and writing skills in the classroom. (3 credits) NOTE A/See § 200.1
TESL S322  
Methodology I—Elementary  
Prerequisite: TESL S221 and TESL S231, and admission to the Certificate or BEd programme, or permission of the Department. This course considers current theory of applied linguistics and the methods and materials appropriate to ESL instruction in elementary schools. Emphasis is on teaching the spoken language. The principles of selection and sequencing, and the techniques of presentation, practice, and production are introduced. The preparation of specimen instructional materials is required. (3 credits) NOTE A/See § 200.1

TESL S323  
Methodology I—Secondary  
Prerequisite: TESL S221 and TESL S231, and admission to the Certificate or BEd programme, or permission of the Department. This course considers current theory of applied linguistics and the methods and materials appropriate to ESL instruction in secondary schools. Emphasis is on teaching the spoken language. The principles of selection and sequencing, and the techniques of presentation, practice, and production are introduced. The preparation of specimen instructional materials is required. (3 credits) NOTE A/See § 200.1

TESL S341  
Language Acquisition  
Prerequisite: TESL S221, S231. This course analyzes the developmental processes in native language acquisition. The psycho-linguistic factors involved in the child's conversion of language input into linguistic performance and their implication for second-language learning are studied. (3 credits) NOTE A/See § 200.1

TESL S351  
History and Development of the English Language  
Prerequisite: TESL S221 or TESL S231 or permission of the Department. A study of the morphological, phonological, syntactical and semantic changes that have taken place from Proto-Indo-European to the present. Students are required to do elementary linguistic analyses of texts from different stages in the development of the language. (3 credits) NOTE A/See § 200.1

TESL S382  
Practice-Teaching and Observation—Elementary  
Prerequisite: TESL S322. This course introduces the inexperienced teacher to the practice and procedures of teaching English as a second language. Practice includes lesson planning, classroom management, and techniques for teaching language skills. Micro-teaching, peer-teaching, and mirror-viewing are essential requirements. Students who register for this course will practise at the elementary level. (3 credits) NOTE A/See § 200.1

TESL S383  
Practice-Teaching and Observation—Secondary  
Prerequisite: TESL S323. This course introduces the inexperienced teacher to the practice and procedures of teaching English as a second language. Practice includes lesson planning, classroom management, and techniques for teaching language skills. Micro-teaching, peer-teaching, and mirror-viewing are essential requirements. Students who register for this course will practise at the secondary level. (3 credits) NOTE A/See § 200.1

TESL S364  
Practice-Teaching and Observation—Adult  
Prerequisite: TESL S323. This course introduces the inexperienced teacher to the practice and procedures of teaching English as a second language. Practice includes lesson planning, classroom management, and techniques for teaching language skills. Micro-teaching, peer-teaching, and mirror-viewing are essential requirements. Students who register for this course will practise at the adult level. (3 credits) NOTE A/See § 200.1

TESL S411  
Audio-Visual Aids in ESL—Elementary  
Prerequisite: TESL S322 previously or concurrently. This course examines audio-visual resources and their effective use in second-language teaching. It familiarizes the student with the use of technical apparatus and with the effective use of simple teaching aids with particular regard for the needs of elementary students. Production of appropriate classroom materials is required. (3 credits) NOTE A/See § 200.1

TESL S412  
Audio-Visual Aids in ESL—Secondary  
Prerequisite: TESL S323 previously or concurrently. This course examines audio-visual resources and their effective use in second-language teaching. It familiarizes the student with the use of technical apparatus and the effective use of simple teaching aids for secondary and adult students. Production of appropriate classroom materials is required. (3 credits) NOTE A/See § 200.1

TESL S415  
Testing and Evaluation  
Prerequisite: TESL S322 or S323. An introduction to the general purposes and methods of language testing with a description of the chief characteristics of sound educational measures. The course examines the processes involved in constructing and administering ESL tests designed to evaluate proficiency in the four major skills: listening, speaking, reading and writing. (3 credits) NOTE A/See § 200.1

TESL S422  
Methodology II—Elementary  
Prerequisite: TESL S322. This course introduces the criteria for assessment and adaptation of methods and materials. Emphasis is on the written language. Students are expected to produce materials and lesson plans appropriate to the elementary school level. (3 credits) NOTE A/See § 200.1

TESL S423  
Methodology II—Secondary  
Prerequisite: TESL S323. This course introduces the criteria for assessment and adaptation of methods and materials. Emphasis is on the written language. Students are expected to produce materials and lesson...
plans appropriate to the secondary school level. (3 credits) NOTE A/See § 200.1

TESL S431
Grammaratical Theory
Prerequisite: TESL S231. This course surveys current theories of grammar and their influence in applied linguistics, with further studies in generative-transformational grammar and generative semantics. The importance of grammatical theory is considered in relation to philosophy, psychology, sociology, comparative linguistics, and pedagogy. (3 credits) NOTE A/See § 200.1

TESL S434
Error Analysis
Prerequisite: 15 TESL credits. A study of errors made by the ESL learner. This course considers recurring types of intralingual and developmental errors in language use. Teaching procedures will take such developmental and structural conflicts into consideration. (3 credits) NOTE A/See § 200.1

TESL S442
Problems in Bilingualism
Prerequisite: 15 TESL credits. An examination of the social and psychological background of languages in contact, with particular emphasis on the situation in Quebec. Motivation for second language learning in schools is studied in terms of cultural and socio-economic factors. In addition such extra-linguistic influences as the historic and political context of bilingualism in Canada are covered. (3 credits) NOTE A/See § 200.1

TESL S479
Internship
This course is offered only to students enrolled in the programme Certificat d’enseignement de l’anglais, langue seconde. It will involve observation and supervised teaching practice both in the university and in the schools. The course will also include seminar sessions for analysis and discussion of teaching performance. (3 credits) NOTE A/See § 200.1

TESL S482
Internship—Elementary
Prerequisite: TESL S382. This internship is closely integrated with TESL S422 and TESL S411. The course provides practical application of the theories and information discussed in classes. The course requires 100 hours of supervised internship in local elementary schools, with scheduled seminar sessions and tutorials for analysis and discussion of teaching performance. (6 credits) NOTE A/See § 200.1

TESL S483
Internship—Secondary
Prerequisite: TESL S383. This internship is closely integrated with TESL S423 and TESL S412. The course provides practical application of the theories and information discussed in classes. The course requires 100 hours of supervised internship in local secondary schools, with scheduled seminar sessions and tutorials for analysis and discussion of teaching performance. (6 credits) NOTE A/See § 200.1

TESL S484
Internship—Adult
Prerequisite: TESL S384. This internship is closely integrated with TESL S423 and TESL S412. The course provides practical application of the theories and information discussed in classes. The course requires 100 hours of supervised internship at the adult level, with scheduled seminar sessions and tutorials for analysis and discussion of teaching performance. (6 credits) NOTE A/See § 200.1

TESL S491
Study in a Special Subject
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 will vary with the special interest of the instructor offering the course in any given year. (3 credits) NOTE C/See § 200.1

TESL S492
Study in a Special Subject
Prerequisite: Permission of the Department. A student repeating TESL S491 registers for credits under TESL S492. (3 credits) NOTE A/See § 200.1
41.7 Journalism

Associate Professor and Director
DAVID OANCIA

Sessional Instructors
FRANCOISE COTE
JOHN DAFOE

41.7.1 PROGRAMME

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 41.3.

41.7.2 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

JOURNALISM S201
Writing and Reporting I
This course gives training in basic reporting and newswriting. Students will practise writing news and will receive out-of-classroom assignments. (6 credits) NOTE A/See § 200.1

NOTE: Enrolment is limited to 20 students. Admission is determined by an interview with the Director of the programme following tests for a high level of competence in written English. Applicants are advised that a working knowledge of French is important.

JOURNALISM S205
History of Journalism
A history of the news media in the English-speaking world, starting with the government gazettes of seventeenth-century England and their illegal, underground competition, through the "news" papers of the eighteenth century, the rise of the yellow press, the human interest story, the penny press in the nineteenth century, down to today's corporate press. The course is designed to show that our expectations of the news media are not inherent in human nature, but are the result of historical processes that continue to evolve. (3 credits) NOTE A/See § 200.1

JOURNALISM S301
Writing and Reporting II
Prerequisite: Journalism S201. A continuing general workshop in news and features writing. (6 credits) NOTE A/See § 200.1

JOURNALISM S305
The Media in Quebec
This course studies the special characteristics of Quebec media, and focuses on the effect the media have had on the shaping of modern Quebec. It will analyse the straight press, the pop press, radio and television. (3 credits) NOTE A/See § 200.1

JOURNALISM S401
Senior News Seminar
Prerequisite: Journalism S301. The students will produce each term, individually or as part of a team, a major investigative feature suitable for publication in a newspaper, magazine, or via radio or television. Seminars will analyse the problems encountered in gathering and writing or producing such news. (6 credits) NOTE A/See § 200.1

JOURNALISM S405
Legal Issues
Prerequisite: Permission of the Director. This course will inform the students of those aspects of the civil codes and the criminal law of Canada that could directly affect their work as journalists — copyright, libel, slander, obscenity, etc. (3 credits) NOTE A/See § 200.1

JOURNALISM S410
Editing and Production
Prerequisite: Journalism S301. This course will introduce the students to editing and production procedures — technical and intellectual — appropriate to different media. (3 credits) NOTE A/See § 200.1

The superscript indicates credit value.
# 41.8 Department of Classics, Modern Languages and Linguistics

**Associate Professor of German and Chairman of the Department**  
ANNAMARIE KETTER

**Professor of Classics**  
PAUL WIDDOWS

**Associate Professor of Classics and Linguistics**  
CHARLES BARTON

**Associate Professor of Spanish and Linguistics**  
JOHN D. GRAYSON

**Associate Professor of Spanish and Italian and Supervisor of Hebrew**  
JOSEPH A. MACALUSO

**Associate Professor of Russian**  
ANGELIKA-TATIANA SIDOROW

**Assistant Professor of German**  
ILSE EHMER

## 41.8.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3.

The superscript indicates credit value.

### 42 BA Major in German

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<td>Chosen Ling S221(^<em>); Phil S211(^</em>) or S361(^<em>); Rel S443(^</em>); Hist S210(^<em>); Pol Sc S351(^</em>); Geog S423(^<em>); Lat S210(^</em>) or S240(^*)</td>
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*Optional, but recommended

### 51 BA Major in Indo-European Linguistics

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<td>Lat S240(^<em>) or S341(^</em>) or Lat Elective credits at '400' level</td>
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### 42 BA Major in Spanish

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<td>Ling S221(^*)</td>
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### 30 Minor in German

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### 30 Minor in Ancient Greek

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### 30 Minor in Hebrew

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### 30 Minor in Italian

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### 30 Minor in Latin

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### 30 Minor in Linguistics

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<td>24</td>
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<tr>
<td>Chosen from Arabic S411(^<em>); Ling S490(^</em>), S491(^<em>); Engl S460(^</em>); Fr S312(^<em>), S313(^</em>), S417(^<em>), S418(^</em>); Span S412(^*)</td>
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### 41.8.2 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

#### ANCIENT GREEK S210
**Introductory Course in Ancient Greek**
The purpose of this course is to enable the student to gain a knowledge of Ancient Greek grammar and syntax adequate to the reading of simple passages of Greek. (6 credits) NOTE A/See § 200.1

#### ANCIENT GREEK S241
**Ancient Greek Language and Literature**
Prerequisite: Ancient Greek S210. The purpose of this course is to continue the study of Greek grammar and syntax begun in Ancient Greek S210, and to enable students to begin reading Ancient Greek authors. (6 credits) NOTE A/See § 200.1

#### ANCIENT GREEK S441
**Ancient Greek Literature**
Prerequisite: S241. This is essentially a reading course involving the study of certain of the great works of Ancient Greek Literature. It is assumed that the student taking this course has an adequate knowledge of Ancient Greek and a fair vocabulary. (6 credits) NOTE A/See § 200.1

#### ANCIENT GREEK S442
**Ancient Greek Literature (Advanced)**
Prerequisite: Ancient Greek S441 or permission of the Department. A further study of Ancient Greek Literature to follow Ancient Greek S441. (6 credits) NOTE A/See § 200.1

#### CLASSICS—HISTORY S212
**History of Greece and Rome**
A political, cultural and social history of Greece and Rome from the Mycenaean Age to the death of the Emperor Nero (68 A.D.), with special emphasis on fifth-century Athens and Rome of the Republic and Early Empire. No knowledge of Greek or Latin is required. (6 credits) NOTE A/See § 200.1 NOTE: Students who have taken 121 may not take this course for credits.

#### CLASSICS—HISTORY S214
**History of the Roman Empire**
A political, cultural and social history of the Roman Empire from the death of the Emperor Nero to Justinian the Great. Attention will be paid to the rise of Christianity, and the continuity of Roman law and administration in both the eastern and western part of the Late Roman Empire. No knowledge of Greek or Latin is required. (6 credits) NOTE A/See § 200.1

#### CLASSICS S241
**Greek Literature in Translation**
A survey of the major literary achievements of Ancient Greece. Special attention will be given to epic poetry, tragedy and comedy, as well as a variety of works in prose. The historical development of each of these genres will be discussed, along with a critical analysis of each author’s contribution. No knowledge of Greek is required. (3 credits) NOTE A/See § 200.1

#### CLASSICS S242
**Latin Literature in Translation**
A study through selected readings in translation of representatives of the major genres of Latin literature (epic, drama, satire, rhetoric, lyric poetry, philosophy) up to the second century A.D. No knowledge of Latin is required. (3 credits) NOTE A/See § 200.1

#### LATIN S210
**Beginners’ Latin**
This course is designed for students who have had no previous Latin and is particularly recommended for those students who wish to be prepared for Latin S240. The course offers instruction in Latin grammar, translation and prose composition. (6 credits) NOTE A/See § 200.1. NOTE: Students who have received credits toward their admission for high school Latin or have credits for Latin 001 may not take this course for credits.

#### LATIN S240
**Latin Composition and Translation**
This course consists of translation and literary interpretation of prescribed selections from the Latin classics in prose and poetry. In addition there is a review of Latin grammar and syntax and instruction in prose composition. (6 credits) NOTE A/See § 200.1

#### LATIN S341
**Latin Literature**
Prerequisite: Latin S240. This course continues the study of Latin literature begun in Latin S240, concentrating on particular authors. Two authors will be read during the year, one of whom will normally be Virgil. (6 credits) NOTE A/See § 200.1

#### LATIN S441
**Latin Literature (Advanced)**
Prerequisite: Latin S241. A continuation of Latin S241, concentrating on a particular period or the works of a particular author, e.g. Juvenal and Tacitus, or Lucretius. (6 credits) NOTE A/See § 200.1
LATIN S442
Latin Literature (Advanced)
Prerequisite: Latin S241. A parallel course to Latin S441 covering different authors, e.g., Latin Comedy, Latin Elegists or Horace. As Latin S441 and Latin S442 will not usually be given in the same year, Latin S442 may be taken before Latin S441. (6 credits) NOTE A/See § 200.1

MODERN LANGUAGES

LITERATURE IN TRANSLATION S350
A study of representative works of German or Russian literature. All reading and lectures will be in English. In any given year only one of these literatures will be offered. (6 credits) NOTE A, C/See § 200.1

LITERATURE IN TRANSLATION S351
A student repeating Literature in Translation S350 registers for credits under Literature in Translation S351. (6 credits) NOTE A/See § 200.1

LITERATURE IN TRANSLATION S352
A study of representative works of Hispanic (Peninsular and Spanish American) or Italian literature. All readings and lectures will be in English. In any given year only one of these literatures will be offered. (6 credits) NOTE A, C/See § 200.1

LITERATURE IN TRANSLATION S353
A student repeating Literature in Translation S352 registers for credits under Literature in Translation S353. (6 credits) NOTE A/See § 200.1

GERMAN S210
Introductory Course in German
A beginners' course in the German language which is designed, in one year, to make the student conversant with the grammar, pronunciation and ordinary vocabulary of the language. Emphasis is placed upon learning to speak the language, as well as to read and write it. Lectures and laboratory. (6 credits) NOTE A, B/See § 200.1

GERMAN S215
German for Reading Knowledge
This course will give the student sufficient background in the structure of the language to be able to read German with reasonable competence. Practice material will be both technical and non-technical. No previous knowledge of the language is required. (6 credits) NOTE A, B/See § 200.1. This is a terminal course and may not be used as a prerequisite for advanced courses in German.

GERMAN S241
German Language and Literature (Intermediate)
Prerequisite: German S210 or equivalent. Advanced instruction in the language. Emphasis upon idiom and usage in conversation and composition. Representative readings from the works of German writers. (6 credits) NOTE A, B/See § 200.1

GERMAN S311
Advanced German Language and Stylistics
Prerequisite: German S241 or equivalent. This course is intended to give the student increased fluency and a firmer command of the language. The emphasis of the course is on stylistics and composition. The subject matter will be approached through a study of German civilization. (6 credits) NOTE A/See § 200.1

GERMAN S354
A Study of the Deutsche Novelle
Prerequisite: German S241 or equivalent. Advanced composition and oral work. A study of the Deutsche Novelle from Goethe to Kafka. This course is conducted in German. (6 credits) NOTE A/See § 200.1

GERMAN S351
German Literature of the Sixteenth and Seventeenth Centuries
Prerequisite: German S241. A detailed study of representative writers of this period, such as Luther, Brant, Hans Sachs, Silesius, Grimelshausen and others. Classes will be conducted entirely in German. (6 credits) NOTE A/See § 200.1

GERMAN S452
German Literature from 1750 to 1830
Prerequisite: German S241 or equivalent. Study of the works of Lessing, Goethe, Schiller, Brentano and others. This course is conducted entirely in German. (6 credits) NOTE A/See § 200.1

GERMAN S453
History of the German Drama
Prerequisite: German S241 or equivalent. A study of German drama from its beginnings to modern times. Classes will be conducted entirely in German. (6 credits) NOTE A/See § 200.1

GERMAN S455
Reading Course in the Modern German Novel
Prerequisite: German S354 or S311. A study of the German novel since 1900. There will be no class periods, and students will work under the direct supervision of the instructor. Regular assignments will be given, and written and oral examinations will be given at the end of the course. (6 credits) NOTE A/See § 200.1

GERMAN S456
The 'Hörspiel'
Prerequisites: German S241 and S311. A study of one of the youngest art forms which was developed with the help of and for a new medium, the radio. Literary and technical aspects as well as the most representative writers, i.e., Eich, Dürenmatt, Ball, Hidesheimer and others, will be discussed. Classes will be conducted in German. (3 credits) NOTE A/See § 200.1

GERMAN S457
German Poetry from the Middle Ages to Modern Times
Prerequisites: German S241 and S311. A conspectus of German poetry through the centuries. Outstanding examples of representative poets will be studied in detail. Classes will be conducted in German. (3 credits) NOTE A/See § 200.1
GERMAN S458
Study of an Individual German Author I
Prerequisites: German S241 and S311. This course will consist of the detailed study of a German author, e.g. Kafka, Rilke, Goethe. Classes will be conducted in German. (3 credits) NOTE A/See § 200.1

GERMAN S459
Study of an Individual German Author II
Prerequisites: German S241 and S311. This course will consist of the detailed study of a German author, e.g. Brecht, Büchner, Lenz. Classes will be conducted in German. (3 credits) NOTE A/See § 200.1

HEBREW S210
Introductory Course in Hebrew
A beginners’ course in Hebrew, spoken and written, with reading of classical and modern texts. Lectures and laboratory. (6 credits) NOTE A/See § 200.1. Students who have credits for Hebrew 023 or whose schooling has been conducted in Hebrew will not be admitted to this course.

HEBREW S241
Intermediate Course in Hebrew
Prerequisite: Hebrew S210, or two or three years of high school Hebrew or equivalent. Readings in the Bible and an introduction to modern Hebrew literature. This course will also complete the study of Hebrew grammar and syntax begun in Hebrew S210, with special emphasis on modern Hebrew usage. (6 credits) NOTE A, B/See § 200.1

HEBREW S441
From the Talmudic Period to the Haskalah
Prerequisite: Hebrew S241 or equivalent. Hebrew literature from Talmudic times to the Enlightenment. Classes will be conducted in Hebrew. (6 credits) NOTE A/See § 200.1

HEBREW S442
Medieval Literature (The Golden Age)
Prerequisite: Hebrew S441 or S451 or equivalent. A study of the literature of the Hebrew Golden Age with emphasis on Maimonides, Judah Halevi, Ibn Ezra, Ibn Gabirol, Rashi and Gersonides. Classes will be conducted in Hebrew. (6 credits) NOTE A/See § 200.1

HEBREW S451
Modern Literature
Prerequisite: Hebrew S241 or equivalent. A study of Hebrew literature of the 19th and 20th centuries. This course is conducted in Hebrew. (6 credits) NOTE A/See § 200.1

ITALIAN S210
Introductory Course in Italian
A beginners’ course in the Italian language which is designed, in one year, to acquaint the student with the main grammatical principles and basic vocabulary. Practice is given in reading, writing and conversation with particular emphasis on oral work. Lectures and laboratory. (6 credits) NOTE A, B/See § 200.1

ITALIAN S241
Intermediate Italian
Prerequisite: Italian S210 or two years of high school Italian or equivalent or permission of the instructor. This course consists of a complete review of Italian grammar and a study of some of the more advanced aspects of usage. Through the reading of short stories, poetry and novels, the student is given the opportunity to acquaint himself with Italian letters and civilization. (6 credits) NOTE A, B/See § 200.1

ITALIAN S452
Literature of the Twentieth Century
Prerequisite: Italian S241 or equivalent. A course in Italian literature of the twentieth century, from the turn of the century to the present. All genres will be considered. Classes will be conducted in Italian. (6 credits) NOTE A/See § 200.1

NOTE: Students interested in studying Italian language and literature beyond the levels reached in the courses described above should consult Section 51.20.3., where they will find an array of courses in the subject offered by the Loyola Faculty of Arts & Science.

RUSSIAN S210
Introductory Course in Russian
A beginners’ course in the Russian language which is designed, in one year, to acquaint the student with pronunciation, the main grammatical aspects and a basic vocabulary. Emphasis is placed on speaking, reading and writing Russian. Lectures and laboratory. (6 credits) NOTE A, B/See § 200.1. NOTE: This course may be taken for credits in the Russian Studies Programme.

RUSSIAN S215
Reading Course in Russian
This course will give the student sufficient grasp of the structure of the language and sufficient basic vocabulary to enable him to read Russian with the aid of a dictionary. Both technical and non-technical material will be used. (6 credits) NOTE A, B/See § 200.1
RUSSIAN S241
Intermediate Russian
Prerequisite: Russian S210 or equivalent.
This course consists of a complete review of Russian grammar, composition, reading and conversation. Through reading of short stories and additional material, the student is given the opportunity of acquainting himself with Russian culture and literature. (6 credits) NOTE A/B/See § 200.1
NOTE: This course may be taken for credits in the Russian Studies Programme.

RUSSIAN S311
Advanced Russian Language and Stylistics
Prerequisite: Russian S241 or permission of the instructor. This course is intended to give increased fluency and a firmer command of the language. The emphasis of the course is on stylistics and composition. Through additional reading students are given the opportunity to acquaint themselves with the various aspects of Russian civilization. Selected texts will be discussed and analysed in Russian. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Russian Studies Programme.

RUSSIAN S351
Introduction to 19th Century Russian Literature through the Short Story
Prerequisite: Russian S241 or equivalent. The short story will be used both as a subject for literary study and as a reflection of the history and social preoccupations of the period. Opportunity will be provided for discussion and some attention will be paid to composition. This course is conducted in Russian. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Russian Studies Programme.

RUSSIAN S452
Soviet Literature
Prerequisite: Russian S241 or equivalent. A general survey of Soviet prose, drama and poetry from 1917 to the present day. The aim of the course is to familiarize the student not only with the literature itself but also with its origins and development. Opportunity will be provided for discussions and some time will be devoted to advanced composition. This course is conducted in Russian. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Russian Studies Programme.

RUSSIAN S453
Russian Drama
Prerequisite: Russian S241 or permission of the instructor. The course traces the development of Russian drama from the end of the 18th century to the present day. Such authors as D. Fonvisin, A. Gneboiudov, A. Pushkin, M. Lermontov, N. Gogol, A. Ostrowski, A. Chekhov, A. Tolstoi, M. Gorki, A. Arbuzov and V. Majakovskii will be discussed. This course is conducted in Russian. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Russian Studies Programme.

RUSSIAN S454
Study of an Individual Russian Author I
Prerequisite: Russian S241 or equivalent. This course will consist of the detailed study of a Russian author, e.g. L.N. Tolstoy, F.M. Dostoevski, V.V. Gogol. The chosen author will vary from time to time, in accordance with the needs of the students. (3 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Russian Studies Programme.

RUSSIAN S455
Study of an Individual Russian Author II
Prerequisite: Russian S241 or equivalent. This course will consist of the detailed study of a Russian author, e.g. A.S. Pushkin, M.-J. Lermontov, I.A. Goncharov. The choice of author will vary from time to time, in accordance with the needs of the students. (3 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Russian Studies Programme.

SPANISH S201
Introduction to Spanish I (3 credits)
SPANISH S202
Introduction to Spanish II
These two courses constitute a beginners' course in the Spanish language which is designed to acquaint the student in one year with the main grammatical principles and basic vocabulary. Practice is given in reading, writing and conversation, particular emphasis being placed on oral work. In the second term, classes are conducted as far as possible in Spanish. Lectures and laboratory or conferences. (3 credits) NOTE A/B/See § 200.1
NOTE: Spanish S201 and S202 are equivalent to two years' study at the secondary or collegial level. Students having one year of secondary or collegial Spanish will register only for the second course, Spanish S202.

SPANISH S221
Spanish Civilization
Prerequisite: Spanish S241 or equivalent. This course is designed to acquaint the student with Spain's intellectual and cultural history as reflected in her writers. Although it is primarily concerned with ideas and aesthetics, attention will also be given to the development of language, customs and folklore. Classes are conducted in Spanish. (6 credits) NOTE A/See § 200.1

SPANISH S222
Cultural Aspects of Latin America
Prerequisites: Spanish S210 or S201 and S202 or equivalents. This course offers a brief study of pre-Columbian civilizations from original sources, and then traces Spanish-American cultural and political thinking from Colonial times to the present, as reflected in the novel and (especially) the essay. Classes are conducted in Spanish. (6 credits) NOTE A/See § 200.1

SPANISH S241
Spanish Language and Literature (Intermediate)
Prerequisites: Spanish S210, or S201 and S202, or two or three years of high school
Spanish, or equivalent. Included in this course are a complete review of Spanish grammar and a study of some of the more advanced aspects of usage. Through the reading of short stories and novels, the student is given the opportunity to acquaint himself with Spanish and Spanish-American letters and civilization. Classes are conducted in Spanish. (6 credits) NOTE A, B/See § 200.1

SPANISH S311
Advanced Spanish Composition and Stylistics
Prerequisite: Spanish S241. A course to treat in detail the finer points of Spanish stylistics. Special attention will be given to free composition and semantics. (6 credits) NOTE A/See § 200.1

SPANISH S412
History of the Spanish Language
Prerequisites: Spanish S241 and Linguistics S221 or permission of the Department. A study of the origins of the Spanish language from Vulgar Latin into Old Spanish and thence through the centuries. Attention will also be given to non-Latin contributions to the Spanish lexicon, stylistic development and, especially, the parallel development of the other Romance vernaculars. (6 credits) NOTE A/See § 200.1

SPANISH S413
Translation
Prerequisite: Spanish S241 or equivalent. Spanish S311 or any '400' level course in Spanish. This course offers to the advanced student practice in translation from English into Spanish. Specimen texts will include literary prose, commercial letters, journalistic articles, and a variety of material of current interest. (6 credits) NOTE A/See § 200.1
NOTE: This course should provide a useful basis for a future professional degree.

SPANISH S451
The Middle Ages
Prerequisites: Spanish S241 and any 6 credits at the '400' level in Spanish. A study of the literature of the Middle Ages. Classes are conducted in Spanish. (6 credits) NOTE A/See § 200.1. NOTE: Students who have credits for Spanish N-422 before 1969-70 may not take this course for credits.

SPANISH S452
Spanish Golden Age Literature
Prerequisite: Spanish S241; Spanish S221 or equivalent. This course is designed to introduce to the student the masterpieces of Spain's Siglo de Oro. Particular emphasis is given to Cervantes and the Quijote. Classes are conducted in Spanish. (6 credits) NOTE A/See § 200.1

SPANISH S453
Nineteenth-Century Spanish Literature
Prerequisite: Spanish S241 or equivalent. A study of representative works in prose, poetry and theatre of the writers of the last century, with particular attention given to such literary movements as romanticism, realism and naturalism. Classes are conducted in Spanish. (6 credits) NOTE A/See § 200.1
NOTE: Students who have credits for Spanish N-422 before 1969-70 may not take this course for credits.

SPANISH S454
Twentieth-Century Spanish Literature
Prerequisite: Spanish S241. A study of the literature of Spain, starting with the Generation of '98 and going up to the present day. Classes are conducted in Spanish. (6 credits) NOTE A/See § 200.1

SPANISH S455
The Literature of Spanish America
Prerequisite: Spanish S241 or equivalent. This course familiarizes the student with the history, political thought and civilization of Spanish America as expressed through her literature. Classes are conducted in Spanish. (6 credits) NOTE A/See § 200.1

PORTUGUESE S441
Portuguese Language and Literature
Prerequisites: Spanish S241 or equivalent and any 6 credits at the '400' level in Spanish. A course designed for advanced Spanish students. Readings in Portuguese begin as early as the second week of class. (6 credits) NOTE A, B/See § 200.1

ARABIC S411
Literary Arabic
Prerequisite: Linguistics S221 or permission of the instructor. This course is designed to give the student in one year a thorough understanding of modern literary Arabic through linguistic analysis of its structure. (6 credits) NOTE A, B/See § 200.1. NOTE: This course may be taken for credits in the Asian Studies Programme.

LINGUISTICS
LINGUISTICS S221
Introduction to Linguistics
Prerequisite: Formal study of a language other than the student's mother tongue. This course will enable the students to become familiar with the basic elements which underline all languages and will acquaint them with a number of varied linguistic patterns with emphasis on the analysis of languages having structural features which differ widely from those ordinarily encountered. (6 credits) NOTE A/See § 200.1

LINGUISTICS S421
Non-Indo-European Structures
Prerequisite: Linguistics S221 or permission of the Department. This course is intended to acquaint the student in depth 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 Malayo-Polynesian language, etc. As a general rule, only four languages are investigated in a particular year. (6 credits) NOTE A/See § 200.1

LINGUISTICS S431
Comparative Indo-European Linguistics
Prerequisite: Linguistics S221 or permission of the Department. Through a comparative study of the phonology and morphology of the various branches of the Indo-European language family (Indo-Iranian, Hellenic, Italic, Germanic, Slavic, Baltic, etc.,) this course will familiarize the student with the techniques used in linguistic reconstruction. Emphasis will be given to the development and differentiation of languages through time. (6 credits) NOTE A/See § 200.1

LINGUISTICS S441
Advanced Linguistic Theory
Prerequisite: Linguistics S221. A study of current trends in linguistic theory with particular emphasis on transformational-generative and stratificational theory. The influence of de Saus- sure on present-day theoretical developments will be considered as well as that of the American structuralists. Tagmemic theory and case grammar will also be discussed. (6 credits) NOTE A/See § 200.1

LINGUISTICS S490
Special Topics in Linguistics
Prerequisite: Linguistics S221 or equivalent. This course offers an opportunity for detailed examination of a particular area of Linguistics. (6 credits) NOTE A, C/See § 200.1

LINGUISTICS S491
Special Topics in Linguistics
Prerequisite: Permission of the Department. A student repeating Linguistics S490 registers for credits under Linguistics S491. (6 credits) NOTE A/See § 200.1
41.9 Department of English

Associate Professor and Chairman of the Department
MICHAEL BRIAN

Professors
HENRY BEISSEL
MALCOLM FOSTER
WYNNE FRANCIS
MATTHEW HODGART
RYTSA TOBIAS

Associate Professors
GERALD AUCHINACHIE
ROSLYN BELKIN
CLARK BLAISE
AUDREY BRUNE
Mervin BUTOVSKY
HOWARD FINK
STANTON HOFFMAN
DAVID KETTERER

41.9.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3

The superscript indicates credit value.

60 BA Honours in English

6* Chosen from Engl S241, S260, S262, S263, S267
6 Chosen from Engl S231, S232, S281, S282, S283, S287
18 Chosen from Engl S333, S334, S335, S336, S337, S374, S375, S487
6 Phil S210, or S211* or, if exempted, 6 Phil Elective credits
6 Phil S380*

18 Chosen from Engl S333, S334, S335, S336, S337, S460, S466
6 Chosen from Engl S333, S334, S335, S374, S376
6 Chosen from Engl S244, S343, S344, S348
12 Engl Elective credits (excluding S211, S311*)
6 Engl Elective credits at ‘400’ level
‘One of Engl S225, S226, S227*, may be substituted for one of these courses.
NOTE: At least 36 credits must be taken at the ‘300’ or ‘400’ level.

72 BA Honours in English and Philosophy

18 Chosen from Engl S333, S334, S335, S336, S337, S374, S375, S487
18 Chosen from Engl S231, S232, S244, S344, S348, S351, S353, S356, S363, S367, S376, S430, S448, S456, S459, S460, S466, S476
6 Phil S210, or S211* or, if exempted, 6 Phil Elective credits
6 Phil S380*
6 Chosen from Phil S221, S221, S231, S233, S369
6 Chosen from Phil S231, S231, S271, S273, S301, S361, S369, S372, S374, S376, S378
6 Chosen from Phil S369, S405
6 Chosen from Phil S321, S333, S365, S396, S405, S407, S431, S493
Worn St S241, S242

60 BA Honours in English and Religion

12 Engl S333, S430
6 Engl S375 or S376
12 Chosen from Engl S244, S334, S335, S336, S337, S348, S374, S375 or S376
12 Rel S301, S302, S341
6 Chosen from Rel S211, S213, S361, S362, S363
41.9.2 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

ENGLISH S209
Elements of Written English
Prerequisite: Permission of the Department.
This course will deal with problems in written English which students encounter when writing university assignments. The course will begin a few weeks after the commencement of term. This will give students an opportunity to register for it after they have discovered deficiencies in their written English which hinder their academic progress. (3 credits) NOTE A/See § 200.1

ENGLISH S211
English Composition
This course is designed to help the students to develop skills in writing, research, and documentation, so that they may be able to prepare written accounts of their work clearly, coherently, and in a logically organized way. (6 credits) NOTE A/See § 200.1

ENGLISH S225
Creative Writing: Poetry
A seminar in the writing and criticism of poetry, including detailed discussion and written criticism of the students' work, and, at the discretion of the instructor, the study of selected poems. Students taking English S225 are urged to take English S231 as well. (6 credits) NOTE A/See § 200.1

ENGLISH S226
Creative Writing: Prose
A seminar in the techniques of short fiction, including investigations of and exercises in a variety of creative and technical problems, as well as analysis and criticism of the students' own work. Students may be required to read selected works of short fiction. (6 credits) NOTE A/See § 200.1

ENGLISH S227
Creative Writing: Drama
A seminar in the writing of plays, including an exploration of dramatic forms and techniques. The students are expected to submit work of their own for discussion and analysis. (6 credits) NOTE A/See § 200.1

ENGLISH S231
Introduction to Poetry
A study of poetry and its forms with emphasis upon the art of close reading. (3 credits) NOTE A/See § 200.1

ENGLISH S232
Short Fiction
A study of forms and techniques of the short story, the Novella, and what have come to be called in contemporary literature "fictions." (3 credits) NOTE A/See § 200.1

ENGLISH S237
Children's Literature
A survey and analysis of literature for children, undertaken with the aim of developing a critical vocabulary and of arriving at workable standards of assessment. The kinds of literature discussed will include works written for adults but traditionally read by children as well, works specifically written or adapted for children, fairy tales and other children's versions of folklore and myth, nursery rhymes and other children's verse. The course will be of general interest to students of literature, and should prove especially helpful to those who teach children in the schools. (6 credits) NOTE A/See § 200.1

ENGLISH S238
Canadian Children's Literature
This course examines the ways in which elements of the Canadian experience such as language, setting, folklore and history have contributed to the content and tradition of children's literature in Canada. (3 credits) NOTE A/See § 200.1

ENGLISH S239
Topics in Children's Literature
This course deals with specific topics such as the works of an author or group of authors,
or a particular theme, or development of a
gene. The topics to be studied may vary from
eyear to year. (3 credits) NOTE A/See § 200.1

ENGLISH S244
Canadian Literature
An introductory survey of Canadian prose
and poetry, written in or translated into English,
from their origins to the present. (6 credits)
NOTE A/See § 200.1.
NOTE: This course may be taken for credits in
the Canadian Studies Programme.

ENGLISH S251
Selected Topics in Literature Written by
Women
This course explores the ways in which
women have employed conventions of such
literary genres as poetry, the novel, and the
drama to define their own lives and those of
their contemporaries. The emphasis will be on
literary analysis of the works; the course will
also deal with the social and historical circum-
stances which are relevant to the works in
question. The texts studied, the themes and
concepts pursued, will vary from year to year.
(3 credits) NOTE A/See § 200.1.
NOTE: This course may be taken for credits in
the Women's Studies Programme.

ENGLISH S252
Selected Topics in Literature Written by
Women
A student repeating English S251 for credits
will register under English S252. (3 credits)
NOTE A/See § 200.1.
NOTE: This course may be taken for credits in
the Women's Studies Programme.

ENGLISH S260
Myth in Literature
The sources, development, and continuing
function of some central Mediterranean myths.
The course defines the nature and functions of
myth, traces the most influential myths from
their first appearance in literature to their trans-
formation in the Christian art of Europe, and
goes on briefly to examine their use by contem-
porary writers. The primary texts include the
Bible in the King James version, and such
works as the Apocrypha, the Odyssey, selected
Greek tragedies, and Ovid's Metamorphoses. (6
credits) NOTE A/See § 200.1

ENGLISH S262
Medieval Literature in Translation
An introductory study of some major works
in England and Europe between 400 and 1400,
beginning with St. Augustine, and including
examples of epic, Grail literature and courtly
romance, such as Beowulf, The Song of Roland,
The Cid, Chretien de Troyes' Parzival, Tristan
and Isolde, The Romance of the Rose, and
parts of Dante's Divine Comedy. (6 credits)
NOTE A/See § 200.1

ENGLISH S263
European Literature from the End of the
Middle Ages to the Onset of Modernism
A study of some of the classical works of
European literature from Dante to Dostoevsky,
including such writers as Boccaccio, Rabelais,
Cervantes, Rousseau and Goethe, with empha-
sis on evolving cultural patterns leading from
Faith to Reason and beyond. (6 credits) NOTE
A/See § 200.1

ENGLISH S267
The Origins of Drama
An introductory study of Greek and Roman
dramatists, and the medieval drama, both En-
lish and Continental. The course will be con-
cerned with dramatic types, theory and form,
and with the significance of this drama to the
later English stage. (6 credits) NOTE A/See §
200.1

ENGLISH S281
Tragedy: A Literary Mode
A study of the varieties of tragic form and
sensibility in Western literature. The course
includes writers chosen from antiquity to the
present, both within and outside the English
tradition, such as Shakespeare, Euripides,
Hardy, Tolstoy, Webster, Racine, Faulkner,
Buchner, Rilke and Chekhov. (6 credits) NOTE
A/See § 200.1

ENGLISH S282
Comedy: A Literary Mode
A study of the varieties of comic form and
sensibility in Western literature. The course
includes writers chosen from antiquity to the
present, both within and outside the English
tradition, such as Jonson, Aristophanes, Sterne,
Cervantes, Meredith, Balzac, Gogol, Moliere,
Holberg, Leacock, Morgenstern and Amis. (6
credits) NOTE A/See § 200.1

ENGLISH S283
Satire: A Literary Mode
Its vision and its form, traditional and con-
temporary. The course includes writers chosen
from antiquity to the present, both within and
outside the English tradition, such as Chaucer,
Juvenal, Lucian, Swift, Erasmus, Voltaire,
Thackeray, Grass, Roth, Beckett, Waugh, Rich-
ler and Orwell. (6 credits) note A/See § 200.1

ENGLISH S287
Critical Approaches to Literature
A study of the variety of major theories and
their practical application to works of literature,
with special emphasis on 20th century criticism.
(6 credits) NOTE A/See § 200.1

ENGLISH S311
Non-Fiction Writing
Prerequisite: English S211 or permission of
the Department. This course is designed for
students already in control of the basic tech-
niques of composition who wish to further
develop their ability in writing in a variety of
genres, including feature articles, news stories,
biographies, reports and reviews. The students'
work is given analysis and evaluation by the
instructor and by fellow classmates in a work-
shop setting. (6 credits) NOTE A/See § 200.1
ENGLISH S315
English Prose Style
This course is designed to introduce students to the experience and assessment of the subtleties and varieties of prose style within the English tradition. It will include selections from the works of distinguished prose stylists. (3 credits) NOTE A/See § 200.1

ENGLISH S318
History and Structure of the English Language
The course deals with the linguistic and historic development of the English language. The influence of language changes upon the literature will also be considered. (3 credits) NOTE A/See § 200.1

ENGLISH S333
English Renaissance Literature
A study of poetry and prose in England from More to Milton, including such writers as Erasmus, Wyatt, Surrey, Sidney, Spenser, Bacon, Donne, the Metaphysical poets, Jonson, the Caroline lyricists, Browne. (6 credits) NOTE A/See § 200.1

ENGLISH S334
English Literature of the Restoration and 18th Century
A study of poetry and prose from the 1660's to the 1780's, including such major writers as Dryden, Swift, Pope and Johnson. (6 credits) NOTE A/See § 200.1

ENGLISH S335
English Literature of the Romantic Period
A study of poetry and prose, chiefly that of Blake, Wordsworth, Coleridge, Byron, Shelley and Keats. (6 credits) NOTE A/See § 200.1

ENGLISH S336
Victorian Literature
A study of English poetry and prose from the 1830's to the end of the nineteenth century, including such major writers as Tennyson, Browning, Hopkins, Carlyle, Newman, Ruskin, Dickens, Thackeray and Elliot. (6 credits) NOTE A/See § 200.1

ENGLISH S337
Modern British and American Literature
A study of works in English from what has now emerged as the "Modern" period, extending from the turn of the century to World War II, and including such writers as Conrad, Joyce, Lawrence, Eliot, Yeats, Dylan Thomas, Stevens, Hemingway, Faulkner, Frost and Synge. (6 Credits) NOTE A/See § 200.1

ENGLISH S343
Canadian Literature from the 1820's to the 1930's
Prerequisite: Second year standing. A study of prose, poetry and drama, principally written in English, including such writers as McCulloch, Haliburton, Moodie, DeMilie, Kirby, Lampman, Roberts, Pratt, Grove and Stead. (6 credits) NOTE A/See § 200.1. NOTE: This course may be taken for credits in the Canadian Studies Programme.

ENGLISH S344
Modern Canadian Literature
Prerequisite: English S244. A study of prose, poetry and drama, principally written in English, from the 1930's to the present, including such writers as Laurence, MacLennan, Richier, Lowry, Klein, Callaghan, Layton, Livesay, Birney, Avison, Reaney, Nowlan and Ryga. (6 credits) NOTE A/See § 200.1. NOTE: This course may be taken for credits in the Canadian Studies Programme.

ENGLISH S348
American Literature
A survey of the literature of the United States beginning with the early writers and their optimistic vision of a new society, and studying such problems as the transformation and inversions of the "American Dream" in such writers as Poe, Hawthorne, Melville, Twain, Whitman and Fitzgerald. (6 credits) NOTE A/See § 200.1

ENGLISH S351
Modern Poetry
An examination of the characteristic elements of twentieth-century poetry, in the context of a study of such major poets as Yeats, Eliot, Pound, Stevens and Auden. (6 credits) NOTE A/See § 200.1

ENGLISH S353
Modern Drama
A study of the main currents in Western drama since Ibsen. This course will include such representative playwrights as Chekhov, Lorca, Strindberg, Pirandello, O'Neill, Brecht, Pinter, Beckett and Weiss. (6 credits) NOTE A/See § 200.1

ENGLISH S356
Modern European Literature
A survey of some of the major European writers (in translation) of the last hundred years, including such writers as Dostoevsky, Kafka, Mann, Strindberg, Valéry, Pirandello and Sartre. (6 credits) NOTE A/See § 200.1

ENGLISH S363
English Renaissance Drama
A study of English drama from the Tudor interlude to the closing of the theatres in 1642, including such dramatists as Kyd, Marlowe, Dekker, Jonson, Beaumont and Fletcher, Webster, Middleton and Ford. Some consideration will also be given to Shakespeare. (6 credits) NOTE A/See § 200.1

ENGLISH S364
Restoration and Eighteenth-Century Drama
A study of the English stage from Dryden to Sheridan, including such dramatists as Etherege, Otway, Wycherly, Vanbrugh, Congreve, Gay, Lillo and Goldsmith. (3 credits) NOTE A/See § 200.1

ENGLISH S365
The English Theatre in the Nineteenth Century
A study of drama and dramatic modes from Shelley to Shaw, including forms such as the melodrama, the Gothic thriller, Romantic verse drama, comedy, farce, burletta, operetta, and
the "new drama" of the 1890's. Among features that may be considered are innovations such as limelight and the act curtain, the emphasis on spectacle, and the phenomena of the star system and the actor-manager. (3 credits) NOTE A/See § 200.1

ENGLISH S367
The English Novel from Defoe to Dickens
A study of the origins and early development of the English novel, including such forms as the epistolary, the picaresque, the Gothic and historical novel, and such major writers as Fielding, Richardson, Sterne, Austen, Scott, the Brontes, George Eliot and Thackeray. (6 credits) NOTE A/See § 200.1

ENGLISH S368
The English Novel from Dickens to Conrad
A study of the later Victorian and Edwardian novel, including such writers as Trollope, Meredith, Butler, Hardy, James, Wells, Galsworthy, Bennett and Forster. (6 credits) NOTE A/See § 200.1

ENGLISH S374
Chaucer
A study of the major poetry of Chaucer, emphasizing The Canterbury Tales and Troilus and Criseyde. (6 credits) NOTE A/See § 200.1

ENGLISH S375
Shakespeare
An examination of Shakespeare's artistic achievement in some of the major plays. (6 credits) NOTE A/See § 200.1

ENGLISH S376
Milton: The Puritan as Poet
A study of Milton's poetry, informed by the aesthetic principles articulated in his prose and guided by his acknowledged admiration for Spenser. (6 credits) NOTE A/See § 200.1

ENGLISH S386
Literature, Ideology and Society
Prerequisite: Second-year standing. Studies in the relations between literature and its social, cultural and political environment. The content of this course may vary from year to year and may include such topics as the relations between modern Anglo-Irish literature and the Irish nationalist movement; social change and the evolution of forms of characterization in fiction; and theory and practice of the avant-garde; or confessional modes in literature in relation to social and political messianism. (6 credits) NOTE A/See § 200.1

ENGLISH S425
Advanced Creative Writing: Poetry
Prerequisite: English S225 or approved work. A workshop in the writing of poetry. The students are expected to enter this course with competence in the fundamentals of the form, and to go on, by experimenting more fully with its material and techniques, to demonstrate their further progress in the craft. (6 credits) NOTE A/See § 200.1

ENGLISH S426
Advanced Creative Writing: Prose
Prerequisite: English S226 or approved work. A workshop in the writing of fiction. The students are expected to enter this course with competence in the fundamentals of the form, and to go on, by experimenting more fully with its materials and techniques, to demonstrate their further progress in the craft. (6 credits) NOTE A/See § 200.1

ENGLISH S427
Advanced Creative Writing: Drama
Prerequisite: English S227 or approved work. A workshop in the writing of plays. The students are expected to enter this course with competence in the fundamentals of the form, and to go on, by experimenting more fully with its materials and techniques, to demonstrate their further progress in the craft. (6 credits) NOTE A/See § 200.1

ENGLISH S430
The Aesthetic and Religious Experience in Literature
Prerequisite: Second-year standing. An interdisciplinary course which explores the relationships between literature and religion through practical criticism, literary theory, aesthetics and theology. (6 credits) NOTE A/See § 200.1

ENGLISH S440
The Literatures of Canada and the United States
Prerequisite: One of English S244, S348. It would be to the student's advantage to enter this course with knowledge of both literatures. Studies in common and contrasting problems in the two national literatures. (6 credits) NOTE A/See § 200.1

ENGLISH S442
World Literatures Written in English
Prerequisite: Second-year standing. Studies of works in English from selected areas such as the Caribbean, New Zealand, Australia, Asia and Africa, by such writers as Naipaul, Walcott, Ashton-Warner, White, Narayan, Paton, Lessing and Achebe. (6 credits) NOTE A/See § 200.1

ENGLISH S443
World Literatures Written in English
A student repeating English S442 for credits registers under English S443. (6 credits) NOTE A/See § 200.1

ENGLISH S448
Special Studies in Canadian Literature
Prerequisite: One of English S343, S344. An intensive study of a limited aspect of Canadian literature which may deal, from year to year, with an individual author or work, or a particular problem, such as "Regionalism and the Diction of Canadian Poetry", "Prairie Fiction" or "Canadian Drama". (3 credits) NOTE C/See § 200.1

ENGLISH S449
Special Studies in Canadian Literature
A student repeating English S448 for credits registers under English S449. (3 credits) NOTE A/See § 200.1

ENGLISH S456
Special Studies in Modern Fiction
Prerequisite: One of English S344, S337, S356. A detailed study of an individual author
or work of fiction, or a specific problem, in any modern literature written in or translated into English. (3 credits) NOTE A, C/See § 200.1

ENGLISH S457
Special Studies in Modern Fiction
A student repeating English S456 for credits registers under English S457. (3 credits) NOTE A/See § 200.1

ENGLISH S459
Contemporary Literature
Prerequisite: Six Credits in Modern Literature, e.g. English S344, S337, S348, S356, S351 or S353. A study of poetry, prose fiction and drama, written in or translated into English since the Second World War. This course is intended for the student whose exploration of modern literature has already suggested to him something of the radical experimentation in form which characterizes contemporary literature. (6 credits) NOTE A/See § 200.1

ENGLISH S460
Old English
A study of the language and literature of the Anglo-Saxon era, chiefly of the Beowulf epic. (6 credits) NOTE A/See § 200.1

ENGLISH S466
Middle English Literature
A study of literature written in the English dialects from 1200 to 1500, including works such as Sir Gawain and the Green Knight and other romances, early lyrics, religious prose, drama, and selections from Layamon’s Arthurian Brut, Langland’s Piers Plowman, and Malory’s Morte D’arthur. (6 credits) NOTE A/See § 200.1

ENGLISH S476
Special Studies in Shakespeare
Prerequisite: English S375. An exploration in depth of individual plays and poems by Shakespeare, as well as particular problems presented by them. The topic considered in any one year might be "the Problem Plays", "the Romances", "Mask and Disguise", or "the Shakespeare play as Satire". (3 credits) NOTE A/See § 200.1

ENGLISH S478
Special Studies in Renaissance Literature
Prerequisite: One of English S333, S363. This course is designed for an intensive study of a limited aspect of the poetry, prose or drama of the period, and may deal, from year to year, with such topics as "the Sonnet Sequences", "the Metaphysical Poets", "Rhetoric, Poetics and Critical Theory" and "Renaissance Fiction". (3 credits) NOTE C/See § 200.1

ENGLISH S479
Special Studies in Renaissance Literature
A student repeating English S478 for credits registers under English S479, (3 credits) NOTE A/See § 200.1

ENGLISH S487
Theories and Criticism of Literature
Prerequisite: English S287. This course explores problems in criticism and theoretical approaches to literary art and experience from antiquity to the present, including such problems as symbol and metaphor, instruction and delight, mimesis and catharsis, form and inspiration, audience and social value, convention and genius. (6 credits) NOTE A/See § 200.1

ENGLISH S491
Honours Essay
Prerequisite: Open to third-year Honours students. Under the supervision of a faculty member, students will write a scholarly critical essay of some 7,500 to 10,000 words. (3 credits)

ENGLISH S492
Seminar in a Special Subject
Prerequisite: Second-year standing. This course is designed to provide an opportunity for study and discussion of literature at a relatively advanced level. It is taught, from year to year, by different members of the English Department, and the subject changes to accord with the special interests of each instructor. (6 credits) NOTE C/See § 200.1

ENGLISH S493
Seminar in a Special Subject
A student repeating English S492 for credits registers under English S493. (3 credits) NOTE A/See § 200.1

ENGLISH S496
Seminar in a Special Subject
Prerequisite: Second-year standing. This course is designed to provide an opportunity for study and discussion of literature at a relatively advanced level. It is taught, from year to year, by different members of the English Department and the subject changes to accord with the special interests of each instructor. (3 credits) NOTE C/See § 200.1

ENGLISH S497
Seminar in a Special Subject
A student repeating English S496 for credits registers under English S497, (3 credits) NOTE A/See § 200.1

These courses were offered in the summer of 1976.

ENGLISH N-234/1
Fantasy and Beyond: The Dimensions of Children’s Literature
(6 credits)

ENGLISH N-350/1
Eighteen Ways of Looking at Modern Poetry
(6 credits)

ENGLISH N-488/1
Literary Criticism and Composition
(6 credits)

ENGLISH N-444/1
Forms and Frontiers of Fiction
(6 credits)
41.10 Department of French

Professor and Chairman of the Department
GILBERT TAGGART

Professor
PAUL D’HOLLANDER

Professor in the Conservatory of Cinematographic Art
SERGE LOSIQUE

Associate Professors
MICHEL EUVRARD
ALBERT JORDAN
CLAUDE LEVY
PIERRE PARC
MAIR VERTHUY

Assistant Professors:
Pierre L’HERAULT
JEAN SCHNEIDER

41.10.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3

The superscript indicates credit value.

60 BA Honours in French

Pattern A (Literature emphasis)
36 Fr S214\(^6\), S241\(^6\), S310\(^6\), S321\(^6\), S331\(^6\), S491\(^6\)
24 Fr Lit Elective credits

60 BA Honours in French

Pattern B (Linguistics emphasis)
24 Fr S241\(^6\), S310\(^6\), S321\(^6\), S331\(^6\)
24 Fr S312\(^6\), S314\(^6\), S410\(^6\), S417\(^6\)
12 Fr Elective credits at ‘300’ or ‘400’ level

48 BA Major in French

6 Chosen from Fr S214\(^6\), S310\(^6\)
18 Fr S241\(^6\), S321\(^6\), S331\(^6\)
24 Fr Elective credits at ‘300’ or ‘400’ level (in consultation with Department)

30 Minor in French

6 Chosen from Fr S214\(^6\), S310\(^6\)
12 Fr S241\(^6\), S321\(^6\), S331\(^6\)
12 Fr Elective credits at ‘300’ or ‘400’ level

72 BA Major in French/English Translation

12 Chosen from Fr S214\(^6\), S310\(^6\), S410\(^6\)
6 Fr S429\(^6\)
18 Engl S211\(^6\), S311\(^6\), S337\(^6\)
6 Chosen from Fr S222\(^6\), S241\(^6\), S321\(^6\), S331\(^6\)
6 Chosen from Engl S241\(^6\), S244\(^6\), S356\(^6\)
24 Fr S314\(^6\), S415\(^6\), S440\(^6\), S441\(^6\), S442\(^6\), S443\(^6\)

41.10.2 DEPARTMENT OF FRENCH

Where to start studies in French at the university level:

French S201 is designed for students who have had no French, or up to two years of high school French in the Province of Quebec or equivalent.

French S202 and S203 are intended for students who have had from two to three years of high school French in the Province of Quebec or equivalent.

French S211 is intended for students having no substantial amount of course work in French beyond the high school level.

French S214 is intended for students who have taken one or more courses beyond high school containing a substantial amount of written French.

French S310 is intended for students whose schooling at the high school level has been conducted in French.

Students who do not fall into one of these categories are asked to consult the Department of French.

Since university level credits cannot be given for French conversation only, all language courses contain a varying quantity of written work, grammatical study and civilization material, as well as oral work.
FRANÇAIS S201
Beginners' French (Language I)
This course is designed for students who lack any previous training in French. Intensive class instruction and laboratory drill should permit the student to master the basic structures of French in both written and oral aspects. Satisfactory progress in this course will admit students to French S211. Lectures and laboratory. (6 credits) NOTE A, B/See § 200.1
Students who have received credits toward their admission for high school French may not take this course for credits. Any student who is not sure of his standing must consult the chairman of the Department prior to registration.

FRANÇAIS S202
Français élémentaire II
Préalable: Français S201 ou équivalent ou deux ans de cours de français à l'école secondaire. Révision des structures de base du français élémentaire, élargissement du vocabulaire, pratique de la conversation, phonétique corrective. On cherchera à amener l'élève à une meilleure compréhension du français oral et à une plus grande aisance d'expression par des conversations dirigées et l'emploi d'enregistrements dans la salle de classe. Les connaissances de l'élève en français écrit seront maintenues et augmentées par un emploi judicieux d'exercices écrits (3 crédits) NOTE A/See § 200.1

FRANÇAIS S203
Français élémentaire III

FRANÇAIS S211
Langue II et composition élémentaire
Préalable: Français S201 ou quatre ans de cours de français à l'école secondaire ou équivalent ou l'autorisation du département. Ce cours, destiné aux étudiants ayant déjà une certaine préparation en français oral et écrit qui désirent parfaire leurs connaissances pratiques de la langue, comporte une étude intensive des structures au laboratoire, de nombreux devoirs écrits et l'analyse de certains textes français et québécois. La structure et le contenu du cours sont les mêmes pour toutes les sections, mais le choix des romans étudiés dépend de chaque professeur. (6 crédits) NOTE A, B/See § 200.1. NOTE: Les étudiants inscrits au programme d'études canadiennes peuvent suivre ce cours avec crédits.

FRANÇAIS S214
Langue III et composition
Préalable: Français S211. Ce cours permet d'acquérir plus d'aisance et de correction dans l'expression orale et écrite en français. Il convient particulièrement aux étudiants qui ont l'intention d'enseigner le français ou de se spécialiser dans cette langue. Ce cours, donné entièrement en français, comprend la rédaction de compositions sur des sujets variés, des exercices oraux de débats, l'étude de textes et de romans choisis par le professeur de chaque section, des exercices écrits menant à une meilleure connaissance de la grammaire et de la syntaxe. (6 crédits) NOTE A/See § 200.1. Les étudiants qui ont fait leurs études en français ne seront pas admis dans ce cours.

FRANÇAIS S222
La littérature française moderne
Préalable: Français S211. Aucun préalable n'est exigé pour les étudiants dont la première langue est le français. Ce cours est surtout destiné aux étudiants qui n'ont pas l'intention de se spécialiser en français et en particulier à ceux qui choisiront leur cours obligatoire de littérature en littérature française. Le but du cours est d'encourager l'appréciation du roman comme œuvre littéraire et comme expression significative de l'expérience occidentale des cent dernières années. (6 crédits) NOTE A/See § 200.1

FRANÇAIS S241
Introduction à l'histoire de la culture et de la civilisation françaises
Préalable: Français S211. Abondamment illustré de projections, ce cours a pour but d'encourager les étudiants à approfondir leurs connaissances de l'histoire de l'art et de la musique françaises. (6 crédits) NOTE A/See § 200.1

FRANÇAIS S310
Composition avancée I
Préalable: Français S214. Ce cours traite des différentes méthodes de la composition française: description, narration et dissertation: un intérêt particulier est accordé à cette dernière ainsi qu'à l'analyse de textes en leur importance pour les étudiants qui songent à préparer mémoires et thèses. (6 crédits) NOTE A/See § 200.1

FRANÇAIS S312
Histoire de la langue française
Préalable: Français S214. Ce cours traite de l'évolution de la langue du latin vulgaire au français contemporain. Les étapes successives de cette évolution sont illustrées par l'étude de textes appropriés. Le cours est donné en français. (6 crédits) NOTE A/See § 200.1

FRANÇAIS S313
La phonétique française
Préalable: Français S214 pour les étudiants dont la langue maternelle est le français. 6 crédits en langue ou en littérature françaises. Étude systematique des habitudes articulatoires du français en comparaison avec celles de l'anglais. Introduction aux principes de l'analyse phonologique, groupes consonantiques possibles ou impossibles dans les deux langues. Étude de l'aspect physiologique de la parole.
propriétés des voyelles et des consonnes en français. Etude des phénomènes prosodiques: intonation, rythme, accent. Aperçu de la phonétique acoustique et expérimentale. (3 crédits) NOTE A/See § 200.1

**FRANÇAIS S314**

**Stylistique comparée et traduction**

Préalable: Français S214 ou, pour les étudiants dont la langue maternelle est le français, 6 crédits en langue ou en littérature française. Etude des ressources stylistiques du français par rapport à celles de l'anglais. Le passage entre les deux langues est étudié en fonction des tendances fondamentales de chaque langue, tant du point de vue grammatical et lexical que du point de vue du contexte culturel. Au cours de l'année, les étudiants doivent faire des exercices de stylistique comparée, des traductions de textes, soit vers le français, soit vers l'anglais et des analyses de traductions littéraires. (6 crédits) NOTE A/See § 200.1

**FRANÇAIS S321**

**Panorama de la littérature française**

Préalable: Français S214. Aucun préalable n'est exigé pour les étudiants qui ont fait leurs études en français. Ce cours s'adresse aux étudiants qui ont choisi la littérature française comme domaine de spécialisation principal ou secondaire. A côté d'un aperçu général de l'évolution de la littérature française des origines à nos jours, ce cours comprend une initiation aux techniques des études littéraires: principes de la versification, dissertation, explication de texte, etc. Les travaux doivent être rédigés en français. (6 crédits) NOTE A/See § 200.1

**FRANÇAIS S331**

**Littérature et culture québécoises**

Préalable: Français S211 ou 211. Ce cours offre un aperçu général de l'histoire — politique, économique, sociale et culturelle — du Québec, toile de fond de la production littéraire: il analyse les courants nouveaux nés du processus de décolonisation et leurs reflets dans l'expression littéraire. (6 crédits) NOTE A/See § 200.1

**FRANÇAIS S381**

**Méthodologie de l'enseignement du français**

Préalable: Français S214 ou équivalent, et une certaine expérience de l'enseignement du français, ou l'autorisation du département. Le premier semestre est consacré à l'analyse des problèmes théoriques de l'enseignement du français, langue seconde. Le mécanisme de l'interférence dans les domaines de la phonétique, de la morphologie et de la syntaxe est étudié ainsi que les questions d'ordre psychologique telles que la motivation et les "lois" de l'apprentissage. Le deuxième semestre est réservé à l'examen de diverses méthodes avec démonstration, classes modèles, etc. (6 crédits) NOTE A/See § 200.1

**FRANÇAIS S410**

**Composition avancée (II) et stylistique**

Préalable: Français S310. Le cours se divise en trois parties: l'analyse stylistique proprement dite (définitions et procédés du style); une étude des grands genres littéraires et de leur évolution; des exercices commentés et critiqués de "creative writing". Selon leurs rapports, ces trois aspects du cours seront examinés parallèlement. (6 crédits) NOTE A/See § 200.1

**FRANÇAIS S415**

**Traduction avancée**


**FRANÇAIS S416**

**Grammaire Normative Avancée**

Préalable: Français S310 au préalable ou en même temps, ou permission du département. Ce cours a pour but d'asseoir définitivement les connaissances grammaticales pratiques des étudiants, en particulier de 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. La terminologie en usage sera conforme aux définitions les plus récentes. L'étude des unités d'expression ménère, à travers les exercices pratiques d'analyse fonctionnelle, à l'examen approfondi de certains points de stylistique. (3 crédits) NOTE A/See § 200.1

**FRANÇAIS S417**

**Linguistique structurale du français contemporain**

Préalable: Français S310 ou l'autorisation du département. Analyse descriptive de la structure linguistique du français contemporain. Étude des aspects phonémiques, morphosyntaxiques et lexicaux de la langue considérée comme un système. Applications théoriques et pratiques. (6 crédits) NOTE A/See § 200.1

**FRANÇAIS S418**

**Phonétique expérimental**

Préalable: Français S313, Séminaire de recherche expérimentale. Initiation à l'utilisation des instruments de recherche. Étude détaillée de segments linguistiques du point de vue du timbre des voyelles, de l'articulation des consonnes et des faits prosodiques (accent, rythme, intonation). Étude expérimentale de problèmes relevant de la comparaison des systèmes phonétiques du français et de l'anglais. (3 crédits) NOTE A/See § 200.1

**FRANÇAIS S419**

**La langue française au Québec: son histoire et son état actuel**

FRANÇAIS S420
Littérature française du Moyen Age
Préalables: Deux cours parmi les suivants: Français S214, S241, S310, S314, S321. Ce cours se propose de présenter à l'étudiant et de lui faire apprécier les richesses littéraires du Moyen Age français, du Serment de Strasbourg aux poèmes de François Villon. (6 crédits) NOTE A/See § 200.1

FRANÇAIS S421
Littérature française de la Renaissance
Préalables: Deux cours parmi les suivants: Français S214, S310, S314, S321. Etude des conditions de la Renaissance française (temps et lieux; forces en jeu; transmissions et contacts). Trois ecrivains sont approfondis: le moraliste (Montaigne) et de celles qui apparaissent et se développent au cours du XVIIe siècle: l'ecrivain (Rabelais), le poète (Ronsard), le moraliste (Montaigne). La mythologie et le baroque sont étudiés comme signes de deux "renaissances" différentes, voire concurrentes. (6 crédits) NOTE A/See § 200.1

FRANÇAIS S422
Le XVIIe siècle

FRANÇAIS S423
Littérature française du XVIIIe siècle
Préalables: Deux cours parmi les suivants: Français S214, S241, S310, S314, S321. Après une introduction détaillée sur les modifications que subit la vie littéraire après le "Siècle de Louis XIV" ce cours tend d'abord à préciser les concepts-clés du XVIIIe siècle pour étudier la vie littéraire et comprendre la période. Les écrivains importants, de Prévost à Rousseau, sont ensuite étudiés dans l'ordre chronologique. (6 crédits) NOTE A/See § 200.1

FRANÇAIS S424 (424)
La littérature du XXe siècle
Préalables: Deux cours parmi les suivants: Français S214, S241, S310, S314, S321. Ce cours se propose de présenter à l'étudiant et de lui faire apprécier les richesses littéraires du XXe siècle, distingue pendant cette période, la littérature en vogue de celle qui préparait le renouveau littéraire de l'entre-deux-guerres; analyse particulièrement l'oeuvre de Peguy, Claudel, Proust, Gide et Apollinaire. Après un bref aperçu sur la guerre de 1914-1918 et ses conséquences, il se termine par une étude des mouvements dadaïste et surrealist. (6 crédits) NOTE A/See § 200.1

FRANÇAIS S426
La littérature du XXe siècle II

FRANÇAIS S427
Le Romantisme

FRANÇAIS S428
Le roman à l'époque romantique
Préalables: Deux cours parmi les suivants: Français S214, S241, S310, S314, S321. On étudiera dans trois romans écrits autour de 1830 l'invention et le développement des techniques réalistes propres à exposer les problèmes éthiques, politiques et sociaux d'une société en train de devenir la société industrielle contemporaine. (3 crédits) NOTE A/See § 200.1

FRANÇAIS S429
La littérature française de 1857 à 1914

FRANÇAIS S431
Le roman québécois contemporain
Préalables: Français S331. Etude des romanciers les plus importants du Québec: Aquin, Bessette, Blais, Ducharme, Hébert, Langlois, Roy; leur vision du monde; leur manière de se rattacher aux courants littéraires de notre époque; leurs conceptions littéraires. (6 crédits) NOTE A/See § 200.1
NOTE: Les étudiants inscrits au programme d'études canadiennes peuvent suivre ce cours avec crédits.
FRANÇAIS S432
La poésie québécoise contemporaine
NOTE: Les étudiants inscrits au programme d'études canadiennes peuvent suivre ce cours avec crédits.

FRANÇAIS S440
Terminologie
Préalable: Français S214. Introduction aux problèmes lexico-grammatiques. Ce cours identifie les problèmes rencontrés dans la traduction et comprend des travaux pratiques, tels que l'analyse lexico-grammatique d'articles de journaux ou de revues, et la préparation de glossaires sur fiches. (3 crédits) NOTE A/See § 200.1

FRANÇAIS S441
Méthodologie
Préalable: Français S214. Le cours porte sur les problèmes de traduction relevant des niveaux de langue. Des conférences initient les étudiants aux problèmes des stylistiques anglaise et française posés par la rédaction de textes particuliers: procès-verbaux, rapports administratifs. (3 crédits) NOTE A/See § 200.1

FRANÇAIS S442
Adaptation publicitaire et traduction commerciale
Préalable: Français S214. Le cours initie les étudiants aux problèmes d'adaptation de textes publicitaires d'une langue à l'autre. A partir d'exemples empruntés à la publicité écrite, radiophonique ou télévisée, les étudiants seront amenés à se familiariser avec les modifications linguistiques, affectives et sociales inhérentes au travail d'adaptation. (3 crédits) NOTE A/See § 200.1

FRANÇAIS S443
Histoire de la traduction
Préalable: Français S214. Étude de textes et de traductions d'auteurs français et anglais. On étudiera l'évolution des styles et des attitudes, de la Renaissance jusqu'à l'époque moderne. (3 crédits) NOTE A/See § 200.1

FRANÇAIS S461
Le cinéma français
Préalable: Français S211 ou l'autorisation du département. Aucun préalable n'est exigé des étudiants qui ont fait leurs études secondaires en français. Ce cours, abondamment illustré de films ou d'extraits de films, retrace tout ou en partie, l'histoire du septième art dans ses manifestations les plus originales et les plus caractéristiques. Cours et laboratoire (visionsnements hebdomadaires). (6 crédits) NOTE C/See § 200.1

FRANÇAIS S462
Le théâtre français
Préalable: Français S321 ou Français S214 et Français S241 ou l'autorisation du département. Ce cours étudie l'histoire du théâtre en France depuis le drame liturgique du Moyen Age jusqu'à l'anti-théâtre du XXème siècle; textes et aspects scéniques ne sont pas dissociés. (6 crédits) NOTE A/See § 200.1

FRANÇAIS S463
Le cinéma français
Préalable: L'autorisation du département. Tout étudiant s'inscrivant pour la seconde fois au cours de cinéma S461 obtient les crédits S463. (6 crédits) NOTE A/See § 200.1

FRANÇAIS S465
Théâtre québécois
NOTE: Les étudiants inscrits au programme d'études canadiennes peuvent suivre ce cours avec crédits.

FRANÇAIS S466
Etude d'un sujet spécial dans le domaine québécois
Préalable: Français S331. Le cours porte sur un sujet spécial dans le domaine de la langue et de la littérature québécoises; les sujets seront, par exemple: les périodiques littéraires en français au Québec de 1950 à nos jours, l'Ecole littéraire de Montréal, les comédies et nouvelles dans la littérature québécoise, la critique littéraire au Québec, et la littérature canadienne comparée. La matière du cours sera à fixer chaque fois selon les besoins et possibilités du Département. (3 crédits) NOTE C/See § 200.1

FRANÇAIS S467
Etude d'un sujet particulier
Préalable: 6 crédits et autorisation du département. Etude d'un sujet particulier dans le domaine de la langue ou de la littérature d'expression française. (3 crédits) NOTE C/See § 200.1

FRANÇAIS S491
Etude avancée d'un sujet particulier
Préalables: Français S321, douze crédits en littérature française dont six au moins au niveau *400*, ou l'autorisation du département. Ce cours n'est ouvert qu'aux étudiants des programmes major or honors. Il offre l'occasion d'approfondir l'étude d'un sujet à déterminer par l'étudiant en accord avec son conseiller et/ou un professeur du département. Chaque étudiant exécute des travaux individuels sous le contrôle du professeur spécialiste de la matière. (6 crédits) NOTE C/See § 200.1

FRANÇAIS S492
Etude avancée d'un sujet particulier
Préalable: Français S491 et l'autorisation du département. Tout étudiant s'inscrivant pour la seconde fois au cours S491 obtient les crédits S492. (6 crédits) NOTE A/See § 200.1
41.11 Mathematics (Faculty of Science, SGW)

41.11.1 PROGRAMMES

Students who follow Mathematics Programmes must register with the Department of Mathematics by Nov. 1st of each year.

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3.

The superscript indicates credit value.

72 Honours in Mathematics

Year I
24 Math N-241^6, N-261^6, N-281^6, N-292^6

Year II
21 Math N-361^6, N-366^3, N-372^3, N-373^3, N-381^3, N-391^3

Year III
15 Math N-461^6, N-466^3, N-491^3, N-467^3 or N-492^3

Years II and III

72 Honours in Applied Mathematics

Year I
24 Math N-241^6, N-261^6, N-281^6, N-292^6

Year II
24 Math N-311^3, N-351^3, N-361^6, N-372^3, N-373^3

Option A: N-331^6

Option B: N-312^3, N-431^6

Year III
24 Math N-433^3, N-434^3

Option A: N-312^3, N-431^6, N-432^3, six credits approved by Department

Option B: N-353^3, N-472^3, N-473^3, N-474^3, N-461^4

NOTE: Students interested in Operations Research will take Option A, while those interested in Control Theory will choose Option B.

72 Honours in Statistics

Year I
24 Math N-241^6, N-261^6, N-281^6, N-292^6

Year II
21 Math N-351^3, N-352^3, N-361^3, N-366^3, N-372^3, N-381^3

Year III
12 Math N-451^3, N-452^3, N-461^6

15 Elective credits in Mathematics or related fields with prior Departmental approval.

60 Specialization in Applied Mathematics

36 Math N-241^6, N-261^6, N-281^6, N-292^6, N-311^3, N-351^3, N-361^6

6 Chosen From Math N-270^3, N-372^3, N-373^3


NOTE: It is recommended that students choose their electives in accordance with their interests, e.g.,

Operations research: N-312^3, N-331^6, N-431^6, and one of:

N-432^3, N-433^3, N-434^3


Industrial applications: N-312^3, N-331^6, N-341^3, N-353^3, N-442^3

60 Specialization in Mathematics

51 Math N-241^6, N-261^6, N-281^6, N-292^6, N-361^6, N-366^3, N-372^3, N-373^3, N-381^3, N-391^3, N-466^3, N-491^3

9 Elective credits in Mathematics or related fields with prior Departmental approval.

60 Specialization in Statistics

42 Math N-241^6, N-261^6, N-281^6, N-290^3, N-312^3, N-341^3, N-343^3, N-351^3, N-352^3, N-372^3, N-441^3

18 Chosen from N-291^3, N-331^6, N-342^3, N-353^3, N-354^3, N-361^3, N-431^3, N-442^3, N-451^3, N-452^3 (with prior Departmental approval).
SIR GEORGE WILLIAMS
FACULTY OF ARTS
41.11.1
MATHEMATICS (FACULTY OF SCIENCE, SGW);
PROGRAMMES

42 Major in Applied Mathematics
30 Math N-241, N-261, N-270, N-281, N-290, N-311
12 Chosen from Math N-291, N-312, N-331, N-351, N-366 courses in related fields (with prior Departmental approval).

42 Major in Mathematics
36 Math N-241, N-261, N-281, N-292, N-341, N-343, N-351, N-352, N-372
6 Chosen from Math N-373, N-381, N-391 (with prior Departmental approval).

42 Major in Statistics
36 Math N-241, N-261, N-281, N-290, N-341, N-343, N-351, N-352, N-372
6 Chosen from Math N-312, N-342, N-353, N-441, N-442, N-451, N-452 (with prior Departmental approval).

30 Minor in Mathematics for Students in Arts
30 Credits approved jointly by the Department of Mathematics and the Department in the Faculty of Arts in which the student follows the remainder of his programme. At least 18 credits must be at the level of Math N-241 and above.
NOTE: Arts students are also eligible for a regular Minor in Mathematics or Statistics provided they have the necessary prerequisite. See § 91.12.1.

41.11.2 COURSE DESCRIPTIONS
The courses in Mathematics described below may be taken by students registered in the Faculty of Arts only; for other courses in Mathematics students should consult § 91.12.4.
All courses in Mathematics may be regarded as courses in the Humanities.

MATHEMATICS N-200
Fundamental Concepts of Algebra
This is a course designed for mature students who need a modern background for Mathematics 101. Sets, axiomatics, algebraic techniques, inequalities, analytic geometry of lines, circles, parabolas. (3 credits) NOTE A/See § 200.4
NOTE: Students who have credit for Math N-201 or equivalent may not take this course for credits.

MATHEMATICS N-201
Elementary Functions
Sets. Field of real numbers. Inequalities. Functions and graphs. Trigonometric, exponential and logarithmic functions. (3 credits) NOTE A/See § 200.4

MATHEMATICS N-202
College Algebra
Prerequisite: Mathematics N-201 or equivalent previously or concurrently. Proofs and implications. The Natural numbers and the Integers. Mathematical induction. Divisibility, the Euclidean Algorithm, primes, the Fundamental Theorem of Arithmetic. Sequences and progressions. Complex numbers, polynomials, the Fundamental Theorem of Algebra. Combinatorial Mathematics, the Binomial Theorem. Systems of equations, determinants, Cramers' Rule. (3 credits) NOTE A/See § 200.4

MATHEMATICS N-203
Differential and Integral Calculus I

MATHEMATICS N-204
Vector Analysis and Analytical Geometry
Prerequisite: Mathematics N-201 or equivalent. Inner and cross products of vectors. Algebraic and vector equations of curves in the plane and in space. Elementary study of surfaces in space. Curves and surfaces in parametric form. Polar, spherical and cylindrical coordinates. (3 credits) NOTE A/See § 200.4

MATHEMATICS N-205
Differential and Integral Calculus II

MATHEMATICS N-206
Linear Algebra for the Social Sciences
MATHEMATICS N-207
Statistics for the Social Sciences
Prerequisite: Mathematics N-201 or equivalent, or permission of Department of Mathematics or Economics. 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. (3 credits) Students with credit for Math N-241 or equivalent may not take this course for credits. NOTE A/See § 200.4 NOTE: This course may be taken for credits in the Urban Studies Programme.

MATHEMATICS N-208
Fundamental Mathematics I
Prerequisite: Mathematics N-201 or equivalent. This course is intended primarily for pre-Commerce students. Progressions, compound interest, annuities; permutations, combinations and binomial theorem; systems of linear equations, inequalities, linear programming; matrices. (3 credits) NOTE A/See § 200.4

MATHEMATICS N-209
Fundamental Mathematics II
Prerequisite: Mathematics N-201 or equivalent. This course is intended primarily for pre-Commerce students. Limits, differentiation of rational, exponential and logarithmic functions, theory of maxima and minima, integration. (3 credits) NOTE A/See § 200.4

The following courses are available only to practising teachers.
MATHEMATICS N-300, N-301, N-302, N-303, N-304, N-305, N-307, N-309, N-400, N-401, N-402, N-403, N-404, N-405, N-406, N-407, N-408, N-409, N-410

Descriptions of the above courses are listed in the Sir George Williams Faculty of Science § 91.12.4.
NOTE: Certificate programmes in Mathematics for Elementary Teachers and Junior Secondary Teachers are available for practising teachers. The description of these programmes can be found in § 91.12.2 and § 91.12.3.
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41.12 Department of Philosophy

Professor and Chairman of the Department
DALLAS LASKEY

Professors
ROGER ANGEL
STANLEY FRENCH

Associate Professors
MOBIN AHMAD
CHRISTINE ALLEN
JACK ORNSTEIN
VLADIMIR ZEMAN

Assistant Professor
SHEILA MULLETT

41.12.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3

The superscript indicates credit value.

72 BA Honours in Education and Philosophy

Year I
9 Ed S210, S230
12 Phil S210 or S211; Phil S221 or S231

Year II
6 Ed S430
6 Phil S380
6 Chosen from Ed S421, S441, S451
6 Chosen from Phil S231, S368, S378, S431

Year II
6 Ed S480
6 Phil Elective credits at ‘400’ level (excluding Phil S493, S495)
3-6 Chosen from Ed S490, S491, S492, S493
6 Phil S369

Year II or III
3-6 Chosen from Ed S415, S416, S417

60 BA Honours in Philosophy

Year I
6 Phil S211
6 Chosen from Phil S210, S221, S231, N-273

Year II
6 Chosen from Phil S221, S321
6 Phil S380
6 Chosen from Phil S301, S333
6 Phil Elective credits

Year III
6 Phil S405

6 Chosen from Phil S369, S421
6 Chosen from Phil S407, S409, S431
6 Phil Elective credits at ‘300’ or ‘400’ level

*Students preparing for graduate work should acquire a good reading knowledge of a related modern language.

72 BA Honours in English and Philosophy

18 Chosen from Engl S333, S334, S335, S336, S337, S374, S375, S409
18 Chosen from Engl S231, S232, S244, S344, S346, S351, S353, S356, S363, S367, S376, S430, S448, S456, S459, S460, S466, S476
6 Chosen from Phil S210, S211 or, if exempted, Phil Elective credits
6 Phil S360
6 Chosen from Phil S221, S321, S369
6 Chosen from Phil S231, S271, S273, S301, S361, S369, S372, S374, S376, S378
6 Chosen from Phil S369, S405
6 Chosen from Phil S321, S333, S365, S396, S405, S407, S431, S493, Wom St S241, S242

66 BA Honours in Philosophy and History

Year I
6 Hist S210
6 Phil S211

Year II
6 Hist S390
12* Chosen from Hist S333, S335, S336
6 Phil S380
6 Chosen from Phil S301, S333

Year III
6 Hist S490
6 Chosen from Phil S405, S407
6 Hist Elective credits at ‘400’ level (in
consultation with Departmental Honours adviser)
6 Phil Elective credits at ‘300’ or ‘400’ level (in consultation with Departmental Honours Adviser)

*Six of these credits may be taken in Year III.

72 BA Honours in Philosophy and Religion
12 Chosen from Rel S211, S213, S301, S302
6 Rel S443
6 Chosen from Rel S363, S364
6 Chosen from Rel S361, S362, S465
6 Chosen from Rel S311, S312, S313, S326, S327, S328, S491, S492
6 Phil S210 or, if exempted, Phil Elective credits
6 Phil S380
6 Chosen from Phil S221, S321, S369
6 Chosen from Phil S369, S404
6 Chosen from Phil S231, S271, S273, S301, S361, S365, S369, S372, S374, S376, S378
6 Chosen from Phil S321, S333, S365, S396, S405, S407, S431, S493

69 BA Honours in Sociology and Philosophy

Pattern A: (Epistemology and Methodology)
6 Soc S210 or, if exempted, Soc Elective credits (in consultation with Departmental Honours Adviser)
6 Chosen from Soc S241, S310
18 Soc S330, S422, S481
6 Chosen from Soc S420, or Soc S436, S437, S438, S439
6 Chosen from Phil S210, S211, S221, or, if exempted, Phil Elective credits
6 Phil S380
6 Chosen from Phil S221, S321
6 Chosen from Phil S369, S405
3 Chosen from Phil S372, S374, S376
6 Chosen from Phil S321, S333, S369, S405, S409, S421, S493

41.12.2 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

PHILOSOPHY S210
Problems of Philosophy
A survey of selected philosophical problems in which both contemporary and traditional approaches are critically examined. Specimen topics include: philosophical method, the existence of God, the mind-body problem, freedom and determinism, moral and political obligation. (6 credits) NOTE A/See § 200.1

PHILOSOPHY S211
Philosophical Classics
A critical discussion of selected philosophical classics. Readings will be chosen from Plato, Aristotle, Descartes, Hume, Kant and one recent or contemporary philosopher. (6 credits) NOTE A/See § 200.1
PHILOSOPHY S214
Philosophical Classics I
Students entering the University in January may join Philosophy S211 at that time by registering in Philosophy S214. Tutorials and conferences will be arranged. Such students may complete the equivalent of Philosophy S211 by enrolling in Philosophy S215. (3 credits) NOTE A/See § 200.1

PHILOSOPHY S215
Philosophical Classics II
Prerequisite: Philosophy S214. The subject matter in this course is the same as that taught in the first semester of Philosophy S211. Students with credits for Philosophy S214 may complete the equivalent of Philosophy S211 by enrolling in Philosophy S215. (3 credits) NOTE A/See § 200.1

PHILOSOPHY S221
Introduction to Logic
This course introduces the student to the nature and function of formal logic through an examination of both syllogistic logic and immediate inference. In addition there will be an extensive treatment of informal or material fallacies and an elementary presentation of propositional logic. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Science and Human Affairs Programme.

PHILOSOPHY S231
Problems of Morals
An introduction to theoretical and applied ethics. In this course, attention will be given to the history of ethical thought and to discussion of contemporary problems. (6 credits) NOTE A/See § 200.1

PHILOSOPHY S271
Contemporary Philosophy
Prerequisite: Second year standing. A selected study of selected 20th-century philosophers. Movements and figures discussed vary from year to year. Specimen topics include pragmatism, positivism, existentialism, linguistic analysis, phenomenology, structuralism: Russell, Moore, Whitehead, Dewey, Wittgenstein, Husserl, Heidegger, Jaspers. (6 credits) NOTE A/See § 200.1

PHILOSOPHY S273
Existentialism
A course designed to acquaint the student with the fundamentals of the existentialist movement as a philosophical perspective. Among philosophers considered will be Kierkegaard, Nietzsche, Heidegger, Sartre, Merleau-Ponty, Jaspers, Marcel and Berdyaev. (6 credits) NOTE A/See § 200.1

PHILOSOPHY-INTERDISCIPLINARY STUDIES 281
Introduction to General Systems Theory
An elementary survey of the transdisciplinary general systems approach. Such basic concepts as, structure information and regulation will be explored and a teleological framework suited to the social and behavioural sciences will be developed. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Science and Human Affairs Programme.

PHILOSOPHY S301
Greek Philosophy
A survey of the principal developments from the Presocratics (600 B.C.) to Plotinus (250 A.D.). Primary emphasis will be placed on the critical reading of selected original sources. Most of the time will be devoted to Plato and Aristotle. (6 credits) NOTE A/See § 200.1

PHILOSOPHY S321
Modern Logic
An introduction to modern logic, its techniques and applications. Coverage of sentential logic, first order predicate logic, naive set theory, relations and functions. (6 credits) NOTE A/See § 200.1

PHILOSOPHY S333
Rationalism and Empiricism
Prerequisite: Six credits in Philosophy or permission of the Department. A survey of the Rationalist and Empiricist traditions of the 17th and 18th centuries with particular reference to such central figures as Descartes, Spinoza, Leibniz, Locke, Berkeley and Hume. Special attention will be given to the contributions these thinkers made to such issues as the following: the sources, justification and limits of knowledge; mind and body; freedom and determinism; the status of the concepts of substance, the self, God and causality. (6 credits) NOTE A/See § 200.1

PHILOSOPHY S361
Philosophical Ideas in Literature
Prerequisite: Second year standing or permission of the instructor. A critical examination of philosophical ideas as expressed in various literary works. The subject matter is chosen for its relevance to such themes as the nature of man, the nature of the good life, and the relation of man to society. (6 credits) NOTE A/See § 200.1

PHILOSOPHY S365
Studies in Russian Philosophy
Prerequisite: Second year standing or permission of the Department. Study of the main topics in the development of Russian philosophy. Topics to be discussed include: Nihilism and Anarchism, Tolstoy's Philosophy of History, Dostoevsky's idea of evil, Marxism, Lectures and seminars. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Russian Studies Programme.

PHILOSOPHY S368
Philosophical Psychology
A critical examination of the explanation of human behaviour and the self in the light of new developments in philosophy and psychology. Detailed studies of selected problems such as motives, intention, the concept of person, choice, reason, freedom, purpose and action. (3 credits) NOTE A/See § 200.1

PHILOSOPHY S389
Contemporary Analytic Philosophy
Prerequisite: Twelve credits in philosophy or permission of Department. A seminar devoted to the investigation of selected philosophical problems as they arise in the writings of such
philosophers as Moore, Russell, Ayer, Carnap, Quine, Wittgenstein, Ryle, Wisdom, Austin and others. (6 credits) NOTE A/See § 200.1

PHILOSOPHY S372
Political Philosophy
Prerequisite: Second year standing or permission of the Department. Critical analysis of contemporary political-philosophical concepts such as tolerance, violence, separatism, racism and the nationalism of visible minorities. (3 credits) NOTE A/See § 200.1

PHILOSOPHY S374
Law, Liberty and Human Rights
In this course the student will examine 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 will be discussed. The problem of authority will be examined in relation to issues of civil liberties, civil rights and the social basis of legal conflicts. (3 credits) NOTE A/See § 200.1

PHILOSOPHY S376
Philosophy of the Social Sciences
Philosophical examination of the structure and methodology of the social sciences. Special attention to problems of functionalism, teleological explanation and the testing of social theories. (3 credits) NOTE A/See § 200.1

PHILOSOPHY S378
Aesthetics
Prerequisite: Second year standing or permission of the Department. A philosophical analysis of selected aspects of the aesthetic experience and the logic of appraisal. Specimen topics include: perception in art, symbolic expression, the role of feeling and emotion in aesthetic judgment, objectivity and subjectivity of value judgments, commensurability of values. (3 credits) NOTE A/See § 200.1

PHILOSOPHY S380
Honours Seminar in Epistemology and Metaphysics
Prerequisite: Second year standing. Intensive study of major contemporary issues in the theory of knowledge and metaphysics, designed to accommodate honours students in any department. (6 credits) NOTE A/See § 200.1

PHILOSOPHY S396
The Study of a Given Thinker
Prerequisite: Six credits in Philosophy or permission of the Department. A detailed study of one or more of the central works of a major philosopher. When it is appropriate, some attention may be devoted to his philosophical development. (3 credits) NOTE C/See § 200.1

PHILOSOPHY S398
The Study of a Given Thinker
Prerequisite: Six credits in Philosophy or permission of the Department. A student repeating S396 registers under Philosophy S398. (3 credits) NOTE A/See § 200.1

PHILOSOPHY S405
Kant
Prerequisite: Twelve credits in Philosophy or permission of the Department. An intensive study of Kant’s Critique of Pure Reason and related works. (6 credits) NOTE A/See § 200.1

PHILOSOPHY S407
Nineteenth-Century Philosophy
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. (6 credits) NOTE A/See § 200.1

PHILOSOPHY S409
Phenomenology
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 writing. Post-Husserlian modifications will be considered briefly. The second term will be devoted to a discussion of the influence of the phenomenological movement on contemporary developments in the social sciences and humanities. Actual topics will be determined by the students’ areas of interest and academic qualifications. (6 credits) NOTE A/See § 200.1

PHILOSOPHY S421
The Philosophy of Science
Prerequisite: One course in logic or permission of the Department. A critical examination of problems pertaining to the structure and status of scientific theories and the logic of scientific inference. Such topics as the following will be discussed: explanation, confirmation, verifiability and falsifiability, problems of definition, observational and theoretical terms, models and analogies. (6 credits) NOTE A/See § 200.1.

NOTE: This course may be taken for credits in the Science and Human Affairs Programme.

PHILOSOPHY S431
Recent Ethical Theory
Prerequisite: Six credits in Philosophy or permission of the Department. A critical analysis of leading contemporary 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. (6 credits) NOTE A/See § 200.1

PHILOSOPHY S493
Special Topics in Philosophy
Prerequisite: Six credits in Philosophy or permission of the Department. Consideration of a special topic selected from the principal areas of philosophy, e.g. value theory, epistemology, metaphysics, philosophy of mind, philosophy of science, philosophical logic. (6 credits) NOTE C/See § 200.1

PHILOSOPHY S495
Special Topics in Philosophy
Prerequisite: Twelve credits in Philosophy or permission of the Department. A student repeating Philosophy S493 registers for credits under Philosophy S495. (6 credits) NOTE A/See § 200.1

SIR GEORGE WILLIAMS
FACULTY
OF ARTS
41.12.2
DEPARTMENT
OF
PHILOSOPHY;
COURSE
DESCRIPTIONS
41.13 Department of Religion

Professor and Chairman of the Department
CHARLES DAVIS

Professors
MICHEL DESPLAND
SHEILA MCDONOUGH

Associate Professors
FREDERICK B. BIRD
DAVID MILLER
JOHN ROSSNER

Assistant Professors
JACK LIGHTSTONE
MICHAEL OPPENHEIM
ALTI RODAL

Visiting Assistant Professor
DENNIS LISHKA

Lecturer
HOWARD JOSEPH

41.13.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3

The superscript indicates credit value.

60 BA Honours in Religion

6 Rel S211
6 Rel S213 or S222
12 from one of three areas of specialization:

A. Asian religions:
   Chosen from Rel S311, S312, S313

B. Christianity:
   Chosen from Rel S301, S302, S303, S304, S305, S306, S307, S308
6 from courses specified in a second area above
6 Chosen from Rel S331, S332, S333, S334, S341, S346, S435, S443, S465
6 Elective credits in chosen area of specialization at ‘400’ level
6 Rel Elective credits at ‘300’ or ‘400’ level
12 Elective credits in Rel or related discipline (in consultation with Departmental Honours Adviser)

60 BA Honours in English and Religion

12 Engl S333, S430
6 Engl S375 or S376
12 Chosen from Engl S244, S334, S335, S336, S337, S346, S374, S375 or S376
12 Rel S301, S302, S341
6 Chosen from Rel S211, S213, S361, S362, S363
6 Chosen from Rel S443, S465
6 Chosen from Rel S311, S312, S313, S325, S326, S327, S328, S330, S361

72 BA Honours in Philosophy and Religion

12 Chosen from Rel S211, S213, S301, S302
6 Rel S443
6 Chosen from Rel S363, S364
6 Chosen from Rel S361, S362, S465
6 Chosen from Rel S311, S312, S313, S326, S327, S328, S491, S492
6 Chosen from Phil S210, S211 or, if exempted, Phil Elective credits
6 Phil S380
6 Chosen from Phil S221, S231, S369
6 Chosen from Phil S369, S405
6 Chosen from Phil S231, S271, S273, S301, S361, S365, S369, S372, S374, S376, S378
6 Phil S321, S333, S365, S396, S405, S407, S431, S493
### BA Honours in Religion and History

<table>
<thead>
<tr>
<th>Pattern A (Asia)</th>
</tr>
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<tbody>
<tr>
<td>30 Hist S210(^b), S261(^a), S361(^a), S362(^a), S390(^a)</td>
</tr>
<tr>
<td>24 Rel S213(^a), S311(^a), S312(^a), S313(^a)</td>
</tr>
<tr>
<td>12 Soc S210(^a), S424(^a)</td>
</tr>
</tbody>
</table>

**NOTE:**
(a) With the approval of the Honours representative, any 6 credits at '400' level in Hist or Rel may be substituted for any specific course.
(b) For students interested in the comparative aspects of Islamic development, Hist S365\(^a\) is available.

**Pattern B (Europe)**

| 12 Hist S210\(^b\), S390\(^a\) |
| 6 Chosen from Rel S211\(^a\), S213\(^a\) |
| 12 Chosen from Hist S331\(^a\), S332\(^a\), S333\(^a\), S336\(^a\), S327\(^a\), S328\(^a\), S330\(^a\), Rel S361\(^a\), S362\(^a\), S443\(^a\), Soc S210\(^a\), S424\(^a\) |

*Students taking Soc S210 in Honours programme must also take Soc S424.*

### 60 BA Honours in Sociology and Religion

| 18 Anth S211\(^a\), Rel S213\(^a\), Soc S210\(^a\) or, if exempted, Elective credits from the relevant department (in consultation with Departmental Honours Adviser) |
| 6 Chosen from Rel S301\(^a\), S302\(^a\), S363\(^a\) |
| 12 Chosen from Rel S311\(^a\), S312\(^a\), S313\(^a\), S326\(^a\), S327\(^a\), S328\(^a\), S330\(^a\), S361\(^a\), S362\(^a\) |
| 12 Soc S310\(^a\), S330\(^a\) |
| 6 Chosen from Soc S424\(^a\), Anth S425\(^a\) |
| 6 Chosen from Soc S481\(^a\), Rel S491\(^a\) |

**NOTE:** Students preparing for graduate work should acquire a good reading knowledge of French or another language (consult with the Department).

### 48 BA Major in Judaic Studies

| 6 Rel S201\(^a\) |
| 6 Chosen from Rel S211\(^a\), S213\(^a\), S311\(^a\), S312\(^a\), S313\(^a\) |
| 21 Chosen from Rel S222\(^a\), S301\(^a\), S325\(^a\), S326\(^a\), S327\(^a\), S328\(^a\), S329\(^a\), S330\(^a\), S401\(^a\), S497\(^a\), S498\(^a\) |
| 6 Chosen from Rel S361\(^a\), S362\(^a\), S313\(^a\) |
| 9 Elective credits in related disciplines at '300' or '400' level (in consultation with Major Adviser) |

### 42 BA Major in Religion

| 6 Chosen from Rel S211\(^a\), S213\(^a\), S311\(^a\), S312\(^a\), S313\(^a\) |
| 6 Chosen from Rel S222\(^a\), S301\(^a\), S302\(^a\), S326\(^a\), S327\(^a\), S328\(^a\), S329\(^a\), S330\(^a\), S361\(^a\), S362\(^a\), S363\(^a\) |
| 30 Rel Elective credits at '300' or '400' level |

### 30 Minor in Judaic Studies

| 6 Rel S201\(^a\) |
| 18 Chosen from Rel S222\(^a\), S301\(^a\), S302\(^a\), S326\(^a\), S327\(^a\), S328\(^a\), S329\(^a\), S330\(^a\) |
| 6 Chosen from Rel S401\(^a\), S497\(^a\), S498\(^a\) or Elective credits at '400' level (in consultation with Major Adviser) |

### 30 Minor in Religion

| 30 Rel Elective credits (in consultation with Departmental Adviser) |

### 41.13.2 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

**RELIGION S201**

**Classical Hebrew**

A study of the language of the classical Hebrew texts. The course is designed as a preparation for reading the Hebrew Bible, but takes account of other texts. (6 credits) **NOTE A**/See § 200.1

**RELIGION S211**

**Understanding Religion**

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 will 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 will be taken from a variety of religious traditions. (6 credits) **NOTE A**/See § 200.1

**RELIGION S213**

**Major Religious Traditions of the World**

A historical and comparative overview of the major religious traditions of the world: Judaism, Christianity, Islam, Hinduism, Buddhism and Chinese religions. The course will include some consideration of the new religions in North America. (6 credits) **NOTE A**/See § 200.1

**RELIGION S222**

**Judaic Studies: History of the Jewish People**

An historical survey of the Jewish people from the Biblical Age until the beginning of the modern period. The survey will focus on both the sociological and the intellectual developments in this area. The emphasis will be on the formation and continuation of the major Jewish
concepts, institutions, and traditions; on the dynamic forces in Jewish society and on the interrelationship between Jews and non-Jews during this period. (6 credits) NOTE A/See § 200.1

RELIGION S301
Biblical Studies I: The Hebrew Bible
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 which have become central in the subsequent development of Judaism. (3 credits) NOTE A/See § 200.1

RELIGION S302
Biblical Studies II: The New Testament
An introduction to the methods and results of contemporary New Testament scholarship; a critical survey of New Testament literature considering historical setting, history of text, religious and cultural significance. Attention is given to the central issues and concepts portrayed in the Synoptic, Johannine and Pauline writings and their importance in the subsequent development of the Western religious tradition. (3 credits) NOTE A/See § 200.1

RELIGION S311
The Religions of India, Ceylon, Southeast Asia
An historical study of the major religious traditions native to the Indian sub-continent, Ceylon and Southeast Asia. Although the course will concentrate upon the development of Hindu and Buddhist religious thought and institutions, consideration will be given to the influence of Jainism, Islam and Christianity upon Hinduism and Theravada Buddhism. The course will end with an analysis of the contemporary religious situation in India and Burma. (6 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Asian Studies Programme.

RELIGION S312
The Religions of China and Japan
Prerequisites: Second-year standing. An historical study of the religious traditions of pre-modern China, Tibet and Japan. After a brief introduction to the origin of Buddhism in India, the course will focus upon the development of religious thought and institutions in Mahayana Buddhism, Taoism, Confucianism and Shinto. The course will end with an analysis of the contemporary religious situation in China and Japan. (6 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Asian Studies Programme.

RELIGION S313
Islam
A study of the rise and development of Islamic religion and culture, with special attention to mysticism and to modernism. (6 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Asian Studies Programme.

RELIGION S325
The Bible and the Ancient Near East
The significance of Old Testament Institutions within the context of the ancient Mediterranean world. Law, covenant, writing, historiography, the relationship between man and God, sin, sacrifice and atonements will be discussed. Readings from contemporary literature in translation (Babylonian; Egyptian; Greek; Hittite; Ugarte). (3 credits) NOTE A/See § 200.1

RELIGION S326
Classical Judaism
The concepts and institutions of classical or 'normative' Judaism, in the setting of the Hellenistic-Roman world. A conceptual approach to law, ethics, philosophy and culture of post-Biblical Judaism. Consideration will be given to sectarianism and sectarian movements (Samaritans, Dead Sea Scrolls) and their relationship to the major Jewish 'Schools' (Pharisees, Sadducees, Essenes) and to the early Christian Church. (3 credits) NOTE A/See § 200.1

RELIGION S327
Mediaeval Jewish Thought and Institutions
Topics in 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 will be considered. (3 credits) NOTE A/See § 200.1

RELIGION S328
Modern Jewish Thought and Institutions I (1780-1880)
A survey of the social and intellectual currents which have shaped Jewish modernism from the beginning of emancipation until 1880. Topics will include: the emergence of modern Jewish consciousness, Jewish pluralism and religious differentiation within Jewish society (Haskalah, Hasidism, science of Judaism, orthodoxy, reform and conservatism), secular versus religious values, disintegration and unification within the Jewish community. (3 credits) NOTE A/See § 200.1

RELIGION S329
Sefardic Judaism
A critical analysis of the religious traditions peculiar to Sephardic Jews. Particular attention will be given to North African Judaism. (3 credits) NOTE A/See § 200.1

RELIGION S330
Modern Jewish Thought and Institutions II (1880 to the present)
A survey of social and intellectual currents in Jewish society from 1880 until the present. Topics will include: the impact of anti-Semitism, particularism and universalism, nationalism and its critics, Jewish existentialism and the new mysticism (Rosenzweig, Buber, Rabbi Kook), reactions to the holocaust, and the relationship between Israel and the diaspora. (3 credits) NOTE A/See § 200.1

RELIGION S331
Contemporary Ethical Issues: Personal
This course will identify and analyse ethical issues arising at the personal level today. Issues will be discussed in the context of the inter-relationship between moral values and religious
RELIGION S332
Contemporary Ethical Issues: Societal
This course will identify and analyze ethical issues arising from social groups today. In discussing the issues, account will be taken of the bearing of religious institutions and traditions upon social attitudes and problems. Topics will vary from year to year, but examples of problem areas that have evoked ethical and religious debate are: economic and social inequality, race relations, violence and war, hunger and poverty, population growth. (3 credits) NOTE A/See § 200.1

RELIGION S333
Women and Religion I
An examination of the roles and images of women in the history of religions. Topics might include: the development of patriarchal religion, religion and sexuality, women and myth, the roles of women in different religious communities. This course will include an integrated sequence of lectures (minimum three weeks) by an anthropologist on matriarchal and patriarchal societies. (3 credits) NOTE A/See § 200.1 NOTE: This course may be taken for credits in the Women's Studies Programme.

RELIGION S334
Women and Religion II
An examination of the religious and ethical questions raised by contemporary discussions of women's experience. Topics might include: the recent beginnings of a feminist theology, the feminist critique of organized religion and society, the effects of male perspective upon philosophy and theology, and women in the ministry. (3 credits) NOTE A/See § 200.1 NOTE: This course may be taken for credits in the Women's Studies Programme.

RELIGION S341
Religion and Literature
This course deals with the questions raised for the study of religion by works of literature. An account will be given of the recent development of interdisciplinary studies in religion and literature and of the problems of method that have arisen. The relation between the interpretation of religious language, with its use of myth, parable, symbol and metaphor, and literary criticism will be explored. The religious implications, direct and indirect, of selected literary works will be discussed. (6 credits) NOTE A/See § 200.1

RELIGION S361
Studies in the History of Christian Thought
An introduction to the classics of Christian thought from the Fathers to the modern period. Authors studied at length may vary from year to year, but in any case students will acquire a basic knowledge of Augustine, Aquinas, Luther and Calvin. (6 credits) NOTE A/See § 200.1

RELIGION S362
Questions from the Christian Tradition
A study of some of the major religious questions and controversies in the history of the Christian West. The questions chosen will vary, but examples are: grace and free will, faith and reason, history and eschatology, church and state, contemplation and action. (6 credits) NOTE A/See § 200.1

RELIGION S363
Religion in Canada
The historical development of the major religious traditions in Canada, their influence on the social, political and cultural areas of Canadian life and their contemporary significance. Attention will also focus on the interaction of Catholic, Protestant, Jewish, Indian and Eskimo groups. (6 credits) NOTE A/See § 200.1 NOTE: This course may be taken for credits in the Canadian Studies Programme.

RELIGION S364
The Origin of Myth, Ritual and Magic in Western Culture
An historical study of the origins and development of esoteric beliefs and practices involving claims to paranormal spiritual and psychic powers or faculties of human beings. The course will survey the history of the so-called "magical" or 'miraculous' elements in human religious experience from primitive to modern settings, through Egypt, India, Mesopotamia, Ancient Israel, Greece, and Rome. Early and Medieval Christianity, to the cults, sects, secret-societies and quasi-religious movements of the modern period. (6 credits) NOTE A/See § 200.1

RELIGION S401
Advanced Studies in Classical Jewish Texts
This course will be based on representative readings from Biblical, post-Biblical and medieval Hebrew literature. It will concentrate on specific topics and will pay attention to the historical and philosophical background of the texts. (3 credits) NOTE A/See § 200.1

RELIGION S435
Comparative Religious Ethics: West & East
This course will identify the ways in which different religious and ideological traditions from West and East consider and deal with ethical issues. Examples of such traditions are Navaho, Jewish, Christian, Islamic, Hindu, Buddhist, Confucian, Humanist, Communist. The ethical values and ideals found in these traditions and their influence upon individual life patterns and social organization will be considered. (6 credits) NOTE A/See § 200.1

RELIGION S443
Modern Religious and Atheistic Thought
A historical and critical review of the conflicting philosophical interpretations of religion that have arisen in the West since the Enlightenment. Special attention will be paid to problems about the nature of meaning of religious experience currently debated between religious and secularist thinkers. (6 credits) NOTE A/See § 200.1

RELIGION S445
Classical Images of Man and Contemporary Psychical Research
A survey of recent scientific studies of paranormal phenomena occurring in dreams.
visions, trance-states, hypnosis, and various ecstatic mystical experiences, the results of thanatological studies, the quest for postmortem survival evidence, and general research in parapsychology and parapsychics. The course will relate this body of research to the various root typologies of classical human religious experience found in primitive, ancient-sacral, and classical religious traditions of East and West. (6 credits) NOTE A/See § 200.1

RELIGION S491
Special Seminar I
Prerequisite: Permission of the Department. Subject matter will vary from year to year to take advantage of the special interests of the seminar leader. This course will provide opportunities to senior students for discussion and advanced study. (6 credits) NOTE C/See § 200.1

RELIGION S492
Special Seminar II
Prerequisite: Permission of the Department. A student repeating Religion S491 registers for credits under Religion S492. (6 credits) NOTE A/See § 200.1

RELIGION S493
Religious Institutions
Prerequisite: Permission of the Department. Seminar on a particular period or institution in the history of religion. (3 credits) NOTE C/See § 200.1

RELIGION S494
Religious Institutions
Prerequisite: Permission of the Department. A student repeating Religion S493 registers for credits under Religion S494. (3 credits) NOTE A/See § 200.1

RELIGION S495
Religious Thinkers
Prerequisite: Permission of the Department. Seminar on a particular thinker or school of thought in the history of religion. (3 credits) NOTE C/See § 200.1

RELIGION S496
Religious Thinkers
Prerequisite: Permission of the Department. A student repeating Religion S495 registers for credits under Religion S496. (3 credits) NOTE A/See § 200.1

RELIGION S497
Topics in Jewish History
A study of a problem or area of concern in Jewish History. Possible topics might be: the nature of the Dead Sea Sect, the background of the expulsion of the Jews from Spain, Jewish reactions to catastrophe since 1492, Jewish nationalism in the twentieth century, Jewish messianic movements, history of the ancient Near East, history of the Jews in North America. (3 credits) NOTE C/See § 200.1

RELIGION S498
Topics in Jewish History
Prerequisite: Permission of the Department. A student repeating Religion S497 registers for credits under Religion S498. (3 credits) NOTE A/See § 200.1
41.14 Department of Applied Social Science

41.14.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3.

The superscript indicates credit value.

65 BA Specialization in Applied Social Science

Prerequisites: Psychology S211*, Sociology S210*
Year I
9 ApSS S212*, S351*
6 Psyc S271*
Soc S310* or S330*
Year II
6 The other of Soc S310* or S330*
6 Psyc S241* or Soc S241*
Year II & III
6 Chosen from Psyc S422*, S428*, S438*, S442*, S452*, S454*
6 ApSS S400*

*NOTE: With permission of the Department, up to six credits may be substituted from other ApSS courses.

42 BA Major in Applied Social Science

Prerequisites: Psychology S211*, Sociology S210*
6 ApSS S212*
6 Psyc S271*
6 Soc S330*
6 Chosen from Psyc S302*, S303*, S304*, S305*, S309*

*NOTE: With permission of the Department, up to six credits may be substituted from other ApSS courses.

60 BA Major in Social Welfare

6 credits in Economics
6 Pol Sc S320*
6 Elective credits in Psychology
18 Elective credits in Sociology
12 Econ or Pol Sc or Psyc Elective credits
6 ApSS S461*
6 Psyc S241* or Soc S241*

NOTE: Only 18 of the 60 credits may be at the '200' level.

41.14.2 CERTIFICATE IN COMMUNITY SERVICE

The Department of Applied Social Science offers a 30-credit programme, consisting of 18 credits of applied courses and 12 credits of foundation courses chosen as electives, leading to the Concordia University Certificate in Community Service.

Admission Requirements

General Admission Requirements are listed in Section 13.

Students must be actively involved in Community Service either as staff or as volunteers or members of boards, committees or councils of community organizations and agencies.
Courses (in sequence)

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<th>Credits</th>
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<th>Year</th>
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<tr>
<td>6</td>
<td>ApSS S351</td>
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<tr>
<td>6</td>
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</table>

41.14.3 CERTIFICATE IN FAMILY LIFE EDUCATION

The Department of Applied Social Science offers a 30-credit programme, consisting of 18 credits of applied courses and 12 credits of foundation courses chosen as electives, leading to the Concordia University Certificate in Family Life Education.

Admission Requirements

General Admission Requirements are listed in Section 13.

Students must be actively involved in Family Life Education through a sponsoring community agency or organization. Such persons are likely to be affiliated with the Association of Family Life Educators of Quebec.

Courses (in sequence)

<table>
<thead>
<tr>
<th>Credits</th>
<th>Courses</th>
<th>Year</th>
</tr>
</thead>
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<td>3</td>
<td>ApSS S351</td>
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41.14.4 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

APPLIED SOCIAL SCIENCE S212
Introduction to Social Gerontology

This course will deal with the problem of growing old in contemporary society, and with the biological, psychological and sociological dimensions of the human aging processes. The course is also designed to identify the needs of the elderly in our community and to examine approaches to dealing with these needs. (6 credits) NOTE A/See § 200.1

APPLIED SOCIAL SCIENCE S351
Understanding Group Behaviour

This is a laboratory course which includes participating in a group and analyzing such common group dynamics as leadership, com-
coordinate the other courses required by the students only. The purpose of this course is to programme and to integrate the theory derived from the contributing disciplines within an applied social science perspective. (6 credits) NOTE A/See § 200.1.

NOTE: This course was first offered in the 1976-77 academic year.

APPLIED SOCIAL SCIENCE S451
Principles and Practices of Guidance
Prerequisite: Applied Social Science S212. Principles and methods of counselling and guidance with particular reference to their application in the setting of the community-serving organizations. Organization and administration of a guidance service including measurement and appraisal, techniques of counselling, occupational and educational information, and referral, will be considered. (3 credits) NOTE A/See § 200.1.

APPLIED SOCIAL SCIENCE S452
Introduction to Counselling
Prerequisites: Applied Social Science S212, S451. A survey of typical problems, information, techniques, principles, policies and points of view useful to professional staff in community-serving organizations; focus on educational, vocational and relationship problems, and the use of counselling techniques in staff relations and supervision. (3 credits) NOTE A/See § 200.1.

APPLIED SOCIAL SCIENCE S453
Sexuality and Human Relations
Prerequisite: Third-year standing and permission of the Department. Using a variety of small group processes, the seminar will explore physical and psychosocial factors in the emergence of the sexual self. Objectives of the seminar include helping students to increased awareness of sexual values and attitudes. (3 credits) NOTE A/See § 200.1.

APPLIED SOCIAL SCIENCE S454
Special Seminar in Family Communication
Prerequisite: This course is for Certificate students only. A course in marriage and family living, including decision-making, interpersonal relationships, communication, and social change agent. Elements of working with individuals, groups and communities. Laboratory periods will permit the application of course content to practice. (6 credits) NOTE A/See § 200.1.

APPLIED SOCIAL SCIENCE S455
Advanced Integrative Seminar in Family Life Education
Prerequisite: This course is for Certificate students only. The purpose of this course is to coordinate the other courses required by the programme and to integrate the theory derived from the contributing disciplines within an applied social science perspective. (3 credits) NOTE A/See § 200.1.

NOTE: This course was first offered in the 1976-77 academic year.
APPLIED SOCIAL SCIENCE S461
Social Welfare and the Social Welfare Services
Prerequisite: Second year standing or permission of the Department. A general course concerned with social welfare problems in modern society: some analysis of these problems in relation to economic and cultural patterns. A description of the functional settings in which social welfare services are practised. A consideration of the methods used in social welfare, and some consideration of the connective links between social welfare services and religion, law, medicine, nursing, teaching and other professions. (6 credits) NOTE A/See § 200.1

APPLIED SOCIAL SCIENCE S471
Special Projects Seminar
Prerequisite: Second year Major in Applied Social Science and permission of the Department. A seminar course for field projects, surveys and research studies undertaken by each student. (6 credits) NOTE A/See § 200.1

APPLIED SOCIAL SCIENCE S472
Special Projects Seminar
Prerequisite: Second year Major in Applied Social Science and permission of the Department. A student repeating Applied Social Science S471 registers for credits under Applied Social Science S472. (6 credits) NOTE A/See § 200.1

APPLIED SOCIAL SCIENCE S481
Special Seminar in Applied Social Science
Prerequisites: Psychology S211, Sociology S210 and permission of the Department. The subject for the seminar will vary from year to year reflecting recent developments in social change, new approaches in the behavioural sciences or the special interests of the instructor. (6 credits) NOTE C/See § 200.1

APPLIED SOCIAL SCIENCE S482
Special Seminar in Applied Social Science
Prerequisite: Permission of the Department. A student repeating Applied Social Science S481 registers for credits under S482. (6 credits) NOTE A/See § 200.1

APPLIED SOCIAL SCIENCE S483
Special Seminar in Applied Social Science
Prerequisite: Permission of the Department. The subject for the seminar will vary from year to year reflecting recent developments in social change, new approaches in the behavioural sciences, or the special interests of students or the instructor. (3 credits) NOTE C/See § 200.1

APPLIED SOCIAL SCIENCE S486
Special Seminar in Applied Social Science
Prerequisite: Permission of the Department. A student repeating Applied Social Science S485 registers for credits under Applied Social Science S486. (3 credits) NOTE A/See § 200.1

Social Science
Assistant Professor of Social Science
JACK GOLDFNER
41.15 Department of Economics

Associate Professor and Chairman of the Department
MORTON STELCNER

Professors
MURIEL ARMSTRONG
DOUGLAS FISHER
MORIDO INAGAKI
JOHN O'BRIEN
SHREEKANT PALEKAR

Associate Professors
JALEEL AHMAD
A. ANASTASOPOULOS
VITTORIO CORBO
GEORGE DAVIDOVIC

FRANK MÜLLER
BALBIR SAHNI
ABRAHAM TARASOFSKY

Assistant Professors
JEFFREY BERNSTEIN
JON BRESLAW

Visiting Professor
STEPHEN MARGLIN

Visiting Assistant Professors
PATRICK McCARTHY
CEDRIC NATHAN

Sessional Lecturers
DONALD BAUM
CHRISTOPHER COOK

41.15.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3

The superscript indicates credit value.

60 BA Honours in Economics

6 Econ S209\(^1\) and Econ S210\(^3\)
18 Econ S311\(^1\), S318\(^3\), S415\(^4\)
6 Econ S270\(^1\) or Math N-203\(^2\) or Math N-209\(^4\), and Econ S271\(^1\) or Math N-206\(^5\)
6 Math N-207\(^1\) and Econ S375\(^1\) or OM C243\(^3\) and OM C244\(^4\)
6 Chosen from Econ S430\(^6\), S434\(^6\), S438\(^6\)
18 Econ Elective credits

60 BA Specialization in Economics

6 Econ S209\(^1\) and Econ S210\(^3\)
18 Econ S311\(^1\), S318\(^3\), S415\(^4\)
6 Econ S270\(^1\) or Math N-203\(^2\) or Math N-209\(^4\), and Econ S271\(^1\) or Math N-206\(^5\)
6 Math N-207\(^1\) and Econ S375\(^1\) or OM C243\(^3\) and OM C244\(^4\)
6 Chosen from Econ S430\(^6\), S434\(^6\), S438\(^6\)
18 Econ Elective credits

42 BA Major in Economics

6 Econ S209\(^1\) and S210\(^3\)
6 Econ S311\(^6\)
6 Econ S318\(^6\)
6 Econ Hist chosen from Econ S430\(^6\), S434\(^6\), S438\(^6\)
6 Math N-207\(^1\) and Econ S375\(^1\) or OM C243\(^3\) and OM C244\(^4\) or equivalent.
12 Econ Elective credits

30 Minor in Economics

6 Econ S209\(^1\) and S210\(^3\)
6 Econ S311\(^6\)
6 Econ S318\(^6\)
12 Econ Elective credits
41.15.2 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

ECONOMICS S209
Introduction to Microeconomics

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. (3 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Russian Studies and Urban Studies Programmes.

ECONOMICS S210
Introduction to Macroeconomics

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 analyzes the principles which govern the trade relations among countries. These topics are integrated by a discussion of government monetary and fiscal policies to stabilize economic activity. (3 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Russian Studies and Urban Studies Programmes.

ECONOMICS S221
Introduction to Economic History

This course deals with the development of industrial economics from the Industrial Revolution to the present. Emphasis on long-term forces such as demographic, technological, and institutional evolution. (6 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Russian Studies Programme.

ECONOMICS S270
Mathematics for Economists I

Prerequisites: Economics S209 and S210. This course introduces the student to differential and integral calculus and to their applications in economic analysis. Topics covered include set theory, the concept of limits and rules for differentiation and integration. It also deals with the relevance of these concepts and techniques to economic problems such as maximization, equilibrium analysis, and dynamic adjustments. (3 credits) NOTE A/See § 200.1

ECONOMICS S271
Mathematics for Economists II

Prerequisites: Economics S209 and S210, S270, or Mathematics N-203 or N-209. The main emphasis is on the study of linear algebra and its application to the solution of economic models consisting of a system of linear simultaneous equations. Topics covered include: matrices and vectors; basic properties of determinants and their use in solving equations pertaining to economic problems such as linear programming and constrained optimization. (3 credits) NOTE A/See § 200.1

ECONOMICS S274
The Use of Economic Data

Prerequisites: Economics S209 and S210. Concepts of economic accounting and related measurement techniques, with special reference to the procedures used in Canada and in international economic institutions like the U.N., I.M.F., and O.E.C.D. The topics include: national accounts, input-output tables, flow-of-funds accounts, national balance sheets, international and interregional comparison of economic data, choice of index. (3 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Urban Studies Programme.

ECONOMICS S304
Canadian Economic Policy I

Prerequisites: Economics S209 and S210. A study of the effects of government policies on resource allocation with emphasis on Canadian policy problems. Topics will include government regulation of business, agriculture policy, transportation policy, and tariff policy. (3 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Canadian Studies Programme.

ECONOMICS S305
Canadian Economic Policy II

Prerequisites: Economics S209 and S210. A study of trade, government stabilization, growth, and welfare policies with emphasis on Canadian policy problems. Topics also include monetary and fiscal policies, policies to encourage growth, and social security policies. (3 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Canadian Studies Programme. Students who have credits for Economics N-405, or Economics N-431 before 1969-70 may not take this course for credits.

ECONOMICS S306
Monopoly, Competition and Regulation

Prerequisites: Economics S209 and S210. This course shows how the basic tools of economics can be applied towards the understanding of aspects of industrial organization such as firm size and industrial structure, price discrimination, resale price maintenance, advertising, technical innovation, and foreign ownership. These issues will be studied in the context of Canadian industrial structures, current anti-competition legislation and its enforcement. The course will also deal with government policies with regard to industry performance and public utility regulation. (3 credits) NOTE A/See § 200.1

ECONOMICS S307
Economics of the Environment

Prerequisites: Economics S209 and S210. The subject of this course is environmental quality. It proceeds through an analysis of the relationships between the natural environment, economic, 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 will be discussed. The course con-
cludes with a discussion of some broader issues, such as the consistency of improved economic quality with continued economic and population growth. (3 credits) NOTE A/See § 200.1

NOTE. This course may be taken for credits in the Science and Human Affairs Programme.

ECONOMICS S308 Economics of Natural Resources
Prerequisites: Economics S209 and S210. 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, re-allocation of property rights, regulation). (3 credits) NOTE A/See § 200.1

NOTE. This course may be taken for credits in the Science and Human Affairs Programme.

ECONOMICS S309 Economics of Human Resources
Prerequisites: Economics S209 and S210. A study of recent contributions by economists towards the understanding and solution of 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 analyzed with the standard tools of economics. (3 credits) NOTE A/See § 200.1

ECONOMICS S310 Economics of Discrimination
Prerequisites: Economics S209 and S210. The purpose of this course is to examine some economic issues of discrimination with particular reference to women in a Canadian context. Among the topics so examined are: techniques for measuring discrimination and poverty, review of empirical studies, traditional and radical approaches to the study of discrimination, and policies to combat discrimination and poverty. (3 credits) NOTE A/See § 200.1

NOTE. This course may be taken for credits in the Women's Studies Programme.

ECONOMICS S311 Intermediate Microeconomic Theory
Prerequisites: Economics S209 and S210. Theory of consumer behaviour and market demand; production; and theory of the firm; analysis of economic efficiency of alternative forms of market structure; factor markets and factor price determination; welfare economics. (6 credits) NOTE A/See § 200.1

ECONOMICS S316 Money and Banking
Prerequisites: Economics S209 and S210. Analysis of the role of money and financial institutions in a modern economy; structure of banking industry and financial markets; credit expansion and monetary control; international financial flows; foreign exchange rates; monetary theory; role of monetary policy in stabilizing the economy. Special emphasis will be placed on monetary and banking problems in Canada. (3 credits) NOTE A/See § 200.1

NOTE. Students who have credits for 051 may not take this course for credits.

ECONOMICS S318 Intermediate Macroeconomic Theory
Prerequisites: Economics S209 and S210. A basic course in macroeconomic theory and policy. Among the topics dealt with are the measurement and behaviour of national income and its components (consumer spending, investment spending, etc.), of inflation, and of economic growth. The classical, Keynesian, and post-Keynesian approaches are analyzed and compared. The impact of monetary and fiscal policies on the economy is also examined. Primarily for majors, specialization, and honours students. (6 credits) NOTE A/See § 200.1

NOTE. Credits will be given for only one 6 credit course or two 3 credit courses from Economics S375, Geography S362 and S363, Mathematics N-241, Quantitative Methods C243 and 244, Sociology S241, Psychology S241 and Psychology S242. This course may be taken for credits in the Urban Studies Programme.

ECONOMICS S375 Introduction to Statistics for Economists
Prerequisites: Mathematics N-207. The course is an introduction to the application of statistical techniques to economic data. Topics discussed will include, among others, time series, statistical inference, analysis of variance, correlation and regression. (3 credits) NOTE A/See § 200.1

NOTE. Students who have credits for N-490 prior to 1975-77 may not take this course for credits.

ECONOMICS S411 Advanced Microeconomic Theory
Prerequisites: Economics S209 and S210, Economics S311. 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 majors, specialization, and honours students. Students should understand the basic techniques of calculus and linear algebra. (3 credits) NOTE A/See § 200.1

NOTE. This course may be taken for credits in the Urban Studies Programme.

ECONOMICS S412 Mathematical Economics I
Prerequisites: Economics S209 and S210, S270 and S271 or equivalent; S311; S318. Demand theory; classical theory and an introduction to the contemporary theory of demand, revealed preference, von Neumann utility functions. Production theory, linear production functions, CES production functions, technological change, input-output analysis, introduction to linear programming. (3 credits) NOTE A/See § 200.1

ECONOMICS S413 Mathematical Economics II
Prerequisites: Economics S412, or permission of the Department. General equilibrium models, existence and stability; capital accumulation over time. (3 credits) NOTE A/See § 200.1

ECONOMICS S415 History of Economic Thought
Prerequisites: Economics S209 and S210, Economics S311 and S318. This course traces the development of economic analysis from ancient to modern times; it also includes a
DESCRIPTION OF THE PREVAILING ECONOMIC, SOCIAL, AND CULTURAL ENVIRONMENT IN WHICH ECONOMISTS HAVE WRITTEN. PRIMARILY FOR MAJORS, SPECIALIZATION, AND HONOURS STUDENTS. (6 CREDITS) NOTE A/SEE § 200.1

ECONOMICS S418
Advanced Macroeconomic Theory
Prerequisites: Economics S209 and S210, S318. 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 majors, specialization, and honors students. Students should understand the basic techniques of calculus and linear algebra. (3 credits) NOTE A/SEE § 200.1
NOTE: Students who have credits for N-490 prior to 1976-77 may not take this course for credits.

ECONOMICS S420
Economics of the Public Sector
Prerequisites: Economics S209 and S210. Examines government fiscal activity within the context of a free market system. Government revenue sources, particularly income taxes, sales taxes, and property taxes, are analyzed. Techniques for examining the efficiency of government expenditure decisions such as cost-benefit analysis are also developed. Other topics include intergovernmental fiscal relations in Canada and governmental debt. (6 credits) NOTE A/SEE § 200.1

ECONOMICS S422
International Economic Relations
Prerequisite: Economics S209 and S210. Postwar international institutions: IMF, GATT, etc. The international monetary system, its problems and proposed reforms. Currency areas, exchange control systems and clearing systems. European integration and the common market. (3 credits) NOTE A/SEE § 200.1

ECONOMICS S423
Theory of International Trade
Prerequisites: Economics S209 and S210, S311. A study of the theories of comparative costs and reciprocal demand and their development; the theory of factor reward equalization; the theory of foreign exchanges; the theory of tariffs, customs union theory, and related topics in the theory of international trade. Emphasis will be placed upon the theoretical rather than the institutional analysis of international economics, though the theories will be illustrated by consideration of current problems in international economic affairs. (3 credits) NOTE A/SEE § 200.1

ECONOMICS S426
Urban Economics
Prerequisites: Economics S209 and S210. This course will focus 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 and urban renewal, and zoning. (3 credits) NOTE A/SEE § 200.1
NOTE: This course may be taken for credits in the Urban Studies Programme.

ECONOMICS S427
Regional Economics
Prerequisites: Economics S209 and S210, Economics S311 or S318 previously or concurrently, or Economics S426. This course introduces the student to the methods and techniques of regional economics 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 employment, levels, cyclical changes in those levels, and inter-regional differences in growth rates. Policy problems pertinent to Canadian regions are stressed throughout the course. (3 credits) NOTE A/SEE § 200.1
NOTE: This course may be taken for credits in the Urban Studies Programme.

ECONOMICS S428
Labour Economics
Prerequisites: Economics S209 and S210, S311 or S318, previously or concurrently. This course examines the determination of wages and employment both at the level of the firm as well as of the economy as a whole. Analyses are made of the demand for labour by individual firms, occupational, regional and inter-industry wage differentials, effect of wage changes on employment, impact of unions on wages and employment, and labour mobility. Aggregate questions examined include current problems of structural and cyclical unemployment, price inflation, and the role of monetary and fiscal policies in attaining full employment and controlling inflationary pressures. These topics are analyzed in the context of the Canadian economy. (3 credits) NOTE A/SEE § 200.1
NOTE: Students who have credits for Economics 271 or 471 before 1969-70 may not take this course for credits.

ECONOMICS S429
Industrial Relations
Prerequisites: Economics S209 and S210. 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 unemployment. These topics will be illustrated by facts relating to industrial relations in Canada. (3 credits) NOTE A/SEE § 200.1

ECONOMICS S430
Economics History of Europe
Prerequisites: Economics S209 and S210. The course will explore the causes and consequences of the British Industrial Revolution and its diffusion to the Continent in terms of differential national growth patterns and social problems associated with economic change. It will include an analysis of free trade, economic nationalism, the new imperialism, the importance of the crisis of 1929 in terms of economic organization, thought and policy, and post World War II reorganization, in terms of planning the welfare state, and economic integration. (6 credits) NOTE A/SEE § 200.1
This course is designed to introduce the student to Canadian economic development from the early period of settlement to the present day. Emphasis will be placed on the economic history of Canada since Confederation. (6 credits)

NOTE: This course may be taken for credits in the Canadian Studies Programme.

ECONOMICS S440
Economic Development
Prerequisites: Economics S209 and S210, S311. The course investigates comparative economic development with special attention to problems of capital formation, population growth, quality of the 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. (6 credits)

NOTE: This course may be taken for credits in the Asian Studies Programme.

ECONOMICS S442
Quantitative Development Economics I
Prerequisites: Economics S209 and S210, S271 or equivalent; S311. Methods of national accounting and input-output analysis for underdeveloped countries. Methods of comparing standards of living. Patterns of economic development. Appraisal of models constructed on the premises of modern theories of economic development. (3 credits)

ECONOMICS S443
Quantitative Development Economics II
Prerequisite: Economics S442. The model of economic policy. Planning in stages. The model of linear activity analysis and efficient decentralization of economic decisions. Planning of efficient accumulation of capital. Individual project evaluation. Foreign aid and debt service models. Projection of manpower requirements. Evaluation of empirical applications of optimum planning to underdeveloped economies. (3 credits)

ECONOMICS S446
The Economic Development of Quebec
Prerequisites: Economics S209 and S210. This course will review past and present trends in the economic development of Quebec, though emphasis will be placed on the economic growth of Quebec since the Second World War. Attention will be given to the regional aspects of its growth problems. (3 credits)

NOTE: This course may be taken for credits in the Canadian Studies Programme.

ECONOMICS S460
Comparative Economic Systems
Prerequisites: Economics S209 and S210. A comparative study of contemporary economic systems. While mainly concerned with the institutional features of contemporary free market economics, the course will also deal with their counterpart, the systems of a command economy and a Socialist market economy. Of primary interest will be the institutions 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. (6 credits)

NOTE: This course may be taken for credits in the Russian Studies Programme.

ECONOMICS S464
Marxian Economics
Prerequisites: Economics S209 and S210. A general survey of Marxian theory; Marx's role and influence; his predecessors and followers. The topics that will be discussed include historical and dialectical materialism, the role of the proletariat in Marxian teaching, Marx and the Socialist International, the evolution of Marxian thought, Marx and the labour movement, the labour theory of value, the theory of economic development, and the breakdown of capitalism. (3 credits)

NOTE: This course may be taken for credits in the Russian Studies Programme.

ECONOMICS S465
Soviet Economics
Prerequisites: Economics S209 and S210. The evolution of the Soviet economic system and the policy measures adopted to deal with the problems of establishing and consolidating a socialist state. Special attention is given to Lenin's role in the early phase of the Soviet system and early economic measures such as the collectivization of farms. Other topics covered are: the nature of economic planning and progress under Stalin, and the important recent reforms and modifications of the Soviet system under the impact of Liberman's proposals. (3 credits)

NOTE: This course may be taken for credits in the Russian Studies Programme.

ECONOMICS S466
Theory and Practice of Cooperation
Prerequisites: Economics S209 and S210 or permission of the Department. This course will deal with the effect of cooperatives on economic and social development with emphasis on Quebec and Canada. Among the topics discussed are the origins and development of the cooperative economy, differences between cooperative, capitalist and communist economic systems; economic, social, educational and moral transformations taking place under cooperative influence, and the role of cooperation on the international political scene. (6 credits)
ECONOMICS S476
Econometrics I
Prerequisites: Economics S270 and S271, or equivalent; and either Mathematics N-207 and Economics S375, or Quantitative Methods C243 and C244, or Mathematics N-241, or equivalent. A study of the econometric problems generally associated with single equation multiple regression analysis. A knowledge of basic matrix algebra and mathematical statistics is required. (3 credits) NOTE A/See § 200.1

ECONOMICS S477
Econometrics II
Prerequisite: Economics S476 or equivalent. In the first part of this course there will be a brief discussion of the estimation problems associated with simultaneous equation econometric problems. The second will be devoted to the analysis of certain specific economic models proposed in the literature. (3 credits) NOTE A/See § 200.1

ECONOMICS S490
Study in a Special Subject
Prerequisite: Permission of the Department. This course is designed primarily for honors and major students. Its purpose is to provide an opportunity for advanced students to intensify their study beyond the traditional areas of specialization already represented by the curriculum. The selected subject will vary with the special interest of the instructor offering the course in any given year. (6 credits) NOTE A, C/See § 200.1

ECONOMICS S491
Study in a Special Subject
Prerequisite: Permission of the Department. A student repeating Economics S490 registers for credits under Economics S491. (6 credits) NOTE A/See § 200.1

ECONOMICS S493
Study in a Special Subject
Prerequisite: Permission of the Department. This course is designed primarily for honors and major students. Its purpose is to provide an opportunity for students to intensify their study beyond the traditional areas of specialization already represented in the curriculum. The selected subject will vary with the special interest of the instructor offering the course in any given year. (3 credits) NOTE A, C/See § 200.1

ECONOMICS S494
Study in a Special Subject
Prerequisite: Permission of the Department. A student repeating Economics S493 registers for credits under Economics S494. (3 credits) NOTE A/See § 200.1
41.16 Department of Education

Associate Professor and Chairman of the Department
JITENDRA BHATNAGAR

Professors
HAROLD ENTWISTLE
JOHN HARRISON

Associate Professors
GARY BOYD
GARY COLDEVIN
FRANCES FRIEDMAN
P. DAVID MITCHELL

Associate Professor of Education and Psychology
DONNA WHITE

41.16.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3

The superscript indicates credit value.

72 BA Honours in Education and Philosophy

Year I
9 Ed S210 1, S230 1
12 Phil S210 1 or S211 1 and Phil S221 1 or S231 1

Year II
6 Ed S430 1
6 Phil S380 1
6 Chosen from Ed S421 1, S441 1, S451 1
6 Chosen from Phil S231 1, S368 1, S378 1, S431 1

Year III
6 Ed S480 1
6 Phil Elective credits at '400' level excluding Phil S493 1, S495 1
3-6 Chosen from Ed S490 1, S491 1, S492 1, S493 1
6 Phil S369 1

Year II or III
3-6 Chosen from Ed S415 1, S416 1, S417 1

30 Minor in Education

30 Chosen from Ed S201 1, S210 1, S230 1, S312 1, S390 1, S392 1, S415 1, S416 1, S417 1, S421 1, S430 1, S441 1, S451 1, S497 1

60 BA Major in Early Childhood Education

33 Ed S202 1, S261 1, S315 1, S453 1, S460 1, S461 1
12 Art Ed C200 1, Music C421 1
6 Ed S421 1, S430 1, S441 1, S451 1 (in consultation with Department)
6 Chosen from Ed S415 1, S416 1, S417 1 (in consultation with Department)
3 Chosen from Psyc S212 1, S213 1, S214 1, S215 1, S302 1, S303 1, S304 1, S305 1, S402 1, S403 1 (in consultation with Department)

*NOTE Every student unless specifically exempted by the director of the programme is required to undertake an internship in the third year as well as internships or workshops in Education S202, S261, S315, and Music C421.

30 Minor in Philosophy of Education

30 Chosen from Ed S201 1, S230 1, S430 1, S441 1, S490 1, S491 1, S492 1, S493 1
41.16.2 CERTIFICATE IN EDUCATION

The Department of Education offers a 30 credit programme leading to the Concordia University Certificate in Education and certification from the Provincial Department of Education.

Admission Requirements
1. Evidence of full-time employment with a recognized educational institution in Quebec.
2. Possession of a Quebec Provisional Teaching Authorization.

Courses
- Education S201
- Education S210
- either Education S401, or Education S402, or an equivalent course in teaching methodology.

41.16.3 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

EDUCATION S201
The Nature and Function of Teaching
An introduction to the purpose, theories and methods of teaching. (6 credits) NOTE A/See § 200.1

EDUCATION S202
Introduction to Early Childhood Education
Prerequisite: Enrolment in Early Childhood Education major. This course provides an introduction to Early Childhood Education through an examination of curriculum planning for nursery schools, kindergartens and day care centres and their historical background, organization, and objectives. Students are required to participate in assigned preschool and day care programmes six to eight hours a week for two terms. (6 credits) NOTE A/See § 200.1

EDUCATION S210
Psychology of Education
This course will introduce the student 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. (6 credits) NOTE A/See § 200.1

EDUCATION S230
Introduction to Philosophy of Education
This course will introduce the student 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. (3 credits) NOTE A/See § 200.1

EDUCATION S261
Subject and Methods of Early Childhood Education
Prerequisite: Enrolment in Early Childhood Education. Students in this course will be concerned with the following topics: art, music and dance, drama, language, number, and environmental studies. They will specialize in three topics. (6 credits) NOTE A/See § 200.1

EDUCATION S312
Technology for Educational Change I
This course introduces the student to a wide range of ideas and practical skills in Educational Technology, a field which encompasses mass communications, computer-based systems, audio-visual instrumentation, simulation and gaming, systems analysis and instructional design. A modular approach is adopted; each module covers, in a six-week period, a particular area of thought in Educational Technology. Two modules are offered. The first deals from a theoretical viewpoint with human communication processes (semiotics, gesture, sociolinguistics, etc.). The second module focuses on specialized applications of computer technology in education — computer assisted learning (CAI) and computer managed instruction (CMI). The course will require laboratory work outside class. (3 credits) NOTE A/See § 200.1

EDUCATION S313
Technology for Educational Change II
Prerequisite: Education S312. Like Education S312, this course offers two modules focusing on particular aspects of Educational Technology. Each module is covered in six weeks. The first module deals with small-studio television production, tutorials in production skills culminating in script-writing and group production of an educational TV programme. The second module introduces techniques for systematically designing instructional units tailored to individual needs. The course requires laboratory work outside class. (3 credits) NOTE A/See § 200.1
ENROLLED IN THE CERTIFICATE IN EDUCATION PROGRAMME. IT WILL DEAL WITH METHODS OF TEACHING IN THE FIELD OF SPECIALIZATION. (3 CREDITS)

EDUCATION S392
Problems in Education
A cross-disciplinary or integrated approach to an educational problem or problems. The problem studied may vary from year to year. (3 CREDITS) NOTE A/SEE § 200.1

EDUCATION S393
Problems in Education
Prerequisites: Education S392 and permission of the Department. A student repeating S392 registers for credits under Education S393. (3 CREDITS) NOTE A/SEE § 200.1

EDUCATION S401
Special Methods of Teaching—Elementary
This course is offered only to students enrolled in the Certificate in Education Programme. It will deal with methods of teaching in the elementary school; emphasis will be placed on practical application of educational theories. (3 CREDITS) NOTE A/SEE § 200.1

EDUCATION S402
Special Methods of Teaching—Secondary
This course is offered only to students enrolled in the Certificate in Education Programme. This course will deal with methods of teaching a high-school subject. The course will be individually designed to suit the student's field of specialization. (3 CREDITS) NOTE A/SEE § 200.1

EDUCATION S415
Education of the Slow-Learning Child
Prerequisite: Education S210 or S315. This course will describe the cognitive, social and emotional problems of slow-learning children and discuss educational techniques for coping with these problems. (3 CREDITS) NOTE A/SEE § 200.1

EDUCATION S416
Education of the Gifted
Prerequisite: Education S210 or S315. This course will describe the special educational problems of gifted children; it will also assess the effectiveness of the techniques usually employed to deal with these problems. (3 CREDITS) NOTE A/SEE § 200.1

EDUCATION S417
Education of the Culturally Disadvantaged
Prerequisite: Education S210 or S315. This course will describe the cognitive, social and emotional problems of culturally disadvantaged children and discuss educational techniques for coping with their problems. (3 CREDITS) NOTE A/SEE § 200.1

EDUCATION S421
Sociology of Education
Prerequisite: Sociology S210. The social organization of educational activities. The role of educational institutions in socialization; social control and technology. Education and stratification, mobility and social change. (6 CREDITS) NOTE A/SEE § 200.1

EDUCATION S430
Philosophy of Education
Prerequisite: 3 credits at university level in Philosophy or Education S230. The application of philosophical method with particular reference to the aims, methods, discipline and concepts of education is considered in this course. Students will be expected to become familiar with the principal authors and with the current periodical literature in the field of philosophy of education. (6 CREDITS) NOTE A/SEE § 200.1

EDUCATION S441
History of Educational Ideas
Prerequisite: Second-year standing. In this course students will study major educational ideas and idea systems. These will be reviewed in philosophical, religious, political and social perspective. (6 CREDITS) NOTE A/SEE § 200.1

EDUCATION S442
Education in Canada
Prerequisite: 6 credits in Canadian History. It is advisable that students have a reading knowledge of French. This course will study the history of Canadian education, and, more particularly, the history of education in Quebec. (3 CREDITS) NOTE A/SEE § 200.1 NOTE: This course may be taken for credits in the Canadian Studies Programme.

EDUCATION S451
Comparative and International Education
Prerequisite: 6 credits in Education. The study of educational systems at home and abroad with particular emphasis on educational practice in the United States, the United Kingdom, Western Europe, the Soviet Union, China and the Third World. (6 CREDITS) NOTE A/SEE § 200.1

EDUCATION S453
Education in Quebec
Students in this course will study the contemporary movements in and structures of Quebec education. (3 CREDITS) NOTE A/SEE § 200.1
EDUCATION S460
Early Childhood Education Internship
Prerequisite: Third-year standing in Early Childhood Major. This course involves a supervised nursery school or kindergarten teaching internship of 5 half-days or 2½ full days a week for one semester. In addition, students will participate in weekly seminar discussions of related methodological and developmental concerns. The topics will include behaviour management, language development, reading, writing, children's literature and drama, mathematics, science, health, safety and social studies. (6 credits) NOTE A/See § 200.1

EDUCATION S461
Issues in Early Childhood Education
Prerequisite: Enrolment in Early Childhood major. This course will provide a study of alternative practices and theories of education for preschool and kindergarten children. (6 credits) NOTE A/See § 200.1

EDUCATION S465
Adult Education
Prerequisite: 6 credits in Education. This course will study the history, philosophy, organization and special problems of formal and informal adult education, with particular reference to current developments in Canada. (3 credits) NOTE A/See § 200.1

EDUCATION S471
Supervised Internship
This course is offered only to students enrolled in the Certificate in Education Programme. Teaching internship will be carried out in the school where the student is employed. The students will be supervised and their teaching performance evaluated. The students are expected to demonstrate positive evidence of teaching competence and professional behavior (6 credits) NOTE A/See § 200.1

EDUCATION S480
Honours Essay in Education
Open to third-year students in Honours in Education and Philosophy (or to others by permission of the Department). (6 credits) NOTE A/See § 200.1

EDUCATION S490
Seminar in Epistemology and Education
Prerequisite: Education S430 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, knowing and belief on educational thought and practice. Students will be expected to become familiar with recent periodical and other literature in the field. (3 credits) NOTE A/See § 200.1

EDUCATION S491
Seminar in Ethics and Education
Prerequisite: Education S430 or permission of the Department. Students in this course will study the principles and methods of moral justification in education. They will be referred to the writing of main authors and recent periodical literature. (3 credits) NOTE A/See § 200.1

EDUCATION S492
Seminar in Aesthetics and Education
Prerequisite: Education S430 or permission of the Department. The nature of aesthetic value and experience, and theories of art and beauty will be examined. The development of the emotions and imagination and their functions in aesthetic awareness are central concerns of this course. Students will be expected to become familiar with the relevant literature in the field. (3 credits) NOTE A/See § 200.1

EDUCATION S493
Seminar in Philosophy and Education
Prerequisite: Education S430 or permission of the Department. This is an advanced seminar in philosophical analysis and theory in which students will present papers on, and conduct discussions about, educational concepts, aims and practices. Students will be expected to become familiar with the periodical and other literature in the areas under discussion. (3 credits) NOTE A/See § 200.1

EDUCATION S497
Selected Topics in Education
Prerequisite: Education S201, or one year's teaching experience, or permission of the Department. Special topics accommodating the interests of the instructor and students. The topics studied may differ from year to year. (3 credits) NOTE C/See § 200.1

EDUCATION S498
Selected Topics in Education
Prerequisite: Permission of the Department. A student repeating Education S497 registers for credits under Education S498. (3 credits) NOTE A/See § 200.1
41.17 Department of Geography

Associate Professor and Chairman of the Department
DAVID FROST

Professor
DONALD FRASER

Associate Professors
RONALD BRYANT
HARRY CLINCH
MICHAEL MARSDEN
BRIAN SLACK
JAMES YOUNG

Assistant Professors
ROBERT AIKEN
MAXTON BARLOW

Lecturer
JACQUELINE ANDERSON

Lecturer and Coordinator of Geography at Loyola
RONALD DUFFY

41.17.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3.

The superscript indicates credit value.

60 BA Honours in Geography

Pattern A: Physical Geography
Year I
18 Geog S211, S260, S261, S271
Years II & III
12 Geog S341, S362, S391
18 Chosen from Geog S371, S372, S373, S475, S476
6 Geog Elective credits at the ‘300’ or ‘400’ level (excluding those listed above)
Year III
6 Geog S491

*NOTE: During the year the Department of Geography will hold a series of field trips outside regularly scheduled class times. All Honours students will be required to participate in at least five such trips during the course of their undergraduate programme.

60 BA Honours in Geography

Pattern B: Human Geography
Students following this pattern may emphasize Historical Geography.
Year I
18 Geog S211, S260, S261, S271
Years II & III
12 Geog S341, S362, S391
18 Chosen from Geog S316, S322, S323, S412, S422
6 Geog Elective credits at the ‘300’ or ‘400’ level (excluding those listed above)
Year III
6 Geog S491

*NOTE: During the year the Department of Geography will hold a series of field trips outside regularly scheduled class times. All Honours students will be required to participate in at least five such trips during the course of their undergraduate programme.

60 BA Honours in Geography

Pattern C: Economic Geography
Students following this pattern may emphasize Urban Geography.
Year I
18 Geog S211, S260, S261, S271
Years II & III
12 Geog S341, S362, S391
18 Chosen from Geog S331, S350, S351, S355, S357, S401, S451, S457
6 Geog Elective credits at the ‘300’ or ‘400’ level (excluding those listed above)
Year III
6 Geog S491

*NOTE: During the year the Department of Geography will hold a series of field trips outside regularly scheduled class times. All Honours students will be required to participate in at least five such trips during the course of their undergraduate programme.
60 BA Specialization in Geography

**Pattern A: Physical Geography**

18 S211, S260, S261, S271
12 S341, S362, S391
18 Chosen from S371, S372, S373, S475, S476
or an approved 6-credit option outside Geography
12 Geog Elective credits at the '300' or '400' level

60 BA Specialization in Geography

**Pattern B: Human Geography**

Students may emphasize Historical Geography

18 S211, S260, S261, S271
12 S362, S391, S341
18 Chosen from S316, S322, S323, S412, S422 or an approved 6-credit option outside Geography
12 Geog Elective credits at the '300' or '400' level

60 BA Specialization in Geography

**Pattern C: Economic Geography**

Students may emphasize Urban Geography

18 S211, S260, S261, S271
12 S341, S362, S391
18 Chosen from S331, S350, S351, S355, S357, S401, S451, S457 or an approved 6-credit option outside Geography
12 Geog Elective credits at the '300' or '400' level

42 BA Major in Geography

18 Geog S211, S260, S261, S271
12 S341, S362, S391
12 Geog Elective credits at the '300' or '400' level

30 Minor in Geography

12 Geog S211, S271
6 Geog S260, S261
12 Geog Elective credits at the '300' or '400' level

41.17.2 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

**GEOGRAPHY S211**

Introduction to Human Geography

A study of the evolution of the earth's populated area and the gradual enlargement of geographical horizons. The emphasis will be on cultural distributions, landscape and settlement, and the geography of economic, social, and political activities. (6 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Urban Studies Programme.

**GEOGRAPHY—INTERDISCIPLINARY STUDIES S212**

Early Man

An examination of the scientific evidence for the unwritten part of man's evolutionary history. The course will study both food-gathering and food-producing man. Biological and cultural evolution will be considered from both a temporal and a spatial viewpoint against a background of changing natural environment. (6 credits) NOTE A/See § 200.1

NOTE: Students who have taken Geography—Interdisciplinary Studies S321 may not take this course for credits.

NOTE: This course may be taken for credits in the Science and Human Affairs Programme.

**GEOGRAPHY S260**

Introduction to Cartography I

An introduction to the study of the topographic map as a tool of the geographer. This course will focus on the various stages involved in map production and map interpretation.

Laboratory assignments of a practical nature, which are complementary to the lectures, form an important part of the course. (3 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Urban Studies Programme.

**GEOGRAPHY S261**

Introduction to Cartography II

Prerequisite: Geography S260 or permission of the Department. A study of the basic cartographic methods available for presenting quantitative and qualitative statistical data on maps. Laboratory assignments of a practical nature, which are complementary to the lectures, form an important part of the course. (3 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Urban Studies Programme.

**GEOGRAPHY S271**

The Natural Environment

An introduction to the earth sciences as they relate to the environment of man, with special emphasis on weather, climate and the evolution of landscape. (6 credits) NOTE A/See § 200.1

**GEOGRAPHY S273**

The Sea

A physical, historical, and human geography of the world ocean. The course includes an introduction to oceanography, navigation, and elementary geophysics, as well as an account of travels and discovery ending with modern scientific exploration of the deeps. Topics include coasts and islands; ports, ships, and shipping; submarine topography; waves, tides, and earthquakes; marine life, fish and fisheries. (6 credits) NOTE A/See § 200.1
GEOGRA PHY S316
Cultural Geography
Prerequisite: Geography S211 or second year standing in an honours, specialization, or departmental major programme in the Social Sciences. Cultural Geography is concerned with the application of the concept of culture to geographic problems. Attention is focused on the spatial patterning of material and non-material elements of culture (culture areas); on the processes of cultural, temporal and spatial change; on the relationships between man and land (cultural ecology); and especially on how these relationships are reflected in different ensembles of man and land (cultural landscapes). (6 credits) NOTE A/See § 200.1

GEOGRAPHY S322
Historical Geography of the United States
Prerequisite: Geography S211 or second year standing in an honours, specialization, or departmental major programme in the Social Sciences. A study of the patterns of colonization and settlement. Some emphasis will be placed on the evaluation of various approaches used in the writing of historical geography. (6 credits) NOTE A/See § 200.1

GEOGRAPHY S323
Historical and Political Geography of Europe
Prerequisite: Geography S211 or second year standing in an honours, specialization, or departmental major programme in the Social Sciences. A regional survey of the geographical evolution of European nations and states. Consideration will be given to cultural differentiation and to the distribution of population. (6 credits) NOTE A/See § 200.1

GEOGRAPHY S331
Urban Geography
Prerequisite: Geography S211, or second year standing in an honours, specialization, or departmental major programme in the Social Sciences or the Faculty of Commerce. A study of the prehistoric town, the Greek and Roman town, towns in the Middle Ages, the trading city, the pioneer town and the modern metropolis. The distribution of such towns, their development, growth and internal pattern of organization will be looked at from an historical and geographical point of view. Problems of conurbations and large metropolitan cities in the present age will be discussed and evaluated. Special emphasis will be given to Canadian cities, to their site, function, organization, growth and development as well as to urban problems relating to zoning, transportation, urban renewal, etc. (6 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Urban Studies Programme.

GEOGRAPHY S341
Regional Geography of Canada
Prerequisite: Geography S211 or S271 or second year standing in an honours, specialization, or departmental major programme in the Social Sciences or the Faculty of Commerce. A study of Canada, past and present, based on the various natural regions into which the country is divided. In the first half of the course an historic-geographical approach will be taken to bring to the student's attention the main trends in Canadian cultural and historical development from aboriginal times to the present. The changing nature of man-land relationships at different periods of time, and under different forms of occupancy, will receive particular attention. In the second half of the course the present day pattern of human occupancy on a regional and national basis will be analyzed. (6 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Canadian Studies Programme.

GEOGRAPHY S345
The Geography of a Selected Region
Prerequisite: Geography S211 or S271, or second year standing in Arts. A detailed examination of the physical environment, the people, their history, and the present political and economic patterns within the region. The course will provide a deep understanding of the interrelationships between the constituents of the region, an appreciation of those factors responsible for regional unity and will also illustrate the holistic nature of the geographical discipline. (6 credits) NOTE A, C/See § 200.1. In alternate years beginning 1976-77 this course will focus on the Geography of the USSR.

NOTE: This course may be taken for credits in the Russian Studies Programme. A student registering for a second time should register under S346.

GEOGRAPHY S346
The Geography of a Selected Region
Prerequisite: Permission of the Department. A student repeating Geography S345 registers for credits under Geography S346, (6 credits) NOTE A/See § 200.1

GEOGRAPHY S350 (458)
Geography of Agriculture
Prerequisite: Twelve credits in Geography or permission of the Department. Classification of agriculture systems, food production in relation to new biological, cultural and marketing developments. There will be some consideration of land use mapping and land potential assessment. (3 credits) NOTE A/See § 200.1

GEOGRAPHY S351
Forest Geography
Prerequisites: Geography S211 and S271 or enrolment in an honours, specialization, or major programme in the Department of Biology. A study of the natural development and distribution of world forests, their modification by human interference and the economic impact of forest management. Actual problems will be examined in a Quebec context both in class and in the field. (3 credits) NOTE A/See § 200.1

GEOGRAPHY S355
Spatial Organization
Prerequisite: Geography S211 or second year standing in an honours, specialization, or major programme in the Social Sciences or in the Faculty of Commerce. A study of how man organizes spatial activities with the emphasis on the concepts of spatial interaction, location of activities, diffusion and individual decision. (6 credits) NOTE A/See § 200.1
GEOGRAPHY S357
Resource Utilization and Conservation
Prerequisite: Geography S211 or second-year standing in an honours, specialization, or departmental major programme in the Social Sciences or in the Faculty of Commerce. The course will examine the resource concept and concepts of conservation together with the regional approach to resource management. Case studies will include problems in developing particular natural resources and inter-state areas of poor economic health with emphasis on the regional and natural parts of such developments. Special emphasis will be given to Canadian problems and those of selected underdeveloped countries. (6 credits) NOTE A/See § 200.1

GEOGRAPHY S362
Quantitative Geography I
Prerequisite: Geography S261. An introductory course in the applications of descriptive and analytical statistical techniques in Geography. Lectures and laboratory. (3 credits) NOTE A/See § 200.1
NOTE: Only 6 credits will be given from Economics S375; Geography S362 and S363; Mathematics N-241; Quantitative Methods C243 and C244; Sociology S241; Psychology S241 and S242.
NOTE: This course may be taken for credits in the Urban Studies Programme.

GEOGRAPHY S363
Quantitative Geography II
Prerequisite: Geography S362. A study of selected multivariate techniques and their application in geography. Practical projects using computer facilities will be assigned. A course in Computer Science would be an asset. (3 credits) NOTE A/See § 200.1
NOTE: Only 6 credits will be given from Economics S375; Geography S362 and S363; Mathematics N-241; Quantitative Methods C243 and C244; Sociology S241; Psychology S241 and S242.

GEOGRAPHY S371
Biogeography
Prerequisite: Geography S271 or second-year standing in an honours, specialization, or departmental major programme in Science. A study of the distribution of plants and animals with emphasis on their soil and climatic inter-relations. Relevant field trips are included. (6 credits) NOTE A/See § 200.1

GEOGRAPHY S372
Analysis of the Environment
Prerequisite: Geography S271 or second-year standing in an honours, specialization, or departmental major programme in Science. A review of modern theories and techniques in geomorphology, hydrology, pedology, denudation chronology and landscape classification. The course includes a discussion of the Pleistocene Epoch in terms of applied research methods. (6 credits) NOTE A/See § 200.1

GEOGRAPHY S373
Climatology
Prerequisite: Geography S271 or second-year standing in an honours, specialization, or departmental major programme in Science. The broad aspects of world regional climates considered from the point of view of both physical and dynamic climatology. The course includes practical work. (6 credits) NOTE A/See § 200.1

GEOGRAPHY S391
History of Geographical Thought
Prerequisite: Eighteen credits in Geography. A study of the development of the field of geography from ancient times down to the present. Representative geographical works of the Greeks, the Romans and of the Middle Ages, the Age of Discovery, the 19th and 20th centuries will be examined and discussed. The present day concepts of the field and function of geography will receive special attention. (3 credits) NOTE A/See § 200.1

GEOGRAPHY-URBAN STUDIES S401
Applied Urban Studies
Prerequisites: Geography S211 or Urban Studies S260; Geography S331 previously or concurrently. A study of the contemporary city with emphasis on the problems arising from urban growth. Attention will be given to the possibilities for planned development including New Towns. The material will be presented by films, tapes and special readings and there will be a discussion each week. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Urban Studies Programme.

GEOGRAPHY S412
Political Geography
Prerequisite: Geography S316 or permission of the Department. The course will be structured around traditional and contemporary themes in political geography. Emphasis will be upon the political/administrative organization of space, the interrelationships between politics and environment, electoral geography, and the geographical aspects of public policy. These will be studied within the context of the four main levels of government (local, regional, national, and international). Consideration will be given to urban and regional systems, and to Canadian situations and problems. (6 credits) NOTE A/See § 200.1

GEOGRAPHY S422
Historical Geography of Quebec and Ontario
Prerequisite: Geography S211, S341 or permission of the Department. A study of an historical nature of past geographic patterns, economic, social, cultural and political, in Quebec and Ontario. (6 credits) NOTE A/See § 200.1

GEOGRAPHY S451
Special Seminar in Economic Geography
Prerequisites: Geography S211, S355, S362 or permission of the Department. This course will provide opportunities to senior students for discussion and advanced study. Subject matter will vary from year to year to take advantage of the special interests of the seminar leader. (6 credits) NOTE A/See § 200.1

GEOGRAPHY S457
Geography of Transportation
Prerequisites: Geography S211, S331 or S355 or permission of the Department. A study
of patterns of transport facilities and traffic flows. Emphasis will be on general concepts of route alignment, network layouts, and on applications of spatial interaction models to economic flows. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Urban Studies Programme.

GEOGRAPHY S462
Advanced Cartography
Prerequisite: Geography S261 and twelve additional credits in Geography. A study of the major stages and techniques involved in map compilation, design and production. Lectures, practical periods with assignments and relevant field trips. (3 credits) NOTE A/See § 200.1
NOTE: Students who have credits for Geography N-466 in 1975-76 may not register for this course.

GEOGRAPHY S463
Topics in Applied Cartography
Prerequisite: Geography S462. The subject matter of the course will vary from year to year to take advantage of the special interests of the course instructor and may include such topics as automated cartography, remote sensing, historical cartography or special purpose mapping. Seminars, practicals with assignments and relevant field trips. Students may register for this course a second time under S464 (464). (3 credits) NOTE C/See § 200.1

GEOGRAPHY S464
Topics in Applied Cartography
Prerequisite: Permission of the Department. A student taking Geography S463 a second time registers for credits under Geography S464. (3 credits) NOTE A/See § 200.1

GEOGRAPHY S475
Hydrology I
Prerequisite: Geography S271, one of Geography S371, S372, or S373 or final year standing in Science or Engineering. Theories and practice of hydrology with emphasis on geographical aspects and resource utilization. Includes introduction to glaciology. (3 credits) NOTE A/See § 200.1

GEOGRAPHY S476
Hydrology II
Prerequisite: Geography S475. Soil moisture experiments, textural analysis, hydrological models and field trips. (3 credits) NOTE A/See § 200.1

GEOGRAPHY S491
Research Methods
Prerequisite: Final year standing in Honours Geography. A selected review of the methods and techniques used to acquire and process original geographical information in the field and laboratory. Includes field work and practical sessions. (6 credits) NOTE A/See § 200.1

These courses were offered in the summer of 1976.

GEOGRAPHY N-324/1
The American Scene. (6 credits)

GEOGRAPHY N-338/1
The Geography of Recreation. (6 credits)
41.18 Department of History

Professor and Chairman of the Department
ROBERT E. WALL

Professors
ALAN H. ADAMSON
E. E. McCULLOUGH
J. CAMERON NISH
LIONEL ROTHKRUG
GEORGE RUDE
RICHARD WILBUR

Adjunct Professor of History and Social Sciences
SENATOR THERÈSE CASGRAIN

Associate Professors
CHARLES L. BERTRAND
FREDERICK BODE
ROBIN BURNS

FRANK R. CHALK
DAVID WADE CHAMBERS
RICHARD J. DIUBALDO
DONALD GINTER
JOHN L. HILL
FREDERICK H. KRANTZ
JOHN F. LAFFEY
STEPHEN SCHEINBERG
IRVING H. SMITH

Assistant Professors
FRANZISKA E. SHLOSSER
MARTIN SINGER
VERONICA STRONG-BOAG
WALTER VAN NUS

41.18.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3.

The superscript indicates credit value.

60 BA Honours in History

Year I
6 Hist S210
6 Hist Elective credits at '200' level
6 Elective credits in Hist at '200' level or related disciplines (with approval of Department)

Year II
6 Hist S390
6 Hist S490
12 Hist Elective credits*

Year III
6 Hist S490
6 Hist Elective credits at '400' level
6 Hist Elective credits
6 Elective credits in Hist or related disciplines (with approval of the Department)

*Not more than 18 credits in History may be taken at the '200' level.

NOTE: Students must include six credits in Canadian History among their electives.

66 BA Honours in Philosophy and History

Year I
6 Hist S210
6 Phil S211

Year II
6 Hist S390
12* Chosen from Hist S333*, S335*, S336*
6 Phil S380*
6 Chosen from Phil S301*, S333*

Year III
6 Hist S490
6 Chosen from Phil S405*, S407*
6 Hist Elective credits at '400' level (in consultation with Departmental Honours Adviser.)
6 Phil Elective credits at '300' or '400' level (in consultation with Departmental Honours Adviser)

*Six of these credits may be taken in Year III.

66 BA Honours in Religion and History

Pattern A: (Asia)
24 Rel S213*, S311*, S312*, S313*
12 Soc* S210*, S424*

NOTE: (a) With the approval of the Honours representative, any 6 credits at '400' level Hist or Rel may be substituted for any specific course. (b) For students interested in the comparative aspects of Islamic devel-
opment, Hist S365 is available. 
Pattern B: (Europe) 
12 Hist S210, S390 
6 Chosen from Rel S211, S213 
42 Chosen from Hist S331, S332, S333, S336, Rel S327, S328, S330, S361, S362, S443, Soc* S210, S424* 
*Students taking Soc S210 in the Honours programme must also take Soc S424.

30 Minor in History 
6 Hist S210 
6 Chosen from Hist S221, S251, S261* 
12 Hist Elective credits at '300' level 
6 Hist Elective credits at '300' or '400' level

41.18.2 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

HISTORY S210 
History of Europe in the Modern World 
A survey of the history of European civilization. An attempt is made to present and analyze in an integrated way all aspects of European society and culture in its rise to a dominant world position. (6 credits) NOTE A/See § 200.1 NOTE: This course may be taken for credits in the Russian Studies Programme.

HISTORY—CLASSICS S212 
History of Greece and Rome 
A political, cultural and social history of Greece and Rome from the Mycenaean Age to the death of the Emperor Nero (68 A.D.), with special emphasis on fifth-century Athens, and Rome of the Republic and Early Empire. No knowledge of Latin or Greek is required. (6 credits) NOTE A/See § 200.1

HISTORY—CLASSICS S214 
History of the Roman Empire 
A political, cultural and social history of the Roman Empire from the death of the Emperor Nero to Justinian the Great. Attention will be paid to the rise of Christianity, and the continuity of Roman law and administration in both the eastern and western parts of the Late Roman Empire. No knowledge of Latin or Greek is required. (6 credits) NOTE A/See § 200.1

HISTORY S221 
History of Canada 
A study of the growth of Canada from the age of exploration to the present time. Emphasis is placed on the political, economic and cultural developments which are of significance in the understanding of the problems of today. (6 credits) NOTE A/See § 200.1 NOTE: This course may be taken for credits in the Canadian Studies Programme.

HISTORY S251 
History of the United States 
An analysis of the development of the United States, emphasizing the formation of classes and interest groups in early America, the significance and impact of slavery, the sectional battle over national power and its resolution through Civil War and Reconstruction, the development of the modern corporation, the organization of the labour movement, the impact of racism, and the course of American Expansion. (6 credits) NOTE A/See § 200.1

HISTORY S261 
History of Asia 
A survey of the major intellectual traditions, social structures and political institutions of South and East Asia, with particular attention to the changes in the societies of India and China during the past two centuries. (6 credits) NOTE A/See § 200.1 NOTE: This course may be taken for credits in the Asian Studies Programme.

HISTORY S281 
Historical Perspectives on Contemporary Issues 
A thematic and comparative historical approach to contemporary issues. The course will cross national boundaries to consider major current problems from a variety of historical perspectives. (6 credits) NOTE A/See § 200.1

HISTORY S321 
British North America: 1760-1873 
Prerequisite: History S210 or S221. An advanced study of the history of British North America from the British conquest and American Revolution to Confederation. The course will focus on historical topics and problems of interpretation, organized according to the regions of British North America. (6 credits) NOTE A/See § 200.1 NOTE: This course may be taken for credits in the Canadian Studies Programme.

HISTORY S322 
Modern Canada: 1840 to the Present 
Prerequisite: History S210 or S221. An intensive study of the political, economic and cultural development of Canada since the Act of Union. (6 credits) NOTE A/See § 200.1 NOTE: This course may be taken for credits in the Canadian Studies Programme.

HISTORY S323 
French Canada to 1763 
Prerequisite: History S210 or S221. An intensive study of Canada during the colonial
COURSE DESCRIPTIONS

HISTORY S325
French Canada: 1763-1867
Prerequisite: History S210 or S221. An intensive study of French Canada from the Conquest to Confederation. Much of the material will be in French. (6 credits) NOTE A/See § 200.1

HISTORY S326
Quebec: 1867 to the Present
Prerequisite: History S210 or S221 previously or concurrently. An intensive study of Quebec since Confederation. While due attention will be paid to the political history of Quebec, the purpose of the course is to provide a study of the social, economic and cultural institutions of Quebec. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Canadian Studies Programme.

HISTORY S328
Women in Western History
A review of the position and roles of women in Western history prior to the 17th century. Beginning with the 17th century, a more detailed discussion of these themes and close scrutiny of selected problems having to do with the roles of women in Europe, Canada and the United States during the last two centuries. Among the problems to be treated will be the history of the Feminist movements, the relationship of women to the process of industrialization and the impact of the world wars of this century on the condition of women. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Women’s Studies Programme.

HISTORY S331
History of Mediaeval Europe
Prerequisite: Second year standing. A study of the society and institutions of mediaeval Europe from the fall of Rome to the end of the 15th century. (6 credits) NOTE A/See § 200.1

HISTORY S332
History of Early Modern Europe, 1400-1640
Prerequisite: History S210. European history in the Renaissance and Reformation periods. Special attention is given to the shift from Medieval to Renaissance civilization in Italy and to the development of early modern societies in Northern Europe. Specific analytical focus is placed on studying the nature of, and relationships between, pre-modern economic, social and cultural structures. Issues involved in the transition to modern societies on different national bases are also stressed. (6 credits) NOTE A/See § 200.1

HISTORY S333
Enlightenment and Revolution, 1640-1848
Prerequisite: History S210. European history in the age of the French Revolution, including a study of the scientific and industrial revolutions. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Science and Human Affairs Programme.

HISTORY S335
Social and Intellectual History of Early Modern Europe
Prerequisite: History S210. 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 will be emphasized. (6 credits) NOTE A/See § 200.1

HISTORY S336
Social and Intellectual History of Modern Europe
Prerequisite: History S210. The intellectual systems arising in Europe since the 17th century will be explored in the context of the economic and social circumstances which engendered them. This course will begin with the rise of theories of “possessive individualism” and will end with the contemporary cultural crisis. While attention will be paid to the general dynamics of culture, special attention will be devoted to the social functions of particular ideologies. (6 credits) NOTE A/See § 200.1

HISTORY S337
History of European Diplomacy, 1870 to the Present
Prerequisite: History S210 or Political Science S385. An intensive study of the relations amongst the Great Powers of Europe from the Franco-Prussian War to the present. (6 credits) NOTE A/See § 200.1

HISTORY S341
History of Russia
Prerequisite: History S210. This course traces the origin of the Slavic-speaking peoples in Europe and the emergence of the Russian Empire. After a discussion of the ideology and history of Bolshevism, it studies the history of communist government in the U.S.S.R. and among the Slavic peoples. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Russian Studies Programme.

HISTORY S345
History of Britain since 1460
Prerequisite: History S210; students Honours in English may register without prerequisite. A survey of the political, economic and social development of modern England. Emphasis is placed on the evolution of parliamentary government in the early period, on the economic changes of the 18th and 19th centuries and on the modern growth of democracy and the social service state. (6 credits) NOTE A/See § 200.1

HISTORY S346
Europe—1848-1918
Prerequisite: History S210. A study of the internal development and external relations of the most important states of Western Europe from 1848 to 1918. (6 credits) NOTE A/See § 200.1

HISTORY S347
Europe—Since 1918
Prerequisite: History S210. A study of the internal development and external relations of
HISTORY S351
Colonial and Early National History of the United States
Prerequisite: History S210 or S251 or permission of the Department. The period of colonization, the development of colonial institutions, the War of Independence and the emerging fabric of national life. (6 credits) NOTE A/See § 200.1

HISTORY S352
Jacksonian Era, Civil War, and Reconstruction in the United States
Prerequisite: History S210 or S251 or permission of the Department. The development of American political, social and economic life in the 19th century, including sectionalism and expansion, the characteristics of plantation slavery as a social system, the coming of the Civil War, and the aims and outcome of Reconstruction. (6 credits) NOTE A/See § 200.1

HISTORY S354
History of the United States since 1900
Prerequisite: History S210 or S251 or permission of the Department. This course examines major themes of modern American society, including the politics of reform, strategies for black survival, and movements for social change. The major emphasis is given to domestic themes. (6 credits) NOTE A/See § 200.1

HISTORY S355
Foreign Relations of the United States
Prerequisite: History S210 or S251 or permission of the Department. An analysis of United States foreign policy from 1776 to the present, emphasizing the development of American expansion, America’s foreign economic thrust, the origins of the Cold War, America’s response to the challenge of revolution in Asia and Africa, and Latin American relations. (6 credits) NOTE A/See § 200.1

HISTORY S358
Revolution and Counter-Revolution: The Background to Contemporary Latin America
Prerequisite: History S210 or enrolment in the Major in Spanish. A survey of the roots of instability and reaction in Latin America. Attention will be paid to the following major themes: the impact of the conquest; the socio-economic and political pattern of colonial Latin America; the character and significance of the wars of liberation; peasant and other popular movements; the origins and nature of modern liberation movements; the response of reaction. (6 credits) NOTE A/See § 200.1

HISTORY S361
History of Modern India
Prerequisite: History S210 or S261 or permission of the Department. A study of India, Pakistan and Bangladesh. The legacy of divergent cultural, linguistic and political experiences, the crisis of colonialism, and the emergence of national imperatives in the 20th century. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Asian Studies Programme.

HISTORY S362
Modern China
Prerequisite: History S210 or S261 or permission of the Department. An intensive study of Chinese history since 1800 with emphasis on problems in political and intellectual history. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Asian Studies Programme.

HISTORY S363
Traditional China
Prerequisite: History S210 or S261 or permission of the Department. An examination of Chinese history from the beginning to the Ch’ing dynasty (c. 1800). Emphasis will be placed on China’s political, intellectual and cultural heritage. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Asian Studies Programme.

HISTORY S365
History of Africa
Prerequisite: History S210 or S261. An analysis of African history, including Egypt and North Africa, from the beginnings of African societies to the present, emphasizing the rise of African kingdoms, the coming of Europeans and the slave trade, African responses to economic imperialism and colonialism, and contemporary Africa’s quest for autonomy, economic development, and the liberation of southern Africa. (6 credits) NOTE A/See § 200.1

HISTORY S390
Historical Method
Prerequisites: Twelve credits in History and written permission of the History programme adviser. A course in the application of modern historical criticism to a specific problem to be chosen in consultation with the instructor. (6 credits) NOTE C/See § 200.1

HISTORY S391
Special Area Studies
Prerequisite: A ‘200’ level course in History. This course affords an opportunity to study a special theme in History, taking advantage of the particular interests of members of the Department. (6 credits) NOTE C/See § 200.1

HISTORY S392
Special Area Studies
Students who receive credit for History S391 may take it again as History S392, provided that a different subject is dealt with the second time. (6 credits) NOTE A/See § 200.1

HISTORY S421
Advanced Study in Canadian History
Prerequisite: A ‘300’ level course in History or permission of the Department. Seminar in a selected topic in the history of Canada. The emphasis will be on encouraging students to conduct historical investigation on their own under a professor’s guidance. The specific content will vary from year to year depending on the instructor. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Canadian Studies Programme.
HISTORY S431
Advanced Study in European History
Prerequisite: A ‘300’ level course in History or permission of the Department. Seminar in a selected topic in the history of Europe. The emphasis will be on encouraging students to conduct historical investigation on their own under a professor’s guidance. The specific content will vary from year to year depending on the instructor. (6 credits) NOTE C/See § 200.1

HISTORY S445
Advanced Study in Russian and Soviet History
Prerequisites: History S210; History S341 or permission of the Department. This course deals with specific problems in Tsarist and Soviet Russia. In the Pre-Revolutionary period attention is focused on the emancipation of the peasantry, industrialization and the growth of the opposition parties. In the Soviet period emphasis is placed on the problems of economic growth, the changing pattern of Soviet Marxism and the nature of Soviet foreign policy. (6 credits) NOTE A/See § 200.1

HISTORY S446
Advanced Study in the History of Science
Prerequisite: Permission of the Department. Seminar in a selected topic in the History of Science. The emphasis will be on encouraging students to conduct historical investigation on their own under a professor’s guidance. The specific content will vary from year to year depending on the instructor. (6 credits) NOTE A, C/See § 200.1

HISTORY S451
Advanced Study in American History
Prerequisite: A ‘300’ level course in History or permission of the Department. Seminar in a selected topic in the history of the United States. The emphasis will be on encouraging students to conduct historical investigation on their own under a professor’s guidance. The specific content will vary from year to year depending on the instructor. (6 credits) NOTE C/See § 200.1

HISTORY S461
Advanced Study in Asian and African History
Prerequisite: A ‘300’ level course in History or permission of the Department. Seminar in a selected topic in the history of Asia and Africa. The emphasis will be on encouraging students to conduct historical investigation on their own under a professor’s guidance. The specific content will vary from year to year depending on the instructor. (6 credits) NOTE C/See § 200.1

HISTORY S490
Honours Essay
Prerequisite: Honours students only. A course in the application of modern historical criticism to a specific problem to be chosen in consultation with the instructor. (6 credits)

HISTORY S491
Advanced Study in a Special Subject
Prerequisite: Permission of the Department. This course, intended primarily for Honours or Major students, affords an opportunity for more intensive examination of a particular historical theme than is possible in the normal lecture course. The specific subject will vary according to the special interest of the professor offering the course in any given year. (6 credits) NOTE C/See § 200.1

HISTORY S492
Advanced Study in a Special Subject
Prerequisite: Permission of the Department. A student repeating History S491 registers for credits under History S492. (6 credits) NOTE A/See § 200.1

HISTORY-SOCIOLOGY S493
History and Sociology
Prerequisites: An introductory course in History and in Sociology and second or third year standing. An exploration of the relationships between historical and sociological approaches to the description and analysis of social conditions and social events, paying special attention to questions of methodology and conceptualization. (6 credits) NOTE A/See § 200.1
NOTE: This course may be counted for credits in either History or Sociology. Students who have taken History-Sociology S456 may not take this course for credit.

These courses were offered in the summer of 1976.

HISTORY N-376/1
The United States and the Middle East: Historical Perspectives and Current Dilemmas. (6 credits)

HISTORY N-377/1
The Modern Middle East, 1789 to the present. (6 credits)

HISTORY N-378/1
Western European Socialism in Crisis, 1900-1940. (6 credits)
41.19 Department of Political Science

41.19.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3

The superscript indicates credit value.

60 BA Honours in Political Science

18 Pol Sc S311*, S415*, S491*
18 Chosen from Pol Sc S240*, S320*, S330*
24 Elective credits selected from at least two of the four areas in Political Science

66 BA Honours in Political Sociology

18 Soc S210*, or, if exempted, Soc Elective credits (in consultation with Departmental Honours Adviser), S310*, S447*
18 Pol Sc S240*, S311*, S413*
6 Chosen from Soc S481*, Pol Sc S491*

45 BA Major in Canadian Politics

6 Pol Sc Elective credits in theory, comparative politics or international relations*
6 Elective credits in a related discipline with Canadian content or Political Science*

*Courses must be approved by the Department.

48 BA Major in Comparative Political Studies

18 Pol Sc S240*, S311*, S458*
12 Elective credits with relevant comparative or area studies content (with approval of the Department)

48 BA Major in International Affairs

33 Pol Sc S270*, S311*, S381*, S437*, S483*, S485*
15 Elective credits with relevant international content in Political Science or from other departments (with approval of the Department)

48 BA Major in Political Philosophy

18 Pol Sc S311*, S320*, S413*
6 Chosen from Phil S210*, S211*

48 BA Major in Political Science

6 Pol Sc S311*
18 Chosen from Pol Sc S240*, S270*, S320*, S330*
24 Elective credits selected from at least two of the four areas in Political Science

48 BA Major in Political Sociology

18 Soc S210*, or, if exempted, Soc Elective credits (in consultation with Departmental Honours Adviser), S310*, S447*
18 Pol Sc S240*, S311*, S413*
6 Chosen from Soc S330*, Pol Sc S320*, S415*
41.19.2 AREAS

Area I—Theory
S311—History of Political Theory
S320—Problems and Concepts in Political Theory
S413—Modern Political Ideologies
S415—Political Analysis

Area II—Comparative Politics
S240—Comparative Politics
S321—Women and the Law
S333—Problems of Public Administration
S334—Urban Politics
S350—Government and Politics of the United States
S351—Political Systems of Western Europe
S353—Soviet and East European Politics
S355—The Politics of Developing Areas
S458—Political Parties
S472—Political Science
—Science and Human Affairs Affairs
—Science and Public Policy

41.19.3 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1.

POLITICAL SCIENCE S231
Elements of Public Law
This course is an introduction to Canadian Public Law emphasizing such areas as constitutional law, criminal law, administrative law, applications for bail, and consumer protection. In addition, the course will involve a study of the organization and functioning of the court system. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S240
Comparative Politics
A course in comparative politics with special emphasis on the dynamics of the political process. Going beyond constitutional and institutional procedures, this course will include the study of informal realities of decision-making. Most of the illustrative content is based on a comparative study of Canada, the United States, Great Britain and France. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Urban Studies Programme.

POLITICAL SCIENCE S270
International Relations
A course in world affairs dealing with the political, ideological and cultural relations between states and the main characteristics of the global power system. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S311
History of Political Theory
A critical study and analysis of such great thinkers as Plato, Aristotle, Machiavelli, Hobbes, Locke, Rousseau, Hegel, Bentham and Mill on problems of politics. This course is designed to give a survey of systematic political reasoning from the classical period up to the middle of the 19th century in an endeavour to show the foundations of modern political thought. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S320
Problems and Concepts in Political Theory
A course in political theory emphasizing key concepts such as equality, liberty and power. The content of the course will include basic methodology and terminology to the extent that the thematic orientation in any given year requires its inclusion. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S321
Women and the Law
An historical and comparative study of the status of women as seen in different legal systems. The course will deal with women in relation to private, family and public law. The framework will be primarily legal, but will also include a consideration of the social and political implications of women's legal status. Special attention will be directed to Quebec and Canadian law. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Women's Studies Programme.
Switzerland and the Scandinavian countries. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S333
Problems of Public Administration
Prerequisite: Political Science S240 or S330. This course deals with the nature and function of the administrative branch of government. The student is introduced to such problems as the organization of government departments, the management of government corporations, budgeting, selection and training of personnel, maintenance of morale and discipline, relationship between legislature and administration, relationship between the administration and the public. (6 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Canadian Studies Programme.

POLITICAL SCIENCE S334
Urban Politics
Prerequisite: Political Science S240 or S330. A course in urban politics with special emphasis on the processes of the local community. This course, although primarily dealing with urban politics in Canada, will also go beyond national boundaries for its comparative treatment. (3 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Urban Studies Programme.

POLITICAL SCIENCE S335
Quebec Politics
Prerequisite: Political Science S330. A study of the changing party structure and political issues in Quebec and their relationship to constitutional, cultural and economic factors. Some of the reading material will be in French. (3 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Canadian Studies Programme.

POLITICAL SCIENCE S350
Government and Politics of the United States
A study of American politics which will deal not only with formal political institutions such as the legislature, the executive and the judiciary, but also the processes and problems of government: public opinion, political parties, pressure groups, health and welfare, foreign policy and racial problems. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S351
Political Systems of Western Europe
Mainly a comparative study of the political systems of Britain, France and Western Germany, but some consideration will be given to the smaller states in Western Europe, such as Switzerland and the Scandinavian countries. (6 credits) NOTE A/See § 200.1

NOTE: Students who have credits for Political Science N-451 or either Political Science 416 or 417 before 1969-70 may not take this course for credits.

POLITICAL SCIENCE S353
Soviet and East European Politics
A study of the constitutional, political and administrative system of the Soviet Union and the East European states. Emphasis will be placed on the continuing evolution of the Communist system and the changing relationship between the Soviet Union and the other states. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S355
The Politics of Developing Areas
A study of the politics and structure of government in developing areas such as Asia, Africa or South America against the background of social and economic change since World War II. The specific area which will be studied will vary from year to year depending on the interests of the instructor. (6 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Asian Studies Programme.

POLITICAL SCIENCE S381
International Law
This course will survey the theory and practice of international law from its traditional classical origins to the modern contemporary developments with emphasis on the political and interstate relations aspects. The first half of the course will include basic concepts of the nature of law, state sovereignty, treaties, nationality, jurisdiction, recognition, arbitration and cases of international legal order, control of world conflicts, codification of law, settlement of disputes by the International Court of Justice, human rights and the relation of law to power politics. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S413
Modern Political Ideologies
Prerequisite: Political Science S210 or 220 or S311 or Philosophy S271. This course will cover political theories of the 19th and 20th centuries, dealing with such ideologies as Liberalism, Conservatism, Marxism, Democratic Socialism and Fascism. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S415
Political Analysis
Prerequisites: Political Science S311 or S320 and six other credits in Political Science. A study of the contemporary subject matter and methods of political science. The course deals with: 1) fundamental concepts, principles, institutions, and processes of politics; 2) methods, techniques, instruments and data of social sciences; 3) present theories, such as functionalism, behaviouralism, formalism; 4) political ideals and their impact on policy-making and social control. In addition to the theoretical analysis, critique and evaluation of the latest thinking in political science, the student will participate in testing and practical laboratory periods. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S436
Canadian Federalism
Prerequisite: Political Science S330. A critical and analytical study of the theory of federal government and its application to the nature, principles and techniques of federalism in Canada. The reaction of the Canadian federal system
to the demands of cultural dualism and regional pressures. Some attention will also be given to the problems of provincial governments in their pressure on and adjustment to Dominion-Provincial relations. (3 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Canadian Studies Programme.

POLITICAL SCIENCE S437
Canadian External Affairs
Prerequisite: Political Science S270 or S330 or History S337. This course will study Canada's position in the world. The presentation will include an outline of the diplomatic history of Canada, as well as an analysis of its foreign and defence policies. Emphasis will be given to the decision-making process by which policy is formulated and executed, with particular reference to Canadian relations vis-a-vis the Americans; the Commonwealth; and the United Nations. (3 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Canadian Studies Programme.

POLITICAL SCIENCE S458
Political Parties
Prerequisite: Political Science S240 or S451.

A study of the history, ideology, organization and electoral geography of political parties in the United States, England, France, Germany and some of the smaller countries in Western Europe. The course will also deal with the different types of party systems, the nature and function of parties in the democratic process, the nature of political elites, pressure groups, the organization of elections and political propaganda. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S465
Advanced Study in a Special Subject
Prerequisites: Six credits in Political Science and enrolment in a Major or Honours programme in the Social Sciences. Subject matter will vary from year to year depending on the interests of the instructor. This course will provide opportunities to senior students for discussion and advanced study. (6 credits) NOTE C/See § 200.1

POLITICAL SCIENCE S466
Advanced Study in a Special Subject
Prerequisites: Political Science S465 and permission of the Department. A student repeating Political Science S465 registers for credits under Political Science S466. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S467
Advanced Study in a Special Subject
Prerequisites: Six credits in Political Science and enrolment in a Major or Honours programme in the Social Sciences, or permission of the Department. Subject matter will vary from year to year to take advantage of the special interests of the instructor. This course will provide opportunities to senior students for discussion and advanced study. (3 credits) NOTE A/See § 200.1

NOTE: With permission of the Department a student may take this course twice for credits provided that a different subject is dealt with the second time. A student repeating Political Science S467 for credits will register under Political Science S468.

POLITICAL SCIENCE S468
Advanced Study in a Special Subject
Prerequisites: Political Science S467 and permission of the Department. A student repeating Political Science S467 registers for credits under Political Science S468. (3 credits) NOTE A/See § 200.1

POLITICAL SCIENCE—SCIENCE AND HUMAN AFFAIRS S472
Science and Public Policy
Prerequisite: Science and Human Affairs S201, S202 and one course in Political Science or permission of the Department. The relationship between science and government. Particular emphasis is placed on such problems as the role of the scientist in political decision-making, the making of Canadian science policy, the mix of basic, applied and mission-oriented research, the relations of science and the military, the nature of technocracy and the role of science in economically developing nations. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S483
International Organization
Prerequisite: Political Science S270 or S385.

The historical development of the concepts of international organization with special emphasis upon the 19th and 20th centuries. The League of Nations and the United Nations with its specialized agencies will be examined carefully. In addition, certain other international bodies of a regional or specialized nature such as EEC, OAS, OAU and regional integration schemes in general will be considered. (6 credits) NOTE A/See § 200.1

POLITICAL SCIENCE S485
Diplomacy and Foreign Policy
Prerequisite: Political Science S270. Foreign and defence policies of the Great Powers; diplomacy, military strategy and intelligence; methods and techniques of policy-making and enforcement. (6 credits) NOTE A/See § 200.1

NOTE: This course may be taken for credits in the Asian Studies Programme.

POLITICAL SCIENCE S491
Honours Seminar
Prerequisite: Third-year Honours standing or permission of the Department. Students will choose a topic from one of the various fields in political science. Each student must prepare and submit an appropriate research paper under the supervision of the Department. (6 credits) NOTE C/See § 200.1
41.20 Department of Psychology

Associate Professor and Chairman of the Department
JUNE CHAIKELSON

Professors
A. HAROLD GOLDSMAN
TANNIS MAAG
ALEX SCHWARTZMAN
JANE STEWART
JOSEPH ZWEIG

Associate Professors
ZALM AN AMIT
DAVID ANDRE S
WILLIAM BRENDER
GABRIEL BRETON
ANNA-BETH DOYLE
DOLORES GOL D
THOMAS GRAY
ANTHONY HILTON
WILLIAM HOOPER
STANLEY MUNOZ
CAMPBELL PERRY
NORMAN SEGALOWITZ
NANCY TAYLOR
ROY WISE

Associate Professor of Education and Psychology
DONNA WHITE

Assistant Professors
EDWARD BRUSSELL
DOROTHY HACCOUN
ELIZABETH HENRIK
MELVIN KOMODA
-PETER SERAGANIAN
PETER SHIZGAL
MAXWELL TAYLOR

Adjunct Assistant Professors
GEORGE NEMETH
ANN SUTHERLAND

Lecturers
JOHN CHRISTIAN
JANE LEDINGHAM

41.20.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements; hence the following sequences must be read in conjunction with § 41.3

The superscript indicates credit value.

60 BA Honours in Psychology

Year I
12 Psyc S271\textsuperscript{a}, S412\textsuperscript{b}
Year I or II
6 Psyc S241\textsuperscript{a} or S242\textsuperscript{b}
Year II
18 Chosen from Psyc S375\textsuperscript{a}, S421\textsuperscript{a},
10 S422\textsuperscript{a}, S428\textsuperscript{a}, S432\textsuperscript{a}, S434\textsuperscript{a},
21 S438\textsuperscript{a}, S442\textsuperscript{a}, S461\textsuperscript{a}, S491\textsuperscript{a}, S492\textsuperscript{a}
Year III
12 Psyc S413\textsuperscript{a}, S472\textsuperscript{a}
9 Chosen from Psyc S421\textsuperscript{a}, S422\textsuperscript{a}, S428\textsuperscript{a},
10 S434\textsuperscript{a}, S438\textsuperscript{a}, S442\textsuperscript{a}, S452\textsuperscript{a}, S454\textsuperscript{a},
12 S461\textsuperscript{a}, S462\textsuperscript{a}, S481\textsuperscript{a}, S482\textsuperscript{a}, S491\textsuperscript{a},
12 S492\textsuperscript{a}, S493\textsuperscript{a}, S494\textsuperscript{a}

60 BA Specialization in Psychology

Year I
12 Psyc S271\textsuperscript{a}, S412\textsuperscript{b}
Year I or II
6 Psyc S241\textsuperscript{a} or S242\textsuperscript{b}
Year II or III
24 Chosen from Psyc S421\textsuperscript{a}, S422\textsuperscript{a}, S428\textsuperscript{a}, S432\textsuperscript{a}, S434\textsuperscript{a}, S442\textsuperscript{a}, S452\textsuperscript{a}, S461\textsuperscript{a}
Year III
6 Psyc S471\textsuperscript{a} or equivalent
12 Elective credits from the field of Psychology chosen in consultation with the Department

42 BA Major in Psychology

Year I
12 Psyc S271\textsuperscript{a}, or S273\textsuperscript{a}, S412\textsuperscript{b}
Year II or III
6 Chosen from Psyc S421\textsuperscript{a}, S422\textsuperscript{a}, S432\textsuperscript{a}, S434\textsuperscript{a}, S461\textsuperscript{a}
24 Chosen from Psyc S241\textsuperscript{a} or S242\textsuperscript{a},
10 S375\textsuperscript{a}, S413\textsuperscript{a}, S421\textsuperscript{a}, S422\textsuperscript{a}, S428\textsuperscript{a}, S432\textsuperscript{a}, S434\textsuperscript{a}, S438\textsuperscript{a}, S442\textsuperscript{a}, S452\textsuperscript{a},
12 S454\textsuperscript{a}, S461\textsuperscript{a}, S462\textsuperscript{a}, S471\textsuperscript{a}, S481\textsuperscript{a},
12 S482\textsuperscript{a}, S491\textsuperscript{a}, S492\textsuperscript{a}, S493\textsuperscript{a}, S494\textsuperscript{a}

225
30 Minor in Psychology

Year I
6 Psyc S271
Year II or III
24 Chosen from Psyc S241, S242, S412, S421, S422, S426, S432, S434, S438, S442, S452, S454, S461, S462, S481, S482

NOTE: 6 of these 24 credits may be chosen from among the 3-credit courses in Psychology.

41.20.2 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult Section 200.1

PSYCHOLOGY S211
Introductory Psychology

The purpose of this course is the development of an adequate understanding of known principles of behaviour and experience. The work includes a study of the sense organs and nervous system, perception, learning, memory, motivation and the basic needs, emotional reactions, personality development, adjustment and integration, abnormal personality, mental abilities and aptitudes, social aspects of behaviour and the applications of psychology. (6 credits) NOTE A/See § 200.1

PSYCHOLOGY S212
Selected Problems in Learning and Motivation A

Prerequisite: Psychology S211 or second year standing. This course will deal with a selected problem in learning and motivation to be announced each year. The course will be designed to allow the student to explore a problem in considerable depth starting from first principles. Possible topics are: operant behaviour; memory; teaching and learning; maternal behaviour; aggression; sleep. (3 credits) NOTE C/See § 200.1

PSYCHOLOGY S213
Selected Problems in Learning and Motivation B

Prerequisite: Psychology S211 or second year standing. This course will deal with a selected problem in learning and motivation to be announced each year. The course will be designed to allow the student to explore a problem in considerable depth starting from first principles. Possible topics are: operant behaviour; memory; teaching and learning; maternal behaviour; aggression; sleep. (3 credits) NOTE C/See § 200.1

PSYCHOLOGY S214
Selected Problems in Individual Differences A

Prerequisite: Psychology S211 or second year standing. This course will deal with a selected problem in individual differences to be announced each year. The course will be designed to allow the student to explore a problem in considerable depth starting from first principles. Possible topics are: creativity; intelligence; self-awareness and self-esteem; leadership. (3 credits) NOTE C/See § 200.1

PSYCHOLOGY S215
Selected Problems in Individual Differences B

Prerequisite: Psychology S211 or second year standing. This course will deal with a selected problem in individual differences to be announced each year. The course will be designed to allow the student to explore a problem in considerable depth starting from first principles. Possible topics are: creativity; intelligence; self-awareness and self-esteem; leadership. (3 credits) NOTE C/See § 200.1

PSYCHOLOGY S241
Statistical Methods in Psychology A

Prerequisites: Any two CEGEP semester courses in mathematics. A basic course in the fundamentals of statistics for psychology and education. Topics include: the construction of frequency distribution; graphic presentation; measures of central tendency and dispersion; correlation and linear regression; elementary probability theory; the binomial distribution and the normal curve; sampling or the reliability of statistics and tests of significance; Chi square; analysis of variance; miscellaneous non-parametric techniques. Lectures and laboratory. (6 credits) NOTE A/See § 200.1

NOTE A: Only 6 credits will be given from: Economics S375, S471; Geography S362, S363; Mathematics N-241; Quantitative Methods C243, C244; Sociology S241; Psychology S241, S242

PSYCHOLOGY S242
Statistical Methods in Psychology B

Prerequisite: One Semester in Statistics and Probability, at the CEGEP level or equivalent. A course in the fundamentals of statistical inference for psychology. (6 credits) NOTE A/See § 200.1

NOTE: Only 6 credits will be given from: Economics S375, S471; Geography S362, S363; Mathematics N-241; Quantitative Methods C243, C244; Sociology S241; Psychology S241, S242

PSYCHOLOGY S271
Experimental Psychology 1A

Prerequisite: Psychology S211. An examination of experimental method in psychology with an introduction to statistical techniques (primarily descriptive statistics) and laboratory experience in methodology appropriate to all areas of psychology. Lectures and laboratory. (6 credits) NOTE A/See § 200.1
PSYCHOLOGY S273
Experimental Psychology IB
Prerequisites: Psychology S211; Psychology S241 or S242 previously or concurrently and permission of the Department. An examination of experimental method in psychology, with laboratory experience in techniques appropriate to important problem areas. Lectures and laboratory. (6 credits) NOTE A/See § 200.1

PSYCHOLOGY S302
Selected Problems in Development A
Prerequisite: Psychology S211 or second year standing. This course will deal with a selected problem in development to be announced each year. The course will be designed to allow a student to explore a problem in considerable depth starting from first principles. Possible topics are: perception of spoken and written language; developmental language disability; learning in infancy and early childhood; critical periods in early development. (3 credits) NOTE A/See § 200.1

PSYCHOLOGY S304
Selected Problems in Social Psychology A
Prerequisite: Psychology S211 or second year standing. This course will deal with a selected problem in social psychology to be announced each year. The course will be designed to allow the student to explore a problem in considerable depth starting from first principles. Possible topics are: socialization of the child; social motives; interpersonal attraction; values, beliefs and attitude change; prescriptions for future man. (3 credits) NOTE A/See § 200.1

PSYCHOLOGY S305
Selected Problems in Social Psychology B
Prerequisite: Psychology S211 or second year standing. This course will deal with a selected problem in social psychology to be announced each year. The course will be designed to allow the student to explore a problem in considerable depth starting from first principles. Possible topics are: socialization of the child; social motives; interpersonal attraction; values, beliefs and attitude change; prescriptions for future man. (3 credits) NOTE A/See § 200.1

PSYCHOLOGY S308
Learning Disabilities
Prerequisite: Psychology S211 or second year standing. This course will deal with selected aspects of current theory, research and practice related to children's learning disabilities. (3 credits) NOTE A/See § 200.1

PSYCHOLOGY S309
Selected Topics in Adolescence
Prerequisite: Second year standing. This course will deal with selected problems in the psychology of adolescence. The course will be designed to allow the student to explore these problems in considerable depth starting from first principles. Possible topics are: physical change, sexual and sex-related behaviours, socialization identification, intelligence and cognitive growth, school achievement and lifestyles. (3 credits) NOTE A/See § 200.1
NOTE: Students who have taken Psychology S303 (435) on adolescence may not take this course for credit.

PSYCHOLOGY S375
Directed Study and Research on a Selected Topic
Prerequisite: Psychology S271, and Psychology S241 or S242, previously or concurrently, second year Honours standing or permission of the Department. Under the supervision of a faculty member, the student is to carry out an independent research project and report it in writing. The area of study must be decided upon through consultation with the faculty member. Lectures and Laboratory. (3 credits) NOTE A/See § 200.1
NOTE: Students who have credit for Psychology S275 may not take this course for credits.

PSYCHOLOGY S383
Sexual Differentiation
Prerequisites: Psychology S211 and second year standing. This course will examine the physiological, genetic and social factors that determine sex identity and will consider how sex identity influences life patterns. The effects of these factors on social, motivational and cognitive development and adjustment will be studied. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Women's Studies Programme.

PSYCHOLOGY S402
Selected Problems in the Application of Psychology A
Prerequisite: Second or third year standing. This course will deal with a selected problem in the application of psychology to be announced each year. The course will be designed to allow the student to explore a problem in considerable depth starting from first principles. Possible topics are: personnel selection technique; rehabilitation, psychological foundations; criminal behaviour; behaviour disorders; sexual differentiation; drugs and behaviour. (3 credits) NOTE A/See § 200.1

PSYCHOLOGY S403
Selected Problems in the Application of Psychology B
Prerequisite: Second or third year standing. This course will deal with a selected problem in the application of psychology to be announced each year. The course will be designed to allow the student to explore a problem in considerable depth starting from first principles. Possi-
COURSE OF DESCRIPTIONS

PSYCHOLOGY

SIR GEORGE WILLIAMS FACULTY OF ARTS 41.20.2 DEPARTMENT OF PSYCHOLOGY: COURSE DESCRIPTIONS

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**PSYCHOLOGY S404**
Selected Problems in Psychology A
Prerequisite: Second or third year standing. This course will deal with a selected problem in psychology to be announced each year. The course will be designed to allow the student to explore a problem in considerable depth starting from first principles. The particular topic discussed will vary from year to year. (3 credits) NOTE A/See § 200.1

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**PSYCHOLOGY S405**
Selected Problems in Psychology B
Prerequisite: Second or third year standing. This course will deal with a selected problem in psychology to be announced each year. The course will be designed to allow the student to explore a problem in considerable depth starting from first principles. The particular topic discussed will vary from year to year. (3 credits) NOTE A/See § 200.1

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**PSYCHOLOGY S412**
Modern Psychology in Historical Perspective
Prerequisite: Psychology S211. This course consists of an outline of the history of psychology from early times up to the recent past. The work includes the ancient and medieval background of psychology; the early contributions from the fields of physics and physiology; psychophysics; and historical background of the various schools of psychological thought from the late nineteenth century to the present day. (6 credits) NOTE A/See § 200.1

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**PSYCHOLOGY S413**
Contemporary Problems in Psychology
Prerequisite: Third year Honours students or permission of the Department. An intensive treatment of current major problem areas in psychology. (6 credits) NOTE A/See § 200.1

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**PSYCHOLOGY S421**
Learning
Prerequisite: Psychology S271 or S273. A study of empirical findings and theoretical issues in the fields of animal and human learning. Topics covered include conditioning, discrimination learning, transfer, verbal learning, and classic and contemporary theoretical issues. (6 credits) NOTE A/See § 200.1

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**PSYCHOLOGY S422**
Motivation
Prerequisite: Psychology S271 or S273. Causal analysis of (for example) sleep, hunger, pain, sex, conflict, self-actualization, territoriality, aggression, population-density-dependent behaviour, cooperation and competition. Theories and myths vs. empirical data from physiological, behavioural, and politico-socio-economic studies, both animal and human. (6 credits) NOTE A/See § 200.1

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**PSYCHOLOGY S428**
Measurement in Psychology
Prerequisite: Psychology S271 or S273. A consideration of the general problems of measurement in psychology, including instrumentation and scaling procedures for measurement of psychological and physiological processes in the areas of sensation and perception, learning, social psychology and the psychology of individual differences. The use of various psychometric techniques in measurement of achievement, aptitude and personality will be appraised and questions of reliability and validity of tests will be discussed. (6 credits) NOTE A/See § 200.1

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**PSYCHOLOGY S432**
Perception
Prerequisite: Psychology S271 or S273. The physiological bases of sensation and perception and their relation to the basic psychological phenomena encountered in vision, audition, and the other senses will be studied. Phenomena such as pattern perception and the perception of distance and movement will be analyzed. The effects of learning, motivation, and social factors upon perceptual processing will also be examined. (6 credits) NOTE A/See § 200.1

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**PSYCHOLOGY S434**
Cognitive Processes
Prerequisite: Psychology S271 or S273. An investigation of the complex processes intervening between the stimulus and the response. Topics discussed will include cognitive and language development, psycholinguistics, organization and memory, problem-solving, concept formation, creativity, and cognitive and language disability. (6 credits) NOTE A/See § 200.1
NOTE: Students who have credits for Psychology 433 or 431 after 1968-69 may not take this course for credits.

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**PSYCHOLOGY S438**
Developmental Psychology
Prerequisite: Psychology S271 or S273. An experimental and comparative approach to human development from conception to old age, with emphasis on the period from birth to adolescence. Topics discussed will include language, social behaviour, intelligence, learning and perception. (6 credits) NOTE A/See § 200.1

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**PSYCHOLOGY S442**
Social Psychology
Prerequisite: Psychology S271 or S273. A study of social factors in the behaviour and attitudes of the individual and of groups, including a survey of the psychology of bias, prejudice, stereotypes, propaganda, opinion, individual and group morale, group dynamics and sociometry. (6 credits) NOTE A/See § 200.1

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**PSYCHOLOGY S452**
Personality
Prerequisite: Psychology S271 or S273. The course surveys the various theories of personality and relationships between personality and behaviour. Individual differences in personality will be studied along with related factors such as age, sex, education, genetic and other physical factors, socio-economic level and
other cultural factors. A brief survey and review of basic statistical concepts will be included along with a short introduction to personality measurement. (6 credits) NOTE A/See § 200.1

PSYCHOLOGY S454

Behaviour Disorders
Prerequisite: Psychology S271 or S273. A study of the etiology and description of behaviour and psychological disorders, including the psychoneuroses, psychoses and psychosomatic conditions. (6 credits) NOTE A/See § 200.1

PSYCHOLOGY S461

Physiological Psychology
Prerequisites: Psychology S211; and Psychology S271 or S273 or one full course in Physiology or General Biology at the CEGEP level or equivalent. This course attempts to relate neurophysiology to such psychological problems as learning, attention, and emotion. The topics treated include excitation and conduction in the neuron; synaptic mechanisms; sensory and motor systems, the internal environment; the electrical activity of the brain. Emphasis is given to brain damage studies in animals and man, and the problem of localization of function in the nervous system. (6 credits) NOTE A/See § 200.1

PSYCHOLOGY S462

Comparative Psychology
Prerequisites: Psychology S211; Psychology S271 or S273 or one full course in Biology at the CEGEP level or equivalent. A study of behaviour from a comparative viewpoint. Topics of study will include evolutionary changes in brain and behaviour, behaviour genetics and specific aspects of behaviour such as sensory capacities, motivation, emotion, learning, cognitive abilities and social behaviour. (6 credits) NOTE A/See § 200.1

PSYCHOLOGY S471

Experimental Psychology II
Prerequisites: Psychology S241 or S242; S271 or S273 and permission of the Department. This course provides experience in the planning, conduct, analysis, and reporting of independent research in the major areas of psychology. Lectures and laboratory. (6 credits) NOTE A/See § 200.1

PSYCHOLOGY S472

Advanced Experimental Problems
Prerequisite: Third year honours students or permission of the Department. Supervised investigation of special problems. Each student will be required to conduct an experimental study and to submit an appropriate research paper on the study, under the supervision of the Department. Lectures and laboratory. (6 credits) NOTE C/See § 200.1

PSYCHOLOGY S481

Psychology of Work Organizations
Prerequisites: Psychology S271 or S273; and permission of the Department. The scientific study of human behaviour as it occurs in business and industry; an examination of the roles of workers, managers, and consumers, and studies of the social psychology of organizations. (6 credits) NOTE A/See § 200.1

PSYCHOLOGY S482

Psychology of Human Learning in the Classroom
Prerequisites: Psychology S211; Psychology S271 or S273 and permission of the Department. A systematic examination of psychological principles and research reports which contribute to an understanding of human learning in the school. (6 credits) NOTE A/See § 200.1

PSYCHOLOGY S491

Special Seminar on Selected Topics in Psychology
Prerequisite: Second or third year Honours, Specialization, or Majors standing in Psychology. Subject matter will differ from term to term and from year to year to take advantage of the special interests of the seminar leader. The course will provide opportunities to senior students for discussion and advanced study. (3 credits) NOTE C/See § 200.1

PSYCHOLOGY S492

Special Seminar on Selected Topics in Psychology
Prerequisite: Second or third year Honours, Specialization, or Majors standing in Psychology. Subject matter will differ from term to term and from year to year to take advantage of the special interests of the seminar leader. The course will provide opportunities to senior students for discussion and advanced study. (3 credits) NOTE C/See § 200.1

PSYCHOLOGY S493

Special Seminar on Selected Topics in Psychology
Prerequisite: Second or third year Honours, Specialization, or Majors standing in Psychology. A student repeating Psychology S491 registers for credits under Psychology S493. (3 credits) NOTE A/See § 200.1

PSYCHOLOGY S494

Special Seminar on Selected Topics in Psychology
Prerequisite: Second or third year Honours, Specialization, or Majors standing in Psychology. A student repeating Psychology S492 registers for credits under Psychology S494. (3 credits) NOTE A/See § 200.1
41.21 Department of Sociology and Anthropology

Associate Professor of Sociology and Chairman of the Department
H. TAYLOR BUCKNER
Assistant to the Chairman
NELLIE SHARPE

Sociology

Professors
SZYMON CHODAK
HUBERT GUINDON
JOHN JACKSON
KURT JONASSOHN
HAROLD POTTER
SOLOMON RAWIN

Assistant Professors
JOHN DRYSDALE
JOSEPH MOULEDOUX
JOSEPH SMUCKER
JOHN WARNER

Anthropology

Professor
CHARLES BRANT
Associate Professor
ANATOLE KLEIN

Lecturers
PIETER DE VRIES
DOMINIQUE LEGROS

41.21.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3

The superscript indicates credit value.

60 BA Honours in Sociology

6 Soc S210ª or, if exempted, Soc Elective credits (in consultation with Departmental Honours Adviser)
12 Soc S310ª, S330ª
12 Soc S241ª, S481ª
3 Chosen from Soc S411ª, S412ª, S413ª, S414ª
3 Chosen from Soc S436ª, S437ª, S438ª, S439ª
24 Soc Elective credits* (in consultation with Departmental Honours Adviser)

*NOTE: With prior approval of the Departmental Honours Adviser the student may substitute up to 12 credits from a related discipline.

NOTE: Some materials in this programme are in French.

69 BA Honours in Sociology and Philosophy

Pattern A (Epistemology and Methodology)

6 Soc S210ª or, if exempted, Soc Elective credits (in consultation with Departmental Honours Adviser)
6 Chosen from Soc S241ª, S310ª
18 Soc S330ª, S422ª, S481ª
6 Chosen from Soc S420ª, or Soc S436ª, S437ª, S438ª, S439ª
6 Chosen from Phil S210ª, S211ª, S221ª or, if exempted, Phil Elective credits
6 Phil S380ª
6 Chosen from Phil S221ª, S321ª
6 Phil S369ª, S405ª
3 Chosen from Phil S372ª, S374ª, S376ª
6 Chosen from Phil S321ª, S333ª, S369ª, S405ª, S409ª, S421ª, S493ª

72 BA Honours in Sociology and Philosophy

Pattern B (Man in Society)

6 Soc S210ª or, if exempted, Soc Elective credits (in consultation with Departmental Honours Adviser)
6 Anth S211ª or, if exempted, Anth Elective credits (in consultation with Departmental Honours Adviser)
6 Chosen from Soc S310ª, S330ª
SOCIOLOGY S330
The History of Sociological Theory
Prerequisite: Sociology S210. The student will be introduced to a wide range of sociological theories and to the main theorists from the Greek beginnings to the present day, with emphasis on the 19th and 20th centuries. This course will provide an overview of the various schools of thought that attempt to explain the organization, development, and changes in various aspects of human societies. (6 credits) NOTE A/See § 200.1

SOCIOLOGY S411
Research Techniques
Prerequisites: Sociology S210, S241 or equivalent, and S310 or permission of the Department. This course is an advanced consideration of the design of research, the methods of data collection, and the techniques of analysis. (3 credits) NOTE A/See § 200.1 NOTE: This course may be taken for credits in the Urban Studies Programme.

SOCIOLOGY S412
Field Work Research
Prerequisites: Sociology S210 and S310 or permission of the Department. Methods of fieldwork research in Sociology will be explored and examined in detail. (3 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Urban Studies Programme.

SOCIOLOGY S413
Survey Research Methods
Prerequisites: Sociology S210, S241 or equivalent, and S310 or permission of the Department. Methods of conducting survey research will be examined, such as research design, sampling methods, design and pre-testing of instruments, methods of data collection, logic of analysis and techniques of multivariate analysis and report writing. (3 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Urban Studies Programme.

SOCIOLOGY S414
Selected Topics in Research Methods
Prerequisites: Sociology S210 and S310 or permission of the Department. This course will deal with a selected topic in sociological research methods such as content analysis, interviewing, participant observation, and qualitative analysis. The course will be designed to allow the student to explore the topic in considerable depth. (3 credits) NOTE C/See § 200.1
NOTE: With the permission of the Department a student may take Sociology S414 twice for credits, provided that a different subject is dealt with the second time.

SOCIOLOGY S415
Selected Topics in Research Methods
Prerequisite: Permission of the Department. A student repeating Sociology S414 registers for credits under Sociology S415. (3 credits) NOTE A/See § 200.1

SOCIOLOGY S420
Self and Society
Prerequisite: Sociology S210. A consideration of basic concepts and of the most important theories in social psychology. Motivation is viewed in terms of the interplay between actors and social structures, and this approach is illustrated by reference to selected empirical studies. (6 credits) NOTE A/See § 200.1

SOCIOLOGY S421
Sociology of Deviance
Prerequisite: Sociology S210. The nature of deviant or marginal behaviour: legal and non-legal forms. Socialization to deviance; institutionalization of deviance; social control of deviance; structure and culture of deviance. Theories of deviant behaviour and their sociological, legal and practical implications. (6 credits) NOTE A/See § 200.1

SOCIOLOGY S422
Sociology of Knowledge
Prerequisite: Sociology S210. An examination of the interaction between social structures and meaning and belief systems. Of special concern will be the social influences bearing upon claims to truth and validity and upon definitions of social morality. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Science and Human Affairs Programme.

SOCIOLOGY S424
Sociology of Religion
Prerequisite: Sociology S210 or Religion S213. This course analyzes religions as social realities, examining the variable interrelations between belief, experiences, rituals and social settings in traditional, developing and industrialized society. The course will utilize some of the classical studies of religion by Weber, Durkheim, Geertz, Malinowski, James, Bellah, Eliade, Berger and others. (6 credits) NOTE A/See § 200.1

SOCIOLOGY S432
Formal Organizations
Prerequisite: Sociology S210. A study of different methods of coordinating human action in social group operations under different environmental conditions. Particular focus is on role systems connected with multi-group structures. The course begins with an historical overview of the field, examines the relationships between formal organizations and their environment (e.g. culture, market structure) and ends with a comparative study of diverse and changing structures in some institutional areas of organization. (6 credits) NOTE A/See § 200.1

SOCIOLOGY S436
Classical Sociological Theory A
Prerequisite: Sociology S210 and S330 or permission of the Department. This course will explore the works of major social theorists of the late 18th and early 19th centuries. (3 credits) NOTE A/See § 200.1

SOCIOLOGY S437
Classical Sociological Theory B
Prerequisite: Sociology S210 and S330 or permission of the Department. This course will explore the works of major social theorists of the late 19th and early 20th centuries. (3 credits) NOTE A/See § 200.1
SOCILOGY S438
Contemporary Sociological Theory A
Prerequisite: Sociology S210 and S330 or permission of the Department. Analysis of the major trends and issues in 20th century European and North American sociological theory. Emphasis is placed on issues and writings of contemporary significance such as neo-positivism, neo-Marxism and functionalism. (3 credits) NOTE A/See § 200.1

SOCILOGY S439
Contemporary Sociological Theory B
Prerequisites: Sociology S210 and S330 or permission of the Department. Analysis of the major trends and issues in 20th century European and North American sociological theory. Emphasis is placed on issues and writings of contemporary significance such as symbolic interactionism, phenomenology, and structuralism. (3 credits) NOTE A/See § 200.1

SOCILOGY S440
Community Studies
Prerequisite: Sociology S210. Based upon selected community studies, this course will focus upon an interpretation of the findings of these studies within the larger context of urbanization and industrialization with special emphasis given to the methodology of community studies. (3 credits) NOTE A/See § 200.1

SOCILOGY S441
Sociology of Urban Regions
Prerequisite: Sociology S210. The physical and social characteristics of urban communities are studied with special attention paid to ecological patterns and ecological process. Forms of adjustment, cooperation and control are included in these studies. (3 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Urban Studies Programme.

SOCILOGY S442
The Family
Prerequisite: Sociology S210. The course will deal with the following basic topics: mate selection, the social function of families, conjugal roles, social formation of the young, marriage across racial, religious and other social boundaries, and types of family structure. Other topics are added as time and interest permit. (6 credits) NOTE A/See § 200.1

SOCILOGY S443
Collective Behaviour and Social Movements
Prerequisite: Sociology S210. Characteristics of collective behaviour, its origin, development, and relationship to formal social structures. Methods of study and theories to explain observed processes. The nature and function of social movements, their life histories and their relationship to the larger society. Specific case studies of religious, racial, and political movements. (6 credits) NOTE A/See § 200.1

SOCILOGY S444
Intergroup Relations
Prerequisite: Sociology S210. This course is concerned with the sociology of macro-group relations. The emphasis is on the social definition of race. The significance of colour, language, cultural and ethnic differences is examined within a context of stratification and power differentials. Attention is devoted to Caribbean societies, the U.S.A., South Africa and Rhodesia. The decolonization process, the functions and dysfunctions of intergroup conflict, and methods of reducing and increasing tension are discussed. (3 credits) NOTE A/See § 200.1

SOCILOGY S445
Intergroup Relations in Canada
Prerequisite: Sociology S210. Within the theoretical framework of intergroup relations ethnic groups in Canada will be examined. The groups will include Indians, Inuit, Blacks, Jews, and English and French speakers. The mosaic theory of Canadian ethnic relations will be considered. (3 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Canadian Studies Programme.

SOCILOGY S446
Social Class and Structured Inequality in Modern Society
Prerequisite: Sociology S210. Systems of social differentiation are analyzed. Theories about their origins and consequences, and about degrees and types of mobility related to them, are discussed. The theories are applied to Canada and to the United States as well as to other societies. (6 credits) NOTE A/See § 200.1

SOCILOGY S447
Political Sociology
Prerequisite: Sociology S210. The social and normative structures of political institutions, including political parties; the relationship between political institutions and religious and economic institutions; the rise and fall of political ideologies, systems and institutions; the making and communication of policies, the rejuvenation of elites. Political attitudes and behaviour are analyzed, as well as political socialization, interest, and involvement. (6 credits) NOTE A/See § 200.1

SOCILOGY S448
Population and Society
Prerequisite: Sociology S210, or an introductory course in a social science. This course consists of a brief survey of population theory and an introduction to the techniques of population analysis. It will cover the size, distribution, and composition of the population; changes in these characteristics; the relationship between population trends and social and economic conditions, with special reference to recent trends. (3 credits) NOTE A/See § 200.1

SOCILOGY S449
Area Studies in Demography
Prerequisite: Sociology S448. Selected topics of importance in population studies will be explored in some detail. Students will be required to submit a research paper on a significant demographic problem. (3 credits) NOTE A/See § 200.1

SOCILOGY S450
Seminar in Urban and Metropolitan Studies
Prerequisite: Sociology S441. Intensive study of a few theories and selected mono-
graphs dealing with aspects of urbanization. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Urban Studies Programme.

SOCIOLOGY S452
Law and Society
Prerequisite: Sociology S210. A study of the legal system as an institutionalized system of social control, with special emphasis on its role in times of rapid social change. Problems of definition, validation, enforcement and execution of the law will be examined in several areas of application and in relation to systems of stratification. Special attention will be given to the study of law and of legal organizations in contemporary society, as they intersect with other areas of sociological inquiry, especially social change, conflict, decision-making, and the role of the legal professions. (6 credits) NOTE A/See § 200.1

SOCIOLOGY S454
Industry and Society
Prerequisite: Sociology S210. Analysis of the nature of change and its consequences in advanced industrialized societies. Special attention will be directed toward corporate structures, the labour movement, the function and meaning of work, leisure and changes in social stratification and the exercise of power. (6 credits) NOTE A/See § 200.1

SOCIOLOGY S455
Comparative Social Systems
Prerequisite: Sociology S210. Comparative analysis of concepts of social systems with a special account of conflict theory and functionalist approaches to the subject. Examination of problems of development, modernization and social change in a general theoretical framework. Comparative analysis of trends of development in the West, the Soviet Union and Eastern Europe, and the Third World nations. (6 credits) NOTE A/See § 200.1

SOCIOLOGY S457
Crime and Justice in Society
Prerequisite: Sociology S210. This course will focus on the theories and methods developed in criminology and penology since their modern development beginning with the 19th century. Sociological definitions of crime and the interplay between individual autonomy and communal controls will be analysed. (6 credits) NOTE A/See § 200.1

SOCIOLOGY S458
The Sociology of Sex Roles
Prerequisite: Sociology S210. This course will focus on sociological aspects of sex roles. Modern social trends will be analysed, with special attention to emerging egalitarian patterns and changes in the socio-economic system. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credit in the Women's Studies programme.

SOCIOLOGY S470
Canadian Social Structure
Prerequisite: Sociology S210. This course will focus on institutional patterns, with particular attention to the system of social stratification and industrial organization. Elements of differential structure, with special reference to Que- bee society will be interpreted a) from the historical perspective of modernizing development, and b) within the context of the North American system. (3 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Canadian Studies Programme.

SOCIOLOGY S471
Quebec Society
Prerequisite: Second year standing. The course focuses on the nature of traditional society and the social forces within Quebec society since the Second World War. It will examine conflicting historical views on Quebec that are relevant to contemporary issues: the consequences of the conquest; the nature of Confederation; and the nature of nationalism and the nation state. Special attention is paid to the language issue, both federally and within Quebec. (6 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Canadian Studies Programme.

SOCIOLOGY S472
Social Structure of the Soviet Union and Eastern Europe
Prerequisite: Sociology S210. The process of modernization in Russia and Eastern Europe under the socialist order. Within this context, the socialist model will be considered as a variant of "late" modernization, against the background of the Western entrepreneurial experience. A comparative analysis of the Soviet and Yugoslav industrial organization will be approached in terms of (1) historical continuities within each system, and (2) general patterns of socialist industrialism. (3 credits) NOTE A/See § 200.1

SOCIOLOGY S481
Honours Seminar
Prerequisite: Honours standing in their final year or permission of the Department. Students engage in a critical study of major sociological work according to their interests. Before the end of the academic year a research paper must be completed and accepted by the Department. (6 credits) NOTE C/See § 200.1

SOCIOLOGY-HISTORY S493
History and Sociology
Prerequisites: An introductory course in History and in Sociology, and second or third year standing. An exploration of the relationships between historical and sociological approaches to the description and analysis of social conditions and social events, paying special attention to questions of methodology and conceptualization. (6 credits) NOTE A/See § 200.1
NOTE: This course may be counted for credits in either History or Sociology. Students who have taken History-Sociology S456 may not take this course for credits.

SOCIOLOGY S494
Special Seminar A
Prerequisite: Sociology S210. Registration by permission of the Department. Subject matter will vary from year to year to take advantage of the special interests of the seminar leader. This course will provide opportunities to senior students for discussion and advanced study. (6 credits) NOTE C/See § 200.1
SOCIOL OGY S495
Special Seminar B
Prerequisite: Sociology S210. Additional prerequisites may be added according to subject matter. Registration by permission of the Department. Subject matter will vary from year to year to take advantage of the special interests of the seminar leader. This course will provide opportunities to senior students for discussion and advanced study. (6 credits) NOTE C/See § 200.1

SOCIOL OGY S496
Special Seminar
Prerequisite: Permission of the Department. A student repeating Sociology S494 or S495 registers for credits under Sociology S496. (6 credits) NOTE A/See § 200.1

SOCIOL OGY S497
Special Seminar C
Prerequisite: Sociology S210. Registration by permission of the Department. Subject matter will vary from year to year to take advantage of the special interests of the seminar leader. This course will provide opportunities to senior students for discussion and advanced study. (3 credits) NOTE C/See § 200.1

SOCIOL OGY S498
Special Seminar D
Prerequisite: Sociology S210. Additional prerequisites may be added according to subject matter. Registration by permission of the Department. Subject matter will vary from year to year to take advantage of the special interests of the seminar leader. This course will provide opportunities to senior students for discussion and advanced study. (3 credits) NOTE A/See § 200.1

SOCIOL OGY S499
Special Seminar
Prerequisite: Permission of the Department. A student repeating Sociology S497 or S498 for a second time registers for credits under Sociology S499. (3 credits) NOTE A/See § 200.1

41.21.3 Anthropology

41.21.4 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 41.3

The superscript indicates credit value.

60 BA Honours in Anthropology

Year I
6 Anth S211
6 Chosen from Ling S221, Int St/Geog S212, Int St/Anth S333, Soc 210
6 Chosen from Soc S241, S420, S440, S444, S445, S455, S471

Year II
6 Anth S434
12 Chosen from Anth S425, S458, S459, S461

Year III
6 Anth S499
12 Chosen from Anth S421, S462, S464, S465, S466, S467, S468
6 Anth Elective credits

Students must take Soc S210 in year I if they do not have CEGEP equivalent.

42 BA Major in Anthropology

6 Anth S211
6 Chosen from Ling S221, Int St/Geog S212, Int St/Anth S333, Soc S210
6 Chosen from Soc S241, S420, S440, S444, S445, S455, S471
6 Anth S434
6 Chosen from Anth S425, S458, S459, S461
6 Chosen from Anth S421, S462, S464, S465, S466, S467, S468
6 Anth Elective credits

30 Minor in Anthropology

12 Anth S211, S434
18 Chosen from A. Anth S425, S458, S459, S461 B. Anth S421, S462, S464, S465, S466, S467, S468

*At least 6 credits must be chosen in both A and B.
ANTHROPOLOGY S211 Introduction to Anthropology

This course deals with the evolution of man and his culture during prehistory, the differentiation of races, family and kinship structures in simple and complex societies, and the religious beliefs and practices of ancient and modern primitives in selected parts of the world. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S212 Peasants and Proletarians

This course will examine the social, economic and political organization of peasant societies in Old and New World environments. It will include a discussion of problems of ideological, religious and artistic development and analyze tendencies toward proletarianization in the context of both external and internal forces. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S213 Magic, Science and Religion

A comparative study of beliefs, ritual and ceremony in tribal, peasant and modern societies. Emphasis will be upon the interrelations of techno-economic, social and ideological aspects. Special emphasis will be given to the anthropological approach to religion. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S214 Native Societies and Cultures of North America

Prerequisite: Anthropology S211 or permission of the Department. A study of the development of traditional cultures, in sub-Saharan Africa. Emphasis will be upon the interrelations of techno-economic, social, structural and ideological aspects, with considerable attention to recent and prospective changes. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S215 Chinese Culture and Society

Prerequisite: Anthropology S211 or permission of the Department. A study of the development of these cultures from their earliest manifestation to the present. Emphasis will be upon the interrelations of techno-economic, social, structural and ideological aspects, with considerable attention to recent and prospective changes. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S216 Kinship, Society and the State

Prerequisite: Anthropology S211 or permission of the Department. A study of the development of these cultures from their earliest manifestation to the present. Emphasis will be upon the interrelations of techno-economic, social, structural and ideological aspects, with considerable attention to recent and prospective changes. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S217 Introductory Ethnography

A course dealing with the evolution of man and his culture during prehistory, the differentiation of races, family and kinship structures in simple and complex societies, and the religious beliefs and practices of ancient and modern primitives in selected parts of the world. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S218 Native Societies and Cultures of India

Prerequisite: Anthropology S211 or permission of the Department. A study of the development of these cultures from their earliest manifestation to the present. Emphasis will be upon the interrelations of techno-economic, social, structural and ideological aspects, with considerable attention to recent and prospective changes. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S219 Peasants and Proletarians

A course dealing with the evolution of man and his culture during prehistory, the differentiation of races, family and kinship structures in simple and complex societies, and the religious beliefs and practices of ancient and modern primitives in selected parts of the world. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S220 History of Anthropological Thought

A course dealing with the evolution of man and his culture during prehistory, the differentiation of races, family and kinship structures in simple and complex societies, and the religious beliefs and practices of ancient and modern primitives in selected parts of the world. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S221 Peoples and Cultures of Africa

A course dealing with the evolution of man and his culture during prehistory, the differentiation of races, family and kinship structures in simple and complex societies, and the religious beliefs and practices of ancient and modern primitives in selected parts of the world. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S222 Native Societies and Cultures of Japan and Korea

A course dealing with the evolution of man and his culture during prehistory, the differentiation of races, family and kinship structures in simple and complex societies, and the religious beliefs and practices of ancient and modern primitives in selected parts of the world. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S223 Introduction to Archaeology

An introduction to archaeology of the prototypes of the Mediterranean world. Special emphasis will be given to the anthropological approach to archaeology. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S224 Native Societies and Cultures of the Mediterranean Basin

An introduction to archaeology of the prototypes of the Mediterranean world. Special emphasis will be given to the anthropological approach to archaeology. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S225 Native Societies and Cultures of the Near East

An introduction to archaeology of the prototypes of the Mediterranean world. Special emphasis will be given to the anthropological approach to archaeology. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S226 Native Societies and Cultures of the Far East

An introduction to archaeology of the prototypes of the Mediterranean world. Special emphasis will be given to the anthropological approach to archaeology. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S227 Native Societies and Cultures of the Pacific

An introduction to archaeology of the prototypes of the Mediterranean world. Special emphasis will be given to the anthropological approach to archaeology. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S228 Native Societies and Cultures of the New World

An introduction to archaeology of the prototypes of the Mediterranean world. Special emphasis will be given to the anthropological approach to archaeology. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S229 Native Societies and Cultures of the Old World

An introduction to archaeology of the prototypes of the Mediterranean world. Special emphasis will be given to the anthropological approach to archaeology. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S230 Native Societies and Cultures of the American Continents

An introduction to archaeology of the prototypes of the Mediterranean world. Special emphasis will be given to the anthropological approach to archaeology. (6 credits) NOTE A/See § 200.1
tive changes. (3 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Asian Studies Programme.

ANTHROPOLOGY S467
Peoples and Cultures of Southeast Asia
Prerequisite: Anthropology S211 or registration in a Majors or Honours programme in Sociology. This course will deal with the development of these cultures from their earliest manifestation to the present. Emphasis will be upon the interrelations of techno-economic, social structural and ideological aspects, with considerable attention to recent and prospective changes. (3 credits) NOTE A/See § 200.1
NOTE: This course may be taken for credits in the Asian Studies Programme.

ANTHROPOLOGY S468
Peoples and Cultures in the Caribbean
Prerequisite: Anthropology S211 or its equivalent. This course will examine the cultures of the Caribbean region in the light of colonization, slavery and plantation systems. It will include a discussion of African, Asian and European influences, family and household forms, colour and class, religion and the process of creolization. Current problems of political independence, economic dependence and the consequences of tourism will be given special attention. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S494
Special Seminar
Prerequisite: Six credits in Anthropology or permission of the Department. Subject matter will vary from year to year to take advantage of the special interests of the seminar leader. This course will provide opportunities to senior students for discussion and advanced study. (6 credits) NOTE A, C/See § 200.1

ANTHROPOLOGY S495
Special Seminar
Prerequisite: Permission of the Department. A student repeating Anthropology S494 registers for credits under Anthropology S495. (6 credits) NOTE A/See § 200.1

ANTHROPOLOGY S497
Special Seminar
Prerequisite: Twelve credits in Anthropology or permission of the Department. Subject matter will vary from year to year to take advantage of the special interest of the seminar leader. This course will provide opportunities to senior students for discussion and advanced study. (3 credits) NOTE A, C/See § 200.1

ANTHROPOLOGY S498
Special Seminar
Prerequisite: Permission of the Department. A student repeating Anthropology S497 registers for credits under Anthropology S498. (3 credits) NOTE A/See § 200.1

ANTHROPOLOGY S499
Honours Essay
Prerequisites: Third year standing in Honours Anthropology. Under the supervision of an Anthropology staff member, the student will prepare an Honours essay on a subject chosen in consultation with, and approved by, the professor. (6 credits)
# Loyola Faculty of Arts and Science

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- [51.26] DEPARTMENT OF THEOLOGICAL STUDIES
The Faculty of Arts and Science offers programmes leading to a BA or a BSc. The Faculty is organized in three areas: Humanities, Natural Science, and Social Science. There is further an Interdisciplinary Centre, with its own programmes, which operates within each of the areas and between them.

The Humanities Area groups the following departments: Classics, Communication Studies, English, French Studies, History, Interdisciplinary Studies, Modern Languages and Linguistics, Philosophy, Theological Studies. It also offers programmes in Library Studies.

The Natural Science Area groups the following departments: Biology, Bio-Physical Education, Chemistry, Computer Science, Geology (and Geography), Interdisciplinary Studies, Mathematics, Physics, Psychology. It also offers programmes in Community Nursing and Health Education.

The Social Science Area groups the following departments: Economics, Interdisciplinary Studies, Political Science, Psychology, Sociology. It also offers a programme in Andragogy.

In the three areas, the Faculty offers a variety of programmes to meet the varied needs, interests, and goals of students.

The following pages describe the various programmes offered, department by department. Students intending to register in a programme should consult with the relevant department.

It may be helpful to have a general definition of the terms as they are used in Quebec, and applied in Concordia.

Credit: One credit represents 45 hours of student work, either in lectures, labs, or study. A typical 1-semester course will give 3 credits. 3 hours of lecture per week plus 6 hours of personal work per week, over a 15-week period.

Honours: A programme which consists of a minimum of 60 credits in a discipline or field, with superior performance being required to enter and remain in the programme, the precise level of such performance to be determined by Senate. Additional requirements may be found under the individual department listings of Honours programmes. It is recognized that “field” may be interpreted as two separate disciplines having a rational relationship (e.g., Philosophy and Religion) or an interdisciplinary field (e.g., Urban Studies). In most cases students who wish to pursue graduate studies will require an Honours programme.

Specialization: A programme which consists of a minimum of 60 credits in a discipline or field, without a performance requirement. Students who are interested in subsequent “classification” by the Government may be advised to take a Specialization or Honours programme.

Major: A programme which consists of a minimum of 36 credits in a discipline or field. A Major provides solid preparation in a chosen area.

Minor: A programme which consists of a minimum of 24 credits in a discipline. A Minor programme should provide the student with a basic introduction to a chosen area, and introduce him to the methodology and key insights proper to that area.

Certificate: A programme which consists of a minimum of 30 credits. A Certificate programme may be used as a component of an Honours, Specialization, or Major programme.

Combinations of Major and Minor programmes and of Certificates are possible. However, no Bachelor degree will be granted without a concentration (Major, Specialization, or Honours) in some area.

Some departments offer joint Honours programmes, and joint Specialization programmes.
# 51.2 Admission Requirements

General requirements are listed in § 13. Specific requirements for admission to various programmes leading to the degree of Bachelor of Arts and Bachelor of Science are listed below. Science students lacking one or more of these prerequisites may be admitted but they must take these courses in addition to their programme of studies. Arts students may take these prerequisites as credits within their programme of studies.

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<th>Profile</th>
<th>CEGEP Requirements</th>
<th>Loyola Equivalents</th>
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<td>2 Chem</td>
<td>Chem 210</td>
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<td>1 Bio</td>
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<td>Bio-Physical Education</td>
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<td>1 Bio</td>
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<td>Chemistry</td>
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<td>2 Phys</td>
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<td>Community Nursing</td>
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<td>1 Year practice</td>
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<td>Computer Science</td>
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<td>Geology</td>
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<td>2 Phys</td>
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<td>Mathematics (BSc)</td>
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<td>2 Phys</td>
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<tr>
<td>Psychology (BSc or BA)</td>
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<td>1 Math</td>
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<td>1 Bio</td>
<td>Bio 201</td>
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<td>1 Psyc</td>
<td>Psyc 201</td>
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</tbody>
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All programmes leading to a BA require the D.E.C.

## Evening and Summer Programmes

Courses are given in the evening and during the summer for students following programmes on a part-time basis. With permission of the Chairman these courses may be open to full-time day students. Part-time students following programmes in the evening and during the summer are governed by the same administrative structures, academic regulations, admission policies and programme requirements which apply to full-time day students.

Supervision of the academic programmes of part-time students is the responsibility of the Chairman of the department of the student's field of specialization. However, an academic adviser is available during the evening hours, who may act as liaison between part-time evening students and chairmen. Mr. W. J. Cozens, formerly Assistant to the Director of the Loyola Evening Division before its integration with the Day Division, will provide this liaison. His office is located in the Administration Building (Room 116) and will be open from 1 p.m. - 9 p.m. on Monday to Thursday and from 9 a.m. - 5 p.m. on Fridays. Information concerning registration and graduation procedures will also be available from Mr. Cozens.

For full details of courses actually offered in 1977-78, students are advised to request individual brochures from the departments in which they are interested.

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LOYOLA FACULTY OF ARTS AND SCIENCE
51.2 ADMISSION REQUIREMENTS
51.3 Andragogy

Coordinator:
D. J. POTVIN

51.3.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

90 BA Major in Andragogy
42 And Elective credits
48 Elective credits

51.3.2 ANDRAGOGY

The Bachelor of Arts with a Major in Andragogy is awarded after the completion of 90 credits, 42 of which are in Andragogy and 48 of which are electives.

The Certificate in Andragogy is awarded after the completion of 30 credits including: Introduction to Adult and Continuing Education, Andragogy L200; Foundations of Adult Experience, Andragogy L401; Curriculum Development for Continuous Learning, Andragogy L301; The Evaluation of Adult Learning, Andragogy L303.

The electives may be chosen from existing courses offered by the various academic departments provided that these courses have a practical or theoretical application to Adult Education. All electives must be approved by the Coordinator of the Programme. Registration in any Andragogy course is restricted to those who are actively engaged in the administration or teaching of adult learners.

Andragogy L200 is a prerequisite to all other courses in Andragogy.

51.3.3 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.5.

ANDRAGOGY L200
Introduction to Adult and Continuing Education

The course is designed to introduce students to basic concepts and principles of andragogy; to give an overview of the current field of adult education, its history, origins, and philosophy; and to provide an experience in some collaborative practices of adult education.

(6 credits)
NOTE: This course is a prerequisite to all other courses in Andragogy.

ANDRAGOGY L201
Techniques and Methods in Adult Education

The purpose of the course is to explore a variety of techniques and methods appropriate for use in adult programmes, and to provide an understanding of their usefulness within the context of adult educational principles. (3 credits)

ANDRAGOGY L209
(Also given as Health L209)
Personal Interrelations

This course is designed to provide an orientation to the field of interpersonal relationships and human awareness, focusing particularly on relating to and working with other people. Concepts of personal growth and development will be highlighted. Conducted through weekly seminars. (3 credits)

ANDRAGOGY L301
Curriculum Development for Continuous Learning

The course will examine the philosophical and psychological underpinnings of the different models of adult curriculum planning. Students will have the opportunity to plan, carry out and evaluate a learning episode in order to evaluate the usefulness of a given model to their own planning style. (3 credits)
ANDRAGOGY L303
The Evaluation of Adult Learning
Selected evaluation concepts and techniques and an indication of how they may be used to develop, improve and assess an adult education course of instruction will be emphasized. Attention will be given to evaluation techniques that will provide the information necessary to improve a course of instruction while it is being planned and conducted. (3 credits)

ANDRAGOGY L309
Media Utilization
A previous course in curriculum development and techniques and methods of teaching is desirable prior to entrance. This course is designed for adult educators to learn the application and usage of all audio-visual equipment and to plan, design, produce, evaluate and select audio-visual educational materials relating to the educational process. As much practical experience as possible will be attempted. (3 credits)

ANDRAGOGY L320
(Also given as Bio-PE L484 and Health L320, Nursing L320)
Interviewing Techniques and Counselling Concepts
Prerequisite: Andragogy L209 or equivalent. A course in which the student examines the dynamics of helping interviews, models of human effectiveness, and theories of counselling. The variety of issues to be covered include the enhancement of specific skills through different training experiences, a proper emphasis on self-understanding, an awareness of the role of philosophy, ethical standards and research. This course demands a high level of observation, participation and involvement from each student. (6 credits)

ANDRAGOGY L400
Selected Topics in Andragogy
The student will pursue an area of special interest under supervision. (6 credits)

ANDRAGOGY L401
Foundations of Adult Experience
The basic theme of the course will be the recognition of adulthood as a stage in the life process which has its own unique dynamics, the understanding of which is a precursor to the development of curricula and pedagogical techniques in the field of adult and continuing education. Following a review of physical cognitive and affective processes in human development from infancy through adolescence, the course will focus on adult experience attempting to delineate the continuities and discontinuities of those processes. (3 credits)

ANDRAGOGY L408
(Also given as Bio-PE L486 and Health L408)
Group Structure and the Role of the Community Worker
The course is developed to assist volunteers, interested citizens, street workers, and individuals with no formal health training, but working as a part of a multidisciplinary team, to identify their roles in order to play a more effective part as a community worker. Assignments will be directed toward practical applications of field work to problem solving in a field of their choice: i.e., post-retirement, rehabilitation of drug addicts and alcoholics, single parents, etc. (6 credits)

ANDRAGOGY L421
Introduction to Research in Adult Education
The course is designed to provide an introduction to research in education. The conceptualization of a research problem, the development of hypotheses and the measurement of variables through the use of both descriptive and inferential statistics will be included. Use of computer terminals will be made for the solution of some problems. (3 credits)

ANDRAGOGY L423
Research Design in Adult Education
This course will consist of an experience in developing a research proposal. The statement of the problem, the review of the literature, the formulation of hypotheses, the design, the instrumentation, sampling, data collection, data analysis, and the significance of the study will be emphasized. The reading of recent research reports in adult education will be required. (3 credits)

The following course is a university level course which was offered in the year indicated but which did not appear in the official Calendar.

1976-77
ANDRAGOGY 500B
Research Design in Adult Education (3 credits)
51.4. Department of Biology

Associate Professor and Chairman
R. T. CRONIN, S.J.

Professor
S. P. DRUMMOND, S.J.

Associate Professors
K. S. DHINDSA
N. N. KAPOOR
R. G. OMARAN

Assistant Professors
P. ALBERT
C. BECKMAN
B. S. MANGAT
J. D. McLAUGHLIN
P. WIDDEN

51.4.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

90 BSc Honours in Biology

Year I
6 Bio 311A/B^1, 321A/B^1
9 Bio Elective credits
6 Chem 326A^1, 328B^1
3 Math 301A/B^1
6 Elective credits

Year II
18 Chosen from Bio 410Z^6 or 440Z^6;
430Z^6, 435A^6, 437B^6
6 Bio Elective credits
6 Elective credits

Year III
6 Bio 590Z^6
18 Bio Elective credits
6 Elective credits

90 BSc Specialization in Biology

Year I
6 Bio 311A/B^3, 321A/B^3
9 Bio Elective credits
6 Chem 326A^3, 328B^3
3 Math 301A/B^3
6 Elective credits

Year II
15 Bio 410Z^6 or 440Z^6; 430Z^6, 435A^6
3 Bio Elective credits
12 Elective credits

Year III
18 Bio Elective credits
12 Elective credits

69 BSc Specialization in Biology and Psychology

Year I
12 Psych L202^5, L203^5, L205^5
6 Chem 326A^5, 328B^5

3 Bio 321A/B^6

Year II
12 Bio 420Z^6, 430Z^6

Year III
12 Bio 440Z^6, 524Z^6

*NOTE: Of these electives, 12 credits shall be 300 or 400 level courses.

36 Major Biology Component

27 Bio Elective credits (chosen according to the other Major)
6 Chem 326A^3, 328B^3
3 Math 301A/B^3

36 Major-Minor in Biology

21 Bio 311A/B^3, 321A/B^3, 410Z^6 or 440Z^6;
430Z^6, 435A^3
6 Bio Elective credits
6 Chem 326A^3, 328B^3
3 Math 301A/B^3

24 Minor in (Science) Biology

6 Bio 311A/B^3, 321A/B^3
18 Bio Elective credits

24 Minor in (Science) Zoology

3 Bio 321A/B^3
21 Bio Elective credits (in Zoology, 6 of which may be general)

24 Minor in (Science) Botany

3 Bio 311A/B^3
21 Bio Elective credits (in Botany, 6 of which may be general)

24 Minor in (Non-science) Biology

24 Bio 300Z^6, 304Z^6, 331A^6, 333B^6,
335A/B^6, 341A^6
51.4.2 DEPARTMENT OF BIOLOGY

Bachelor of Science Degree

Students registering for the BSc in this Department should have the CEGEP Diploma in Science, or its equivalent, including one course in biology, and two each in chemistry, physics and mathematics.

To complete the requirements for the BSc, they will take a minimum of 90 credits. Each credit represents a minimum of 45 hours, spread across the total activity of lectures, laboratories, seminars and private study. Sixty (60) of these must be taken from courses offered by this Department.

Programmes

Students will register in the programme of their choice, after consultation with members of the Department faculty and approval of the Department Chairman.

The Department offers the following programmes:

- Specialization — consists of a minimum of 60 credits, including a core of 48 credits and 12 elective credits from specialized areas. The remaining 30 credits may be elected from any department and any faculty.

- Honours — consists of a minimum of 72 credits, including a core of 48 credits and 24 elective credits from specialized areas. The remaining 18 credits may be elected from any department and any faculty.

- Major—Minor — consists of a minimum of 36 specified credits; a further 24 specified credits will be taken in another department, and the remaining 18 from any department and any faculty. A joint programme may be arranged upon consultation with the respective faculty members and approval of the respective chairmen involved.

- Minor — consists of 24 specified credits, taken in conjunction with programmes in other departments or faculties. Any existing prerequisites must be satisfied.

51.4.3 COURSE DESCRIPTIONS

BIOL OGY 201A/B
Introductory Biology

A survey of living organisms with their underlying structures, functions, and relationships, in both the plant and animal kingdoms, as they relate to and help in an understanding of the biology of man. Lectures: 3 hours per week for one term. Laboratory: 3 hours per week for one term. (3 credits)

NOTE: This course may not be taken for university credit by Biology students.

BIOL OGY 300Z
Fundamentals of Human Biology

Prerequisites: None. A series of lectures, demonstrations and seminars designed to provide non-biologists with a general survey of the fundamental principles of life, with special emphasis on the structures and functions of man. Lectures: 3 hours per week for two terms. (6 credits)

BIOL OGY 301A/B
Elementary Techniques

A laboratory course, supplementary to Bio 300Z or 304Z, for non-Biologists who wish to quality for Bio 311A/B or 321A/B to fulfill a Minor programme. It consists of the laboratory section only of Bio 201A/B and it is designed to acquaint the student with the use of the microscope, dissecting and drawing techniques, as well as with representative plant and animal forms and structures. Laboratory only: 3 hours per week for one term. (1 credit)

BIOL OGY 304Z
Concepts of Modern Biology

Prerequisites: None. Designed for those with little or no knowledge of biology, this course will introduce non-science students to the diversity of plant and animal life, and to the basic functions of living organisms in relation to environment, reproduction, heredity and evolution. Lectures: 3 hours per week for two terms. (6 credits)

BIOL OGY 311A/B
Introductory Botany

Prerequisites: CEGEP sciences. A brief survey of the distribution, morphology and development of selected representatives from various plant groups. Plant life-cycles, certain physiological aspects of plant growth and development and relation of plants to human affairs. Lectures: 3 hours per week for one term. Laboratory: 3 hours per week for one term. (3 credits)

BIOL OGY 315A
Microbiology I

Prerequisites: CEGEP sciences. Introduction to micro-organisms. History of micro-biology. Structure of viruses, bacteria and fungi. Taxonomy of micro-organisms. Brief discussion of genetics of micro-organisms. Laboratory will illustrate lecture material and introduce methods of handling micro-organisms. Lectures: 2 hours per week for one term. Laboratory: 3 hours per week for one term. (3 credits)

BIOL OGY 317B
Microbiology II

Prerequisite: Bio 315A. Designed to continue from Bio 315A. Growth, nutrition and metabolism of micro-organisms. Special emphasis on metabolic processes unique to micro-organisms (fermentations, oxidation of inorganic compounds, anaerobic respiration, microbial photo-
COURSE DESCRIPTIONS

DEPARTMENT OF BIOLOGY: ARTS AND SCIENCES

BIOLOGY 321A/B
Introductory Zoology
Prerequisites: CEGEP sciences. A survey of the major animal phyla. The course will concentrate on the structure and function of representative animals, together with some aspects of their behaviour. Lectures: 3 hours per week for one term. Laboratory: 3 hours per week for one term. (3 credits)

BIOLOGY 327A
Entomology I
Prerequisites: CEGEP sciences. 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, including growth and metamorphosis. Other topics such as adaptations for aquatic life, social behaviour, etc. will also be discussed. Laboratories will begin with a field trip, the object of which will be to observe and collect various insect species. The remainder of the lab sessions will complement the lectures. Students are advised to begin an insect collection during the summer months preceding the course. Lectures: 2 hours per week for one term. Laboratory: 3 hours per week for one term. (3 credits)

BIOLOGY 329B
Entomology II
Prerequisite: Bio 327A. To the initiated student, this course will present an in-depth study of insect behaviour. Topics will include sensory physiology, insects and plants, light and sound production, population dynamics, insect ecology, etc. An attempt will be made throughout the course to establish a web of interrelationships between the structures and functions of various insect parts. Laboratories will involve the use of live animals and the student may be required to spend additional time for certain experiments. Lectures: 2 hours per week for one term. Laboratory: 3 hours per week for one term. (3 credits)

BIOLOGY 331A
Environmental Biology I
Prerequisites: None. 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. This course is open to the general student body. Lectures and tutorials: 3 hours per week for one term. (3 credits)

BIOLOGY 333B
Environmental Biology II
Prerequisites: None. Designed to follow Bio 331A, the course considers both natural and man-made ecological problems, including various aspects of pollution, resource and waste control vital for human survival as well as man's sociological responsibilities. Lectures, seminars and tutorials: 3 hours per week for one term. (3 credits)

BIOLOGY 335A/B
Elementary Genetics
Prerequisites: None. A survey of classical and contemporary developments in the study of heredity with particular attention to human synthesis). Their importance in medicine and industry, and their role in biogeochemical processes. Lectures: 2 hours per week for one term. Laboratory: 3 hours per week for one term. (3 credits)

BIOLOGY 341A
Fundamental Nutrition
Prerequisites: None. This course deals with food composition (including vitamins, minerals), its absorption and utilization, the roles of excesses, stress, microbes, toxins, preservatives, residues, drugs, food technology and diets, malnutrition, obesity, aging and other topics. Laboratory will include seminars, movies and projects. Lectures: 2 hours per week for one term. Laboratory: 3 hours per week for one term. (3 credits)

BIOLOGY 343B
Applied Nutrition
Prerequisite: Bio 341A. This course describes the needs of individuals in different stages of development, with particular emphasis on current problems in human nutrition. Identification of sources of food-borne diseases and methods of prevention and control will also be treated. Laboratory will include group discussion, speakers, movies, projects. Lectures: 2 hours per week for one term. Laboratory: 3 hours per week for one term. (3 credits)

BIOLOGY 410Z
Plant Physiology
Prerequisites: Bio 311A/B. A study of vital plant processes with emphasis on the metabolism of carbohydrates, proteins and lipids (membrane characteristics and permeability, enzymes, light and photosynthesis, respiration and fatty-acid oxidation) laboratory experiments cover a broad spectrum of basic physiological concepts and techniques: calorimetry, chromatography, extraction analysis, etc. Lectures: 2 hours per week for two terms. Laboratory: 3 hours per week for two terms. (6 credits)

BIOLOGY 415A
Biology of Non-Vascular Plants
Prerequisites: Bio 311A/B. A survey of the taxonomy, morphology, life cycles and evolution of representatives of the lower plants (algae, mosses, liverworts). Lectures: 2 hours per week for one term. Laboratory: 3 hours per week for one term. (3 credits)

BIOLOGY 417B
Biology of Vascular Plants
Prerequisites: Bio 311A/B. Designed to follow Bio 415A, the course surveys the taxonomy, morphology, life cycles and evolution of the higher plants (ferns, seed plants). Lectures: 2 hours per week for one term. Laboratory: 3 hours per week for one term. (3 credits)

BIOLOGY 420Z
Comparative Vertebrate Anatomy
Prerequisites: Bio 321A/B. A comprehensive study of the development and structure of the systems of a representative series of vertebrates from a comparative and evolutionary point of view, with emphasis on the mammals. Laboratory: survey and dissection of representatives of the principal vertebrate classes. Lectures: 3 hours per week for two terms. Laboratory: 3 hours per week for two terms. (6 credits)

BIOLOGY 422Z
Invertebrate Zoology
Prerequisite: Bio 321A/B. A comprehensive survey designed to provide a detailed understanding of form and function within the inverte-
brite phyta. Additional topics will include a discussion of current evolutionary theories regarding invertebrates, reproductive and social behavior, and ecology, especially that of local fauna. Lectures: 2 hours per week for two terms. Laboratory: 4 hours per week for two terms, and a Fall field trip. (3 credits)

BIOLOGY 424Z
Vertebrate Embryology
Prerequisites: Bio 321A/B, Chem 326A, 328B. A detailed study, from a comparative point of view, of the developmental processes and organogenesis in representative vertebrate embryos, leading to an understanding of the structure and function of the human systems. Lectures: 2 hours per week for two terms. Laboratory: 3 hours per week for two terms. (6 credits)

BIOLOGY 430Z
General Genetics
Prerequisites: Bio 311A/B, 321A/B. A study of the principles and processes of plant, animal and human heredity from the classical foundations through the modern to the recent molecular developments; developmental and population genetics, and evolution. Laboratory: directed experiments with Drosophila and other organisms. Lectures: 2 hours per week for two terms. Laboratory: 3-6 hours per week for two terms. (6 credits)

BIOLOGY 431A
Cytology
Prerequisites: Bio 311A/B, 321A/B, or permission of the instructor. A study of plant and animal cells, their ultrastructures and organelles, and physiology, with microscopic and cytological techniques of analysis. Lectures: 2 hours per week for one term. Laboratory: 3 hours per week for one term. (3 credits)

BIOLOGY 433B
Cytogenetics
Prerequisites: Bio 431A, 430Z or permission of the instructor. A detailed study of plant and animal chromosomes, their structures and normal and abnormal behaviour; species evolution and preservation; various anomalies, ploidy, heterosis, apomixy; human cytogenetics. Lectures: 2 hours per week for one term. Laboratory: 4-6 hours per week for one term. (3 credits)

BIOLOGY 434Z
Ecology
Prerequisites: Bio 311A/B, 321A/B. A broad survey of theoretical ecology. Description of communities, their structures and functions, succession and climax. The ecosystem concept, energy flow and nutrient cycling within the ecosystem. Growth and regulation of populations. Interaction of the environment with populations and communities. Competition and the niche concept, systems analysis in ecosystems. Studies: 2 hours per week for two terms. Laboratory: directed projects and field trips. (6 credits)

BIOLOGY 435A
Cellular Metabolism I
Prerequisites: Bio 311A/B, 321A/B, Chem 326A, 328B. The course will deal with the simple metabolism of biomolecules in both plants and animals. A basic study of enzymes and their mode of action; nucleic acids and their role in protein synthesis. Distribution of organelles and their metabolism, cellular oxidations and energetics. Lectures: 3 hours per week for one term. (3 credits)

BIOLOGY 437B
Cellular Metabolism II
Prerequisite: Bio 435A. Designed to follow Bio 435A, the course examines the intracellular localization of enzymes, their activity and control from a comparative cellular basis; enzymes and their importance in intermediary metabolism. Membranes and cell wall synthesis; hormones and their mode of action. Nutritional requirements of organisms. Lectures: 2 hours per week for one term. Laboratory: 3 hours per week for one term. (3 credits)

BIOLOGY 440Z
Animal Physiology
Prerequisites: Bio 321A/B or permission of the Instructor. An integrated study of basic physiological phenomena of the vertebrate body, with emphasis on the human. The topics discussed include muscle function, nervous system, circulation, respiration, temperature regulation, digestion, metabolism, excretion, and endocrinology. Lectures: 2 hours per week for two terms. Laboratory: 3 hours per week for two terms. (6 credits)

BIOLOGY 461C
Plant Field Ecology
Prerequisites: Bio 311A/B. For a two-week period during August this course will be held at the Lacolle Centre. It will involve identification of local plant species, methods of sampling of communities, and examination of the pattern of plant communities in the area. Handling of data on populations and communities will be discussed as well as statistics on population distributions. A mixture of formal lectures, organized field studies and informal discussion. Students will be required to hand in a written report after the course has ended. (3 credits)

BIOLOGY 511A
Mycology
Prerequisite: Bio 315A. A detailed study of the morphology and taxonomy of the fungi. Emphasis will be placed on the ecological roles of various groups of fungi and on their economic importance; problems of phylogeny will also be discussed. Lectures: 2 hours per week for one term. Laboratory: 3 hours per week for one term, including field trips. (3 credits)

BIOLOGY 513B
Microbial Ecology
Prerequisite: Bio 315A. The course is designed to give an understanding of the environment in which microorganisms live, the structure of microbial communities, and the ways in which microbes interact during the processes involved in decomposition and nutrient cycling. Stress will be placed on the ecology of soil microorganisms, though aquatic communities will also be discussed. Lectures: 2 hours per week for one term. Laboratory: 3 hours per week for one term, including field trips. (3 credits)

BIOLOGY 515A
Plant Growth and Development
Prerequisite: Bio 410Z. Environmental approach to the study of plant growth, differentiation and morphogenesis; hormones and growth regulation; physiology of reproduction, maturation and senescence; temperature and light responses and related phenomena. Lectures: 2 hours per week for one term. Laboratory: 3 hours per week for one term. (3 credits)
BIOLOGY 517B  
Environment and Plant Growth  
Prerequisite: Bio 410Z. Examination of the response of selected plant groups to different environmental conditions. Studies will include particular plant responses to changes in temperature and light, water and mineral deficiencies. Lectures: 2 hours per week for one term. Laboratory: individual projects and seminars. (3 credits)

BIOLOGY 522Z  
General Parasitology  
Prerequisites: Bio 321A/B; Bio 422Z recommended. A study of the protozoan, helminth and arthropod parasites of man, domestic animals and wildlife. Special emphasis will be placed on the transmission of parasites with reference to the behaviour and ecology of both the host and the parasite. Additional topics will include the evolution of the parasitic way of life, subsequent adaptations and various aspects of the host-parasite relationship. Laboratory: techniques for parasite recovery, basic staining and histological techniques, fecal analysis, identification of parasitic worms, infection of experimental animals. Lectures: 2 hours per week for two terms. Laboratory: 3 hours per week for two terms. (6 credits)

BIOLOGY 524Z  
Neurology  
Prerequisite: Bio 420Z. A study of the anatomy and physiology of the nervous systems of vertebrates, especially of the mammals and man. Lectures: 2 hours per week for two terms. Laboratory: 3 hours per week for two terms. (6 credits)

BIOLOGY 527A  
Histology  
Prerequisite: Bio 420Z or equivalent or permission of the instructor. A comparative study of the microscopic characteristics of cells, tissues and organ systems of the vertebrates at the histological and cellular levels. Lectures: 2 hours per week for one term. Laboratory: 3 hours per week for one term. (3 credits)

BIOLOGY 529B  
Microscopical Techniques  
Prerequisite: Bio 527A. Histological techniques involved in the preparation of various animal tissues for microscopic study; techniques of microscopy and some practical experience in photomicrography. Lectures: 1 hour per week for one term. Laboratory: 6 hours per week for one term. (3 credits)

BIOLOGY 531A/B  
Advanced Genetics  
Prerequisite: Bio 430Z. Directed readings and seminars in classical and contemporary genetics; designed to expose the student to research literature and problems, to probe in greater depth areas of particular interest, to develop a critical sense and deepen an understanding of past and current work in this field. Seminars: 3 hours per week for either term. (3 credits)

BIOLOGY 542Z  
Comparative Animal Physiology  
Prerequisites: Bio 440Z or equivalent; Bio 437B or equivalent Biochemistry, or permission of the Instructor. The course is designed on a function-system basis, and deals with a comparative study of physiological processes in animals, their behaviour and physiological adaptations. Lectures and seminars: 2 hours per week for two terms. Laboratory: individual projects in special topics. (6 credits)

BIOLOGY 565A  
Limnology  
Prerequisite: Bio 434Z. A survey course covering physical and chemical properties of freshwater, the biotic communities of lakes and running water. Lectures: 3 hours per week for one term. (3 credits)

BIOLOGY 567B  
Fish Biology  
Prerequisite: Bio 420Z. A study of the physiological and anatomical characteristics of fish, their feeding and mating behaviour, and special adaptations. Lectures: 3 hours per week for one term. (3 credits)

BIOLOGY 590Z  
Problems in Biological Research  
Prerequisite: candidacy for the Honours degree. Lectures and seminars on methods of researching scientific literature, the planning, conduct, writing and reporting of research. The core of the course will be a project selected by the student in consultation with and conducted under the supervision of a faculty member of the department (6 credits)
51.5 Department of Bio-Physical Education

Associate Professor and Chairman
E. F. ENOS
Associate Professor
G. C. KEILTY
Assistant Professors
G. T. MORAN
B. PETRIE

51.5.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

90 BSc Specialization in Bio-Physical Education

| Year I | 12 Bio-PE L201, L211, L213, L261 |
|        | 9 Bio 321A, Chem 326A, 328B |
|        | 9 Elective credits |
| Year II | 21 Bio-PE L310, (L331 OR L333), L351, L353, L355 |
|        | 9 Elective credits |
| Year III | 27 Bio-PE L401, L411, L412, L413, L415, L421, L451, L453, and one of the following: L462, L464, L466, L468 |
|        | 3 Elective credits |

90 BSc Major in Bio-Physical Education

| Year I | 12 Bio-PE L201, L211, L213, L261 |
|        | 9 Bio 321A, Chem 326A, 328B |
|        | 9 Elective credits |
| Year II | 18 Bio-PE L351, L353, L355, L357 |
|        | 18 Elective credits |
| Year III | 21 Bio-PE L411, L451, L453 |
|        | 21 Elective credits |

90 BSc Major in Bio-Physical Education with Bio-Chemistry Component

| Year I | 12 Bio-PE L201, L211, L213, L261 |
|        | 3 Elective credits |
| Year II | 16 Bio-PE L331 or L333, L351, L353, L355, L357 |
|        | 6 Chem 491A, 493B |
|        | 9 Elective credits |

WM. SELLERS
A. WRIGHT
Lecturer
R. DESJARDINS

24 Minor in Athletic Training

| Year I | 9 Bio 341A, L343B, Bio-PE L251 |
| Year II | 9 Phys 351A, Bio-PE L335, L337 |
| Year III | 6 Bio-PE L436 |

33 Certificate in Outdoor Education

| 6 Bio 331A, 333B |
| 6 Geol 201A, 203Y |
| 3 Geog L275 |
| 18 Bio-PE L370, L470, L472 |

24 Environment, Health and Adaptation Minor

This Minor has been developed especially for non-Science Majors. It is open to students from all Faculties.

| 3 Bio-PE L211 |
| 3 Bio 331A, or Bio 335B |
| 3 Phys 351A |
| 12 Bio-PE L331, L333, L490 |

Health Education

The courses listed below are offered through the Department of Bio-Physical Education in conjunction with Health Education.

Bio-PE L480, L481, L482, L483, L484, L486, L488

Recreation and Leisure Studies

The courses listed below are open to all students, in particular Bio-PE Students desiring an increased competency in the field of Recreation and Leisure Studies.

Bio-PE L241, L342, L426, L464

A BA programme in Recreation and Leisure Studies may be followed through the Centre for Interdisciplinary Studies. § 51.17.2
51.5.2 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.5.

BIO-PHYSICAL EDUCATION L201
Philosophical and Sociological Foundations of Health, Physical Education and Recreation

The course involves a study of the nature and meaning of health, physical education and recreation. Significant effects of philosophical tenets on the development of the disciplines are examined. Subject to critical analyses are the basic concepts of the philosophical schools of idealism, pragmatism and realism. The socializing effects of sports, physical education and recreational activities also are investigated. 

Lectures, Seminars & Field Study: 3 hours per week. (3 credits)

BIO-PHYSICAL EDUCATION L211
Introduction to Motor Learning

The course commences with a brief introduction to statistical methodology. Consideration is given to the capacities people have for processing information. It attempts to demonstrate how these capacities influence performance, the acquisition of skills and, in particular, sports skills. Also considered are the effects of the following factors: decision-making, information theory, reaction time, psychological refractory period, selective attention, memory and others. 

Lectures & Seminars: 3 hours per week. Labs: 2 hours per week. (3 credits)

BIO-PHYSICAL EDUCATION L213
Motor Learning and Human Performance

Prerequisite: Bio-PE L211 or consent of professor. The principle aim of this course is to examine in more depth the topics of learning. Major consideration is given to the effects that feedback and manipulation may have on the acquisition and improvement of sports skills in the performance. 

Lectures & Seminars: 3 hours per week. Labs: 2 hours per week. (3 credits)

BIO-PHYSICAL EDUCATION L241
Recreation and Leisure in Contemporary Society

The course provides a basis for understanding recreation and leisure as increasingly important aspects of our culture. In an era of rapidly changing life styles, with a high incidence of anxiety and frustration, the value of leisure is examined. The role of leisure and recreation in maintaining mental and physical health is presented. Topics discussed include: Education for leisure; the scope of recreation, work ethic, leisure ethic, the needs of leisure and recreation in satisfying man's needs, and leisure as an agent for change. 

Lectures & Seminars: 3 hours per week. (3 credits)

BIO-PHYSICAL EDUCATION L251
Sports Science

An introduction is provided to the science of sports. Various physiological parameters influencing and limiting activity are studied. The influence of personal characteristics, societal and other factors on human performance are investigated. (3 credits)

BIO-PHYSICAL EDUCATION L261
Principles and Techniques of Physical Education and Recreation Skills

An understanding is provided of skill development theories, practices and teaching sequences. Scientific principles of sport techniques are applied in activity periods. All popular North American team and individual sports are covered. To successfully complete the course, students must demonstrate a proficiency which will permit them to teach the skills involved in these sports. Labs: 12 hours per week. (3 credits)

BIO-PHYSICAL EDUCATION L310
Methods and Materials in Physical Education and Recreation

Prerequisites: Bio-PE L211, L213, L261. In the course, teaching is approached as a science. Consideration is given to the needs, interests and characteristics of elementary school children. Based on this, scientific teaching methods and materials most conducive to learning for this age group are examined. The latest modes of movement education are of major concern. Basic skills and the teaching sequences involved are reviewed. During laboratory sessions, students are afforded the opportunity to teach children and to analyze the effects of various methodological techniques. 

Lectures: 2 hours per week. Labs: 4 hours per week. (6 credits)

BIO-PHYSICAL EDUCATION L331
Health Science

The subject matter is approached with "health" viewed as the optimal functioning of the human organism. The course synthesizes and applies knowledge from biological, psychological and medical sciences to present the student with a comprehensive understanding of factors influencing personal health. Areas covered include hereditary considerations, growth and development patterns, human sexuality, nutrition, fitness, mental health, diseases, drugs, pathology and environmental ecology. 

Lectures: 3 hours per week. (3 credits)

BIO-PHYSICAL EDUCATION L333
Personal and Community Health Problems

The course examines causes, symptoms and proposes plausible steps which can be taken towards solving individual and community health problems. Consideration is given to alcoholism, drug abuse, mental illness, smoking, sex education, communicable and non-communicable diseases, pollution, industrial and occupational health hazards. 

Lectures: 3 hours per week. (3 credits)

BIO-PHYSICAL EDUCATION L335
Prevention of Athletic Injuries

An examination is undertaken of age, body structure, hereditary and acquired factors in relation to athletic injuries. Reviewed are injuries to the musculature, skeletal and other systems in specific sports and under various conditions. The effects of aerobic, anaerobic, flexibility and strength conditioning programmes in the prevention of traumatic sports injuries and chronic ailments are studied. Research findings are surveyed in the area of testing and fitting of equipment as they relate to injury prevention and safety. 

Lectures: 3 hours per week. Labs: 3 hours per week. (3 credits)

BIO-PHYSICAL EDUCATION L337
Emergency Care of Athletic Injuries

Prerequisites: Bio-PE L351 and L353. The course is concerned with emergency situations that may occur in athletics, physical education and recreation. Among the situations discussed are acute cardiac problems including angina
pectors, cardiopulmonary resuscitation and cardiac arrest, management of bleeding wounds, fractures, cerebro-vascular disorders, convulsive attacks, acute abdominal disorders, respiratory and musculoskeletal problems and victims, complications resulting from dehydration and heat stress, pulmonary problems including asthmatic attacks and asphyxiation. Techniques involved in rescue procedures related to accidents during outdoor activities are also examined. Lectures: 2 hours per week. Lab: 2 hours per week. Text: Grant & Murray; Emergency Care (3 credits)

BIO-PHYSICAL EDUCATION L342
Principles and Practices of Recreational Services

The course is concerned with the fundamental concepts governing the field of recreation. A thorough discussion of the many aspects of recreation programs in urban and rural settings including: active and social components, principles of leadership, supervision, evaluation, surveying interests, classification, co-ordination and other planning factors. Model recreational programs are surveyed in community, camp, school and rehabilitation centres. Lectures, Seminars & Field Study: 4 hours per week. (6 credits)

BIO-PHYSICAL EDUCATION L351
Structural Human Anatomy

The course is a study of gross and functional anatomy, with major emphasis on the skeletal, muscular and nervous systems. Lectures: 3 hours per week. Labs and Cadaver Demonstrations: 3 hours per week. (3 credits)

BIO-PHYSICAL EDUCATION L353
Human Physiology

Prerequisite: Bio-PE L321A and a university level chemistry course. The course analyzes the functional organization and integration of the muscular system and of the nervous and hormonal systems controlling movements in man. Due to the close relationships, the special senses and the reproductive systems also are examined in this course. Lectures: 3 hours per week. Labs: 3 hours per week. (3 credits)

BIO-PHYSICAL EDUCATION L355
Systemic Human Anatomy

Prerequisite: Bio-PE L351. The course is a study of the organ systems of the human body with major emphasis on the circulatory, respiratory, digestive and excretory, endocrine systems. Lectures: 3 hours per week. Labs and Cadaver Demonstrations: 3 hours per week. (3 credits)

BIO-PHYSICAL EDUCATION L357
Cardiovascular—Respiratory Physiology

Prerequisite: Bio-PE L353. The major concern of the course is to examine the functional organization and integration of the cardiovascular and respiratory systems which provide nutrients for man's energy metabolism. Related to this, the dynamics of metabolism processes, digestive and excretory systems also are analyzed. Lectures & Seminars: 3 hours per week. Labs: 3 hours per week. (3 credits)

BIO-PHYSICAL EDUCATION L370
Scientific Foundations of Outdoor Education and Recreation

The course examines outdoor recreational facilities and other outdoor settings as an extension of the classroom. The course is designed in terms of providing direct laboratory experiences for building concepts and developing a concern about man and his natural environment. The development of Outdoor Education and Recreation programmes are analyzed. The areas of health, physical education and recreation are used as the core of an interdisciplinary study of the outdoors. Subject to review are the areas concerning health, physical education and recreation including the effects of pollution, recreational and outdoor fitness activities; the teaching of science in the outdoors including: conservation, ecology of a woodland, pond and bog; study of plants and animals in their natural habitat; water resources; problems of erosion; rock and tree identification. Lectures, Seminars and Field Study: 6 hours per week. (6 credits)

BIO-PHYSICAL EDUCATION L393
Selected Topics in Bio-Physical Education
Prerequisite: Consent of professorial staff. This course is intended for current topics of interest in the field of Bio-Physical Education. The content and organisation of the course will depend upon the theme designated by the department, when the course is offered. The course will draw upon the expertise of individuals and visiting guest lecturers. (3 credits)

BIO-PHYSICAL EDUCATION L395
Selected Topics in Bio-Physical Education
Prerequisite: Consent of professorial staff. This course is intended for current topics of interest in the field of Bio-Physical Education. The content and organisation of the course will depend upon the theme designated by the department, when the course is offered. The course will draw upon the expertise of individuals and visiting guest lecturers. (3 credits)

BIO-PHYSICAL EDUCATION L397
Selected Topics in Bio-Physical Education
Prerequisite: Consent of professorial staff. This course is intended for current topics of interest in the field of Bio-Physical Education. The content and organisation of the course will depend upon the theme designated by the department, when the course is offered. The course will draw upon the expertise of individuals and visiting guest lecturers. (3 credits)

BIO-PHYSICAL EDUCATION L399
Selected Topics in Bio-Physical Education
Prerequisite: Consent of professorial staff. A student may repeat Bio-PE L399, provided that the content is different, by registering for credits under Bio-PE L395. (3 credits)

BIO-PHYSICAL EDUCATION L401
Adapting Corrective and Rehabilitative Physical Education and Recreation

Programmes and activities for individuals with physical and/or emotional disabilities are analyzed in the course. An exploration is conducted of the nature and causes of common handicaps including orthopaedic, cardiopathic, visual, auditory, mental retardation, cerebral palsy and general learning disabilities. Current adaptive, corrective and remedial techniques are reviewed in laboratory sessions, students are provided with the opportunity to teach special activities and exercises to handicapped children. Lectures: 2 hours per week; Labs: 4 hours per week. (3 credits)

BIO-PHYSICAL EDUCATION L411
Tests, Measurements and the Research Processes in Physical Education and Recreation
Prerequisites: Bio-PE L310 and a post secondary school math course, preferably Math 3102. The course provides an understanding of standardized tests utilized by professionals in the fields of health, physical education and Recreation. Procedures involved in data collection, interpretation and statistical methodology.
are analyzed. Lectures: 3 hours per week. Labs: 3 hours per week. (3 credits)

**BIO-PHYSICAL EDUCATION L412**
Advanced Methods and Materials in Physical Education and Recreation
Prerequisite: Consent of professorial staff. Teaching is approached as a science. The needs, interests and characteristics of adolescents and young adults are studied. Based on these factors, analysis of appropriate teaching methods for this age group are conducted. Advanced skills and the teaching sequences involved are reviewed. The application of principles of motor learning, skill testing, cinematography, closed-circuit television and other audio-visual aids in teaching and coaching is considered. In laboratory periods, students are given the opportunity to teach adolescents and young adults and to study the effect of various methodological techniques. Lectures: 2 hours per week. Labs: 4 hours per week. (6 credits)

**BIO-PHYSICAL EDUCATION L413**
Physical Education in the Early Childhood Curriculum I: Psycho-Motor Learning
The psychomotor domain of learning in young children is of major concern in this course. Principles of perceptual motor feedback processes are studied in detail. Application of these principles to motor learning in the early childhood curriculum is analyzed. The interrelations of cognitive and psychomotor development are studied for symbiotic cause and effect relationships. Lectures: 2 hours per week. Labs: 2 hours per week. (3 credits)

**BIO-PHYSICAL EDUCATION L415**
Physical Education in the Early Childhood Curriculum II: Eurhythmics
The analysis of rhythmic activities as a learning mode in the early childhood curriculum is studied from both a practical and theoretical perspective. Students examine rhythms as a means of developing kinesthetic awareness, understanding the role of coordination and timing in the performance of complex movement patterns. Interaction with young children to discover how simple rhythms are involved in developmental sequences constitutes the practical aspects of the course. Lectures: 2 hours per week. Labs: 2 hours per week. (3 credits)

**BIO-PHYSICAL EDUCATION L421**
Organization and Administration of Physical Education and Recreation Programmes and Facilities
The course examines and applies fundamental concepts of business administration to the field of physical education and recreation. Topics covered include organizational structures, management systems, equipment purchasing and control, promotion, public relations, theories of motivation and scheduling which can be applied in the school and community. Lectures and Seminars: 3 hours per week. (3 credits)

**BIO-PHYSICAL EDUCATION L426**
Organization and Administration of Recreation Programmes and Facilities
The course provides in-depth analysis of business practices utilized in the efficient management of recreation programmes and facilities. Principles of organization, public relations, purchasing, scheduling, and utilization of facilities are studied. Special consideration is given to the financial areas of budget preparation, basic accounting procedures, cost estimation and the control of funds. The course includes an extensive field study programme in which the students are exposed to a variety of administrative procedures being used by professionals in the field of recreation. Lectures: 2 hours per week. Field Study Labs: 4 hours per week. (6 credits)

**BIO-PHYSICAL EDUCATION L433**
Rehabilitation and Treatment of Athletic Injuries
The role and relationship of the sports therapist to the physician, nurse and physical therapist in the rehabilitation and treatment of athletic injuries is studied. Subject to review are thermal and cryotherapy, and the use of diathermy, ultrasonic, whirlpool, defibrillator and other equipment. Emergency treatment methods of transportation and legal aspects are discussed. An introduction also is provided to basic counselling techniques. Lectures: 3 hours per week. Labs: 3 hours per week. (3 credits)

**BIO-PHYSICAL EDUCATION L436**
Sports Medicine
Prerequisites: Bio-PE L335 and L433. An introduction to the application of medical science to the field of sports is provided. Select topics in endocrinology including hormonal imbalance, fatigue, depression, aggression and the jet fatigue syndrome in relation to athletic performance. Discussed are disturbances of the gastro-intestinal tract and dietary considerations. Gynecological problems, pharmacology, including the effect of ergogenic aids, current medical flexible casting and taping techniques are covered. (6 credits)

**BIO-PHYSICAL EDUCATION L451**
Kinesiology
Prerequisites: Bio-PE L351 and a post-secondary school physics course preferably Physics 351. The course involves a study of anatomical, mechanical and descriptive analyses of basic human movement and specific sport skills. Included is an examination of the skeletal, muscular and the nervous systems and their relationship to motor learning and efficient motor performance. Lectures: 3 hours per week. Labs: 3 hours per week. (3 credits)

**BIO-PHYSICAL EDUCATION L453**
Physiology of Exercise
Prerequisites: Bio-PE L355 and L357, or Biology 440. In the course, physiological principles are applied to man's acute and chronic adaptation to muscular activities. The adaptation and integration of the body systems in the performance of exercise and sports activities are considered. Also examined are the changes that occur as a result of physical training, age and environment. Laboratory sessions include the measurement of various physiological parameters during exercise. Lectures and Seminars: 3 hours per week. Labs: 3 hours per week. (3 credits)

**BIO-PHYSICAL EDUCATION L455**
Preventive Medicine and Geriatrics
Prerequisite: Bio-PE L453, the equivalent, or consent of instructor. The course focuses on the physiological, psychological and sociological needs of adults, in particular, geriatric patients. The aging process is examined as it influences the choice of physical activities. In addition, the preventive aspect of physical activity and its effects on the medical problems associated with aging are studied. Methods of
implementing and evaluating preventive programmes are analyzed. Disorders of the metabolic processes, neuromuscular, cardiovascular and respiratory systems receive prime consideration. Lectures: 2 hours per week. Labs: 3 hours per week. (3 credits)

**BIO-PHYSICAL EDUCATION L462**

**Teaching Internship**

Prerequisite: The course is open to University III level Bio-Physical Education Majors and Recreational and Leisure Studies Majors who have followed the programming option of a Recreation and Leisure Studies Major. The practicum begins with seminar sessions, during which each student formulates lesson plans, units of instruction, scientific teaching methods and means of evaluation. This aspect of the course is completed in cooperation with and subject to the approval of participating institutions and instructors. Subsequently, students assume a supervised teaching position for a six-week 240-hour period. The teaching internship commences immediately following the student's last final examination. (6 credits)

**BIO-PHYSICAL EDUCATION L464**

**Recreation Internship**

Prerequisite: This course is open only to University III level Bio-Physical Education or Recreation and Leisure Studies Majors. In consultation with their mentors, students are given the opportunity to study theoretical and practical problems confronting professionals in the field of Recreation. The course offers a supervised period of work with a select organization. Each student, during seminar sessions, formulates a study proposal. The practicum commences based upon the approved proposal, immediately following the student's last final examination. The course involves a minimum of a six-week 240-hour period. (6 credits)

**BIO-PHYSICAL EDUCATION L466**

**Para-Medical Internship**

Prerequisite: The course is open only to University III level Bio-Physical Education or Recreation Majors. In consultation with their adviser, students are given the opportunity to study theoretical and practical problems confronting para-medical professionals in the field. The course offers a supervised period of work as sports therapist, activity leader in a hospital or rehabilitative centre, a technician in a physiological evaluation laboratory or related position. Each student, during seminar sessions, formulates a study proposal. The practicum commences immediately following the student's last final examination. The course involves a minimum of a six-week 240-hour period. (6 credits)

**BIO-PHYSICAL EDUCATION L468**

**Research Internship**

Prerequisite: The course is open only to University III level Bio-Physical Education and Recreation and Leisure Studies Majors. In consultation with their adviser, students are given the opportunity to study theoretical, practical and scientific problems related to the fields of Bio-Physical Education, Health and Recreation. Each student, during seminar sessions, formulates a study proposal. The practicum commences, based upon the approved proposal, immediately following the student's last final examination. The practicum involves working as a member of a research team and reporting the experience. The course involves a minimum of a six-week 240-hour period. (6 credits)

**BIO-PHYSICAL EDUCATION L470**

**Outdoor Education in the Elementary School Curriculum**

The course offers a comprehensive analysis of outdoor education at the elementary school level. Examined are the aims and objectives of outdoor education, scientific methods and materials utilized, the organization and administration of model programs, innovative units of instruction and means of evaluation of outdoor education courses in camps, elementary schools and municipal recreation programs. Lectures, Labs, Seminars, Outdoor Labs and Field Study: 5 hours per week. (6 credits)

**BIO-PHYSICAL EDUCATION L472**

**Outdoor Education in the Secondary School Curriculum**

The course provides an overview of outdoor education programs at the secondary school level. Existing outdoor education courses in camps, high schools and recreation departments are critically reviewed. New concepts, planning and development of units of instruction, problem areas and other facets of outdoor education for secondary school age students are examined. Lectures, Labs, Seminars, Outdoor Labs and Field Study: 6 hours per week. (6 credits)

**BIO-PHYSICAL EDUCATION L480**

(Also given as Health L472)

**Special Workshop Human Sexuality**

The course investigates "Psychological Concepts of Human Sexuality" as they influence Family Planning and Sex Education; the study will explore variations in sexual patterning, therapy and counselling, biological, anthropological and ontological perspectives of sexuality. Open to educators, guidance counsellors, nurses, social workers and psychologists. (6 credits)

**BIO-PHYSICAL EDUCATION L481**

(Also given as Health L323 and Nursing L323)

**Teaching Strategies for the Health Professional**

Prerequisites: Health L209 and Nursing L320, or permission of the Department. This course is designed to meet the needs of individuals who are involved in education programs, i.e., schools, industry, clinics, volunteer agencies, in-service programmes, etc., aimed at promotion and maintenance of health, prevention of disease and rehabilitation. (3 credits)

**BIO-PHYSICAL EDUCATION L482**

(Also given as Health L212)

**Clinical Epidemiology and Bio-Statistics**

An introductory course on the methods of measuring the distribution and determinants of disease frequency in Man. Measures of population health and health services utilization will be covered. Variability and the need of statistics will be stressed. (6 credits)

**BIO-PHYSICAL EDUCATION L483**

(Also given as Health L319)

**Drug Use and Abuse**

The course is structured to introduce non-medical personnel to the modern concepts of drug therapies and to discuss the consequences of use and abuse of drugs. The drug classes will include steroids, antibiotics, minor and major psychotropics and the potential for chronic abuse of drugs such as amphetamines, barbiturates, hallucinogens and alcohol. (3 credits)
BIO-PHYSICAL EDUCATION L484
(Also given as Andragogy L320, Health L320, Nursing L320)
Prerequisite: Health L209 or equivalent. A course in which the student examines the dynamics of helping interviews, models of human effectiveness, and theories of counselling. The variety of issues to be covered include the enhancement of specific skills through different training experiences, a proper emphasis on self-understanding, an awareness of the role of philosophy, ethical standards and research. This course demands a high level of observation, participation and involvement from each student. (6 credits)

BIO-PHYSICAL EDUCATION L486
(Also given as Andragogy L408 and Health L408)
Group Structure and the Role of the Community Worker
The course is developed to assist volunteers, interested citizens, social workers, recreation directors and individuals with no formal health training, working as part of a multidisciplinary team, to identify their roles in order to play a more effective part as a community worker. Assignments will be directed toward practical applications of field work to problem-solving in a field of their choice, i.e., post-retirement, rehabilitation of drug addicts and alcoholics, single parents, etc. (6 credits)

BIO-PHYSICAL EDUCATION L488
(Also given as Health L208)
Nutrition in the '70's
This course will study the influence of socio-economic and political systems on the nutritional status of the individual and the interaction between food habits and the cultural, social and psychological aspects of life. Topics will include diet-related problems such as obesity, heart disease, faulty eating habits, malnutrition, etc. Food budgeting for all levels of the socio-economic structure will be examined. (6 credits)

BIO-PHYSICAL EDUCATION L490
Psycho-Motor and Physiological Adaptations to the Environment
Prerequisites: Bio-PE L211, Bio 331A, 333B or 335B, Phys 351B, Bio-PE L331 and L333. The course is designed to provide an opportunity to analyze the functioning of one's body and its adaptation to various environmental factors. Major consideration is given to how man responds to various stress factors, to how he understands them and what can be done to relieve or diminish the effects of stress. The role of fitness components in coping with stress, including cardio-respiratory efficiency, muscular endurance, strength, theories of relaxation and body alignment are examined. Also the application of psycho-motor concepts of self image, body awareness, and spatial orientation are reviewed. Lectures: 2 hours per week. Labs: 3 hours per week. (6 credits)

BIO-PHYSICAL EDUCATION L491
Independent Study in Bio-Physical Education
Prerequisite: Permission of the Department. Students will work on topic(s) chosen in consultation with their department supervisor. The study can include readings, field studies, interviews and field work. An in depth report of the activities conducted by the student will be presented to the supervisor upon completion of the course. (6 credits)

BIO-PHYSICAL EDUCATION L493
Advanced Topics in Bio-Physical Education
Prerequisite: Consent of professorial staff. This course focuses on advanced topics of interest in the field of Bio-Physical Education. The content will be dependent upon the theme designated by the department when the course is offered. The course will draw upon the expertise of individuals and visiting guest lecturers. (3 credits)

BIO-PHYSICAL EDUCATION L495
Advanced Topics in Bio-Physical Education
Prerequisite: Consent of professorial staff. This course focuses on advanced topics of interest in the field of Bio-Physical Education. The content will be dependent upon the theme designated by the department when the course is offered. The course will draw upon the expertise of individuals and visiting guest lecturers. (3 credits)

BIO-PHYSICAL EDUCATION L497
Advanced Topics in Bio-Physical Education
Prerequisite: Consent of professorial staff. This course focuses on advanced topics of interest in the field of Bio-Physical Education. The content will be dependent upon the theme designated by the department when the course is offered. The course will draw upon the expertise of individuals and visiting guest lecturers. (3 credits)

BIO-PHYSICAL EDUCATION L499
Advanced Topics in Bio-Physical Education
Prerequisite: Consent of professorial staff. This course focuses on advanced topics of interest in the field of Bio-Physical Education. The content will be dependent upon the theme designated by the department when the course is offered. The course will draw upon the expertise of individuals and visiting guest lecturers. (3 credits)

The following course is a university level course which was offered in the year indicated but which did not appear in the official Calendar.
1976 (Summer)
BIO-PE 599A
The Application of Science to Sport at the XXI Olympiad
(3 Credits)
51.6 Department of Chemistry

51.6.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.


105 BSc Honours in Chemistry

Students seeking admission to the Honours programme on or after June 1st, 1977 will be bound by the Honors requirements outlined in § 16.2.4 of this Calendar. Students who already had Honours status by June 1st, 1977 will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.

**Year I**

24 Chem 312A 1, 314B 1, 322Z 1, 336Z 1, 342A 1, 344B 1
6 Math 332Z 1
6 Elective credits

**Year II**

24 Chem 422Z 1, 432Z 1, 433A 1, 435B 1, 442B 1, 444A 1
3 Sc Elective credits
6 Elective credits

**Year III**

21 Chosen from Chem 412A 1, 423B 1 or 534A 1, 531B 1, 532Z 1, 552Z 1
9 Chem Elective credits
6 Elective credits

90 BSc Specialization in Biochemistry and Medicinal Chemistry

**Year I**

18 Chem 322Z 1, 338Z 1, 342A 1, 344B 1
6 Bio 311A 1, 321B 1
3 Math 301B 1
6 Elective credits

**Year II**

9 Bio 315A 1, 440Z 1

**Year III**

18 Chem 590Z 1, 592Z 1, 594Z 1
3 Sc Elective credits
6 Elective credits

90 BSc Major in Chemistry*

**Year I**

12 Chem 312A 1, 314B 1, 322Z 1
6 Math 332Z 1
12 6 credits from Minor discipline and 6 Elective credits

**Year II**

12 Chem 336Z 1 or 338Z 1, 342A 1, 344B 1
18 6 credits from Minor discipline and 12 Elective credits

**Year III**

12 Chem 412A 1, 422Z 1, 433A 1, 435B 1, 442B 1, 444A 1, 452Z 1, 491A 1, 493B 1
12 12 credits from Minor discipline
6 Elective credits

*NOTE: The Major in Chemistry must be combined with a programme in another discipline, normally a Minor.
24 Minor in Chemistry

Open only to students in programmes other than Science.

6 Chem 210Z
18 Chosen from Chem 300Z, 315A, 317B, 326A, 328B, 411B, 4522

51.6.2 COURSE DESCRIPTIONS

CHEMISTRY 210Z

General Chemistry
Pre-university course. Principles of chemistry, molecular and atomic theories, balancing equations, valence, oxidation-reduction, nature and concentrations of solutions, chemical equilibrium, ionization constants, solubility products, common ion effect, pH, formation and dissolution of precipitates, complex ions, theory of acids and bases, periodic table. Lectures: 3 hours per week, both terms. Labs: 3 hours per week, both terms. (6 credits) NOTE C:See § 200.5

NOTE: This course may not be taken for university credit by Chemistry students.

CHEMISTRY 300Z

(Also given as Interdisciplinary Studies L201)

Concepts in Science
Prerequisites: None. An elective course for students outside the science discipline who perceive that a lack of science background may alienate them from much of the world's activities and writing. The aim of the course is to learn the fundamental principles and concepts within the physical sciences: heat, light, atomic structure, chemical principles. Newtonian versus quantum mechanics, relativity, life, the universe and its structure. Emphasis will be placed upon understanding the nature of science, applying the principles to the practical disciplines of astronomy and photography. Mathematics will be kept to a minimum. Lectures: 3 hours per week, two terms, plus occasional labs. (6 credits)

CHEMISTRY 312A

Introductory Inorganic Chemistry I
Prerequisite: Chem 210Z. This course covers the following topics: development of atomic structure, wave mechanical orbitals, periodicity of properties. Properties of ionic compounds, covalent compounds - molecular orbital treatment. Spectroscopy. Chemistry of the non-transitional elements and relation to atomic structure. Lectures: 3 hours per week. Lab: 3 hours per week. Text: Day and Delbin: Theoretical Inorganic Chemistry (Van Nostrand) (3 credits)

CHEMISTRY 314B

Introductory Inorganic Chemistry II
Prerequisite: Chem 312A. This course covers the following topics: development of atomic structure, wave mechanical orbitals, periodicity of properties. Properties of ionic compounds, covalent compounds - molecular orbital treatment. Spectroscopy. Chemistry of the non-transitional elements and relation to atomic structure. Lectures: 3 hours per week. Lab: 3 hours per week. Text: Day and Delbin: Theoretical Inorganic Chemistry (Van Nostrand) (3 credits)

CHEMISTRY 315A

Photographic Chemistry I
Prerequisite: Non-Science students, preferably with some high school chemistry. This is a combined lecture and laboratory course in photographic chemistry. It is to be taken in conjunction with Physics 315A/317B. Basic chemical principles in the study of the photographic process. Factors affecting the control of development and some chemical reactions involved in the photographic process will be discussed and demonstrated. Lectures and lab: 3 hours per week, 1st term. (3 credits)

CHEMISTRY 317B

Photographic Chemistry II
Prerequisite: Chem 315A. This is the successive part of Chem 315A. Manufacturing of photographic emulsion, developer composition, fixer composition, fixation and washing; reversal processing; mechanism of latent image formation and the theory of development will be discussed and demonstrated. Lectures and lab: 3 hours per week, 2nd term. (3 credits)

CHEMISTRY 322Z

Introductory Organic Chemistry I
Prerequisite: CEGEP Chem 201, or 210Z, or equivalent. An introductory organic chemistry course with biological emphasis, covering concepts of molecular structure, stereochemistry, basic reaction mechanisms, reactions of the common functional groups and practical applications to areas such as detergents, foods, drugs and compounds of biological interest. Lectures: 3 hours per week. Lab: 3 hours per week. (3 credits)

CHEMISTRY 326B

Introductory Organic Chemistry II
Prerequisite: Chem 326A. An introductory organic chemistry course with biological emphasis, covering concepts of molecular structure, stereochemistry, basic reaction mechanisms, reactions of the common functional groups and practical applications to areas such as detergents, foods, drugs and compounds of biological interest. Lectures: 3 hours per week. Lab: 3 hours per week. (3 credits)

CHEMISTRY 336Z

Physical Chemistry
Prerequisite: Chem 210Z. Treatment of properties of gases. Kinetic molecular theory of gases. First law of thermodynamics, thermodynamics, entropy and the second and third laws of thermodynamics. Free energy and chemical equilibria. Properties of liquids, crystals, phase equilibria, the colligative properties,
CHEMISTRY 338Z
Physical Chemistry for Biochemistry Degree

Students


CHEMISTRY 342A
Analytical Chemistry I


CHEMISTRY 344B
Analytical Chemistry II

Prerequisite: Chem 342A. Introduction to instrumental methods of analysis including emission spectroscopy, atomic absorption spectrophotometry, visible and ultraviolet spectroscopy, infrared spectroscopy, nuclear magnetic resonance spectroscopy, and fluorescence spectroscopy. Problems, including interpretation of simple IR and NMR spectra, form an integral part of this course. The laboratory provides experience in the use of spectroscopic and optical instruments. Lectures: 3 hours per week, second term. Lab: 3 hours per week, second term. Texts: Willard, Merritt and Dean: Instrumental Methods of Analysis (Van Nostrand, 5th ed) and R. H. Zienius: Instrumental Analysis — A Laboratory Manual (2nd ed) (3 credits)

CHEMISTRY 392B
Selected Topics in Chemistry

Content will depend on the theme designated by the Department, which varies from year to year. (3 credits)

CHEMISTRY 411B
Environmental Chemistry

Prerequisite: Chem 210Z or equivalent. General aspects of environment and ecology, cycles in nature. The chemistry of pollution, air-pollution, water pollution, water treatment. Compounds treated: oxides of carbon, nitrogen and sulphur, hydrocarbons and types of particles. Photochemical and chain reactions. Mercury, lead, oil detergents, insecticides will be examined from both their general chemistry and their contribution to pollution. Lectures: 3 hours per week, second term. (3 credits)

CHEMISTRY 412A
Intermediate Inorganic Chemistry of Transition Metalls

Prerequisite: Chem 312A, 314B. Ligand field theories, spectra, magnetoochemistry, sigma and pi-bonded complexes, inner transition elements, introduction to organometallic chemistry. Lectures: 3 hours per week. Lab: 4½ hours per week. (3 credits)

CHEMISTRY 413A
Advanced Inorganic Chemistry

Prerequisite: Chem 412A and 414B. Physical Inorganic Chemistry: IR, NMR, X-Ray, Mossbauer and mass spectral studies of inorganic and organometallic compounds. Group theory and its applications. Lectures: 3 hours a week, first term. (3 credits)

CHEMISTRY 414B
Intermediate Inorganic Chemistry of Main Group Elements

Prerequisite: Chem 312A, 314B. Properties, reactions, structure and selected topics in main group chemistry elements. Lectures: 3 hours per week. No lab. (3 credits)

CHEMISTRY 415B
Organometallic Chemistry

Prerequisite: Chem 322Z and 412A (can be taken concurrently). Survey of transition and non-transition organometallic compounds including their roles in industrial catalysis and biological systems. Lectures: 3 hours per week for second term. (3 credits)

CHEMISTRY 422Z
Organic Chemistry

Prerequisite: Chem 322Z. A confirmation of Chem 322Z, discussing organic reaction mechanisms and synthetic methods at an advanced level. Lectures: 3 hours per week for two terms. Lab: 3 hours per week, first term. Text: Hendrickson, Cram And Hammond: Organic Chemistry (McGraw-Hill 3rd ed), Helmkamp and Johnson: Organic Chemistry (Freeman) (6 credits)

CHEMISTRY 423B
Advanced Organic Laboratory

Prerequisite: Chem 322Z, 422Z. Laboratory Individualized problems, syntheses or structure determinations based on the study of research literature, advanced techniques (e.g., catalytic and high-pressure reactions, vacuum techniques) are stressed, as well as the extensive use of spectroscopic methods. Lab: 4 hours per week, second term. (3 credits)

CHEMISTRY 425A
Bio-Organic Chemistry I

Prerequisite: Chem 326A and 328B or equivalent. Chemistry of carbohydrates, including stereochemistry, structure determination and reactions. Chemistry of amino acids and proteins, including physico-chemical properties and reactions of amino acids, determination of protein structure, peptide synthesis and conformation of proteins. Introduction to lipid chemistry, steroids. (3 credits) NOTE A/See § 200.5

CHEMISTRY 427B
Bio-Organic Chemistry II

Prerequisite: Chem 326A and 328B or equivalent. Introduction to heterocyclic chemistry, chemistry of nucleotides, nucleosides and nucleic acids, chemistry and biological implications of a selection of natural products such as vitamins, alkaloids, antibiotics, etc. (3 credits) NOTE A/See § 200.5
CHEMISTRY 432Z
Physical Chemistry Laboratory
Prerequisite: Chem 336A. Some knowledge of Fortran is desirable. The first term: Treatment of Experimental Data. Experimental Error, Graphical and Numerical Methods, Problems using literature data. Spectra analysis. Use of the computer is encouraged. Second Term: Laboratory experiments in Physical Chemistry. Lectures: 3 hours per week, first term. Lab: 4 hours per week, second term. (6 credits)

CHEMISTRY 433A
Physical Chemistry-Chemical Thermodynamics
Prerequisite: Chem 336A. A second course in thermodynamics. First, Second and Third Law Activities. Electrolyte and nonelectrolyte solutions. Lectures: 3 hours per week first term. Text: Lewis and Randall: Thermodynamics (McGraw-Hill) (3 credits)

CHEMISTRY 435B
Statistical Mechanics
Prerequisite: Chem 433A, Kinetic theory of gases. Maxwell-Boltzmann Distribution. Transport properties. Theory of Reaction rates, Colloidal State and Surface phenomena. Lectures: 3 hours per week, second term. (3 credits)

CHEMISTRY 437A
Atomic and Molecular Spectra
Prerequisite: Chem 336Z. A descriptive course of atomic and molecular spectra and structure. Lectures: 3 hours per week, first term. (3 credits)

CHEMISTRY 439A/B
Introductory Physical Chemistry
Prerequisite: Biology students only. Lectures: 3 hours per week, first term. Text: Van Holde: Physical Biochemistry. (3 credits)

CHEMISTRY 442B
Advanced Analytical Chemistry I
Prerequisite: Chem 342A. A survey of electrochemical methods of analysis, including cell potential theory, potentiometry, electrogravimetry, coulometry, polarography, amperometry, conductometry, chronopotentiometry, and chronocoulometry. The laboratory provides practice in the use of instruments most commonly used in electrochemical methods of analysis. Problems form an integral part of this course. Lectures: 3 hours per week, second term. Lab: 3 hours per week, second term. Text: Willard, Merritt and Dean: Instrumental Methods of Analysis (Van Nostrand, 5th ed). (3 credits)

CHEMISTRY 444A
Advanced Analytical Chemistry II
Prerequisite: Chem 434B. A further study of modern instrumental methods of analysis including Raman spectroscopy, mass spectrometry, electron spin resonance, microwave spectroscopy, X-Ray spectroscopy, radiochemical methods, thermal analysis, chromatographic and other separation techniques, turbidimetry and nephelometry. The interpretation of IR, NMR, UV, and MS data forms an important part of this course. The laboratory is devoted to the identification and quantitative analysis of unknown compounds using classical methods of analysis as well as spectral and chromatographic data. Lectures: 3 hours per week, first term. Lab: 3 hours per week. Texts: Willard, Merritt and Dean: Instrumental Methods of Analysis (Van Nostrand, 5th ed). Pasto and Johnson: Organic Structure Determination (Prentice-Hall) (3 credits)

CHEMISTRY 445A
Intermediate Physical Chemistry for Biochemists I

CHEMISTRY 447B
Intermediate Physical Chemistry for Biochemists II

CHEMISTRY 452Z
Industrial Chemistry
Prerequisites: Chem 210Z and Chem 322Z or 326/328. Brief outline of the history of the chemical industry. Organization of a chemical plant. Development of industrial processes. Unit operations and equipment. Detailed discussion of industries of greatest importance to Canada, such as petroleum, petrochemicals, plastics, fibres, fertilizers, rubbers, pharmaceuticals, pulp and paper, wood chemicals, heavy inorganic chemicals. Pollution. Lectures: 3 hours per week for two terms. Lab: no formal labs, but eight to ten one-half day plant tours are an integral part of this course. (6 credits)

CHEMISTRY 491A
Biochemistry I

CHEMISTRY 493B
Biochemistry II
CHEMISTRY 523A
Chemistry of High Polymers
Prerequisite: Chem 322Z. A detailed study of the mechanisms involved leading to the formation of polymeric species includes conformation, free radical, cationic, anionic and co-ordination mechanisms. Some physical systems and examples of polymers will be discussed and examined. Some general considerations concerning reactivity and reactions of macromolecules. Lectures: 3 hours per week, first term. (3 credits)

CHEMISTRY 525B
Chemistry of High Polymers
Definition and description of different polymer molecules, monomer-polymer differences; polymerization mechanisms and kinetics — (M.W. Dist.); conformation and dimensions of random polymer chains; thermodynamics of polymer solutions; analytical methods of polymer Science; thermodynamics of rubber elastic; the crystalline state; mechanical properties of high polymers; structure and function of biopolymers. Lectures: 3 hours per week, second term. Text: F. Billmeyer, Jr.: Textbook of Polymer Science (2nd ed) (3 credits)

CHEMISTRY 531B
Electrochemistry
Prerequisites: Chem 336Z and 433A. Debye-Huckel Theory, electrolytic conduction, transport properties in electrolytes, electrochemical cells. Thermodynamics and kinetics of electrochemical systems. Overvoltage. Lectures: 3 hours per week, second term. (3 credits)

CHEMISTRY 532Z
Theoretical Chemistry
Introductory matrix algebra and group theory. Quantum mechanics and the special functions. Perturbation methods, atomic structure and spectra. Theories of molecular bonding, molecular structure and spectra. Inter-molecular forces and elements of liquid state and solid state theory. Rate processes, photochemistry and chain reactions. Lectures: 3 hours per week, both terms plus monthly individual tutorial. Text: Levin: Quantum Chemistry. (6 credits)

CHEMISTRY 534A
Advanced Physical Chemistry Laboratory
Lab: 4 hours per week, first term. (3 credits)

CHEMISTRY 535A
Radiation Chemistry
Prerequisite: Chem 210Z. A study of the chemical effects caused by ionizing and other nuclear radiations in their passage through matter. A description will be given of the quantitative measure of radiation, energy absorbed, the energy absorption mechanism, the reaction paths of the unstable intermediates (excited molecules, radicals, anions). A discussion of the mechanisms reduced for the radiation-induced dissociation of H2O, organic compounds in the gaseous and liquid state and radiation effects in specific solids. Lectures: 3 hours per week for one term. (3 credits)

CHEMISTRY 541A
Nature and Analysis of Pollutants
Prerequisites: Introductory courses in organic and analytical chemistry. The latter prerequisite may be waived in special cases with the permission of the instructor. The course surveys major industrial and municipal air and water pollutants of concern to modern society — their sources, effect and analysis. Included is description of measuring systems, sampling procedures, concentration and separation techniques, and of methods commonly used to analyze pollutants. Topics such as continuous monitoring systems, automated analysis, data analysis, and pollution control techniques are discussed. Lectures: 3 hours per week, first term. Labs: no formal labs, but two or three one-half day tours of pollution control installations are a part of this course. (3 credits)

CHEMISTRY 552Z
Senior Thesis
Students in Honours and Specialized programmes, with permission of the department, undertake a research project in any branch of chemistry, directed individually by a faculty member, and submit a written detailed report. (6 credits)

CHEMISTRY 590Z
Advanced Biochemistry

CHEMISTRY 592Z
Medicinal Chemistry

CHEMISTRY 594Z
Pharmacology
Prerequisites: Chem 491A and 493B. Bio 440Z. Pharmacokinetics, drug metabolism and interaction. Toxicology, carcinogenecity and teratogenecity. Drug development and testing. Autonomic nervous system pharmacology. Functions of central nervous system, depressants, stimulants. Narcotic analgesics, addiction. Cardiovascular, renal and endocrine pharmacology. Lectures: 3 hours per week for two terms. (6 credits)

The following course is a university level course which was offered in the year indicated but which did not appear in the official Calendar.

1976-77
CHEMISTRY 427B
Bio-Organic Chemistry
(3 credits)
51.7 Department of Classics

Assistant Professor and Chairman
S. CASEY
Associate Professor
D. BROWN
Assistant Professors
E. PRESTON
L. SANDERS
B. WARDY

51.7.1 DEPARTMENT OF CLASSICS

The Department offers courses in Ancient History, in Latin, Greek and Hebrew language, and in the respective literatures read in the original or in translation. It also offers courses in Pre-History, Archaeology and Anthropology.

The Department offers programmes in two streams. The stream of Classical Philology requires linguistic competence in Latin, Greek or Hebrew, and emphasizes aesthetic appreciation of the ancient literature. The stream of Classical Studies does not require a knowledge of the languages and is directed toward broader considerations of societal problems arising from the "living past".

Students may register for a programme in either stream. An Honours programme consists of 54 credits in Classics and 6 credits in a cognate course which may be chosen in another department. A Major programme consists of 42 credits in Classics. A Minor programme consists of 24 credits in Classics. In the Philology stream, this will involve 24 credits aimed at the rapid acquisition of a reading competence in two ancient languages. In the Classical Studies stream the courses will normally be chosen from the following: L220, L224, L225, L230, L231, L240, L241, L260, L264, L265.

Students must consult the department chairman to select the courses in their programme.

Some courses are directed exclusively to Honours students. In all other Classics courses, Honours students will meet with the professor for tutorial sessions in addition to the regular scheduled classes.

Students seeking admission to the Honours programme on or after June 1st 1977 will be bound by the Honours requirements outlined in § 16.2.4 of this Calendar. Students who already had Honours status by June 1st 1977 will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.

51.7.2 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.5.

CLASSICAL STUDIES

A. Literature

CLASSICS L211
The Beginnings of European Literature (Greek Literature)

The Greek background of European literature: The Iliad of Homer, selections from the Greek dramatists (the Oresteia of Aeschylus, the Oedipus Rex and the Antigone of Sophocles, the Bacchae of Euripides, and at least one comedy of Aristophanes), the Pastoral Poets, Plato's Symposium, and Aristotle's Poetics. (3 credits)

CLASSICS L220
Homer and the Epic Hero I

This course will deal principally with the Iliad: Metamorphoses, poems of Catullus, Horace and Juvenal, the De Rerum Natura of Lucretius, plays and dialogues of Seneca. (3 credits)

CLASSICS L221
The Beginnings of European Literature

Essentially a study of the literary and artistic merits of the tragedies of Aeschylus, Sophocles and Euripides, and the comedies of Aristophanes. The ritual origins of drama, mythical sources, and the growth of the dramatic form. Greek theatre as an expression of the democratic movement and of the intellectual revolution in fifth century Athens. (6 credits)

CLASSICS L222
The Comic Art

An investigation into the evolution of comedy from our earliest literary sources to the present. The classical influence in later comic literature. Theories of comedy, ancient and modern. Reading material will be drawn mainly from Greek and Roman dramatic literature. (3 credits)

CLASSICS L224
Homer and the Epic Hero I

This course will deal principally with the Iliad
of Homer: its form, content and meaning as an oral epic. Also investigated will be the hero in a warrior society: his privileges, responsibilities and moral values. (3 credits)

CLASSICS L225
Homer and the Epic Hero II
This course will deal mainly with the Odyssey of Homer and the Aeneid of Vergil. A comparison will also be made between the concept of the hero in ancient and in modern literature. (3 credits)

B. History

CLASSICS L230
(Also given as History L219)
The Ancient Near East I
A short introduction on the Neolithic Period will be followed by the history of Egypt, with emphasis on economic, political and religious factors. (3 credits)

CLASSICS L231
(Also given as History L221)
The Ancient Near East — Part II
The purpose of this course is to give a survey of the history of Mesopotamia, Syria, Ancient Israel and the Hittites. Ancient sources will be used whenever possible. (3 credits)

CLASSICS L240
(Also given as History L223)
Greek History
A survey of Greek history from Minoan-Mycenaean time to the Roman conquest of Greece, viewed primarily through the eyes of contemporaries, emphasizing those issues that have excited and continue to arouse interest and controversy among historians. Though Athens for its unique cultural and political achievement inevitably occupies the central interest, due attention will be paid her critics as well as admirers. The credibility of the ancient evidence will be carefully assessed and emphasis will be placed on social and economic as well as political matters. (3 credits)

CLASSICS L241
(Also given as History L225)
Roman History
A survey of Roman history from 776 B.C. to 476 A.D. viewed primarily through the eyes of contemporaries, emphasizing those issues that have excited and continue to arouse interest among historians. The central interest will inevitably be Rome's administrative genius and imperial successes. Social and economic as well as political data will be considered and the credibility of the ancient evidence will be carefully assessed. (3 credits)

CLASSICS L346
(Also given as History L324)
Continuity and Change: An Intellectual History of the Late Roman Empire
A study of the main intellectual and social forces in the late Roman Empire that contributed most significantly to the formation of European culture. Among those topics treated will be: Neo-Platonism, Gnosticism, the Greek and Roman system of education, government and private welfare policies, mystery religions, late Judaism, early Christianity, the religious policy of pagan and Christian Emperors, contemporary art and architecture. (6 credits)

CLASSICS L448
(Also given as History L420)
Julius Caesar and Alexander the Great
Prerequisite: Ancient History course. May be taken either as a History or Classics course. Three centuries separate them, perhaps history's greatest field marshals, reformers, and visionaries, two men more than all others loved, despised, admired, and condemned by contemporaries and posterity alike. This course will seek to discover them as they were, the worlds they conquered, and what Alexander and Caesar wanted and planned their worlds to be. (6 credits)

CLASSICS L449
(Also given as History L422)
Human Beginnings: The Stone Ages
May be taken either as a History or a Classics course. The origin of man and man's place in evolution and in nature, Man the toolmaker: australopithecines, homo habilis, homo erectus, Peking man, Java man, Solo man, and others. The fossil evidence and taxonomic problems. Man the hunter: meat-eating, intelligence, and sexual differentiations. Territoriality and aggression. The struggle for existence and the survival of the fittest: Darwinism, Marxism, and sociology.


C. Culture and Civilization

CLASSICS L250
Greeks and the Afterlife
A study of ideas of immortality as reflected in classical Greek literature. An examination of myths, mystery religions and schools of philosophical thought. This literary survey will include readings translated from the works of Homer, Hesiod, Sophocles, Euripides and Plato. (3 credits)

CLASSICS L251
Romans and the Afterlife
A study of the growth of early Roman customs connected with the supernatural, Burial practices and tomb paintings of the Etruscans. Popular Roman concepts of the underworld and the influence of Greek myth. The intellectual influence of Greek philosophy on later Roman religious thought as reflected in the works of Cicero and Lucretius. Religion and the patriotic ideal in the Augustan revival as reflected in Vergil's Aeneid. (3 credits)
CLASSICS L252
Love, Hate and Friendship in the Classical World I
The growth and failure of human relationships were of intimate concern to men and women in the ancient world, as they are today. This course will investigate in the literature of classical times the evolving shape of human encounter in terms of three basic emotions: love, hate and friendship. The theme “love” will be examined as expressed in the Odyssey of Homer and especially in the love poetry of Greece and Rome. (3 credits)

CLASSICS L253
Love, Hate and Friendship in the Classical World II
The theme “hate and revenge” will be seen in its most tragic form in the Iliad of Homer and in the plays of the Greek dramatists. The third theme, “friendship”, will be examined in its elemental form in the Iliad of Homer, and then in its urbane expression in the works of Plato and Cicer. (6 credits)

CLASSICS L254
Women in Classical Antiquity
An examination of the social status and political influence of women in ancient Greece and Rome. Particular emphasis will be placed upon the apparent contradiction between the seemingly inferior position occupied by women in fifth century Athens and the general enlightenment that characterized the epoch. Within this context the influence of war upon the struggle for feminine emancipation, as seen through the eyes of tragedians, comic writers, philosophers and historians, will be considered. Roman women will be viewed with particular reference to the question: to what extent the essentially hostile scandalmongering of the sources is reflective of veracity of fact of an essentially non-liberal environment. (6 credits)

CLASSICS L256
A Comparative Study of Judaic and Greek Traditions
The course deals with the problems involved in the encounter of the Judaic and Greek traditions and is designed also for students of Philosophy, Theology, and History. The end of the first diaspora. Different currents (exclusiveness versus rapprochement) under Persian rule. Alexander legends. Maccaean Hellenism. Anti-semitism in Alexandria. The mutual influence between Judaism and Hellenism as manifest in philosophical and religious writings, in symbols and customs. Their importance for the development of Western culture. The destruction of political Judaic independence and gradual intellectualization of Jewish life. The development of the synagogue and the Tanaic Academies. (6 credits)

CLASSICS L258
Myth and Mythmaking
An examination of the universal features of myth. Recurrent patterns of myth in primitive cultures (Asio-Indian, American-Indian, Insular Pacific, Celtic, etc.). Near Eastern Mythologies (Mesopotamia, Ugarit). Mythological remains in the Old Testament and post-biblical Jewish literature. Major classical myths, the origin of the gods, the feats of heroes, and the adventures of mortals in Homer, Hesiod, the Greek Tragedians, the Platonic Dialogues, Ovid, and the Bible. (6 credits)

CLASSICS L262
Chinese Myths
Their sources, development, and analysis. The folktales and myths will be used as a means of understanding the ideas and sentiments of the ancient Chinese. Those myths were selected which are most representative of Chinese mythology, still live in the minds of the people, and are referred to most frequently in their literature. (3 credits)

CLASSICS L264
An Introduction to Archaeology
Archaeology as a science: its purpose, methods, theories, and techniques. The relationship of Archaeology to Pre-History, Ancient History, Fine Arts, and Anthropology. The Neolithic Revolution and the emergence of the earliest civilizations: Mesopotamia, Egypt, India, and China. The Bronze Age in Crete and in Greece. Most of the course will consist in the presentation, classification, dating, and interpretation of selected artifacts. Some work at the Montreal Museum of Fine Arts. (3 credits)

CLASSICS L265
Greek and Roman Art and Archaeology
The archaeology of Greece and Rome with particular attention to painting (especially ceramics), sculpture, and architecture. The concept of “style” in archaeology and in art history and criticism. The works of Exekias and Doulos, of Phidias and Praxiteles, and of Iktinos and Kranitos as representative of the “ideal” in Classical Greek Art. Roman Art as Greek and Etruscan derivative as well as evidencing the peculiarly Roman. The falsifications of history and the truth that can be recovered by the archaeologist. Some work at the Montreal Museum of Fine Arts. (3 credits)

CLASSICS L266
Civilization, Barbarism and Savagery
The purpose of this course will be to formulate and develop, if possible, useful definitions of civilization, barbarism and savagery, with a view toward answering the question as to whether or not man has “progressed”. Students will be expected to research and then orally to report upon as wide a variety of human cultures as will be possible and practicable, from the most “primitive” to the most “advanced”.
The meanings and uses of cannibalism, human sacrifice, torture, and self-mutilation. Hunting, fishing and food gathering societies (Old Stone Age) contrasted with early food producing ones (New Stone Age). The first cities (Bronze Age), their mores and ethics. The great “advances”: fire, language, religion, animal domestication, pottery, metallurgy, writing. (3 credits)

CLASSICS L268
Mesoamerican Archaeology
An archaeological and anthropological study of the Pre-Columbian peoples, cultures, and civilizations of ancient Mexico, Belize, Guatemala, and Honduras: the Olmec “mother culture” Izape, Monte Albán, Tlalctecotl, and Teotihuacan. The glory and the grandeur of the Maya. Form and iconography in Mesoamerican art. From the Toltecs to the Aztecs. An aesthetic appreciation of Pre-Columbian art and archi-
lectures. What does it all mean? Current excavations, theories, and controversies among Americanists. Some work at the Montreal Museum of Fine Arts. (3 credits)

CLASSICS L280

South American Archaeology

A course for those with little or no previous knowledge of Greek. Major emphasis will be placed on assisting the student in acquiring a reading command of the language. This course is designed not only for those interested in classical literature but also for students in the departments of Philosophy and Theology. (6 credits)

CLASSICS L380

Intermediate Greek

Prerequisite: Classics L280 or equivalent. Further work toward the acquisition of a reading command of the language. Plato's Apology and Crito. (6 credits)

CLASSICS L480

Greek Literature (Advanced)

Prerequisite: Classics L380, Demosthenes' Philippics and Euripides' Acestes. (6 credits)

CLASSICS L482

Plato: The Republic

Prerequisite: Classics L380. (6 credits)

CLASSICS L484

Herodotus and the Lyric Poets

Prerequisite: Classics L380. (6 credits)

CLASSICS L486

Homer

Prerequisite: Classics L380. Extensive readings from the two epics in Greek; both works in their entirety in English. (6 credits)

CLASSICS L488

Greek Tragedy

Prerequisite: Classics L380. Aeschylus' Agamemnon, Sophocles' Oedipus Rex, Euripides' Hippolytus. (6 credits)

B. Latin

CLASSICS L290

Elementary Latin

A course for those with little or no experience with Latin. Major emphasis will be placed on assisting the student in acquiring a reading command of the language. Open to all students but especially those interested in classical languages, history, philosophy, and theology. (6 credits)

CLASSICS L390

Intermediate Latin

Prerequisite: Classics L290 or equivalent. Cicero's Pro Archia, selections from Catullus and the Odes of Horace. (6 credits)

CLASSICS L392

Late Latin

A study of selected texts from the works of patristic and medieval writers. This course is directed especially to students of history, philosophy, and theology with at least a knowledge of elementary Latin. (6 credits)

CLASSICS L490

Latin Literature (Advanced)

Prerequisite: Classics L390. Cicero's Pro Lege Manilia and the second, fourth, and sixth books of the Aeneid. (6 credits)

CLASSICS L491

Cicero

Prerequisite: Classics L390. Careful examination of selections from the oratorical and philosophical works. (6 credits)

CLASSICS L492

Lucretius

Prerequisite: Classics L390. A study of the philosophy and poetry of the De rerum natura of Lucretius. Readings in the original and in translation. (6 credits)

CLASSICS L494

Livy and Tacitus

Prerequisite: Classics L390. Extensive readings from Livy, Books 21-30, and the Annales of Tacitus, with particular attention to the Latinity peculiar to each historian. (6 credits)

CLASSICS L496

Roman Comedy

Prerequisite: Classics L390. (6 credits)

CLASSICS L498

Roman Satire

Prerequisite: Classics L390. (6 credits)

C. Hebrew

CLASSICS L270

Elementary Hebrew

An introductory course in reading, writing, and grammar for students with little or no knowledge of Hebrew. This course is designed not only for those interested in conversational Hebrew, but also for students in the department of Theological Studies who will be assisted in acquiring first a reading command of the language. (6 credits)

CLASSICS L272

An Introduction to Biblical Hebrew

Prerequisite: Classics L270. A study of classical Hebrew grammar. Accurate reading of selected prose passages of the Hebrew Bible. (Poetic selections may also be studied if the students so desire.) (6 credits)

CLASSICS L370

Intermediate Hebrew

Practice in grammar and conversation. Readings from modern Hebrew authors. (6 credits)

CLASSICS L470

Introduction to Modern Hebrew Literature

Prerequisite: A working knowledge of Hebrew is essential. A selection of Hebrew prose and poetry will be studied, ranging from Biblical to contemporary Israeli literature. The selections will be analysed from both the literary and linguistic points of view. Review drills in grammar and syntax will be assigned. (6 credits)
51.8 Department of Communication Studies

Associate Professor and Chairman
J. TIERNEY

Professors
J. BUCELL
M. MALIK
J. E. O'BRIEN, S.J.

Assistant Professors
D. CLARK
D. DINIACOPOULOS
T. GECSEI
W. GILSDORF
J. HARRISON
D. MURPHY
G. VALASKAKIS

51.8.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1. The superscript indicates credit value.

90 BA Specialization in Communication Studies

Year I
18 COMS L205¹, L255¹, L275¹, L278¹, L281¹, L287¹
12 Elective credits*

Year II
6 COMS 300 level courses in “Liberal Arts and Humanities cluster”
6 COMS 300 level courses in “Social Science/Research cluster”
6 COMS in “Visual Arts cluster”
12 Elective credits*

Year III
6 COMS 400 level courses in “Liberal Arts and Humanities cluster”
6 COMS 400 level courses in “Social Science/Research cluster”
6 COMS in “Professional cluster” (Visual Arts — Yr III) If not accepted into these advanced courses, the student may, with the written approval of the Chairman, register for 6 credits in Communication Studies and fulfill the requirements for the degree.

90 BA Major in Communication Studies

Year I
18 COMS L205¹, L255¹, L275¹, L278¹, L281¹, L287¹
12 Elective credits*

Year II
6 COMS 300 level courses in “Liberal Arts and Humanities cluster”
6 COMS 300 level courses in “Social Science/Research cluster”
6 COMS in “Visual Arts cluster”
12 Elective credits*

Year III
6 COMS 400 level courses excluding those in “Professional cluster” (Visual Arts — Yr III)
24 Elective credits*

NOTE: Electives are understood as courses taken in other Departments or Faculties of the University. Credits in Communication Studies (Loyola Campus) or Cinema (Sir George Williams Campus) may not be used in lieu of electives.

51.8.2 DEPARTMENT OF COMMUNICATION STUDIES

The Department offers two programmes of study:

a) Bachelor of Arts, Specialization in Communication Studies
consisting of a minimum of 60 credits in Communication Studies and 30 credits from electives outside the Department.

b) Bachelor of Arts, Major in Communication Studies
consisting of a minimum of 42 credits in Communication Studies and 48 credits from electives outside the Department.

Students who have been accepted into the Department take the following 18 credits in University I: COMS L205¹, L255¹, L275¹, L278¹, L281¹, L287¹

Students “Specializing” in Communication Studies choose the remaining 42
Department Objectives
The Department of Communication Studies, founded in 1965 as Communication Arts, the first at a Canadian university, has developed a programme that combines the study of the major media with the Humanities and Sciences needed for their understanding and optimal use.

The program is designed to provide students with a high level of media literacy and with a grasp of the scientific, technological, social, and historical contexts of modern media and communication. It is multi-disciplinary both within its own curriculum and in its recommended electives in the humanities, sciences, and social sciences which are integral to the programme.

Intellecutally and critically, both in seminar rooms and laboratories, the primary concern is to investigate "media man" and "media world", to understand more fully the role of media in society, to examine critically the goals of society as projected in media, and to assess realistically the responsibilities of media vis-a-vis that society. To this end, students are encouraged to develop a personal artistic and ethical statement on the goals of society as projected in media, to understand more fully the "media world", and to develop optimum use.

Facilities
The department has one professionally-equipped television-film studio, 7-source video input, 2" - 1" - 1/2" videotape recording and editing facilities, 14 portable TV cameras, 7x 16 mm professional units, 16mm sync and editing units, and complete super 8mm sync sound/film units; photographic laboratories, an optical laboratory, an holographic and laser laboratory, multiple sound facilities, a research studio for the measurement of visual and audio information loads, an electronic and electro-mechanical programmer for multi-media use, a multi-media room, and a learning centre with audio-film-video terminals for independent study.

Department Admission Requirements
Bachelor of Arts degree: The normal requirement for students residing in Quebec is the completion of the CEGEP programme (D.E.C.); for students residing outside Quebec, the equivalent is the completion of 13 years of schooling.

The maximum number of students the department can accept is determined by faculty and facilities, in order to provide optimum education for an optimum number. Applications repeatedly outnumber the space and faculty.

To allow us to make a fair and informed selection we ask the applicants to provide us with adequate information about themselves, their work, and their aims. For this purpose, applicants are requested to submit:

1) a comprehensive letter of intention stating clearly and effectively why the applicant wishes to enrol in the Department of Communication Studies in particular. (This letter is critical.)
2) meaningful letters of recommendation, at least two of which should be from teachers who are acquainted with the applicant's talents and ability.
3) a complete record of all studies to the present time, including those courses in which the applicant is now enrolled.
4) one or two examples of creative effort or thought in any medium of expression, one example of critical thought. (Items 1 and 4 should show evidence of intelligent use of language, and evidence of a working knowledge of English if the candidate is not English-speaking.)
5) an interview which will include discussion of any or all of the above, plus any topics that the committee feels will provide insight into the candidate's potential for university level study of media.

Applications and all supporting documents should be sent to the Admissions Committee, Department of Communication Studies, Loyola Campus of Concordia University, 7141 Sherbrooke St. W., Montreal H4B 1R6, Quebec.

Diploma in Communication Studies
The Department also offers a one-year diploma programme for students who have completed their undergraduate degree in another field. Detailed information on the programme is given in the University's Calendar of Graduate Studies.
COMMUNICATION STUDIES L205
History of Communication Media Carriers
Prerequisite: Comm. Studies Major. Select-
ed segments from the history of painting, de-
sign, architecture, drama, photography, film,
radio and television related to the possible use
in media productions and to the contemporary
philosophy of communication. Readings and
viewing of major styles, artworks, and authors in
a self-instructional, programmed course. (3 credits)

COMMUNICATION STUDIES L255
Communication Analysis
Prerequisite: Comm. Studies Major. General
and detailed analysis of various information
complexes, e.g., museums, galleries, exhibi-
tions, countrysides, landscapes, city streets,
highways, department stores, churches, etc.,
from the point of information values used to
influence future prospective audiences of films,
television programmes or exhibition and theatre
visitors. The basic values of light, space, sound,
picture, words and exhibit structures will be
explored through individual student projects in
real locations. Students will work on individual
projects under the supervision of the directing
professor. Tutorial course. (3 credits)

COMMUNICATION STUDIES L275
Dynamics of Visual Representation I
Prerequisite: Comm. Studies Major or ap-
proval of the Department. In this course stu-
dents are led to discover fundamental laws
which underlie visual representation. The overall
method is basic experiments in vision and
perception: to explore distances, planes, tones,
light, etc. Photography is the medium by which
these experiments are recorded for observa-
tion and discussion. (3 credits)

COMMUNICATION STUDIES L278
Seminar and Practicum in Graphics and
Sound I
Prerequisite: Comm. Studies Major. The
Graphics section is designed to provide the
students with an understanding of graphics as a
communication language through the study of
design, color, spatial organization and content
symbolization theories applied to graphic tech-
niques, as well as mass communication and
perception theories. Conceptualization of ideas
is stressed. The Sound section of this course is
designed to provide the student with a basic
working knowledge of audio systems both natu-
ral and electronic, to understand the various
affective and psychological qualities of sound,
and how sound may be structured into imagina-
tive aural forms, which may also be applied to
visual media. A final slide/tape presentation is
required from each student to evaluate his/her
comprehension of differing media characteris-
tics. (3 credits)

COMMUNICATION STUDIES L281
Seminar and Practicum in Film I
Prerequisite: Comm. Studies Major. An in-
troduction to the language of film, with produc-
tions designed to implement the theoretical
emphasis of the material covered. The course
includes scripting, directing, shooting and edit-
ing. (3 credits)

COMMUNICATION STUDIES L287
Seminar and Practicum in Television I
Prerequisite: Comm. Studies Major. This is a
course in video covering early uses, present
applications and future possibilities. The course
methodology includes lectures, screenings, use
of research material and testing of applications
of video theories. (3 credits)

LIBERAL ARTS AND HUMANITIES
CLUSTER

COMMUNICATION STUDIES L300
Selected Topics in Communication Studies
Prerequisite: Comm. Studies Major or Spe-
cialization. Content will depend on the theme
designated by the Department, which varies
from year to year. (3 credits)

COMMUNICATION STUDIES L301
Selected Topics in Communication Studies
Prerequisite: Comm. Studies Major or Spe-
cialization. A student may repeat Comm. Stud-
ies L300, provided that the content is different,
by registering for credits under Comm. Studies
L301. (3 credits)

COMMUNICATION STUDIES L302
Selected Topics in Communication Studies
Prerequisite: Comm. Studies Major or Spe-
cialization. A student may repeat Comm. Stud-
ies L302, provided that the content is different,
by registering for credits under Comm. Studies
L303. (3 credits)

COMMUNICATION STUDIES L303
Selected Topics in Communication Studies
Prerequisite: Comm. Studies Major or Spe-
cialization. A student may repeat Comm. Stud-
ies L303, provided that the content is different,
by registering for credits under Comm. Studies
L303. (3 credits)

COMMUNICATION STUDIES L304
Media and Media-Culture
Prerequisite: Comm. Studies Univ. II and III.
The course is about media and their function,
 overt and covert; their effect on perception; as
 bases for thought, organization, technologies:
as determinants of content: as accelerators of
 cultural changes; oral-aural, manuscript, print,
electronic cultures, current cultural dynamics.
The method is lecture-discussion and projects.
Assignments are more or less monthly. (6 cred-
ts)

COMMUNICATION STUDIES L305
Advanced Script-Writing for Film
Prerequisite: Submission of an original short
story by August 1st. and subsequent approval
of instructor. A practical course in writing film-
drama: story construction and plotting, scene-
making, characterization and character devel-
opment, dialogue, dramatic continuity, timing,
pacing, rhythm, suspense, and creative critical-
ity. Many of these fictional and dramatic tech-
niques will, as the occasion arises, be applied
to non-fictional scripts as well. The method is
lecture, discussion, demonstration, critique. As-
signments are continual and on-going. (6 cred-
ts)

COMMUNICATION STUDIES L306
Documentary Film
Prerequisite: Open to all Univ. II and III
students. A survey of the documentary film field
from 1895 until today, with an examination of
major styles (Romantic, Realistic, Expressionist,
Avant-Garde, etc.) in the works of significant
documentary filmmakers. The method is lec-
ture, screenings, critique and discussion. (3 cred-
ts)
expressions: Shakespeare's world via cinema.

COMMUNICATION STUDIES L306
The German Expressionist Movement
Prerequisite: Open to all Univ. II and III students. A study of the plays and their cinematic context, from the great silent period (Sjostrom, Lang, Murnau, Pabst, etc.), in Germany and in their later Hollywood careers. The German cinema of the '20s: the Expressionists. Integration with the socio-cultural climate of the pre-Hitler days. (Offered 1977-78) (3 credits)

COMMUNICATION STUDIES L307
Hollywood in the Silent Era
Prerequisite: Open to all Univ. II and III students. In depth study of the 60-year career of Chaplin, with special emphasis on the great early comics (Keaton, etc.), Hollywood and the birth of the movies: D. W. Griffith, von Stroheim. (Offered 1979-80) (3 credits)

COMMUNICATION STUDIES L308
The Revolutionary Soviet Cinema
Prerequisite: Open to all Univ. II and III students. The Soviet Formalists of the '20s: Eisenstein, Pudovkin, Dovzhenko. Film and revolution, Marxist aesthetics. The later evolution of the Soviet cinema. (Offered 1978-79) (3 credits)

COMMUNICATION STUDIES L309
The Classic French Cinema
Prerequisite: Open to all Univ. II and III students. Before the Nouvelle Vague, the great French cinema of Renoir, Clair, Ophuls, Cocteau. (Offered in 1978-79) (3 credits)

COMMUNICATION STUDIES L310
The Hollywood Genres
Prerequisite: Open to all Univ. II and III students. Concentration on specific genres and directors of Hollywood in its golden era ('30's, '40's). The aesthetics of art and the mass audience. (Offered 1977-78) (3 credits)

COMMUNICATION STUDIES L311
La Nouvelle Vague
Prerequisite: Open to all Univ. II and III students. Before the Nouvelle Vague, the great French cinema of Renoir, Clair, Ophuls, Cocteau. (Offered in 1978-79) (3 credits)

COMMUNICATION STUDIES L312
The Italian Cinema
Prerequisite: Open to all Univ. II and III students. The neo-realist movement; Rossellini, De Sica, Visconti, Fellini, Antonioni, Pasolini, Bertolucci, Wertmuller. (Offered in 1977-78) (3 credits)

COMMUNICATION STUDIES L313
Ingmar Bergman and the Scandinavians
Prerequisite: Open to all Univ. II and III students. In-depth study of Bergman. The entire context, from the great silent period (Sjostrom, Stiller, etc.) to today (Widerberg, etc.). (Offered 1979-80) (3 credits)

COMMUNICATION STUDIES L314
The Hollywood Genres
Prerequisite: Open to all Univ. II and III students. Concentration on specific genres and directors of Hollywood in its golden era ('30's, '40's). The aesthetics of art and the mass audience. (Offered 1977-78) (3 credits)

COMMUNICATION STUDIES L315
Shakespeare in the Cinema
Prerequisite: Open to all Univ. II and III students. A study of the plays and their cinematic expressions: Shakespeare's world via cinema. (Offered in 1977-78) (3 credits)

COMMUNICATION STUDIES L316
The Canadian Cinema
Prerequisite: Open to all Univ. II and III students. The aesthetic, economic, socio-political-cultural dimensions of feature films in Canada. Course conducted in collaboration with Canadian film directors, producers, actors, critics. (Offered in 1978-79) (3 credits)

COMMUNICATION STUDIES L330
Advanced Script-Writing for Television
Prerequisite: Submission of an original short story by August 1st, and subsequent approval of instructor. The course provides fundamental knowledge of visual scripting, research and evaluation technique. Practical experience is given in writing, narration, dialogue, speech styles, characterization and plot development, scripting for drama, comedy, documentary, children's, variety, TV series, and women's shows. (6 credits)

COMMUNICATION STUDIES L331
Documentary Television
Prerequisite: Open to all Univ. II and III students. A survey of the documentary television field from its beginning until today with an examination of characteristic styles and forms (informative, biographical, current events, contemplative, etc.). The method is lecture, video example, critique and discussions. (3 credits)

COMMUNICATION STUDIES L417
Film Ideas
Prerequisite: Comm. Studies Univ. Ill and approval of instructor. Seminar using film criticism to focus on aesthetic, cultural dimension of present trend-setting films and to explore students' sensitivity in context of contemporary culture. Methodology includes viewings, discussions, written critiques, critical/esthetic readings. (3 credits)

COMMUNICATION STUDIES L435
Documentary Film and Television Genres
Prerequisite: Comm. Studies L306, L331, or approval of instructor. Survey of genres in documentary film and television as: biographical, industrial travelogue, nature, scientific training, educational, children's films and TV programmes. Examples from Canada, USA, Europe. (3 credits)

COMMUNICATION STUDIES L436
Television and the Arts
Prerequisite: Comm. Studies Univ. III and approval of instructor. An examination in depth of content, styles, and forms in the feature television program with emphasis on the arts — ballet, drama, music, opera, and the dramatized documentary. The course includes a study of successful adaptation of works of art for the television medium. Examples to be screened will be drawn from programs in Canada, the USA, Europe, and Asia. (6 credits)

COMMUNICATION STUDIES L437
Seminar in Media Forecast
Prerequisite: Comm. Studies Univ. III students. 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. (3 credits)

COMMUNICATION STUDIES L440
Advanced Topics in Communication Studies
Prerequisite: Comm. Studies Major or Specialization. This course focuses on advanced topics of interest in Communication Studies. Content will depend on the theme designated by the Department, which varies from year to year. (3 credits)
COMMUNICATION STUDIES L441
Advanced Topics in Communication Studies
Prerequisite: Comm. Studies Major or Specialization. A student may repeat Comm. Studies L440, provided that the content is different, by registering for credits under Comm. Studies L441. (3 credits)

COMMUNICATION STUDIES L442
Advanced Topics in Communication Studies
Prerequisite: Comm. Studies Major or Specialization. This course focuses on advanced topics of interest in Communication Studies. Content will depend on the theme designated by the Department, which varies from year to year. (3 credits)

COMMUNICATION STUDIES L443
Advanced Topics in Communication Studies
Prerequisite: Comm. Studies Major or Specialization. A student may repeat Comm. Studies L442, provided that the content is different, by registering for credits under Comm. Studies L443. (3 credits)

SOCIAL SCIENCE/RESEARCH CLUSTER
COMMUNICATION STUDIES L350
Communication Research
Prerequisite: Comm. Studies L255 and approval of instructor. An examination of the aids for information impact measurements, demonstrated on communication media carriers. Testing will be conducted on information complexes previously analyzed, e.g., photographs, advertisements, film segments, television program sequences, exhibitions, urban environments and open country landscapes. The main emphasis of learning is on the methodology of tests, diagnosis and interpretations of results for practical media productions. A biometrical and biotelemetrical approach is used for testing. Each student will work on individual projects during the year. Tutorial course. (3 credits)

COMMUNICATION STUDIES L360
Mass Communication
Prerequisite: Comm. Studies Univ. II and Ill. The course will examine 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 will also be discussed. Through guest lecturers from the various media and readings of contemporary analysis/critiques, issues such as media ownership and access, government and self-regulation, technological implications, media accountability, etc., will be raised. (3 credits)

COMMUNICATION STUDIES L361
Seminar in Propaganda
Prerequisite: Open to all Univ. II and Ill students. 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 lecture, discussion, and projects. (3 credits)

COMMUNICATION STUDIES L362
Psychology of Communication
Prerequisite: Comm. Studies Univ. II and approval of instructor. 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. (3 credits)

COMMUNICATION STUDIES L383
Inter-Cultural Communication
Prerequisite: Comm. Studies Univ. II and Ill. The course examines the relationship between value orientations, culturally-determined behaviour, and the communication process. Theory, research and projects focus on factors influencing inter-personal and mediated communication across subcultural and cultural boundaries. (6 credits)

COMMUNICATION STUDIES L451
Communication Programming
Prerequisites: Comm. Studies L255, L350 and approval of instructor. An advanced tutorial course for students interested primarily in Communication Theory and Research. Individual projects will be assigned on the design of media programmes, the realization of pilot programmes and the evaluation and measurement of effectiveness of receivers' responses to these programmes. Limited productions and exercises will be conducted on the pilot programme sequences, consisting of 3D complexes, cinema, photography, holography, painted pictures, metacomplexes and internal information spaces. Multi-media and mixed-media programming techniques and approaches will be examined. (3 credits)

COMMUNICATION STUDIES L452
Computer Communication Programming
Prerequisite: Comp Sc 301, Math 216A/B or 217A/B. Digital computer applications to media — film, radio, television complexes. Artificial processing and image enhancement, sound processing. Artificial intelligence and digital logic applied to media and mixed-media projects. Students work on samples of digital programmes, applicable for electronic generation of sound, video and graphics. (3 credits)

COMMUNICATION STUDIES L465
Organizational and Political Communication
Prerequisite: Open to all Univ. Ill students. After initial defining and relating of organizational and political communication, basic principles and media forms of each are isolated. Then consideration of the learning objectives of seminar participants will lead to the further exploration of such topics as: formal/informal patterns of communication, components of communication networks, internal/external communication of organizations, interrelations between media and politics, role of media in creating national unity, organized campaigning, etc. Activities include: readings and discussion; field study and analysis; research and presentation, guest lecturers. (6 credits)

COMMUNICATION STUDIES L466
Media and Development
Prerequisite: Open to all Univ. Ill students, with approval of instructor. The course considers the relationship between media, social and cultural change and economic development. Theory, research and projects focus on media's possible effect on and usefulness to underdeveloped areas. (6 credits)
COMMUNICATION STUDIES L477
Broadcasting Policy in Canada
Prerequisite: Open to all Univ. III students.
This course acquaints the student with the historical development of broadcasting and broadcasting legislation in Canada. It also examines the nature of the two major broadcasting influences on the Canadian national system: Great Britain and the United States. It covers the present state of broadcasting policy in Canada, its goals and problems, and explores alternative solutions. (6 credits)

COMMUNICATION STUDIES L480
Advertising and Public Relations
Prerequisite: Open to all Univ. III students.
Advertising and Public Relations are examined from a mass media focus. Promotions and promotional campaigns are analyzed and critiqued for such things as: structure, effects, audience, media choice and communication strategies. Activities include: lecture/discussions with professionals, creative workshops, in-depth critical viewing of actual campaigns, design and execution of an actual campaign, seminars on the effects of advertising and public relations on our society. (6 credits)

VISUAL ARTS — PROFESSIONAL CLUSTER

COMMUNICATION STUDIES L375
Dynamics of Visual Representation II
Prerequisite: Dynamics of Visual Representation I (Comm. Studies L275) and approval of instructor; students must own the recommended type of camera. A study of the development of visual artifacts and media in the search for a more and more adequate mimesis of persons, situations, and meanings. The course comprises both the practical and theoretical aspects of the visual image, historically and currently, and examines the assumptions underlying the quest for the auto-communicative image. (6 credits)

COMMUNICATION STUDIES L378
Seminar and Practicum in Sound II
Prerequisite: Comm. Studies Major or Specialization. This course gives the student a knowledge of the basic disciplines necessary for constructing aural message forms from the simplest to the most complex; also, experience in the various techniques required to apply these aural forms to radio, film, television, etc. Students will prepare, produce, and direct, individually and in teams, a number of projects. (6 credits)

COMMUNICATION STUDIES L381
Seminar and Practicum in Film II (16 mm)
Prerequisite: Above-average standing in Seminar and Practicum in Film I (Comm. Studies L281). 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 students' theoretical knowledge and give practical experience in the craft of film-making. (6 credits)

COMMUNICATION STUDIES L384
Seminar and Practicum in Film II (Super 8 mm Sync Sound)
Prerequisite: Above-average standing in Seminar and Practicum in Film I (Comm. Studies L281). Students work in small groups in order to explore collectively the creative and communicative demands involved in making, publi-
51.9 Department of Computer Science

Assistant Professor and Chairman
A. K. MENON
Assistant Professors
B. C. DESAI
D. G. HALTRECHT

Lecturers
M. O. SMITH
G. WEISS

51.9.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

90 BSc Specialization in Computer Science

Prerequisites: Math 216A/B, 217A/B; Comp Sc 211, 241
Year I
6 Comp Sc 335\textsuperscript{a}, 337\textsuperscript{a}
12 Math 321\textsuperscript{a}, 334\textsuperscript{a}, 353\textsuperscript{a}
6 Nat Sc Elective credits (Bio, Chem, Geol, Phys, Health)
6 Elective credits
Year II
9 Comp Sc 223\textsuperscript{a}, 311\textsuperscript{a}, 435\textsuperscript{a}
6 Math 301\textsuperscript{a}, 311B\textsuperscript{a}
3 Engin 511\textsuperscript{a}
6 Nat Sc Elective credits (Bio, Chem, Geol, Phys, Health)
6 Elective credits
Year III
18 Comp Sc 343\textsuperscript{a}, 451\textsuperscript{a}, 513\textsuperscript{a}, 515\textsuperscript{a}, 533\textsuperscript{a}, 537\textsuperscript{a}
6 Comp Sc Elective credits
6 Elective credits

90 BSc Specialization in Mathematics and Computer Science

Prerequisites: Math 216A/B, 217A/B; Comp Sc 211, 241
Year I
6 Comp Sc 341\textsuperscript{a}, 343\textsuperscript{a}
18 Math 321B\textsuperscript{a}, 323B\textsuperscript{a}, 334\textsuperscript{a}, 341A/B\textsuperscript{a}, 343A/B\textsuperscript{a}
6 Elective credits
Year II
6 Chosen from Comp Sc 423\textsuperscript{a}, 425\textsuperscript{a}, 427\textsuperscript{a}, 433\textsuperscript{a}, 451\textsuperscript{a}, 551\textsuperscript{a} or 561\textsuperscript{a}
15 Math 326Z\textsuperscript{a}, 353A\textsuperscript{a}, 4022\textsuperscript{a}
9 Elective credits
Year III
6 Comp Sc 424\textsuperscript{a}
12 Comp Sc Elective credits
6 Math Elective credits
6 Elective credits

36 BSc Major in Computer Science

Year I
6 Comp Sc 335\textsuperscript{a}, 337\textsuperscript{a}
6 Math 334\textsuperscript{B}
Year II
6 Comp Sc 223\textsuperscript{a}, 311\textsuperscript{a}
6 Math 321B\textsuperscript{a} OR 323A\textsuperscript{a}, 353A/B\textsuperscript{a}
Year III
6 Comp Sc 451\textsuperscript{a}, 551\textsuperscript{a}
6 Comp Sc Elective credits

36 BAdmin Majors in Data Processing

See § 61.11
Year I
6 Comp Sc 221A\textsuperscript{a}, 223B\textsuperscript{a}
Year II
12 Comp Sc 311A\textsuperscript{a}, 313B\textsuperscript{a}, 451A\textsuperscript{a}, 555B\textsuperscript{a}
Year III
9 Comp Sc 521B\textsuperscript{a}, 523A\textsuperscript{a}, 525B\textsuperscript{a}
9 Comp Sc Electives
NOTE: The above courses are given in the BComm programme on the Loyola Campus.

24 Minor in Scientific Computing

Year I
6 Comp Sc 211\textsuperscript{a}, 241\textsuperscript{a}
Year II
6 Comp Sc 341\textsuperscript{a}, 343\textsuperscript{a}
Year II or III
6 Comp Sc 335\textsuperscript{a}, 337\textsuperscript{a}
6 Comp Sc Elective credits

24 Minor in Data Processing

Year I
6 Comp Sc 221\textsuperscript{a}, 223\textsuperscript{a}
Year II
6 Comp Sc 311\textsuperscript{a}, 313\textsuperscript{a}
Year II or III
6 Comp Sc 451\textsuperscript{a}, 555\textsuperscript{a}
6 Comp Sc Elective credits
NOTE: The above courses are given in the BComm programme on the Loyola Campus.


NOTE: This section of the Calendar describes only a few of the Computer-based programmes available to students at Concordia. Other programmes include Data Processing Electrical Engineering (See § 71); and the Computer Science programmes on the Sir George Williams Campus (See § 71).

The Bachelor of Science courses and programmes described below are intended particularly for students who expect to become users of computers in scientific or technical applications, and for scientists and engineers who want to learn how to apply the tremendous capabilities of computers in their work.

Students who intend to enter the Bachelor of Science programmes must complete the introductory courses Comp Sc 211 and 241, and Math 216 and 217 as a prerequisite. Exemption from these courses may be allowed for students who have had equivalent training in other institutions. Note that the entrance requirements for other computer based programmes are all different.

If you would like to study some other subject in addition to Computer Science, you may register for a Bachelor of Science degree with a Major programme (36 credits) in Computer Science, plus a Major or Minor of the Loyola Faculty of Arts and Science (subject to the approval of the two Departments). This will provide you with a broader knowledge at the expense of shorter training in Computer Science. The Major programme has the same prerequisites as the Specialization.

If you intend to specialize in some other Arts or Science discipline but would like at the same time to get a working knowledge of computers, you may apply for a Minor in Scientific Computing or in Data Processing, depending on your interest. These Minor programmes count as electives toward your University degree. There are no prerequisites necessary for the Minor programmes.

51.9.3 COMPUTER COURSE DESCRIPTIONS

COMPUTER SCIENCE 211
Introduction to Scientific Computing
Prerequisite: None. Coding of numerical and alphabetical data. General description of storage and I/O hardware. Organization and functioning of the central processing unit. The structure of a typical machine-language instruction and of a typical symbolic assembler-language program. The binary, octal and hexadecimal number systems. Flow charting and problem analysis. Elementary data structures. The use of interactive terminals and time-sharing. Mathematical models and methods used in typical applications in science and industry. Problems in simplified machine and assembler languages will be assigned, to be run on the computers. (3 credits)
NOTE: Students with credit for Comp Sc 211 or 201 may not take this course for additional credits. This course may not be taken for university credit by Computer Science students.

COMPUTER SCIENCE 221
Introduction to Business Computing
Prerequisite: None. An introductory course for students interested in the applications of computers in business and industry. (3 credits)
NOTE: Students with credit for Comp Sc 211 or 201 may not take this course for additional credit. This course may not be taken for university credit by Computer Science students.

COMPUTER SCIENCE 223
Data Processing Techniques
Prerequisites: Computer Science 221 or 211, or 301. Continuation of Computer Science 221, covering the equipment and methods used in data processing, to give the student as wide as possible an acquaintance with computers of all makes and models, communications and terminal equipment, and special input and output devices. The basic methods for collecting, verifying, preparing and disseminating information will be studied. Elementary programs in the BASIC language will be written and run by the students through the local time-sharing service. (3 credits)

COMPUTER SCIENCE 241
Elementary FORTRAN Programming
Prerequisite: Computer Science 211 or 221. The course will cover the following topics: preparing and submitting programs documentation; real arithmetic; integer arithmetic, mixed-mode arithmetic, simple input and output; control statements; DO loops; subscripted variables; formats; and sub-programs. Regular assignments will be given to be prepared, run, tested and documented by each student. Typically the assignments will require a total of 15 to 30 hours of work outside of class. (3 credits)
NOTE: This course may not be taken for university credit by Computer Science students.

COMPUTER SCIENCE 301
Computers in Society
Prerequisite: None. An introductory course for Arts students with no previous experience of computers. It covers the history of computers, the component parts of a computer, how human beings and computers pass information to each other, and what computers can (and cannot) be used for in the fields of education, research, business, medicine, art, government and the humanities. The effect of computers on society and the individual. Available as an elective for all students, but may not be taken for additional credit by students who already have credit for Comp Sc 211 or 221. (3 credits)

COMPUTER SCIENCE 311
Elementary Cobol Programming
Prerequisite: Computer Science 223. Covers the use of problem-oriented languages, an introduction to business data processing, the concept of files and records, program logic and flowcharting. Introduction to the elementary coding rules of the Common Business Oriented Language (COBOL), with examples to be run on the computer. Top-down programming design and structured programming concepts will be emphasized. The work load is typically 4 to 10 hours per week outside of class. (3 credits)
COURSE DESCRIPTIONS

COMPUTER SCIENCE 313
Business Applications of COBOL
Prerequisite: Computer Science 311. Covers elementary file organization and design, decision tables and logic diagrams, computer aspects of systems design, and examples of computer-oriented business systems. There will be a study and report on an actual commercial application. (3 credits)

COMPUTER SCIENCE 335
Computer Science Methodology and Techniques I
Prerequisite: Computer Science 211 and 241. Principles of structured programming and decision tables. Introduction to number systems and Boolean algebra. Structured flowcharting, problem analysis, and the design of solutions. (3 credits)

COMPUTER SCIENCE 337
Computer Science Methodology and Techniques II
Prerequisite: Computer Science 335. Introduction to discrete structures, basic graph theory and applications. Elementary organization of computer systems. Elements of file structures and file management. Macros and other programming concepts. A term project will be carried out under close supervision. (3 credits)

COMPUTER SCIENCE 341
Advanced FORTRAN Programming
Prerequisite: Computer Science 241. A continuation of Computer Science 241, using problems from numerical analysis as exercises in advanced Fortran programming. Operations involving logical, double-precision, complex and character-string variables. Extended input/output and format operations. Work load is typically 4 to 10 hours per week outside of class. Lectures: 2 hours per week. (3 credits)

COMPUTER SCIENCE 343
Computer Applications of Numerical Methods
Prerequisites: Computer Science 241; Mathematics 216. Concepts of numerical errors, interpolation and curve fitting. Solution of nonlinear equations by iteration. Numerical integration. Matrix operations and solution of systems of linear equations. Numerical solution of ordinary differential equations. Emphasis will be on the algorithms and standard subroutines available to solve these problems, and on practical computing experience rather than on mathematical study. Lectures: 2 hours per week. Problems: 1 hour per week. (3 credits)

COMPUTER SCIENCE 417
Commercial Software I
Prerequisite: Computer Science 313. A study of a representative sample of the software program packages available commercially for use in business applications, including systems packages such as file management, payroll, inventory, and bill-of-materials; and control packages such as critical path scheduling, linear programming, and simulation. Sources of software; criteria for evaluating and choosing packages; implementation, maintenance and modification of packages. Class and individual projects on the use of typical packages. (3 credits)

COMPUTER SCIENCE 419
Commercial Software II
Prerequisite: Computer Science 417. Continuation of Computer Science 417. (3 credits)

COMPUTER SCIENCE 421
Advanced Cobol Programming
Prerequisite: Computer Science 311. Continuation of Computer Science 311. Further work on decision tables and flowcharting. IBM's Job Control Language, various operating systems and core dumps. The use of Cobol verbs for searching, sorting, and reporting. The use of subscripts, labels and completion codes. Programs will be written and tested on the computer, involving the creation and updating of files. Top-down program design, structured programming, and chief-programmer team concepts will be emphasized. Work load is typically 4 to 10 hours per week outside of class. Lectures: 3 hours per week. (3 credits)

COMPUTER SCIENCE 423
Assembler Language Programming I
Prerequisite: Computer Science 311 or 341. Review of the basic concepts of IBM 360/370 architecture and instruction repertoire. Memory access and storage. Detailed flowcharting of problems. Rules for coding assembler language programs, including use of base registers. Program linking and sectioning and the use of macro instructions. Documentation, debugging and testing of programs. Students will write and run several programs on an IBM 360/75 computer. Work load is typically 4 to 10 hours per week outside of class. (3 credits)

COMPUTER SCIENCE 424
Computer Applications of Statistics
Prerequisite: Computer Science 241 and one statistics course. This course is designed to familiarize the student with the application of computers to statistical problems. Computer terminals and batch processing of Fortran programs are used to develop a working knowledge of standard programs for control charts, analysis of experimental design, sampling plans, forecasting, and statistical analysis common to many other fields. Students are expected to be familiar with elementary statistics and to be able to program in FORTRAN. (6 credits)

COMPUTER SCIENCE 425
Mathematical Models of Real Systems
Prerequisites: Computer Science 241 or 311, and Mathematics 216 or Quantitative Methods C244. The use of a computer to study situations occurring in the real world, with examples taken chiefly from science and industry. How models are used to study interactions between the parts of a system to analyze the causes of observed effects, and to predict the effects of changed conditions. The scale, detail and boundaries of a model. The cyclic process of model development. Types of models available - deterministic, probabilistic, microscopic or microscopic, optimizing. The course begins with simulation using a procedural language, followed by an introduction to special simulation languages. (3 credits)

COMPUTER SCIENCE 427
Assembler Language Programming II
Prerequisite: Computer Science 423. Continuation of Computer Science 423. Further exercise in assembler language programming for the IBM 360/370. A study of assembler languages for other computers, including UNIVAC 9300 and the DEC PDP-11. Work load is typically 4 to 10 hours per week outside of class. (3 credits)
COMPUTER SCIENCE 429
Teleprocessing
Prerequisite: Computer Science 233. The study of remote control of computers by human operators or by other computers. The following topics will be covered: the categories of data transmission systems, communication line characteristics, modems, coding systems, transmission modes, transmission errors, various types of dialogue between man and computer, networks, terminals and control units, programs and software. Text: J. Martin, Introduction to Teleprocessing. (3 credits)

COMPUTER SCIENCE 433
PL/1 Programming
Prerequisite: Computer Science 311 or 341. Study of the basic rules and important features of the PL/1 language. This will be integrated with the solution of a variety of practical computer programming problems, both scientific and commercial. Work load is typically 5 to 10 hours per week outside class. (3 credits)

COMPUTER SCIENCE 435
Computer Architecture
Prerequisite: Computer Science 337. Introduction to logic functions and basic digital circuits. Implementation of logic functions: registers, encoders and decoders, adders and code conversion. The arithmetic-logic unit, control section, timing, memory and input/output. Microprocessors and micro-programming. (3 credits)

COMPUTER SCIENCE 445
R.P.G. Programming
Prerequisites: Computer Science 241 or 311. R.P.G. stands for Report Program Generator. This course is designed to teach the students the logic of the R.P.G. compiler. The knowledge gained in class will be utilized to solve problems and write about 5 programs generated for the business environment. There will be 3 lecture hours per week and approximately 5 to 10 hours of programming and debugging per week outside class. (3 credits)

COMPUTER SCIENCE 451
File Structure
Prerequisites: Computer Science 241 or 311. A detailed study of the file structures and storage structures most commonly used in data processing: information retrieval and systems software, including contiguous lists (with or without ordering), tree structures, indexed and inverted lists. The standard algorithms for accessing and updating these structures, Direct access and binary search methods. The management of memory space and overflow. A survey of simple sorting and Boolean search methods. Emphasis will be on the evaluation of the various methods, and the best choices for different applications. (3 credits)

COMPUTER SCIENCE 513
Programming Languages I
Prerequisites: Computer Science 335 and 337. Study of the important features of procedure-oriented languages, including PL/I, ALGOL, PASCAL, etc. The concept of the program as a data structure and its modification during execution. This study will be integrated with a variety of practical computer programming problems. (3 credits)

COMPUTER SCIENCE 515
Programming Languages II
Prerequisite: Computer Science 513. Continuation of Computer Science 513, including the study of list-processing and string languages such as SNOBOL, LISP, etc. The student will normally carry out a project in conjunction with any other third-year Computer Science course. (3 credits)

COMPUTER SCIENCE 521
Data Processing Management
Prerequisite: Computer Science 313. The theory and practice of management as applied in commercial data processing. Planning for new business systems and computers; the feasibility study; the computer as an aid in planning; the organization of a data centre; staffing the data centre; job description and job specifications; maintenance and security; control methods for operation, data entry, processing and output. (3 credits)

COMPUTER SCIENCE 523
Business Systems Analysis
Prerequisite: Computer Science 313 and Accounting 214. This course considers data processing from the point of view of systems personnel. Study areas are: (1) the uses, characteristics, and limitations of computers in business; (2) system components (cybernetic view); (3) methodology and techniques of systems analysis; (4) MIS; (5) the human factor. Class projects will cover the study of various simple applications of data-processing systems from the original concept to the production and operation of the system. (3 credits)

COMPUTER SCIENCE 525
Business Systems Design
Prerequisite: Computer Science 523. A continuation of Computer Science 523. A study of the principles of data-processing system design, ensuring timely, complete and accurate data collection, efficient processing, effective dissemination of information, and the evaluation, modification and control of the system. This will be illustrated by group projects and case studies. (3 credits)

COMPUTER SCIENCE 533
Computer Operating Systems
Prerequisite: Engineering C511. Review of computer system organization and control. Input-output routines. Job control programs for batch processing; translating, loading, linking, execution and accounting. File control systems for parallel input-output processing. The management of interrupts, buffers, spooling and memory protection. Operating systems for multi-programming computers. Time-sharing systems, and interactive processors with real-time application. (3 credits)

COMPUTER SCIENCE 537
Software Design and Programming
Prerequisite: Computer Science 533. Continuation of Computer Science 533. Storage organization, scheduling algorithms, resource allocation techniques, protection and communication. Detailed analysis of a small operating system. Structured multi-programming. The student will do a term project, which may be related to other third-year Computer Science courses, with the approval of the professors concerned. (3 credits)

COMPUTER SCIENCE 551
Theory of Automata
Prerequisite: Engineering C511. Theoretical description of computing machines. Finite State automata and sequential machines. The equivalence of states and machines; congruence;
reduced machines; analysis and synthesis of automata, Turing and other machines. Recur-
sion and decidability. (3 credits)

**COMPUTER SCIENCE 555**

**Information Systems**

Prerequisite: Computer Science 451. A con-
tinuation of Computer Science 451, covering
the problems of organization, storage, search
and retrieval of information stored in large data
bases. Dictionary construction and look-up,
automatic indexing methods, search and
matching procedures, information dissemination
systems, commercial data-base management
systems and application. Methods of user inter-
action and their application in management and
decision-making. (3 credits)

**COMPUTER SCIENCE 561**

Computer Science Seminar and Project I

Prerequisite: Consent of the Department.

Individual work on a computer science project
under the supervision of a faculty member, and
a series of seminars dealing with topics of
interest by faculty members, students
and industry representatives. At least 60 hours
of work must be done on a project approved in
advance, including the submission of a techni-
cal report. Special arrangements can be made
with the Department to accept a project carried
out by a student employed in a commercial
firm. (3 credits)

**COMPUTER SCIENCE 563**

Computer Science Seminar and Project II

Prerequisite: Computer Science 561. A con-
tinuation of the project begun in Computer
Science 561. (3 credits)
51.10 Department of Economics

Associate Professor and Chairman
A. G. LALLIER

Professor
F. J. HAYES

Associate Professor
S. A. ALVI

Assistant Professors
G. K. HEWITT

51.10.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

60 BA Honours in Economics

Year I
18 Econ L309\textsuperscript{3}, L310\textsuperscript{3}, L311\textsuperscript{3}, L312\textsuperscript{3}, L322\textsuperscript{3}

Year II
12 Econ L404\textsuperscript{4}, and 6 credits chosen from: L451\textsuperscript{5}, L455\textsuperscript{5}, L462\textsuperscript{5}, L467\textsuperscript{5}, L471\textsuperscript{5}, L491\textsuperscript{5}, L493\textsuperscript{5}, L495\textsuperscript{5}

6 Econ L304\textsuperscript{6} or L414\textsuperscript{6}

Year III
12 Econ L465\textsuperscript{7}, L481\textsuperscript{7}, and 6 credits chosen from: L451\textsuperscript{5}, L455\textsuperscript{5}, L462\textsuperscript{5}, L467\textsuperscript{5}, L471\textsuperscript{5}, L491\textsuperscript{5}, L493\textsuperscript{5}, L495\textsuperscript{5}

12 Econ Elective credits divided over the three years. With the permission of the Department, 6 of these credits may be selected from a related discipline.

60 BA Specialization in Economics

Year I
12 Econ L309\textsuperscript{3}, L310\textsuperscript{3}, L311\textsuperscript{3}, L312\textsuperscript{3}

Year II
6 Econ L404\textsuperscript{4}

42 Econ Elective credits divided over the three years. With the permission of the Department, 6 of these credits may be selected from a related discipline.

36 BA Major in Economics

Year I
12 Econ L309\textsuperscript{3}, L310\textsuperscript{3}, L311\textsuperscript{3}, L312\textsuperscript{3}

Year II
6 Econ L404\textsuperscript{4}

18 Econ Elective credits divided over the three years.

30 Minor in Economics

Year I
6 Econ L309\textsuperscript{3}, L311\textsuperscript{3}

24 Econ Elective credits divided over the three years.

51.10.2 DEPARTMENT OF ECONOMICS

The courses required for each programme must be taken in an approved sequence.

"Principles of Economics", or an equivalent course, is a prerequisite for all other Economics courses, except Economics L304. Additional prerequisites are indicated for each course. Alternative prerequisites in Economics or other disciplines may be approved by the Department.

Economics L202 and L210 or Economics L202 will count as one of the Economics electives in the case of students who are admitted without "Principles of Economics" or an equivalent course.

Admission into the Honours Programme requires approval of the Department following a recommendation from its Honours Committee. Students seeking admission to the Honours Programme on or after June 1, 1977, will be bound by the Honours requirements outlined § 16.2.4 of this Calendar. Students who already had Honours status by June 1, 1977, will continue to be governed by the requirements which applied at the date of their admission to the Honours Programme.

51.10.3 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.5.

ECONOMICS L202
Principles of Economics

This course is for students not majoring in Economics or proceeding to a BComm. Its content is essentially the same as that of Economics L209 and L210. However, there is
greater emphasis on Canadian economic institutions and government policies. (6 credits)

ECONOMICS L209
Introduction to Microeconomics
An introduction to the theory of aggregate economic activity. The theory of national income accounting and determination, and the role of government policy in promoting economic stability. Topics include the theory of unemployment, inflation, fiscal and monetary policy and the balance of payments. (3 credits)

NOTE: This course may not be taken by students who have received credit for the following Loyola courses: Economics 200, Economics 300, or Economics 302.

ECONOMICS L210
Introduction to Macroeconomics
An introduction to the theory of aggregate economic activity. The theory of national income accounting and determination, and the role of government policy in promoting economic stability. Topics include the theory of unemployment, inflation, fiscal and monetary policy and the balance of payments. (3 credits)

NOTE: This course may not be taken by students who have received credit for the following Loyola courses: Economics 200, Economics 300, or Economics 302.

ECONOMICS L304
Economic History
An analysis of the economic development of Western Europe, Canada and the United States. (6 credits)

ECONOMICS L307
The Chinese Economy
This course is devoted to an analysis of Chinese economic development since 1949. Topics include: performance and efficiency, strategy for development, agricultural organization, the contribution of policy to economic growth, the industrial sector, control and allocation of resources, national economic planning. (3 credits)

ECONOMICS L309
Intermediate Microeconomic Theory I
In this course consideration will be given to such topics as theory and measurement of demand, theory of consumer behaviour, production functions, cost analysis, price and output policy under various market conditions, with emphasis on perfect competition and monopoly. (3 credits)

ECONOMICS L310
Intermediate Microeconomic Theory II
Prerequisite: Economics L309. This course will cover the following topics: oligopoly, monopolistic competition, industrial concentration, factor markets, functional income distribution, general equilibrium and the elements of welfare economics. (3 credits)

ECONOMICS L311
Intermediate Macroeconomic Theory I
An analysis of the major areas of aggregate economics. Topics would include the definition and measurement of national income and the theory of income determination in the classical and in the Keynesian systems. (3 credits)

ECONOMICS L312
Intermediate Macroeconomic Theory II
Prerequisite: Economics L311. Topics will include review of the complete Keynesian system, business cycles, economic fluctuations in Canada, inflation and unemployment theories, macroeconomic policies, economic growth, and their theory and application to Canada. (3 credits)

ECONOMICS L322
Mathematics for Economists
Prerequisites: CEGEP 101 or Math 213; and Math 214 or equivalent. An introductory application of Mathematics to economic analysis. Topics include analytical geometry and linear algebra, differential and integral calculus, differential and difference equations, matrix algebra and optimization techniques with economic applications. (6 credits)

ECONOMICS L333
Economics of the Environment
This course will be devoted to an examination of the economic aspects of current environmental problems. Topics will include: economy, ecology, and the environment; economic growth and the environment: the circular flow of economic activity and spaceship earth; private and social costs; market failure, externalities, and collective goods; fiscal, instruments and pollution; an evaluation of federal and provincial policies. (3 credits)

ECONOMICS L338
Contemporary Economic Issues
Prerequisites: Restricted to first year Economics students or any non-Economics students. An analysis of some economic issues facing Canada. For example: unemployment, inflation, monopoly and competition, foreign ownership and control, income distribution, regional disparities, monetary and fiscal policies, etc. Theoretical concepts will be developed as needed. (6 credits)

ECONOMICS L401
Theories of Economic Growth
The meaning and concept of economic growth, measurement of growth, economic and non-economic factors of growth, the concept of scarcity of resources and their allocation, stages and models of growth, obstacles to growth, human and physical capital and economic growth, foreign trade and foreign aid: developing economies and economic policies and the development of nations. (3 credits)

ECONOMICS L402
Labour Law
The development of the trade union movement and early labour legislation in the U.S.A. and Canada; collective bargaining; labour law in Canada and Quebec today with emphasis on the Industrial Relations and Disputes Investigations Act (Canada), the Quebec Labour Code and related statutes. An in-depth study of employer's free speech; evocation in matters of arbitration awards; injunctions; successor rights. Practice and procedure before the courts and labour relations boards and commissions. (6 credits)

ECONOMICS L403
Planning for Economic Growth
The meaning and concept of economic planning, methodology and strategy of planning, input-output and sector analysis, techniques of planning, investment criteria and priorities, study and appraisal of economic plans of a few countries. (3 credits)
ECONOMICS L404
Statistical Methods
Prerequisite: None. Introduction to the application of statistical methods of economic problems, including probability, testing hypotheses, time series, correlation and linear regression analysis. (6 credits)

ECONOMICS L405
Economic Fluctuations
Prerequisite: Economics L311. A review of some theories of causes of economic fluctuations. Discussion of the economic climate and of stabilization policies. (3 credits)

ECONOMICS L407
Money and Banking
Prerequisite: Economics L309 and L311. The functions of money, money and prices, the evolution and kinds of money, the value of money, the supply of money, monetary and banking developments in Canada, monetary theory, international monetary system, monetary policy. (3 credits)

ECONOMICS L411
Economics of Transportation and Communications
Prerequisite: Economics L309. Demand, cost and pricing in the transportation and communications industry; implications for development and for the location of industry; public policies. (3 credits)

ECONOMICS L413
Economics of Socialism
Prerequisite: Economics L309 and L311. The economic theory of socialism; Soviet, Yugoslav and other economies; problems of planning and development. (3 credits)

ECONOMICS L414
Economic History of Canada
This course will explore the economic history of Canada from the early days of settlement to the present time. Emphasis will be placed on economic development since 1857. Particular attention will be given to development in the Province of Quebec. (6 credits)

ECONOMICS L418
Regional Economics
Prerequisite: Economics L309 and L311. Regional economic analysis, regional accounts, inter-regional trade, industrial location, regional disparities, the regional distribution of resources and their relevance for development, characteristics of the resource industries, inter-regional migration, the impact of foreign investment and control, the city and the region, federal and provincial policies. (6 credits)

ECONOMICS L434
Comparative Economic Systems
Prerequisite: Economics L309. The evolution of economic systems is discussed and evaluated in terms of modern economic theory, and from the point of view of economic efficiency and development. (6 credits)

ECONOMICS L436
Economic Welfare and Governmental Activity
Prerequisite: Economics L309 and L311. The first part of this course will provide a foundation in the language of theoretical welfare economics: general equilibrium, welfare criteria, and propositions, and the anatomy of market failure. This will be followed by a study of the following topics: concept of a public good, budget determination through voting, types and growth of government expenditure, equity in personal income taxation, corporate income tax, indirect taxes, tax reform, negative income taxes, and cost-benefit analysis. (6 credits)

ECONOMICS L438
Labour Economics
This course deals with the concepts and analysis; labour markets and other aspects of demand for and supply of labour; population, immigration and participation rates; theory of wages; structure and determination of wages; minimum wage and manpower policies. Emphasis will be on the Canadian institutions. (6 credits)

ECONOMICS L440
Economics of Social Welfare
Prerequisite: Economics L309 and L311. This course will be devoted to an examination of the economic aspects of social welfare issues in Canada. Topics will include: employment and unemployment; manpower problems and policies; inequality, poverty, social insurance and social assistance; investment in men, especially education and health; urban and regional development; environmental economics; federal, provincial, and municipal policies. (6 credits)

ECONOMICS L445
Industrial Organization
Prerequisite: Economics L309. Structure of the Canadian and U.S. economies; the determinants of market structure; theory and empirical evidence relating to price and output policies in different market structures; policies. (6 credits)

ECONOMICS L447
International Trade
Prerequisite: Economics L309 and L311. The basis of international trade, gains from trade, factor-price equalization, the tariff, Canadian commercial policy, trade and development, economic integration. (3 credits)

ECONOMICS L448
Industrial Relations
Study of industrial relations and industrial relations system; philosophies and growth of trade union movement; philosophies and practices of management; collective bargaining; industrial disputes and their settlement; weapons of conflict; automation, inflation and unemployment; labour management co-operation in achieving social goals. Emphasis will be placed on industrial relations in Canada. (6 credits)

ECONOMICS L449
International Finance
Prerequisite: Economics L447. International monetary economics, foreign exchange markets, adjustment mechanisms, capital flows, balance of payments and domestic policy goals, international liquidity. (3 credits)

ECONOMICS L451
Welfare Economics
Prerequisite: Economics L309, L310, L311, and L312. This is an advanced course for Honours students; and for Major students with the consent of the professor. The course will be devoted to an examination of selected topics in contemporary welfare economics and its applications. (3 credits)

ECONOMICS L455
Introduction to Econometrics
Prerequisite: Economics L309, L310, L311, L312, and L404. This is an advanced course for Honours students; and for Major students with
the consent of the professor. Topics to be covered in this course include: classical linear regression; problems arising out of errors in variables; autocorrelation; multicollinearity; heteroscedasticity; use of lagged and dummy variables; simultaneous equation problems. (3 credits)

ECONOMICS L462
History of Economic Thought
Prerequisites: Economics L309, L310, L311, and L312. This is an advanced course for Honours students; and for Major students with the consent of the professor. An analysis and critical review of the evolution of economic thought from Plato and Aristotle to post-Keynesian economics. (6 credits)

ECONOMICS L465
Advanced Microeconomic Analysis
Prerequisites: Economics L309, L310, L311, L312, and L322. This is an advanced course for Honours students; and for Major students with the consent of the professor. Mathematical exposition of the theory of consumer behaviour and demand; theory of production and cost; theory of the firm and market organization; theory of distribution. (3 credits)

ECONOMICS L467
Advanced Monetary and Income Theory
Prerequisites: Economics L309, L310, L311, L312, and L407. This is an advanced course for Honours students; and for Major students with the consent of the professor. The course will cover a number of selected topics, including the Classicals and Keynes and post-Keynesians; liquidity preference and loanable funds; money and real interest rates; monetary theory and its applications. (3 credits)

ECONOMICS L471
Introduction to Linear Programming and Input-Output Analysis
Prerequisites: Economics L309, L310, L311, L312, and L322. This is an advanced course for Honours students; and for Major students with the consent of the professor. Topics include linear programming and input-output analysis; basic concepts and solutions of linear programming; its application to optimum resources allocation; exposition of basic inter-industry theory with the framework of input-output techniques; its applications to structural analysis. (3 credits)

ECONOMICS L481
Advanced Macroeconomic Analysis
Prerequisites: Economics L309, L310, L311, L312. This is an advanced course for Honours students; and for Major students with the consent of the professor. A critical examination of selected topics in aggregative economic analysis. (3 credits)

ECONOMICS L491
Honours Thesis
An Honours thesis including independent reading and research under the supervision of a professor. (3 credits)

ECONOMICS L493
Advanced Topics in Economics
This course focuses on advanced topics of interest in Economics. Content will depend on the theme designated by the Department, which varies from year to year. (3 credits)

ECONOMICS L494
Advanced Topics in Economics
A student may repeat L493, provided that the content is different, by registering for credits under Economics L494. (3 credits)

ECONOMICS L495
Advanced Topics in Economics
This course focuses on advanced topics of interest in Economics. Content will depend on the theme designated by the Department, which varies from year to year. (3 credits)

ECONOMICS L496
Advanced Topics in Economics
A student may repeat L495, provided that the content is different, by registering for credits under Economics L496. (3 credits)

The following course is a university level course which was offered in the year indicated but did not appear in the official Calendar.

1976-77
ECONOMICS 5022
Labour Law
(6 credits)
51.11 Department of English

51.11.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

60 BA Honours in English

The following courses constitute an Honours programme provided the student maintains the required academic standing.

Year I

18 Students must take 18 credits from the list of courses below (i.e., English 300 level courses) with at least 6 credits from Group A and 6 credits from Group B. The remaining 6 credits may be taken from either group of courses.

A. Engl L300\(^6\), L301\(^6\), L302\(^6\), L303\(^6\), L304\(^6\), L305\(^6\), L307\(^6\), L309\(^6\), L311\(^6\), L313\(^3\)

B. Engl L341\(^3\), L342\(^3\), L343\(^3\), L345\(^3\), L346\(^3\), L347\(^3\), L352\(^3\), L355\(^3\), L357\(^3\), L363\(^3\), L364\(^3\), L365\(^3\)

Years II and III

6 Engl L418\(^6\)

9 Chosen from Engl L400\(^6\), L402\(^6\), L405\(^6\), L407\(^3\), L409\(^3\), L410\(^3\), L412\(^3\), L413\(^3\), L415\(^3\), L417\(^3\), L420\(^3\), L424\(^3\)

9 Chosen from Engl L417\(^3\), L424\(^3\), L425\(^3\), L426\(^3\), L427\(^3\), L429\(^3\), L433\(^3\), L435\(^3\), L434\(^3\)

6 Chosen from Engl L437\(^3\), L438\(^3\), L439\(^3\), L441\(^3\), L443\(^3\), L444\(^3\)

12 Engl Elective credits (up to six credits may be chosen from an approved cognate course)

NOTE: The Honours programme satisfies all the requirements of the Specialization. It is particularly recommended for students intending to pursue Graduate studies in English literature.

72 BA Joint Honours in French and English\(^a\)

30 French: 6 credits in the XXth century; 6 credits in Quebec literature; 12 credits chosen from the XVIIth, XVIIIth and XIXth century; Fr L210\(^6\) or L211\(^6\) plus 3 credits in the missing century (XVIIth, XVIIIth, XIXth century).

30 English: 6 credits chosen among the following: L300\(^6\), L301\(^6\), L302\(^6\), L303\(^6\), L304\(^6\), L305\(^6\), L307\(^6\), L309\(^6\), L311\(^6\), L313\(^1\) 18 credits chosen by genre or by periods paralleling the choice in French courses; 6 Elective credits chosen from the list of Honours and Major courses.

12 Credits will be chosen as follows: either 6 credits in each of two departments or a corresponding combination of "Independent Studies" carried out in each of the two departments.

*NOTE: Sequence of courses to be determined in consultation with the departments concerned.

72 BA Joint Honours in English and History

6 Engl L418\(^6\)

18 Engl credits chosen from three different periods, at least two of which should be supported by parallel Hist courses

6 Engl Elective credits

6 Engl or Hist Elective credits

12 Hist credits to parallel Engl courses

12 Hist Honours Seminars

6 Hist Elective credits

6 Joint Engl/Hist Tutorial, Engl L490\(^6\) or Hist L490\(^6\)

72 BA Joint Honours in English and one of the Modern Languages

6 Engl L418\(^6\)

18 Engl credits chosen from three different periods to parallel Modern Language courses

6 Engl Elective credits

18 Credits chosen from one modern language in different periods to parallel English courses

12 Elective credits from one modern language

279
6  Engl or Modern Language Elective credits
6  Joint English/Modern Languages Tutorial, Engl L492

60 BA Specialization in English

Year I
18 Students must take 18 credits from the list of courses below (i.e., English 300 level courses) with at least 6 credits from Group A and 6 credits from Group B. The remaining 6 credits may be taken from either group of courses.
A. Engl L300, L301, L302, L303, L304°, L305†, L307°, L309, L311, L313

Years II and III
6 Engl L418
18 Credits to be chosen from three different periods of English literature
18 Engl Elective credits (up to six credits may be chosen from an approved cognate course)

60 BA Specialization in English and History

12 Engl credits chosen from two different periods which should be supported by parallel History courses
18 Engl Elective credits
12 Hist credits to parallel Engl courses
18 Hist Elective credits

NOTE: This programme replaces the Joint Majors programme.

60 BA Specialization in English and Drama

6 Engl L418
9 Engl L307, L417, L429
15 Engl Elective credits
6 Theatre C201, C301
3 Scenography C201
6 Theatre Performance C201, C202
6 Chosen from Production C201, C301, C302, C401
9 Theatre Arts Elective credits

60 BA Specialization in English and one of the Modern Languages

6 Engl L418
12 Engl credits chosen from two different periods to parallel Modern Language courses
12 Engl Elective credits
12 Credits chosen from one modern language in two different periods to parallel Engl courses.

18 Elective credits chosen from one modern language
NOTE: This programme replaces the Joint Majors programme.

42 BA Major in English

Year I
18 Students must take 18 credits from the list of courses below (i.e., English 300 level courses) with at least 6 credits from Group A and 6 credits from Group B. The remaining 6 credits may be taken from either group of courses.
A. Engl L300, L301, L302, L303, L304°, L305†, L307°, L309, L311, L313

Years II and III
6 Engl L418
12 Credits chosen from the list of Honours and Majors courses covering at least two different periods before the 20th century
6 Engl Elective credits

60 BA Major in Drama

27 Theatre C201, C301, Scenography C202, Theatre Performance C201, C202, Production C201, C301, C302, C401
21 Drama Elective credits
12 Drama Literature Elective credits

For a complete listing of Drama courses, please consult § 81, Performing Arts Division.

24 Minor in English Language

18 Engl L204, L400, L475, L477
6 Chosen from Engl L280 or L402, or Engl L405 and 3 Engl Elective credits in consultation with department chairman.

24 Minor in English Literature

24 credits chosen in consultation with the English Department
9 Chosen from Engl L300, L301, L302, L303, L304°, L305, L307, L309
6 Engl L311, L313
9 Engl Elective credits

24 Minor in English Dramatic Literature

3 Engl L307
3 Engl L417
6 Engl L418
3 Engl L429
6 Chosen from Engl L214, L216, L272
3 Engl Elective credits

51.11.2 DEPARTMENT OF ENGLISH

200 level courses are open to all students and may be used as English electives unless otherwise indicated.

300 and 400 level courses are more particularly designed to fulfill requirements for students in an English programme, but may be used as electives (by students for other departments) if departmental permission is obtained.

For the first year, all students are expected to take 18 credits from the two groupings of courses listed above as Year I requirements for English programmes, designed to provide a basis for more advanced studies.

Over the second and third years, Major students must take one Shakespeare course (L418 - 6 credits), 12 credits in Pre-20th Century, and 6 English Elective credits. Students in the Specialized programme must take 6 credits in Shakespeare (L418), 18 credits from three different periods including the 20th Century, and 18 Elective credits.
Honours students must follow a more historically-oriented programme. 9 credits must be chosen in courses before the 17th Century, 9 credits from the 17th and 18th Centuries (distributed over both centuries), 6 credits from the 19th Century, 6 credits in Shakespeare (L418) and 12 Elective credits. Students in the Specialized and Honours programmes should plan to take 6 of their Elective credits in a cognate course(s) offered by the Classics Department. Admission to the Honours programme is granted at the end of the student’s first year after departmental review. Students seeking admission to the Honours programme or after June 1st 1977 will be bound by the Honours requirements outlined in § 16.2.4 of this Calendar. Students who already had Honours status by June 1st 1977 will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.

51.11.3 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.5.

NOTE: The courses listed here constitute the total offering of the English Department. Not all courses are offered in any one year. Consult departmental brochure for a fuller description of courses and accurate information concerning offerings and scheduling.

ENGLISH L200
Introduction to Literature and Composition
Selected readings from various periods and genres, designed to provide familiarity with some of the possibilities of the literary art. Students will be asked to write frequently and will be given training and assistance in the skills of composition. Certain sections will deal exclusively with composition; others will put greater emphasis on literature. Please consult department before registering. (6 credits)
NOTE: Credit for this course may not count toward the English Major.

ENGLISH L204
Essay Writing
Designed for the student who can spell and construct sentences, but would like assistance in matters of structure, emphasis, fluency, diction and logic. (6 credits)
NOTE: Credit for this course may not count toward the English Major.

ENGLISH L205
Style in Writing
Designed for the student who can spell and construct sentences, but would like assistance in matters of structure, emphasis, fluency, diction and logic. (3 credits)
NOTE: Credit for this course may not count toward the English Major.

ENGLISH L206
Rhetoric
An inquiry into the nature and function of Rhetoric (classical and “New”), and of rhetorical criticism; a study of the fundamentals, and some of the refinements, of prose style; logical and rhetorical analyses, and original compositions. (6 credits)

ENGLISH L208
Comedy
The theory and practice of Comedy as a literary mode. (6 credits)

ENGLISH L210
Tragedy
The theory and practice of Tragedy as a literary mode. (6 credits)

ENGLISH L212
Shakespeare
Students will not only read a number of Shakespeare’s plays but will also attend performances of them, as available. Scenes will be considered in terms of staging various possible interpretations, and the class may assist with a production. The course is intended to develop an appreciation of Shakespeare's plays as works for the stage. (6 credits)

ENGLISH L214
Studies in Drama
This course will study different kinds and periods of drama each year. (6 credits)

ENGLISH L216
Modern Drama
The discussion will center on major works of the most influential British, Continental, and American dramatists. (6 credits)

ENGLISH L218
Introduction to American Studies
An interdisciplinary consideration of the elements that go toward making up the “American Character” and the nature of art and culture in America: studies in literature, history, sociology, psychology, religion and fine arts. (6 credits)

ENGLISH L220
American Writers of the ’20s
A study of the American expatriate generation of the 1920s, with particular emphasis on Fitzgerald, Hemingway, Gertrude Stein, and their relationships with the cultural and artistic milieu centered in Paris. (6 credits)

ENGLISH L223
Modern American Fiction
The twentieth century American novel up to 1945. Authors read will include Dreiser, Faulkner, West, H. Roth and Wright. (3 credits)

ENGLISH L225
Contemporary American Fiction
The twentieth century American novel since 1945. Authors read will include Faulkner, Warren, F. O’Connor, Bellow and Mailer. (3 credits)

ENGLISH L233
Canadian Literature I
Through readings in fiction, this course will examine themes and styles in Canadian Literature. (3 credits)

ENGLISH L235
Canadian Literature II
Through readings in poetry, this course will examine themes and styles in Canadian Literature. (3 credits)

ENGLISH L236
Canadian Criticism, Thought, and Controversy
Prerequisite: One course in Canadian literature. An examination of the origins of literary criticism in Canada and the main aspects of its development to the present. The following critics will be considered: E. K. Brown, Edmund Wilson, H. A. Innes, G. Grant, Northrop Frye, Marshall McLuhan, Milton Wilson, George Woodcock, D. G. Jones, Margaret Atwood. (6 credits)
ENGLISH L237
Women In Literature I
A selection of short stories, poems and plays (by Ibsen, Lawrence, Maier, Pinter, Plath, Lessing, Atwood, Alice Munro, Gwendolyn MacEwen and others) in which woman is of major importance, either as the central experiencing character in adolescence, maturity and old age, or as the embodiment of sexual archetypes and social roles. (3 credits)

ENGLISH L239
Women In Literature II
Prerequisite: English L237 or a course which has stressed the novel as a form. A study of some women novelists emphasizing Charlotte Bronte, Virginia Woolf, Doris Lessing and Margaret Atwood, and including a few others from among George Eliot, Jean Rhys, Sylvia Plath, Margaret Drabble, Margaret Laurence, Marian Engel, Sheila Watson, Alice Munro. (3 credits)

ENGLISH L240
The Novel and its Relation to Twentieth Century Art Theory
Prerequisite: This course is limited to second and final year students. A study of the twentieth-century novel as symptomatic of the profound changes in European thought on art occurring at the end of the nineteenth and beginning of the twentieth century. The course is largely concerned with the premise that the phenomenon of literary art is greatly clarified by approaching it from an understanding of the aims and capacities of other art forms. In addition to the consideration of a limited number of theoretical texts the course includes the practical study of, among others, the novels of Virginia Woolf, Galsworthy, James Joyce, E. M. Forster, Joyce Cary and Lawrence Durrell. (6 credits)

ENGLISH L241
Continental Literature
An introduction to the major works of European literature of the nineteenth and twentieth centuries. Intended as background for students of English or French literature. Reading will include Goethe's Werther and Faust, Dostoevsky's Crime and Punishment, Mann's Death in Venice, Weiss' Marat/Sade, among others. The works will be treated from a comparative, an historical and an intrinsic point of view. (3 credits)

ENGLISH L244
Epic Forms In Modern Fiction
The course is designed to examine epic structures and modes in representative works of English and American fiction of the nineteenth and the twentieth centuries. (6 credits)

ENGLISH L246
Literature: Ideas and Myths
An exploration through literature of some of the myths which generate our ideas and some of the ideas which rationalize our myths. A study of Gilgamesh, The Republic of Plato, Antony and Cleopatra, The Marriage of Heaven and Hell, Crime and Punishment, 2001, and other works. (6 credits)

ENGLISH L248
Writing Workshop A
Intensive and individualized work in Creative Writing. The genre (prose, poetry, etc.) will vary from year to year. (6 credits)

ENGLISH L250
Writing Workshop B
A student may repeat English L248, provided that the content is different, by registering for credits under English L250. (6 credits)

ENGLISH L252
The Psychological Novel
Study of the development of the modern psychological novel from the nineteenth century to the present, with emphasis upon the inter-relationship between psychology and literature. Part of the course will focus on material other than the novel. Close analysis of the tendency to portray the subjective world by means of dream; interior monologue, and stream of consciousness will be stressed. (6 credits)

ENGLISH L254
Psychology and Literature
A study of the relationship between the basic theories of psychology and psychoanalysis and aesthetics and literary criticism, through a consideration of the Oedipus complex in Oedipus Rex, Hamlet, and Sons and Lovers, and of archetypes and mythic patterns in literary and pseudo-literary forms such as fairy tales, children's stories and comic strips. (6 credits)

ENGLISH L256
The Short Story
The aims of this course are to familiarize students with the forms and techniques of the short story and to discover something of the considerable depth and breadth of experience that an accomplished writer can concentrate into the microcosm of this particular form of fiction. (6 credits)

ENGLISH L250
Children's Literature
Historical and thematic survey of children's fiction. (6 credits)

ENGLISH L262
The Bible as Background to English Literature
The course will begin by considering which translations of the Bible had the greatest influence on English literature and then will proceed to a study of literary handling of Biblical material and literary uses of Biblical allusion. (6 credits)

ENGLISH L264
Satire
The theory and practice of Satire as a literary mode. (6 credits)

ENGLISH L270
Science Fiction
An exploration of the varieties and nature of science fiction from H. G. Wells to Ursula LeGuin. Readings will include examples of English and American science fiction and translations of foreign works. Among the authors studied will be Huxley, Orwell, Zamyatin, Jack London, Capek, Borges, Calvino, and Lem. (6 credits)

ENGLISH L272
The Oral Interpretation of Poetry and Drama
The aim of this course is to produce a deeper appreciation of the rhythm and texture of the written word. We shall choose scenes from plays and study the relationship of dialogue to character, emphasis to meaning. (6 credits)
ENGLISH L280 Translation
Prerequisite: Fluency in both French and English. Intensive work to improve the student’s skill at translating a variety of texts from French to English. Emphasis will be placed on non-literary texts. Training will be given in style and idiom. The course will help the student gain proficiency in rendering a variety of French texts in idiomatic English prose. (6 credits)

ENGLISH L300 Practical Criticism
Through an examination of how language works, in ordinary life as well as in literature, this course will aim at developing discrimination and a greater understanding and appreciation of linguistic and literary skills. (6 credits)

ENGLISH L301 Critical Reading
A close examination of literary works of every genre and most major periods from a variety of critical perspectives. (3 credits)

ENGLISH L302 Fiction
A selective study of the novel as form, the works to be chosen from English and American fiction. Close textual analysis, psychic and archetypal patterns, and the development of technique will be emphasized. (6 credits)

ENGLISH L303 Form of Fiction
A study of various kinds of novels written in the last two centuries. (3 credits)

ENGLISH L304 Understanding Poetry
The concepts and methods of reading poetry, beginning with simple examples and proceeding through poems of graduated difficulty. Recommended for students who would really like to learn how to understand poetry. (6 credits)

ENGLISH L305 Poetry
A course for Honours and Majors students who would like to know why “what oft was thought” was “ne’er so well expressed.” The emphasis will be on the variety of ways by which a poem translates a private perception into a communicated perception. (3 credits)

ENGLISH L307 Drama
A study of a varied selection of plays from both an historical and a generic point of view that will introduce students to the problems and delights of reading, visualizing, making and seeing plays. (3 credits)

ENGLISH L309 Non-Fiction Prose
A study of the forms of non-fiction prose — the essay, belles-lettres, the diary, the memoir — from the Elizabethans to the 20th Century. (3 credits)

ENGLISH L311 Major Developments in English Literature I
This course aims to produce a better understanding of important artistic and intellectual developments from the Middle Ages to the end of the seventeenth century through a closed study of some major, but not simply “typical”, literary works. The course will be designed to be of help both to English Majors a background and framework for their period courses and to general Arts students desiring to broaden their familiarity with literature. (3 credits)

ENGLISH L313 Major Developments in English Literature II
A continuation of English L311 concentrating on the eighteenth, nineteenth and twentieth centuries. (3 credits)

ENGLISH L342 Twentieth Century British Literature
Authors will be chosen from among: Lawrence, Joyce, Yeats, Woolf, Lessing, Shaw, O’Casey, Forster, Waugh, Auden, Eliot. (6 credits)

ENGLISH L341 Twentieth Century British Literature I
To the end of World War I: works by some of the following authors: Conrad, Hardy, James, Shaw, Joyce, Lawrence, Yeats, Wilfred Owen, Rupert Brooke and G. M. Hopkins. (3 credits)

ENGLISH L343 Twentieth Century British Literature II
Post World War 1 to the Present: from among T. S. Eliot, E. M. Forster, Virginia Woolf, Waugh, Auden, Beckett, Osborne, Sillitoe, Pinter, Doris Lessing, Anthony Burgess, contemporary poets. (3 credits)

ENGLISH L345 American Literature: Nineteenth Century
A study of major nineteenth century American authors. (3 credits)

ENGLISH L346 American Literature
A study of archetypal patterns, literary and philosophical concerns of nineteenth and twentieth century American literature. Reading material will be chosen from among: Poe, Thoreau, Hawthorne, Melville, James and Twain, in the first semester and from Norris, Anderson, Fitzgerald, Hemingway, Faulkner, West, Steinbeck, Mailer, Kerouac, Salinger and Updike in the second semester. (6 credits)

ENGLISH L347 American Literature: Twentieth Century
A study of major twentieth century American authors. (3 credits)

ENGLISH L352 An Introduction to Canadian Literature
An historical survey of the main themes in Canadian literature will be illustrated from the major writers of poetry, fiction and drama. (6 credits)

ENGLISH L355 Commonwealth Literature I
Selected novels, short stories and poetry from West Africa, East Africa and the Caribbean. (3 credits)

ENGLISH L357 Commonwealth Literature II
Selected novels, short stories and poetry from South Africa, Rhodesia, India, Australia and New Zealand. (3 credits)

ENGLISH L363 Modern Fiction I
Shorter works of nineteenth and twentieth century American and European novelists. Authors read will include Dostoevsky, Tolstoy, Conrad, Faulkner, Camus and Grass. (3 credits)
ENGLISH L364
Modern Fiction
A study of the major modern British, American and Continental novelists. (6 credits)

ENGLISH L365
Modern Fiction II
Same authors as in L363, but their longer works will be studied. (3 credits)

ENGLISH L400
History of the English Language
A study of the development of the language from its beginnings to the twentieth century; a course designed partly for those students intending to go on to further studies in English at graduate school, and partly for those interested in languages in general. (6 credits)

ENGLISH L402
Anglo-Saxon
An introduction to the study of Old English (Anglo-Saxon). (6 credits)

ENGLISH L405
Middle English
A study of selected essential texts of early Middle English. (3 credits)

ENGLISH L407
Chaucer I
A study of The Canterbury Tales in general, and of six or seven tales in particular. (3 credits)

ENGLISH L409
Chaucer II
Prerequisite: English L407. A study of The Faerie Queene and selected early poems. (3 credits)

ENGLISH L410
Medieval Literature
A study of the literature from the 12th century through Malory, exclusive of Chaucer. The major emphasis will vary from year to year, e.g., Medieval drama, romance, Langland, the Pearl poet. (6 credits)

ENGLISH L412
Masterpieces of English Literature Written Before 1603
A course designed to introduce the student to the origin and development of English literature in the Anglo-Saxon, Medieval and Tudor periods. Beowulf (in translation), Anglo-Saxon culture and poetry (in translation), Introduction to the works of Chaucer, Malory, and other works from the period after 1066. Introduction to Spenser and other representative authors of the Tudor period. Introduction to the origin and development of drama before Shakespeare. Introduction to the history of the English language up to 1603. (6 credits)

ENGLISH L413
Spenser and his Background
This course is intended to examine Spenser's works — The Amoretti and The Faerie Queene in particular — and their relations to the pertinent literary traditions, both English and continental. (3 credits)

ENGLISH L415
Elizabethan Prose and Poetry
Significant works of Elizabethan non-dramatic literature will be studied both as individual creations and as samples of the most important trends in non-dramatic verse and prose of the time. (3 credits)

ENGLISH L417
Elizabethan and Jacobean Drama
Representative plays to be read will be selected from the works of some of the following contemporaries of Shakespeare in the golden age of English drama: Kyd; Marlowe, Lyly, Heywood, Jonson, Webster, Tourneur, Marston, Middleton, Beaumont and Fletcher, Maseinger, Ford. (3 credits)

ENGLISH L418
Introduction to Shakespeare
An introduction to a wide range of Shakespeare's plays and some of his non-dramatic poetry. (6 credits)

ENGLISH L420
The Rise of Prose Fiction
The course will explore the origin and development of European fiction in major works of the Middle Ages and the Renaissance, giving particular attention to their varying sources of inspiration, the narrative techniques they evolve, and the basic genres they establish. (6 credits)

ENGLISH L424
Nature and Art in Renaissance Literature
Should the artist represent nature or transform it? Texts from literature and criticism written before 1700. (6 credits)

ENGLISH L425
Art and Ideas in the Early Seventeenth Century
A study of the poetry and some prose of the period, with special emphasis on the work of John Donne. (3 credits)

ENGLISH L426
Seventeenth Century Poetry
The course will put major emphasis on the poetry of Milton. Other poets to be studied will be selected from among Jonson, Donne, Herbert, Herrick and Marvell. (6 credits)

ENGLISH L427
Milton
Study of Milton's development as an artist and thinker from his school years through his involvement in the English Civil War to his final achievement in the epic genre. Readings will include the shorter poems, selected prose, Paradise Lost and Samson Agonistes. (3 credits)

ENGLISH L429
Restoration Drama
A study of plays by Etherege, Wycherley, Congreve, Dryden, Vanbrugh, Farquhar and others, intended to serve as an introduction both to this phase of English drama and to some of the major ideas and preoccupations of Restoration and eighteenth-century literature. (3 credits)

ENGLISH L433
The Restoration and Eighteenth Century I
Major authors of the eighteenth century, to include Dryden, Swift and Pope. (3 credits)

ENGLISH L434
Literature of the Eighteenth Century
A study of the aesthetic principles underlying the eighteenth century view of art. Numerous cross references are made to the painting of the period. Readings will be drawn from Dryden, Pope, Swift, Johnson, Boswell, Reynolds, The Letters of Gainsborough. (6 credits)
ENGLISH L435
The Restoration and Eighteenth Century II
Prerequisite: English L433 or in consultation with the professor. Major authors of the eighteenth century, to include Johnson, Richardson and Fielding. (3 credits)

ENGLISH L437
The Romantic Period I
The course will survey the major poets of the Romantic period (Blake, Wordsworth, Coleridge) with historical background and emphasis on the common technical and thematic elements of Romantic poetry. (3 credits)

ENGLISH L438
The Romantics
Major authors of the Romantic period, to include Blake, Wordsworth, Coleridge, Byron, Keats and the Shelleys. (6 credits)

ENGLISH L439
The Romantic Period II
Same as English L437, treating Byron, Shelley and Keats. (3 credits)

ENGLISH L441
Victorian Literature I
A study of Victorian prose works concerned with the role of the individual in society, beginning with two major social novels, Middlemarch and Vanity Fair. (3 credits)

ENGLISH L442
Victorian Literature
The poetry of Tennyson, Browning, Arnold, Hopkins, the Pre-Raphaelite circle; and novels from the following: Dickens, Eliot, Hardy (one novel by each author). (6 credits)

ENGLISH L443
Victorian Literature II
Complementary to English L441, but also suitable as an independent half course. A study of Victorian poetry and novels concerned with the individual consciousness, beginning with Tennyson and Browning. (3 credits)

ENGLISH L444
Literature and Aesthetics of the Nineteenth Century
A study of the various and changing views of the nineteenth century towards the nature and function of art. The course includes the study of the theoretical writings of DeQuincey, Ruskin, Swinburne, Whistler, Pater, Wilde, Bell and Fry, and a practical analysis of the major poetic works of Tennyson and Browning. (6 credits)

ENGLISH L446
Nineteenth Century Fiction
Emphasis will be on the variety of fictional modes and styles used during this period, and their relevance to the social and intellectual history of the age. (6 credits)

ENGLISH L450
Late Victorian and Edwardian Literature
The end of the Victorian era and the beginnings of modernism. Novels include James, Forster, Gissing, and Woolf; Wilde, Beardsley and *The Yellow Book*. (6 credits)

ENGLISH L454
Anglo-Irish Literature
Emphasis on the major English language writers of Ireland; notably O'Casey, Synge, Lady Gregory, Joyce, Yeats and Beckett. (6 credits)

ENGLISH L472
Modernist Poetry and Poetics
A study of the major poetic figures of the period 1890-1930, with an emphasis on the relationship between poetry and the visual arts. The influence of impressionism, symbolism, surrealism, and cubism on the theories of poetry will be considered. Detailed study of Yeats, Eliot, Crane, Wallace Stevens, E. E. Cummings, the Imagists, etc. (6 credits)

ENGLISH L474
History of Criticism
A consideration of the major texts which have marked the development of literary criticism. The course will be both historical and methodological. (6 credits)

ENGLISH L475
Patterns of English Speech
The course will examine the relationship between spoken and written English from a variety of points of view: linguistic, semantic, philosophical, literary. The course will emphasize oral English and will include such topics as phonology, intonational patterns, dialect, slang. (3 credits)

ENGLISH L477
Advanced Stylistics
On the basis of the linguistic study in L475, L477 will examine sentence structures, paragraph formation, tone, diction, argumentation. (3 credits)

ENGLISH L479
Advanced Studies in English Literature
Prerequisite: A period course in the area involved. A course devoted to a special topic or particular author in English Literature. The topic or author will vary from year to year. (3 credits)

ENGLISH L481
Advanced Studies in Shakespeare
Prerequisite: English L418 or suitable introductory course. Intensive study of a selected topic in Shakespeare, the exact nature of the topic to vary from semester to semester. (3 credits)

ENGLISH L483
Advanced Studies in American Literature I
Prerequisite: English L346. The topics considered will vary from year to year, and may include American poetry, American short stories, American drama, nineteenth century American fiction, etc. (3 credits)

ENGLISH L485
Advanced Studies in American Literature II
Prerequisite: English L346. As in L483, the topic will vary annually. (3 credits)

ENGLISH L487
Advanced Studies in Canadian Literature I
Prerequisite: English L454. Topics from poetry — an intensive study of the background and development of the genre and critical material will be conducted. (3 credits)

ENGLISH L489
Advanced Studies in Canadian Literature II
Prerequisite: English L454. Topics from fiction — an intensive study of the background, development of the genre and critical materials will be conducted. (3 credits)

ENGLISH L490
Joint Tutorial in History and English
A tutorial for students in the English and History Joint Honours Programme. (6 credits)
ENGLISH L492
Joint Tutorial in Modern Languages and English
A tutorial for students in the English and Modern Languages Joint Honours Programme. (6 credits)

ENGLISH L494
Independent Studies
A tutorial programme arranged with a member of the department. (6 credits)

ENGLISH L496
Advanced Research and Thesis
A small number of seminars or tutorials on special themes and topics, to vary each year. Registration limited to Honours students in their final year. All students must consult with the Department in advance. (6 credits)

The following courses are university level courses which were offered in the year indicated but did not appear in the official Calendar.

1976 - 77
ENGLISH 308A/B
Studies in Drama
(3 credits)

ENGLISH 580B
Independent Studies
(3 credits)
51.11.3 English as a Second Language

Coordinator
O. de GROOT

ESL 100
English Language
A course for students whose first language is other than English and who require additional training in order to achieve a level of expression acceptable to the university. The focus of the course is primarily on the development and improvement of writing skills. All candidates will be tested prior to entry. (6 credits)

ESL 201
English Language and Composition
Prerequisite: Successful completion of ESL 100 or proven equivalent competence in English. This course is designed for non-English students who have completed secondary school or its equivalent in a language other than English. The course encourages the development of effective written communication and improved reading comprehension so that the student may perform competently in his other university work. (6 credits)
51.12 Département d'Études Françaises

Assistant Professor and Chairman
M. TIFFOU

Associate Professor and Chef de section (Literature)
D. LEVY

Assistant Professor and Chef de section (Language)
N. TRUCHON

Professors
G. LABBE

G. LAURION
A. LAUZIERE

Associate Professor
L. SUGDEN

Assistant Professors
M. CATRY-VERRON
G. CHARPENTIER
M.-F. LIGIER
O. RIGAULT
L. VAN TOCH

51.12.1 PROGRAMMES *

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

60 BA Honours in French Language

Year I
18 Fr L352, L428; two of L259, L261, L263, L265, L267, L269

Year II
18 Fr L448, L452, and either L241 and L243, or L245 and L247

Year III
24 6 credits chosen from: L439, L441, L443, L445, L447, L449; and 6 Fr Elective credits

72 BA Joint Honours in French and English*

30 French: 6 credits in the XXth century; 6 credits in Quebec literature; 12 credits chosen from the XVIIIth, XIXth and XXth centuries; Fr L210 or L211 plus 3 credits in the missing century (XVIIIth, XIXth, XXth centuries).

30 English: 6 credits chosen among the following: L300, L302, L303, L304, L305, L307, L309. 18 credits chosen by genre or by periods paralleling the choice in French courses; 6 Elective credits chosen from the list of Honours and Major courses.

12 Credits will be chosen as follows: either 6 credits in each of two departments, or a corresponding combination of "Independent Studies" carried out in each of the two departments.

*NOTE: Sequence of courses to be determined in consultation with the departments concerned.

60 BA Honours in French Literature

Year I
18 Fr L210 or L211, 6 or 9 credits* chosen from L241 and L243, L245, L247, L321, L323, L325***; 3 credits chosen from: L259 or L261 or L396 and 3 credits from: L263, L265, L267, or L269

Year II
24 6 credits chosen from: L321, L323 or L325, L241, L243, or (L245 and L247);

6 credits: L351, and L353 or L355

6 credits: L428

6 credits: L430, or L431 and L433***

Year III
18 Fr L430, or L431 and L433; L439 or L441 plus 3 credits chosen from L443, L445, L447, L449; 6 credits chosen from Honours and Major courses e.g., L475, L477, etc.

*NOTE: Students allowed to take L211 must make up another 3 credits in literature

**6 credits in French Canadian Literature are required as are 6 credits in the XVIIth Century though they may be taken either in 1st or 2nd year.

#Fr L396 counts for 3 credits in Quebec Literature and the other 3 credits count as electives (see note on Literature § 51.13.2).

***Because these two courses are given alternately, Honours students must take one of them in their second year (see note on alternation of courses § 51.12.2).

72 BA Joint Honours in French and History

30 French credits:

6 Fr L210

6 Fr L351 and L353 or L355

6 Fr L241 and L243, or L245 and L247

6 Fr L439 and L445 or L447, or L441 and L445 or L447.
6 Fr L259, L269, L267, or L267
30 History credits:
Hist L206, L250, L266, and two Honours Seminars chosen from: L450, L452, L454
6 Elective credits in French or History
6 Hist L492 or Fr L498
*NOTE: Fr L396 counts for 3 credits in Quebec Literature, and the other 3 credits count as electives (See note on Literature § 51.12.2).

60 BA Specialization in French Literature
The same series of courses as for the Honours programme without a specified grade requirement (See note on Literature § 51.12.2).

42 BA Major in French Language (1er degré)*

Year I
12 Fr L303 and L305, or Fr L306 and one of the following:
Fr (L307, L308), (L309, L311), (L313, L314), (L315, L316), (L317, L318), (L319, L320)
Year II
12 Fr L322 and L324

Year III
18 Fr L336, L338, L352, or two of these and a 6-credit course selected among the other advanced courses of the Department (Language or Literature).
*NOTE: A group of 42 credits for students starting at the intermediate level.

42 BA Major in French Language (2e degré)

Year I
12 Fr L322 and L324

Year II
18 Three of: Fr L336, L338, L352, L428

Year III
12 Two of: Fr L438, L448, L452, L462, a 6-credit course selected among the other advanced courses of the Department.

NOTE: The student must choose his/her courses in consultation with the Department.

72 BA Joint Honours in French and one of the Modern Languages*

36 French: 6 credits in the XXth century, 6 credits in Quebec literature; 12 credits chosen from the XVIIth, XVIIIth, and XIXth century; L210 or L211 plus 3 credits in the missing century (XVIIth, XVIIIth, XIXth century); 6 Elective credits chosen from the list of French Honours and Major courses or a full tutorial.

36 Modern Languages: These 36 credits are to be chosen in German, Italian or Spanish in consultation with the Chairman of Modern Languages and Linguistics. Literature courses will be chosen to parallel as much as possible the choice in French courses.

*NOTE: Sequence of courses to be determined in consultation with the departments concerned.

BA French Honours and Major Students entering in January
Year I — Winter Term
12 Chosen from Fr L243, L247, L261, L269, L323
Year I and II — Fall Term and Winter Term
Fr L210, or L211 plus another 3 credits in Quebec literature

NOTE: Refer to the programme of Honours and Major in literature for the remaining courses in the programme.

42 BA Major in French Literature

Year I
Year II
Year III
*NOTE: Students allowed to take L211 must make up another 3 credits in literature.

**two half courses in Fr Canadian Literature are required as are 6 credits in the XIXth century though they may be taken in either 1st or 2nd year. Fr L396 counts for 3 credits in Quebec Literature and the other 3 credits count as electives. (See note on Literature, § 51.12.2).

24 Minor in French Literature

Year I
6 Fr L210, or L211 plus three credits in XVIIth, XVIIIth or XIXth Century
Year II
6 Fr L428
6 From courses in the XVIIth, XVIIIth or XIXth Century
Year III
6 From courses in the XXth century

24 Minor in French Language

A sequence of 24 credits in French Language starting at the intermediate level or higher and determined in consultation with the Department after a placement interview.

30 Certificate in French Language (1er degré)

Year I
12 Fr L201, L202
12 Fr L303, L305, or L306, and one of the following: Fr L307, L308, L309, L311, L313, L314, L315, L316, L317, L318, L319, L320
Year III
6 Fr L322, L324
*NOTE: A group of 30 credits over three years of study for students starting at the elementary level who wish to become functionally bilingual.
51.12.2 DEPARTEMENT D’ÉTUDES FRANÇAISES

Alterations may be made in the programmes, from year to year, but the whole three-year programme of a given student remains the one appearing in the calendar of the year of his registration in French, unless otherwise authorized by the Department.

Students wishing to combine programmes in French and another discipline should consult with the chairman (or chef de section in French) and have the registration approved by both of them.

Besides the Honours, Major, Joint Honours and Minor programmes indicated, a double Major or Honours with Major is always possible between French and another subject (42 credits in French, 42 credits in another discipline and 6 elective credits constitute a double Major). For example, French and Library Science would be an excellent combination.

A higher number for a course does not generally reflect a higher degree of difficulty in that course.

Students seeking admission to the Honours programme on or after June 1st, 1977 will be bound by the Honours requirements outlined in § 16.2.4 of this Calendar. Students who already had Honours status by June 1st, 1977 will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.

Students Honouring or Majoring in French, or in French and another discipline, will have a faculty adviser with whom they will consult.

Literature:
Apart from the 54 credits normally prescribed for the Honours degree, students must as well complete a further 6 credits chosen from among those indicated for the Honours or Major programme (e.g., L475, L477).

51.12.3 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.5

SECTION LANGUE

FRENCH L200
Basic French
An introductory course restricted to students with no previous knowledge of French. Practical oral exercises in class and assigned practice in the laboratory. (6 credits) NOTE A/See § 200.5

FRENCH L201
Elementary I
Oral course for students who have had some basic training. Practical exercises in class and assigned practice in the laboratory. (6 credits) NOTE A/See § 200.5

FRENCH L202
Elementary II
For students who have had about two years of training. Practical oral exercises in class and assigned work in the laboratory. Students will gradually make the transition from imitation of models to free expression. (6 credits) NOTE A/See § 200.5

FRENCH L303
L’art de vivre au Québec I
An intensive oral course which aims at increasing the students’ fluency in French through discussions with French-speaking student peers, under the guidance of a faculty member. The techniques used include small

Honours students are also to be examined on two extra readings for each course of their programme.
L396 may count for 3 Honours or Major credits in French and 3 credits as an elective.

Students may also obtain a Specialization by completing the 60 credits normally prescribed for the Honours programme while the grade requirements specific to the Honours programme are waived.

Certain courses may alternate on a yearly basis: Moyen Âge with Renaissance, French and Quebec civilizations and trends of thought, half courses in Quebec and comparative literature and in the Xviiith and Xviiiith centuries.

A student who is neither Majoring nor Honouring in French and whose written or spoken knowledge of the French language is inadequate by high standards, but sufficient for him or her to follow the course and take part in discussions, may register for a literature course and receive permission to write his assignments and examinations in English. His transcript will then bear “In English” after the course number. Should the student later on decide to Major or Honour in French, such a course will neither count as a French requirement nor as an elective if it has to be retaken.

Language:
The BA Major in French Language allows English-speaking students to acquire mastery of the language and to specialize in particular areas. It can be combined with a Major in another discipline, adding proficiency in French to the students’ career qualifications. All courses in the Language section are open to all students for elective academic credits provided they enroll at their proper level. In order to ensure this, registrations must be approved by the Department, and a Placement Interview is Compulsory Before Registration in Any French Language Course or Programme.
FRENCH L304
Intermediate I
A conversational approach to everyday modern French through active student participation. A review of grammar and syntax through oral exercises. Three hours a week plus language lab for two terms. (6 credits)

FRENCH L305
L’art de vivre au Québec II
Same as L303, but at a higher proficiency level. The two courses may be taken separately or consecutively. (6 credits)

FRENCH L306
Intermediate II
Systematic study of vocabulary and review of structure. Accent will be on correct form, both spoken and written. (6 credits)

FRENCH L307
French for Community Health Services I
For students interested in or intending to work in community health services. The practice of the usual French language skills will be centered around situations such as the student may encounter in working in a day care centre, health counselling clinic, hospital, etc. In addition to acquiring a common core of basic medical vocabulary and reviewing oral structures appropriate to the situation, each student will be asked to work on an individual project covering his own area of interest. (3 credits)

FRENCH L308
French for Community Health Services II
Continuation of L307, which is not, however, a prerequisite. New sub-topics are added and vocabulary is further enriched in the second semester. (3 credits)

FRENCH L309
French used in Physical Education and Sports
For students interested in the area of physical fitness. Subjects studied will include the following: Parts and movements of the body — physical conditioning — the role of physical education and sports in society — The Olympic Games — hockey — sports reporting — leadership in sports. The study of each subject will include vocabulary acquisition, the review of appropriate oral structures, guided discussion and individual projects. (3 credits)

FRENCH L311
French for Recreology
For students interested in the creative use of leisure for themselves and others. Subjects studied will include: Leisure in the modern society — popular leisure pursuits in Quebec — leisure and the city — leisure in the open air — the organization of leisure services in Montreal — holiday camps and their activities — roles and training of camp counsellors. Study will include vocabulary acquisition, review of appropriate structures, guided discussion and individual projects. (3 credits)

FRENCH L313
French for Social Sciences I
Primarily for students in political science, sociology, and allied fields who wish to participate in French in the community and public life of Quebec. The themes and vocabulary studied will cover various political, government and labour organizations and basic legal terminology, with emphasis on actual situations of communication. Readings, guided discussion and individual projects related to the students’ particular fields of interest. (3 credits)

FRENCH L314
French for Social Sciences II
Continuation of L313, which is not, however, a prerequisite. New sub-topics are added and vocabulary is further enriched in the second semester. (3 credits)

FRENCH L315
French for Industry I
Primarily for science and engineering students who will use French as the language of communication on the job. The common vocabulary core will cover the organization of an industrial plant and the basic terms relating to the manufacturing process and labour relations. In addition, each student will undertake an individual project covering his own area of interest. (3 credits)

FRENCH L316
French for Industry II
Continuation of L315, which is not, however, a prerequisite. New sub-topics are added and vocabulary is further enriched in the second semester. (3 credits)

FRENCH L317
French for Library Studies I
The course will emphasize the vocabulary and structures needed for communicating with users of library and resource centre services, and for exchanging information with personnel of French libraries, resource centres and similar agencies. Terms related to the organization of a library, the processes, materials and equipment used and the services provided will be studied. In addition, each student will work on an individual project. (3 credits)

FRENCH L318
French for Library Studies II
Continuation of L317, which is not, however, a prerequisite. New sub-topics are added and vocabulary is further enriched in the second semester. (3 credits)

FRENCH L319
French for Commerce I
Primarily for Commerce students who wish to acquire a working knowledge of business French, both oral and written. Terms relating to trade, banking and various business transactions will be studied, as well as business correspondence, with emphasis on actual situations of communication. Students will be encouraged to undertake individual projects. (3 credits) NOTE A/See § 200.5

FRENCH L320
French for Commerce II
Continuation of L319, which is not, however, a prerequisite. New sub-topics are added and vocabulary is further enriched in the second semester. (3 credits) NOTE A/See § 200.5

FRENCH L322
Français oral avancé
Ce cours s’adresse à l’étudiant qui, ayant terminé le niveau intermédiaire, a besoin de perfectionner sa langue orale. On approfondira la connaissance des structures et du lexique au moyen d’exercices systématiques et d’activités telles que débats, exposés oraux, enquêtes,
COURS DESCRIPTIONS

SCIENCE

FRANÇAIRES : D'ETUDES

LOYOLA

HISTOIRE DE LA LANGUE ET LINGUISTIQUE HISTORIQUE. APPLICATION AU FRANÇAIS ; DESCRIPTION ANTE, LA PRISE DE CONSCIENCE DES RESSOURCES IDIOMATIQUES . (6 CREDITS)

FRENCH L352

HISTOIRE DE LA LANGUE ET LINGUISTIQUE

INTRODUCTION À LA LINGUISTIQUE DESCRIPTIVE ET HISTORIQUE . APPLICATION AU FRANÇAIS ; DESCRIPTION DU FRANÇAIS MODERNE ET HISTOIRE DE LA LANGUE FRANÇAISE . COURS OBLIGATOIRE POUR LES ÉTUDIANTS "HONOURS" ET "SPECIALIZATION" , ET FORTEMENT RECOMMANDÉ AUX "MAJORS". (6 CREDITS)

FRENCH L388

PRINCIPES DE LA LINGUISTIQUE APPLIQUÉE

INITIATION AUX PRINCIPES DE LA LINGUISTIQUE APPLIQUÉE À L'ENSEIGNEMENT DU FRANÇAIS LANGUE SECONDE . ÉLABORATION D'EXERCICES À L'INTENTION DES ÉLÈVES À DES NIVEAUX VARIÉS D'ÂGE ET DE CONNAISSANCES . AU DEUXIÈME SEMESTRE, EXAMEN ET ÉVALUATION DE DIVERS ENSEMBLES PÉDAGOGIQUES DONC ON SE SERT À PRENDRE POUR L'ENSEIGNEMENT DU FRANÇAIS LANGUE SECONDE ET ÉLABORATION EN ÉQUIPE D'UNE LEÇON COMPLÈTE. (6 CREDITS)

FRENCH L448

PÉDAGOGIE DE L'AUDIO-VISUEL

LE COURS S'ADRESSE AUX ÉTUDIANTS QUI S'INTÉRESSENT À L'USAGE DES MÉDIAS DANS L'ENSEIGNEMENT . AU PREMIER SEMESTRE, ON ÉTUDE LES NOUVEAUX RÔLES DE L'ENSEIGNANT FACE AUX CHANGEMENTS TECHNOLOGIQUES DANS LA SOCIÉTÉ ET À L'ÉVOLUTION DES MOYENS DE COMMUNICATION . LE DEUXIÈME SEMESTRE SERA CONSACRÉ À L'ÉTUDE PRACTIQUE DES TECHNIQUES DE PRÉSENTATION ET DE RÉALISATION DE DOCUMENTS AUDIO-VISUELS À FINS ÉDUCATIVES . TRAVAUX PRATIQUES ABOUTISSANT À L'ÉLABORATION EN ÉQUIPE, D'UN DOCUMENT AUDIO-VISUEL DESTINÉ À L'ENSEIGNEMENT DU FRANÇAIS LANGUE SECONDE . (6 CREDITS) NOTE A/SEE § 200.5

SECTION LITTÉRATURE

LES ÉTUDIANTS QUI NE SONT PAS INSCRITS
EN MAJOR OU EN HONOURS FRENCH PEUVENT
SUIVRE L'UN OU L'AUTRE DES COURS SUIVANTS
APRÈS CONSULTATION AVEC LE DÉPARTEMENT.

FRENCH L210

INTRODUCTION AUX ÉTUDES LITTÉRAIRES

PRÉREQUIS : UN À DEUX COURS DE FRANÇAIS D'UN NIVEAU AU CEGEP. MÉTHODOLOGIE TECHNIQUE DE LA COMPOSITION, DE L'EXPlication DE TEXTE ET DE LA DISSERTATION. GRAMMAIRE STRUCTURALE. INITIATION AUX PRINCIPAUX GENRES LITTÉRAIRES . CE COURS EST ÉLIMINATOIRE . (6 CREDITS)

FRENCH L211

INTRODUCTION AUX ÉTUDES SUPÉRIEURES

PRÉREQUIS : TROIS COURS DE FRANÇAIS D'UN NIVEAU AU CEGEP. TECHNIQUE DE L'EXPLICATION DE TEXTE ET DE LA DISSERTATION. MÉTHODOLOGIE DE LA RECHERCHE. RÉVISION DES PRINCIPALES DIFFICULTÉS GRAMMATICALES . INITIATION AUX GRANDS GENRES LITTÉRAIRES . (3 CREDITS)

FRENCH L213

QUEBEC LITERATURE IN TRANSLATION

A COURSE DESIGNED FOR ENGLISH SPEAKING STUDENTS WHO WISH TO GAIN INSIGHT INTO THE THOUGHT PROCESSES, ATTITUDES AND WAY OF LIFE OF QUEBEC AS REVEALED BY SOME OF THE MOST STRIKING WORKS OF PROSE AND POETRY IN HER LITERATURE. A CHOICE OF THE FOLLOWING SELECTIONS
which have become classics in this field: Ringuet, Thirty Acres; P. Lemelin, The Town Below; G. Roy, The Tin Flute; G. Bessette, Not for Every Eye; Y. Theriault, Agaguk; G. Tougas, History of French Canadian Literature. (3 credits)

NOTE: This course is taught in English.

FRENCH L215
Quebec literature in translation II

Chronologically, a continuation of L213, concerned more particularly with literary creations which are more recent. A choice from the following list depending upon availability of texts and interests of the group: M. C. Blais, A Season in the life of Emmanuel; C. Jasmin, Ethel and the Terrorist; Anne Hébert, Kamouraska; G. Gélinas, Yesterday the Children Were Dancing; R. Carrier, La Guerre, Yes Sir! G. Tougas, History of French Canadian Literature. (3 credits)

NOTE: This course is taught in English.

FRENCH L241
Litterature du XIXe siecle (1800-1850) I

La generation romantique: l'inquietude, le reve et l'energie. Lecons, seances de travaux pratiques et travaux de recherche. Le roman: Chateaubriand, Rene; Constant, Adolphe; Vigny, Rien-Maris; Balzac, Le Pere Goriot; Stendhal, Le rouge et le noir; Lagarde et Michard, XIXe siecle. (3 credits)

FRENCH L243
Litterature du XIXe siecle (1800-1850) II


FRENCH L245
Litterature du XIXe siecle (1850-1900) III


FRENCH L247
Litterature du XIXe siecle (1850-1900) IV

Le monde bourgeois et anti-bourgeoisie: les courants parnassian et symboliste. Lecons, seances de travaux pratiques et travaux de recherche. La poesie: Baudelaire, Les fleurs du mal; Verlaine, Romances sans paroles; Rimbaud, Une saison en enfer; Mallarme, Heroidis de et l'apres-midi d'un faune; Lagarde et Michard, XIXe siecle. (3 credits)

FRENCH L259
Litterature quebecoise: Le roman I

Monde rural et monde urbain. Origines, influences, evolution. Etude d'oeuvres modernes. Lecons, seances de travaux pratiques et travaux de recherche. Textes: Ringuet, Trente arpents; Guerermont, Le survenant; Sauvage et Menaud maire-draveur; Lemelin, Au pied de la pente douce; Roy, Bonheur d'occasion. (3 credits)

FRENCH L261
Litterature quebecoise: Le roman II

Le monde de l'individu. Lecons, seances de travaux pratiques et travaux de recherche. Textes: Langevin, Poussiere sur la ville; Theriault, Agaguk; Bessette, Le libraire; Ducharme, L'aveu des aveus; Aquin, Prochain episode; Blais, Une saison dans la vie d'Emmanuel; Ferron, L'amincisseur. (3 credits)

FRENCH L263
Poesie, theatre et conte francais du Quebec

Le patriotisme litteraire

Origines, influences, evolution. Tradition et renouveau. L'ecole patroicte de Quebec, le regionalisme idealiste et conservateur. La campagne et la ville: platitude rurale, solitude urbaine. L'ecole litteraire de Montreal. Le davedissement individualiste et universaliste. Le populisme. Lecons, travaux pratiques, recherche, creation. Textes: Choix de poemes: de Rene Charette et A. Garneau a Savard; Neilligan, Poemes choisis; Morin, Classiques canadiens; Des Rochers, A l'ombre de l'Orford, Savard, L'Ahabas; Histoire de notre litterature dramatique: Choix d'extraits de theatre: de Quesnel a l. de Montigny; Eloi de Grandmont, Un Fils a tuer; Dubois, Un Simple Soldat; Choix de contes litteraires: de Casgrain et Lemay a Grandbois et Theriault; Sylvestre, Anthologie de la poesie canadienne-francaise; P. de Grandpre, Histoire de la litterature francaise du Quebec, 1, 11. (3 credits)

FRENCH L265
Poesie, theatre et conte francais du Quebec

Voix de l'homme et du monde

Maturation et orientations nouvelles. L'entree dans le Xxe siecle: continuite et contrastes. Ebauche de l'unanimisme, du futurisme et du surrealisme. Courants naturaliste et spiritueliste. Lecons, travaux pratiques, recherche, creation. Textes: Choix de poemes: de Choppin et Dugas a Hertel et Lasnier; J. A. Loranger, Les Atmospheres, Poemes; R. Choquette, Metropolitan Museum (Classiques canadiens); Histoire de notre litterature dramatique: Choix d'extraits de theatre: de Houle a Toupin; Filiatrault, Le Roi David; Lasnier, Le Jeu de la voyageuse; Toupin, Brutus; Choix de contes: de Laborge a Hbert, Martin, Ferron; Sylvestre, Anthologie de la poesie canadienne-francaise; P. de Grandpre, Histoire de la litterature francaise du Quebec, 1, 11; theriault, Conteurs canadiens-francais. (3 credits)

FRENCH L267
Poesie et Theatre Francais du Quebec

L'interrogation spirituelle et charnelle

FRENCH L269
Poésie et théâtre français du Québec;
Voix du pays réinventée

FRENCH L321
Littérature du XVIIe siècle: le théâtre et la dramaturgie classiques
Étude du théâtre classique dans le théâtre de Corneille, de Racine et de Molière. Leçons, séances de travaux pratiques et travaux de recherche. Textes: Polyeucte; Britannicus; Tartuffe; Lagarde et Michaud, XVIIe siècle. (3 crédits)

FRENCH L322
Littérature du XVIIe siècle: les moralistes, les penseurs et les orateurs
Leçons, séances de travaux pratiques et travaux de recherche. Textes: Descartes, Discours de la Méthode; Pascal, Pensees; La Rochefoucauld, Maximes; Bossuet, Oraison funèbres et Sermons; La Bruyère, Caractères; Lagarde et Michaud, XVIIe siècle. (3 crédits)

FRENCH L325
Littérature du XVIIe siècle: la fable, le roman, la littérature épistolaire, les mémoires
Leçons, séances de travaux pratiques et travaux de recherche. Textes: La Fontaine, Fables; Mme de La Fayette, La Princesse de Clèves; Mme de Sevigné, Lettres; Retz, Mémoires; Saint-Simon, Mémoires; Lagarde et Michaud, XVIIe siècle. (3 crédits)

FRENCH L351
Littérature du XVIIIe siècle: l'esprit philosophique en France au siècle des lumières
Montesquieu, Lettres persanes; Voltaire, Lettres philosophiques; L'encyclopédie: Rousseau, Contrat social, Lagarde et Michaud, XVIIIe siècle. (3 crédits)

FRENCH L353
Littérature du XVIIIe siècle: le roman et le conte
Prévost, Manon Lescaut; Lesage, Gil Bias; Diderot, Le neveu de Rameau; Voltaire, Candide; Rousseau, La Nouvelle Héloïse; Bernardin de Saint-Pierre, Paul et Virginie; Lagarde et Michaud, XVIIIe siècle. (3 crédits)

FRENCH L355
Littérature du XVIIIe siècle: le théâtre et la poésie
Lesage, Turcaret; Marivaux, Le jeu de l'amour et du hasard, Les fausses confidences; Sedaine, Le philosophe sans le savoir; Beaumarchais, Le mariage de Figaro; Chénier, Poésies, Lagarde et Michaud, XVIIIe siècle. (3 crédits)

FRENCH L396
(Also given as INT ST L224)
Littérature comparée—Comparative literature. Littératures canadiennes—Canadian Literatures
L'étude comparée des littératures canadiennes d'expression française et d'expression anglaise. Existe-t-il une seule littérature canadienne dans les deux langues, ou, en réalité, y a-t-il deux littératures séparées au Canada? Comparative study of French and English Canadian Literature. Is there only one literature in two languages or has Canada produced two distinct and separate literatures? Textes: Texts; Grove, Settlers of the Match; Ringlet, Trente arbres; MacLennan, The Watch that Ends the Night; Langeven, Poussière sur la vîle; Laurence, Rachel; Rachel; Davies, Fifth business; Carrier, La guerre, Yes Sir!; Ross, As for me and my house; M. C. Blais, Une Saison dans la vie d'Emmanuel; Hébert, Kamouraska. (6 crédits)

FRENCH L430
Littérature du moyen âge
Initiation à la langue et à la littérature du moyen âge. Choix d'œuvres épiques, romanesques, lyriques et historiques. Textes: La chanson de Roland; Tristan et Iseut; Chrétien de Troyes; Yvain; La chasteleire de Vergi; Guillaume de Lorris, Le roman de la rose; Villehardouin, La conquête de Constantinople; Villon, Poésies; Lagarde et Michaud, Le moyen âge. Leçons et séances de travaux pratiques. (6 crédits)

FRENCH L431
Littérature du XVIe siècle I: La prose; essai, nouvelle, roman, satire

FRENCH L433
Littérature du XVIe siècle II: La poésie: théâtre, lyrisme, satire et didactisme

FRENCH L439
Roman, théâtre et poésie du XXe siècle: La Belle Époque
Neo-symbolisme, nationalisme, intuitionnisme, nostalgie romantique, psychanaïsme et l'annonce du surréalisme. Auteurs choisis parmi les suivants: Jarry, Barres, Proust, Apollinaire, Fournier, Valery, Peguy, Claudel, Bourget. Textes choisis par le professeur tels que: Du côté de chez Swann; Alcools; Partage de midi; Cinq grandes odes; La Jeune Parque; Le cimetière marin; Le Grand Meaulnes. (3 crédits)
FRENCH L441
Roman, théâtre et poésie du XXe siècle: du Neo-classicisme à la Littérature Contemporaine
Auteurs choisis parmi les suivants : Gide, Mauriac, Ber- rnanos, Colette, Giono, Pagnol, Bosco, Breton, Eluard, Aragon, Cendrars, Desnos. Textes choisis par le professeur tels que : L'Immoraliste; La Symphonie pastorale; Thérèse Desqueyroux; Nadja; Regain ou Maruss, Poèmes d'Eluard et d'Aragon. (3 crédits)

FRENCH L443
Roman, théâtre et poésie du XXe siècle: Le Roman-Fleuve, Renouveau Théâtral et Poésie en Marge du Surréalisme
Auteurs choisis parmi les suivants : Romain, Rolland, Duhamel, Martin du Gued, Giraudoux, Cocteau, Supervielle, Jacob. Textes choisis par le professeur tels que : Les Tribaut; les Pasquiers; La Guerre de Troie n'aura pas lieu ou Electre, Les Copains ou Knock; La Machine infernale; poésie de Cocteau, de Supervielle, de Jacob. (en veilleuse 1976-77) (3 crédits)

FRENCH L445
Roman, théâtre et poésie du XXe siècle: Prélude à la guerre
Littérature désabusée. Roman de la grandeur humaine et de l'opposé intérieur. Auteurs choisis parmi les suivants : Celine, Montherlant, Malraux, Proust, Salacrou, Julien Green, St-Exupéry, Perse, Jouve. Textes choisis par le professeur tels que : Voyage au bout de la nuit; La Reine morte; La Condition humaine; La Sauvage ou Antigone; Vol de Nuit; poèmes de Perse, de Jouve. (3 crédits)

FRENCH L447
Roman, théâtre et poésie du XXe siècle: L'Époque de l'Absurde et la Poésie Contemporaine
Analyse et illustration de la condition humaine. De la revolte au néant; Recherche d'une nouvelle voie évidente dans les œuvres romanesques et le théâtre de l'absurde. Auteurs choisis parmi les suivants : Camus, Sartre, Beauvoir, Beckett, Aymé, Queneau, Ionesco, Genet, Prévert, Ponge, Char, Michaux. Textes choisis par le professeur tels que : Le mur, Huis clos, Le Malentendu; La Peste; En attendant Godot; Les Bonnes; poèmes de Prévert, de Ponge, de René Char, de Michaux. (3 crédits)

FRENCH L449
Roman, théâtre et poésie du XXe siècle: Le Nouveau Roman et le Théâtre Actualité
Les tendances littéraires majeures depuis vingt ans. Auteurs choisis parmi les suivants : Bataille, Robbe-Grillet, Butor, Mallet-Joris, Duras, Sarraute, J. L. Curtis, Cesbron. Textes choisis par le professeur tels que : Le Voyageur; La Modification; Moderato cantabile, le plané- tanium; poèmes choisis par le professeur. (en veilleuse 1976-77) (3 crédits)

FRENCH L451
Création littéraire et théâtrale
Ce cours, ou atelier d'écriture, s'adresse aux étudiants désirant d'écrit d'écrit et de soumettre leurs textes à la critique et à l'analyse. Chaque semaine, un auteur lira ou fera lire son texte, se prêtant aux questions et aux commentaires de ses confrères et du professeur. Aperçus sur les problèmes d'écriture dans les différents genres (poésie, conte, roman, essai, théâtre ou écriture pour la scène, la radio, la télévision, le cinéma), sur les lois ou les contraintes inhérentes à un genre choisi et sur les récentes recherches formelles dans ce domaine. Exercices d'écriture axés sur ces contraintes et ces recherches. (3 crédits)

FRENCH L452
Stylistique et Traduction
Stylistique interne du français: examen pratique de procédés grammaticaux, de problèmes de stylistique et de difficultés particulières à la langue française. Introduction à la stylistique comparée de l'anglais et du français: exercices de stylistique comparée, traduction, anglicismes, faux amis; expressions idiomatiques. (6 crédits)

FRENCH L453
(Also given as Production 303)
Art Dramatique
L'inscription est limitée. Ce cours, ou atelier pratique de théâtre, s'adresse aux étudiants qui veulent acquérir une connaissance pratique du théâtre, l'intérioriser au phénomène de socialisation que cet art réalise. Ce "théâtre en action" vise à sensibiliser aux exigences du texte dramatique et aux réalités de la scène. Au cours de l'année, les membres de ce cours interprèteront une pièce ou quelques actes du théâtre français et/ou québécois, ou des scènes créées dans le cours. Exercices de scène: les instructions des situations dramatiques, d'improvisation dramatique et de diction théâtrale. (3 crédits)

FRENCH L462
Traduction avancée
L'art de la traduction. Stylistique comparée du français et de l'anglais. Traduction de textes littéraires de l'anglais au français. (6 crédits)

FRENCH L471
La civilisation française: ses rapports avec le Québec

FRENCH L473
Essai et civilisation du Québec
La culture et la civilisation du Québec d'hier et d'aujourd'hui vues par ses principaux es- sayistes. Le monde québécois: origines, institutions, système de valeurs, évolution. Aspects marquants de l'histoire et de la vie politique, économique, sociale et culturelle (religion, enseignement, beaux-arts, littérature, langue, elo- quence, journalisme . . .) du Québec. Leçons, travaux pratiques et travaux de recherche. Textes: Edmond de Nevers, L'avenir du peuple canadien-français; Jean Le Moyne, Convergences; Lionel Groulx, Le chemin de l'aventure; Pierre Vadeboncoeur, Le large du risque; Raoul Blanchard, Le Canada français . . . (3 crédits)
FRENCH L475
Histoire des idées en France au XXe siècle

Etude des principaux courants de pensée dans la France contemporaine: nationalisme, socialisme, intuitionisme, surréalisme, existentialisme, structuralisme. L'étude se fera à l'aide de textes d'essayistes et de penseurs, entre autres, Bergson, Barrès, Péguy, Breton, Camus, Sartre, Lévi-Strauss. Leçons, travaux pratiques. Textes recommandés: Bergson, Les deux sources de la morale et de la religion; A. Robinet, Bergson; Valéry, Regards sur le monde actuel; Breton, Manifestes du surréalisme; Sartre, L'existentialisme est un humanisme? Teilhard de Chardin, Le phénomène humain; Malraux, Le tentation de l'Occident; Camus, L'homme révolté; Lévi-Strauss, Anthropologie structurale; Gaëtan Picon, Panorama des idées contemporaines. (3 crédits)

FRENCH L477
Histoire et mouvement des idées au Québec

Étude des principaux courants de pensée dans le Québec d'hier et d'aujourd'hui tels que l'ultramontanisme, le libéralisme, le nationalisme, le socialisme. Ce cours aidera l'étudiant à mieux situer la littérature française du Québec dans le contexte idéologique, politique, social et culturel qu'elle reflète. On étudiera, entre autres, les essayistes suivants: Edmond de Nevers, Jean Le Moyne, L. Groulx, P. Vadeboncoeur, F. Dumont, P. Vallières... Leçons, travaux pratiques. Textes suggérés: Edmond de Nevers, L'avenir du peuple canadien-français; Collection Classiques canadiens (Parent, Tardivel, F.-X. Garneau, Buies, Fournier...); Jean Le Moyne, Convergences; Lionel Groulx, Les chemins de l'avenir; F. Dumont, Le lieu de l'homme; Ernest Gagnon, L'homme d'ici; Pierre Vadeboncoeur, La ligne du risque, Indépendances; J.-P. Desbiens, Les insolences du Frère Untel; P. Vallières, Nègres blonds d'Amérique; F. Dumont, J.-P. Montigny, Idéologies au Canada Français. (1850-1900) (3 crédits)

FRENCH L480
Français avancé. Initiation à l'art littéraire

Étude des thèmes de la littérature du XXe siècle à travers des œuvres et des textes choisis parmi les principaux genres. Travaux pratiques d'analyse, de rédaction et de grammaire. (6 crédits)

FRENCH L482
Initiation à la littérature

Connaissance des principaux genres littéraires et apprentissage des principales techniques de l'explication de texte. Étude approfondie de quelques œuvres québécoises et française contemporaines. (6 crédits)

FRENCH L498
Programme libre ("Independent studies programme")

L'inscription à ce cours se fait après consultation avec le ou les professeurs devant surveiller la bonne marche des travaux et avec l'approbation du Département. (6 crédits)
51.13 Geography

Associate Professor and Chairman
DAVID FROST
Lecturer and Coordinator of Geography
at Loyola
RONALD DUFFY
Assistant Professor
MAXTON BARLOW

51.13.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

24 Minor in Geography

(a) For BSc Students:
   Year I or II
   9 Geog L265\textsuperscript{1}, L275\textsuperscript{1} and L276\textsuperscript{1}, or L375\textsuperscript{1}
   Year II or III
   15 Geog Elective credits

(b) For BA Students:
   Year I or II
   9 Geog L200\textsuperscript{1}, L265\textsuperscript{1}
   Year II or III
   15 Geog Elective credits

51.13.2 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.5.

GEOGRAPHY L200
Foundations of Geography: Environment and Man
Prerequisite: None. A course designed for the student with no previous training who is interested in the geographic background to world and environmental problems. A study will be made of both physical and human factors in geography. Areas of concentration will be: energy, natural systems and the environment; landscape evolution, climate and resources; variation and spatial distribution of man's economic, social and political activities; the relationship of urban and non-urban man to the environment. Lectures: 3 hours per week, including Lab. (6 credits)

GEOGRAPHY L215
Cultural Geography I: Man the Hunter
Prerequisite: None. A study of man-environmental relationships through the ages. The Pleistocene inheritance and the spread of man across the earth. Man the hunter. The development of cultures and the growth of agricultural landscapes. Man's differing adaptations in pre-industrial societies, including the Eskimos and Indians. Lectures: 3 hours per week. (3 credits)

GEOGRAPHY L216
Cultural Geography II: Man's Rise to Civilization
Prerequisite: None. The impact of technology upon cultures. The evolution of industrial man. The dichotomy between developed and developing countries. The population explosion and changing patterns of urban and non-urban societies. The future outlook. Lectures: 3 hours per week. (3 credits)

GEOGRAPHY L265
Maps and the Presentation of Statistical Data I
Prerequisite: None. A study of man-environmental relationships through the ages. The Pleistocene inheritance and the spread of man across the earth. Man the hunter. The development of cultures and the growth of agricultural landscapes. Man's differing adaptations in pre-industrial societies, including the Eskimos and Indians. Lectures: 3 hours per week. (3 credits)
GEOGRAPHY L266
Maps and the Presentation of Statistical Data II
Prerequisite: None. The emphasis in this part of the course will be on thematic maps and statistical diagrams and graphs. Elementary quantitative techniques will be studied and their application to the analysis of geographic, economic, population and other scientific and problem data. Lab: 3 hours per week. (3 credits)

GEOGRAPHY L275
Climate and the Biosphere
Prerequisite: None. A study of the energy systems of the atmosphere and an introduction to environmental geography. The hydrologic cycle, world climates and weather systems. Interrelationships in the biosphere, and man’s impact upon them. Weather and climate maps will also be studied. Lectures: 3 hours per week, including Lab. (3 credits)

GEOGRAPHY L276
Landforms and the Biosphere
Prerequisite: None. L275 a help. An introduction to the energy systems of the earth’s crust and oceans, and the processes which have shaped our environment. The evolution of landforms and man’s impact upon landscapes. The Pleistocene and Recent epochs in Canada, and their effects on soils and land use. The study of relevant topographic land-use maps, and aerial photographs. Lectures: 3 hours per week, including Lab. (3 credits)

GEOGRAPHY L315
Political Geography
Prerequisite: Geog L216 or equivalent; or permission of department. Study of the political map and the spatial growth of states: of frontiers and boundaries, cities and federalism, systems and disintegration of empires. Votes, migrations and environmental stress. Spatial relationship at the municipal, national and international levels. Lectures: 3 hours per week. (3 credits)

GEOGRAPHY L317
Population Geography
Prerequisite: Geog L266 or equivalent. The characteristics, dynamics and distribution of world populations. Census data and techniques of census analysis. Rural/urban populations and their varying proportions. The vital processes of population change: natural increase and migration. Growth rates, population policies, and population pressure. Study of selected groups. The demographic prospects. Lectures: 3 hours per week. (3 credits)

GEOGRAPHY L325
Introduction to Historical Geography
Prerequisite: Geog L216 or equivalent. An examination of the geographical factors in historic events; of the distribution and migration of peoples; of differing settlement patterns and the growth of cities. The effect of physical boundaries in war and peace. The agricultural and industrial revolutions and their effects, and special reference to Europe. Lectures: 3 hours per week. (3 credits)

GEOGRAPHY L326
Historical Geography of North America
Prerequisite: Geog L216, L325 or equivalent. This course will be given with special reference to Canada. A study of early settlement and land use, and the effects of conflicts, treaties, and successive immigrations. The mercantile and colonial eras, and changing cultural and agricultural landscapes. Differing settlement patterns, including the seigneurial and township systems in Quebec. The growth of cities, industries and trade networks, and the emergence of Modern America. Lectures: 3 hours per week. (3 credits)

GEOGRAPHY L335
Urban Geography I
Prerequisite: Geog L200 or permission of department. The evolution of the city; its function and economic base. An examination of urban internal structure, land use, and social and political geography. Lectures: 3 hours per week. (3 credits)

GEOGRAPHY L336
Urban Geography II
Prerequisite: Geog L335 or permission of department. The North American and Canadian City. Problems and politics of urban growth and development. Contrasts with Old World and Third World Cities. Lectures: 3 hours per week. (3 credits)

GEOGRAPHY L342
The Geography of Canada
Prerequisite: Geog L200 or L216 or permission of department. The Indian, Eskimo and European settlement and early development of Canada. The resource base. Migration and changing land use. Emergence of cultural and economic regions. The growth of cities and industrialization. Problems of a developed economy, with special reference to Quebec and Ontario. The demographic transition; federalism, nationalism and their consequences. The significance of development schemes in James Bay and the North. Canada’s interaction with the U.S.A. and Latin America: her world position. Lectures: 3 hours per week. (6 credits)

GEOGRAPHY L344
The Third World
Prerequisite: Geog L200 or L216 or L358 or permission of department. The economic geography, problems and future of the developing countries. The importance of cultural traditions; the colonial legacy; the struggle for self-sufficiency. Agricultural and industrial resources, local and world trading patterns, tourism. Urbanization and increasing population pressure; outlook for 2000 A.D. Lectures: 3 hours per week. (6 credits)

GEOGRAPHY L347
The Developed Countries
Prerequisites: Geog L200, L216 or L358 or permission of department. An examination of the economic geography and contrasting organization of the EEC, the U.S.A. and the U.S.S.R. Problems of urban and industrial growth and decay, population trends, and diminishing raw resources. World trading patterns and dependence on the Third World. Lectures: 3 hours per week. (6 credits)

GEOGRAPHY L348
The Geography of the Far East
Prerequisite: Geog L200 or L216 or L358 or permission of department. The economic and political geography of the Far East. A study of the contrasts in resources, organization and development of the People’s Republic of China, Japan, and S.E. Asia. Lectures: 3 hours per week. (6 credits)
GEOGRAPHY L349
Geography of Northern Lands
Prerequisite: Geog L200 or L216, or permission of department. A study of the northern lands in North America. Comparisons with Europe and the U.S.S.R. The physical characteristics, peoples, resources, past and present economies. A discussion of possible future developments and problems. Lectures: 3 hours per week. (6 credits)

GEOGRAPHY L358
Geography of Location I
Prerequisite: Geog L266 or L365 or equivalent. This course aims to provide the background to locational theory and spatial analysis in economic, human and physical geography. The classical theories of location in agriculture, industry and settlement of von Thunen, Weber, Christaller, Losch and others will be examined; their relevance to the different stages of development and resource used in First and Third World countries will also be discussed. Lectures: 3 hours per week. (3 credits)

GEOGRAPHY L359
Geography of Location II
Prerequisite: Geog L358. A study of manufacturing and marketing with particular reference to Canada and the United States. Spatial patterns of innovation and diffusion. Regional and interregional flows and networks. Comparison with organization and development in the developing countries. Lectures: 3 hours per week. (3 credits)

GEOGRAPHY L365
Geographical Analysis
Prerequisite: Geog L266 or equivalent. The application of quantitative techniques to geographical data. Analysis of point patterns, spatial distributions, and networks. Non-parametric methods. Probability and prediction. Regression and multivariate techniques in the analysis of geographical relationships. How to test the significance of data. Lectures: 3 hours per week. (3 credits)

GEOGRAPHY L375
Biogeography
Prerequisite: Geog L200, or L275 and L276, or Introductory Botany, Biology or Environmental Studies. A study of biotic communities and interaction within ecosystems. Topics will include: the scope of biogeography; the biosphere, food chains and energy exchange within ecosystems. Relationships between vegetation and fauna, and landforms, soil, hydrology and climate. Local, continental and world patterns of distribution; methods of dispersal, migration and population checks. Field studies will be an integral part of the course. Lectures: 3 hours per week, including Lab. Field trips. (6 credits)

GEOGRAPHY L395
Evolution of Geography
Prerequisite: See Chairman. The development of geographical thought since earliest times. Changes in the twentieth century: the quantitative revolution. Concepts and present day specialisms. Geography’s contribution to environmental studies and to an understanding of the complexities of the modern world. Lectures: 3 hours per week. (3 credits)
51.14 Department of Geology

Professor and Chairman
D. J. McDougall

Associate Professors
J. T. Jenkins
K. K. Mukherji

51.14.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

90 BSc Honours in Geology

Year I
15 Geol 211A\(^3\), 222A\(^3\), 231B\(^3\), 232B\(^3\), 241A\(^3\)
6 Cognate Sc Elective credits to be chosen from Chem 336Z\(^3\), 342A\(^3\), 344B\(^3\), Comp Sc 211\(^3\), 241\(^3\), Math 301A/B\(^3\)
9 Elective credits

Year II
21 Geol 301B\(^3\), 311Z\(^6\), 312B\(^3\), 313B\(^3\), 341B\(^3\), 342B\(^3\)
3 Geol Elective credits
6 Elective credits

Year III
21 Geol 400Z\(^3\), 411Z\(^6\), 421A\(^3\), 451A\(^3\), 452B\(^3\)
9 Geol Elective credits

90 BSc Major in Geology

Year I
12 Geol 201A\(^3\), 203B\(^3\), 211B\(^3\), 222A\(^3\)
18 Elective credits

Year II
9 Geol 241A\(^3\), 311Z\(^6\)
3 Geol Elective credits

Year III
15 Geol 411Z\(^3\), 421A\(^3\), 451A\(^3\), 452B\(^3\)
3 Geol Elective credits
12 Elective credits

24 Minor in Geology

6 Geol 201A\(^3\), 203B\(^3\)
18 Geol Elective credits

NOTE: Geology 205A\(^3\), 206B\(^3\), 207A\(^3\), 211B\(^3\) and 221B\(^3\) may be taken by students in other disciplines who are interested in specific subjects of a geological nature. No previous background in Geology is required.

51.14.2 DEPARTMENT OF GEOLOGY

Students planning to continue in the Honours in Geology or Specialization in Geology programmes, will normally have taken Geology 201A or equivalent, as part of their Collegial Studies. At the discretion of the Department, students lacking such preparation for their University programme may be required to take this course on a non-credit basis.

Students intending to follow joint Major programmes should obtain the approval of the chairman of the appropriate Departments.

Students seeking admission to the Honours programme on or after June 1st, 1977 will be bound by the Honours requirements outlined in § 16.2.4 of this Calendar. Students who already had Honours status by June 1st, 1977 will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.

The Specialization, Major and Minor programmes in Geology offered on the Loyola and Sir George Williams campuses are essentially the same (see § 91.10). Lists of equivalent course numbers are tabulated at the end of the Geology course descriptions. In any given year, certain Geology courses will only be available on one campus, and within the restraints imposed by adequate travel time may be taken by students from the other campus.
Field Trips and Field Schools
Lectures and laboratory work cannot successfully substitute for actual observation of geology in the field. Therefore, for all students, half or full day field trips to areas of geological interest are a normal adjunct to several courses. For students in the Honours and Specialized Programmes, geological and geophysical field schools (Geology 223B and 301B) are conducted by staff members in the two weeks following the completion of examinations in the spring. Students following the Major programmes are not required to take these field schools, but, if suitably qualified, may be granted permission to do so by the department.

Summer Employment
It is strongly recommended that prior to graduation at least one summer be spent in some phase of geological work. Although the Department of Geology cannot guarantee summer employment, its students can normally expect to be engaged in suitable work during the summer months with government agencies or private companies.

51.14.3 COURSE DESCRIPTIONS

GEOLOGY 201A
Physical Geology
Prerequisite: None. The nature, origin and evolution of the universe, stars and planetary systems, the physical properties of the Earth and its environment, the materials and structures of the Earth's interior and surface, and the processes affecting these regions, such as continental drift, the formation of oceanic basins and mountain building. Lectures: 3 hours per week. Text: R. J. Foster: General Geology (Merrill) (3 credits)
NOTE: Geology 201A is primarily designed to provide an introduction to Geology for students who are not Majoring in the department.

GEOLOGY 202B
Elementary History of the Earth
Prerequisite: None. The hydrologic cycle and the cycle of erosion; the measurement of geologic time; the history of life on earth and the geologic evolution of North America; glaciation and the ice age; the nature and origin of mineral deposits; the geology of coal, oil and gas; the conservation of natural resources. Lectures: 3 hours per week. Text: R. J. Foster: General Geology (Merrill) (3 credits)
NOTE: Geology 202B is primarily designed to provide an introduction to Geology for students who are not Majoring in the department.

GEOLOGY 203Y
Introductory Laboratory Course in Geology
Prerequisite: None. Laboratory studies include investigation of rock and mineral specimens. Interpretation of topographic maps and aerial photographs; interpretation of Geomorphic and Geologic Maps — and the examination of selected fossils, Field trip to local areas. Lab: 3 hours per week. Text: to be announced. (3 credits)
NOTE: Geology 203Y is primarily designed to provide an introduction to Geology for students who are not Majoring in the department.

GEOLOGY 205A
Environmental Geology
Prerequisite: None. Geology in the ecosystem. The earth's atmosphere, hydrosphere, lithosphere and biosphere in the geologic time. Long range geological effects of ecosphere pollution. Trace nutrients and health with emphasis on the geology of trace elements and its 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: 3 hours per week. Text: To be announced. (3 credits)

GEOLOGY 206B
Continental Drift
Prerequisite: None. An introduction for non-Majors to the concept of Continental Drift. The origin and development of the theory, the nature of the earth's crust, the ocean floor, and the theory of sea floor spreading. The revolution in the Earth Sciences as a result of widespread acceptance of the concept. Lectures: 3 hours per week. Text: Wilson, ed: Continental Drift (Freeman) (3 credits)

GEOLOGY 207A
Geology of Resources
Prerequisite: None. 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 environment. Lectures: 3 hours per week. Text: To be announced. (3 credits)

GEOLOGY 211B
Mineralogy I
Prerequisite: None. Physical and chemical properties of minerals, elements of crystal chemistry, mineral classification, silicate structure and a description of important silicate mineral groups are topics covered in lectures. In the lab, the composition, diagnostic properties and geological environments of some 150 minerals (non-silicates and silicates) are emphasized and physical and simple chemical tests are applied to the identification of these minerals. Lectures: ½ hours per week. Lab: ½ hours per week. Text: Hurlbut: Dana's Manual of Mineralogy (Wiley, 18th ed) (3 credits)

GEOLOGY 221B
Physical Oceanography
Prerequisite: None. Geomorphology of the ocean floor with emphasis on the significance of the midoceanic ridges and trench systems. The physical and chemical characteristics and circulation of ocean waters and their causes. Tides and waves. Distribution and origin of terrigenous, biogenous, chemogenic, volcanogenic and polygenic sediments in the major ocean basins. Conditions of oceanic sedimentation. Quantitative distribution of suspended sedimentary materials at the ocean bottom. Size composition of suspensions and bottom sediments. Economic resource potential of the oceans. Lectures: 3 hours per week. Text: Gross: Oceanography (Prentice Hall) (3 credits)

GEOLOGY 222A
Invertebrate Paleontology
Prerequisite: Geology 201A or equivalent. A systematic survey of major invertebrate fossil groups with chief emphasis on morphology,
classification, and geologic occurrence. Study of principles of evolutionary concepts and biostratigraphic zonation. Some selected discussion on paleoecology. Lectures: 3 hours per week. Lab: 3 hours per week. Text: Moore, La Licker. Fischer: Invertebrate Fossils (McGraw-Hill) (3 credits)

GEOL 231B
Earth Physics
Prerequisite: Geology 201A or equivalent. This course is directed toward 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, theory of sea-floor spreading, theories of mountain formation. Lectures: 3 hours per week. Lab: 3 hours per week. Text: To be announced. (3 credits)

GEOL 232B
Exploration Geology
Prerequisite: Geology 231B. Surveying, surface and sub-surface mapping methods, property evaluation and development, mining operation and cycles, soil geochemistry, data storage and retrieval. The second part of the course will include actual field survey using seismic, magnetic, gravity and electrical techniques. Students will be required to pay for room and board for a one-week period in the field school. Field Work: 2 weeks in May at the Concordia Geophysics Field School. (3 credits)

GEOL 241A
Structural Geology
Prerequisite: Geology 201A or equivalent. The recognition and origin of geologic structures. Primary structures, faults, folds and joints, principles of rock deformation. Laboratory includes a survey of methods of structural interpretation, structural experiments and field trips. Lectures: 3 hours per week. Lab: 3 hours per week. Text: Dennis: Structural Geology (Ronald). Laboratory: Ragan: Structural Geology (McGraw-Hill); Blackader: Guide for the Preparation of Geological Maps and Reports (Department of Energy Mines and Resources) (3 credits)

GEOL 301B
Field Geology
Prerequisite: Geology 241A and 311Z. Surface and underground field mapping methods. Preparation of geological maps, sections and reports from field notes, diagrams and air photos. Special field trips to examine specific geologic problems. Students will be required to pay for room and board for a ten-day period. Field Work: 2 weeks in May at the Concordia Geology Field School. (3 credits)

GEOL 302B
Geostatistics and Computer Applications in Geology Geophysics
Prerequisite: Geology 201A or equivalent. Statistical analysis and computing methods applied to geological problems. Lectures: 3 hours per week. Lab: 3 hours per week. Text: To be announced. (3 credits)

GEOL 303B
Precambrian Geology
Prerequisite: Geology 342B. Evolution of the earth in the Precambrian era. Problems in Precambrian correlation, paleoclimates and structural history. Emphasis on Canadian and North American Precambrian areas. One term paper to be prepared. Lectures: 3 hours per week. Periodic Seminars. (3 credits)

GEOL 311Z
Elementary Petrology
Prerequisite: Geology 211B. The identification and description of hand specimens of sedimentary, igneous and metamorphic rocks. Rock associations and methods of classifying rocks. Lectures: 3 hours per week for two terms. Lab: 3 hours per week for two terms. (6 credits)

GEOL 312A
Mineralogy II
Prerequisite: Geology 211B. Point and translational symmetry, point groups, space groups, interpretation of space group tables, elements of crystal chemistry, chemistry and phase relations of important rock forming minerals. Stereographic projections of crystal data, the Universal Stage and powder diffractometry in identifying minerals are subjects stressed in Lab. Lectures: 3 hours per week. Lab: 3 hours per week. Texts: Blos: Crystallography and Crystal Chemistry; Deer, Howie and Zussman: An Introduction to the Rock Forming Minerals (3 credits)

GEOL 313B
Optical Mineralogy
Prerequisite: Geology 211B. Lectures deal with the theoretical background necessary for the use of the petrographic microscope. In the laboratory, oil immersion techniques for the determination of isotropic and anisotropic minerals in powder form are studied. If time permits, an introduction to the use of the four-axis Universal Stage is given. Lectures: 3 hours per week. Lab: 3 hours per week. Text: Wahlstrom: Optical Crystallography (Wiley, 3rd ed); U.S.G.S. Bull 848, The Microscopic Determination of the Non-opaque Minerals (2nd ed) (3 Credits)

GEOL 314B
Sedimentary Petrology
Prerequisites: Geology 311Z and 313B. (May be taken concurrently.) The occurrence and formation of sedimentary rocks. Laboratory includes a brief survey of techniques applied to unconsolidated sediments, but particular emphasis is placed on the microscopic examination of sedimentary rocks. Lectures: 3 hours per week. Lab: 3 hours per week. Text: Blatt, Middleton, Murray: Origin of Sedimentary Rocks (Prentice Hall) (3 credits)

GEOL 315A
Introduction to X-ray Crystallography
Prerequisites: Geology 211B and 312A. The nature of X-rays, diffraction, the reciprocal lattice, powder diffractometer, powder cameras, single crystal methods. Laboratory work will stress the techniques of powder diffractometry and Precession photography. Lectures: 2 hours per week. Lab: 4 hours per week. References: Blos: Crystallography and Chemistry (Holt, Rinehart, Winston.) 1971; Sands: Introduction to Crystallography (Benjamin Inc. 1969): Azaroff: Elements of X-ray Crystallography (McGraw-Hill) (3 credits)

GEOL 315B
Exploration Geophysics
Prerequisite: Geology 231B. An introduction to geophysical methods of prospecting and of investigating subsurface structures. The theories, uses and limitations of various magnetic, electrical, gravitational and seismic methods are explained and compared. The practical operation of the instruments is reviewed and actual field results are analyzed. Lectures: 3 hours per week. Lab: 3 hours per week. Text: Dobrin:
GEOL 351A
Specialized students may also take the course at the discretion of the Department. 6 hours per week. (6 credits)

GEOL 400Z
Undergraduate Thesis
Prerequisite: Permission of the Department. Honors students in their final year are expected to show competence in isolating and examining a geological problem using techniques available within the department, working in conjunction with assigned faculty advisers. Course evaluation will be based on the student's performance in the investigation and on the written report. Specialized students may also take the course at the discretion of the Department. 6 hours per week. (6 credits)

GEOL 411Z
Igneous and Metamorphic Petrology
Prerequisites: Geology 311Z and 313B. Presentation and interpretation of phase relations, mineralogy, fabric, classifications and petrogenesis of the igneous rocks. The scope of metamorphism, the zone, grade and facies concepts of metamorphism, ACF and AKF diagrams. In the laboratory, megascopic and microscopic techniques are used in the examination of rocks representative of the more common igneous and metamorphic varieties. Lectures: 3 hours per week. Labs: 3 hours per week. Text: Hyndman. Petrology of Igneous and Metamorphic Rocks (McGraw-Hill); Moorehouse: The Study of Rocks in Thin Section (Harper). References: Deer, Howie and Zussman: An Introduction to the Rock Forming Minerals (Longmans); Spry: Metamorphic Textures (Pergamon); Winkler: Petrogenesis of Metamorphic Rocks (Springer-Verlag, 2nd ed) (6 credits)

GEOL 412A
Mineral Physics
Prerequisites: Geology 211B, 311Z, 312A, 332B. Selected aspects of the relationship of solid state characteristics of minerals to their conditions of formation and subsequent history. In the laboratory details of crystal structure are considered and readily developed changes in solid-state conditions in minerals and metals are used to amplify the lecture material. Lectures: 2 hours per week. Labs: 4 hours per week. Texts: Deer, Howie and Zussman: An Introduction to the Rock Forming Minerals (Longmans); Spry: Metamorphic Textures (Pergamon). References: Van Vlack: Elements of Materials Science, (Addison-Wesley, 2nd ed); and/or Wolf et al: The Structure and Properties of Materials (Wiley) (3 credits)

GEOL 421A
Stratigraphy
Prerequisites: Geology 201 A and 222A. 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, chronstratigraphic), 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, carbonate, fan delta, shallow marine and submarine environments. Lectures: 3 hours per week. Labs: 3 hours per week. Text: R. K. Matthews: Dynamic Stratigraphy (Prentice Hall) (3 credits)

GEOL 441A
Geomorphology
Prerequisite: Geology 201A or equivalent. Fluvial and slope processes, influence of climate, rock type and structure on the development of land forms, coastal features; aeolian processes, glacial and periglacial activity. Laboratory work emphasizes interpretation of aerial photographs and topographic maps and a field excursion to local area. Lectures: 3 hours per week. Labs: 3 hours per week. Text: Ray: Aerial Photographs in Geologic Interpretation and Mapping (U.S.G.S.); Leopold, Wolman, and Miller: Fluvial Processes in Geomorphology (Freeman) (3 credits)
LOYOLA
FACULTY OF
ARTS AND
SCIENCE
51.14.3
DEPARTMENT
OF GEOLOGY:
COURSE
DESCRIPTIONS

GEOLOGY 442B
Geology of Canada
Prerequisite: Geology 201A (Geology 421A or Geology 222A is recommended). Geologic study of the major geomorphic subdivision of Canada with special emphasis on stratigraphy, correlation, paleography, sedimentation and tectonics. Reading assignments and colloquium are used to probe into specific problems. Lectures: 3 hours per week. Colloquium: 1-3 hours per week. Text: Geology and Economic Minerals of Canada (Econ. Geol. Series No. 1 of the Geological Survey of Canada, 5th ed) (3 credits)

GEOLOGY 451A
Economic Geology
Prerequisites: Geology 201A or equivalent, and 241A. The origin, classification and evaluation of ore and petroleum deposits. Laboratory includes problems in ore evaluation and petroleum geology, and the examination of suites from representative mining camps. Lectures: 3 hours per week. Lab: 3 hours per week. Text: To be announced. (3 credits)

GEOLOGY 452B
Mineral Deposits
Prerequisites: Geology 311Z, 313B and 451A. The origins, type of occurrence and classification of metallic mineral and non-metallic mineral deposits. The application of all fields of geology to a specific problem. Laboratory includes exercises on property and ore evaluation, an introduction to incident light microscopy and a series of examinations and a term project on suites from various ore deposits. Lectures: 3 hours per week. Lab: 3 hours per week. Text: Park and MacDiarmid: Ore Deposits (Freeman, 2nd ed) (3 credits)

Equivalent Geology courses on Loyola and Sir George Williams Campuses.

LOYOLA
SIR GEORGE
201A (301A) N-215
202B (303B) N-323 (425)
203Y (302Y) N-216
205A
206B
207A
211A (311Y) N-231 (221)
221B
222A (321A) N-220 (N-420) (223)
231B N-217
232B (333B) N-245
241A (443A) N-246 (N-346)
301B (401B) N-353
302B
303B (505B) N-464
311Z (412Z) N-333
312A (313A) N-338
313B (315B) N-232 (222)
314B (413B) N-335
315A (411) N-445
331B (331B) N-441 (441)
332B (431B) N-462 (442)
341B N-352 (422)
342B (445B) N-349 (429)
351A (541A) N-475
400Z (502Z) N-466
411Z (512Z) N-342 (426)
412A (531A) N-476
421A (521A) N-322 (424)
441A N-328
442B (523B) N-421 (430)
451A (551A) N-455
452B (552Z) N-456

(Brackets indicate old Loyola and Sir George Williams numbers)
51.15 Health Education

Coordinator
GLADYS LENNOX
Assistant Coordinator
SR. CECILE LABONTE

51.15.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 51.1.

The superscript indicates credit value.

90 BA Specialization in Community Nursing

Prerequisite: R.N.
Year I
18 Nurs L205¹, Heal L206¹, L209¹, L212¹
12 Elective credits
Year II
24 Nurs L301¹, L307¹, L320¹, L323¹, L324¹, L325¹
6 Elective credits
Year III
24 Nurs L430¹, L432¹, L440¹, L445¹, L447¹
6 Elective credits

45 Certificate in Community Nursing

Prerequisite: R.N.
45 Nurs L213¹, L301¹, L307¹, L320¹, L323¹, L324¹, L325¹, L430¹, L432¹, L440¹
12 Elective credits

51.15.2 HEALTH EDUCATION

The Health Education Division offers programmes and Courses designed for three groups of students.
I Registered nurses: courses in community nursing; II Students from various disciplines: Health Education courses as electives; III Individuals working in a community; courses dealing with community problems and the role of the community workers.

I Community Nursing Programme
Purpose of the Programme

The programme in Community Nursing is designed to offer further Education to experienced Registered Nurses working in community settings such as schools, industry, community clinics, doctors' offices, hospital services and other agencies. Consideration has been given to the nurses' emerging role as a member of the multidisciplinary health team and her interests in the fields of community nurse practitioner, health service administrator, health educator, and other specialities. Therefore, courses are designed for their relevance to society and professional needs in general, and to the needs of the student and consumer specifically. For this reason the following options are offered:

1) BA Specialization in Community Nursing (90 credits) — 66 required credits, and 24 electives.
2) BA Major in Community Nursing (90 credits) — 51 required credits, and 39 electives.
3) Certificate in Community Nursing — 45 required credits.

Admission Requirements: Entry into the programme will be based on a careful assessment by the Assistant Coordinator as to the background and goals of the applicants before acceptance can be assured. The student must present:
1) A nursing diploma from an approved school of nursing.
2) An authorization to practice nursing issued by the Order of Nurses of Quebec or ability to submit proof of current registration in the Province or country from which he/she comes.
3) For any nurse who graduated in 1972 or later, a written declaration from a hospital
showing at least one full year of employment as a nurse and indicating the specific nature of that employment.

4) Where a student cannot submit prerequisite documentation, he/she may request the right to take a qualifying examination 3 weeks prior to registration.

5) Relevant transcripts should be submitted to the Admissions Office well in advance of registration.

Grade
The students will be expected to obtain a grade of 65% in all Nursing and Health courses in order to continue in the programme.

Preregistration: Preregistration is mandatory for:
1) Entry into the Community Nursing Programme.
2) Course selection.
3) Selection of Health Education electives. Students are obliged to contact the Health Education Office (Local 420) early to make an appointment with the Assistant Coordinator for the Community Nursing Programme.

II Courses in Health Education
Courses are offered in the field of Health Education as electives for our students as well as for students of other disciplines.

III Certificate Programme in Health Education
These courses are offered to professionals employed full time or as volunteers in health clinics, educational programmes, hospitals, and other community settings. The Certificate will be granted upon successful completion of 42 credits, 36 of which are mandatory and the remaining 6 Health Education electives. The programme may be taken on a full or part-time basis. One course per semester is mandatory unless this is waived by the Coordinator of Health Education. Students are required to maintain an average of 65% in order to continue in the programme.

Preregistration: Preregistration is mandatory for:
1) Entry into the Certificate in Health Education.
2) Course selection.
3) Selection of Health Education electives. Students are obliged to contact the Health Education Office (Local 406) to make an appointment to see the Assistant to the Coordinator.

51.15.3 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.5.

NURSING COURSES

NURSING L205
Current Issues in Nursing
An introductory course designed to explore at the local and national level educational and professional concepts of nursing, their similarities and differences and their influence on the changing patterns in nursing. The major intent is to illustrate the relationship between the profession, the impinging pressure to change and nursing's reaction and response to this concept. (3 credits)

NURSING L213
Basic Nutrition
The goal of this course is to provide instruction on theoretical and practical knowledge of normal nutrition. The course content includes: food habits and food ways; psychological, sociological and cultural effects on food habits; the world food crisis; hunger and its effects on people; major nutrients and their relationships in human nutrition. The Nutrition Canada Survey assessment of nutrition status will be discussed. Nutrition during the life span, pregnancy and lactation, growth and development, aging and the aged will be described. Weight control, food economics, protection of food supply, food fads and fallacies will be examined. (3 credits)

NOTE: This course is not available to students who have received credit for an equivalent course.

NURSING L301
Pharmacology for Nurses
Prerequisite: Heal L206 or equivalent. This course is designed to introduce nurses to the basic concepts of drug pharmacokinetics, as the basis for rational therapeutics. The major drug classes will be reviewed, emphasizing those drug effects that are important for the Registered Nurse in providing modern therapeutic care. Stress will be made on the importance of collaboration between professions for the better care of the patient. (3 credits)

NURSING L307
Pharmacology: The Nurse's Role in the Community
Prerequisite: Nurs L301. The purpose of this course is to apply the principles of pharmacodynamics and pharmacokinetics given in Nurs L301 to individual and community health problems. The course content includes identification and discussion of major drug classes: hormones, contraceptives, psychotropic drugs, alcohol, opiates, barbiturates, stimulants, hallucinogens, nicotine, antibiotics, etc. The consequences of drug use and abuse in personal, family and community life, as well as the nurse's role will be considered. (3 credits)

NURSING L320
(Also given as Andragogy L320, Bio-PE L484, and Health L320)
Interviewing Techniques and Counselling Concepts
Prerequisite: Heal L209 or equivalent. A course in which the student examines the dynamics of helping interviews, models of human effectiveness, and theories of counselling. The variety of issues to be covered include the enhancement of specific skills through different training experiences, a proper emphasis on self-understanding, an awareness of the role of philosophy, ethical standards and research. This course demands a high level of observation, participation and involvement from each student. (6 credits)
NURSING L323
(Also given as Bio-PE L481 and Health L323)
Teaching Strategies for the Health Professional
Prerequisites: Heal L209 and Nurs L320, or permission of the Programme Coordinator. This course is designed to meet the needs of individuals who are involved in education programs, e.g., schools, industry, clinics, volunteer agencies, in-service programs, etc., aimed at promotion and maintenance of health, prevention of disease and rehabilitation. (3 credits)

NURSING L324
Pathophysiology
Prerequisites: Heal L206 or successful completion of a qualifying exam. An applied physiology course as related to disease. The topics will cover the physiology of the red corpuscles and anemias, blood and circulation as related to heart disease, respiration, digestion, excretion, endocrinology, reproduction, and the nervous system. Stress will be made on the application of physiology to the disease. (6 credits)

NURSING L325
Community Nutrition
Prerequisites: Nurs L213 or equivalent and Nurs L323. This course will apply basic nutrition knowledge to problems of nutrition in the community. It will prepare students to act as facilitators of change in food habits and allow them to practice clinical evaluation of nutritional status through fieldwork under supervision. Community programmes and resources to improve nutritional status will be described. (3 credits)

NURSING L393
Selected Topics in Nursing
Prerequisites: As determined by the Programme Coordinator. The theme and methodology will vary according to the special interests of the professor and the needs of the students. The course is designed to provide students with the opportunity to extend their studies beyond the subjects already included in the curriculum. (3 credits)

NURSING L394
Selected Topics in Nursing
Prerequisites: As determined by the Programme Coordinator. A student may repeat Nursing L393, provided that the content is different, by registering for credits under Nursing L394. (3 credits)

NURSING L430
Community Health Nursing
Prerequisites: Heal L212, Nurs L323. The nature of community health nursing practice requires that current knowledge derived from the biological and social sciences, ecology, clinical nursing and community organization be utilized. This course in community health nursing is concerned both with the health and the community as an interacting whole, and with the entire gamut of health care which embraces the promotion and preservation of the health of individuals, families, and the community. This course includes specially designed projects and fieldwork in the community which provide learning experiences in relation to the overall objectives of the programme. (6 credits)

NURSING L431
School Health Programme
The prepared course of action taken by the school in the interest of the health of the school child and school personnel. It includes health services, health instruction, and healthful school living. Emphasis will be directed toward the need for coordination of hospital, school, and community as suggested by Bill 65. (3 credits)

NURSING L432
Primary Care: The Nurse’s Role
Prerequisites: Nurs L301, L324, L325. This course focuses on the “expanded role” of the nurse with responsibility for defined communities. It will address itself to different types of screening processes, procedures for obtaining a satisfactory and meaningful health history, and methods for making a judicious referral for definitive diagnosis and management. Concentration will be on acquiring skills that lead to the determination of health status and limitations of clients wherever they are, rather than to a role of clinical management of patients. (6 credits)

NURSING L433
Nursing Intervention and the Later Years
A humanistic study of the physiological and psychological adjustments necessary to adapt to the life-style of the changing years. An in-depth look at the need for accurate nursing assessment in order to utilize existing health resources for the maintenance of health and prevention of disease, and rehabilitation where necessary. The course will allow the student an opportunity to develop realistic guidelines for home care, referral, health counselling and follow-up. (3 credits)

NURSING L434
Physical Assessment for Community Nurse Practitioners
Prerequisite: Approval of the Programme Coordinator. This is an advanced course in physical assessment for community nurses. Emphasis is placed on the ability to recognize normal systemic functions and their relation to disease. A practicum is scheduled in various hospitals, clinics, and health centers approved by a faculty team. (6 credits)

NURSING L437
Occupational Health Nursing
This course will deal with the relation of doctor and nurse, employer and employee; management and the medical department. Also the role of the nurse today and tomorrow in our rapidly changing society. Instruction will consist of lectures, group discussion and practical applications through field work and simulation. (3 credits)

NURSING L440
Family Structure and Health Care Delivery
Prerequisites: Nurs L430 and L432. Prior permission of the Programme Coordinator. This course is designed to study some aspects of family structure, its development through various stages of the family life cycle and its interactive behaviour within the health system. Consideration will be given to the dynamics created by the constantly changing family relationships and their effect on the community. The emphasis will be on home visiting and the nurse’s role in recognizing family needs and providing appropriate nursing intervention. It will also provide an opportunity for nurses to apply their knowledge and basic skills in health promotion. (6 credits)

NURSING L445
Nursing Practicum I
Prerequisite: Permission of the Programme Coordinator. In cooperation with a Tutorial
NURSING L447
Nursing Practicum II
Prerequisites: NURS L445. In cooperation with a Tutorial Adviser, the nurse will choose a field of interest within the health care system for fieldwork. The student will have freedom to choose how quickly the practicum requirements are satisfied. There will be no final exam. Students will submit a written report at the end of the term based on the learning objectives established with the adviser at the beginning of the course. (3 credits)

NURSING L495
Advanced Topics in Nursing
Prerequisites: As determined by the Programme Coordinator. The theme will vary according to the special interests of the professor and the needs of the students. The course is designed to provide students with the opportunity to take advantage of the special interests and expertise of a professor and to develop this knowledge and these abilities in an area not covered in the programme. (3 credits)

NURSING L496
Advanced Topics in Nursing
Prerequisites: As determined by the Programme Coordinator. A student may repeat Nursing L495, provided that the content is different, by registering for credits under Nursing L496. (3 credits)

NURSING L497
Advanced Topics in Nursing
Prerequisites: As determined by the Programme Coordinator. The theme will vary according to the special interests of the professor and the needs of the students. The course is designed to provide students with the opportunity to take advantage of the special interests and expertise of a professor and to develop this knowledge and these abilities in an area not covered in the programme. (3 credits)

NURSING L498
Advanced Topics in Nursing
Prerequisites: As determined by the Programme Coordinator. A student may repeat Nursing L497, provided that the content is different, by registering for credits under Nursing L498. (3 credits)

HEALTH EDUCATION COURSES

HEALTH L201
Cell Functions in Health and Disease
An introductory course of cell physiology relating cell function to disease. The following topics will be covered: red blood cells and anemias, blood typing and tissue matching, bacteria and immunity, genetics and hereditary disease, protozoa and parasitic diseases, viruses and viral infections. (3 credits)

HEALTH L206
Applied Human Physiology
Prerequisites: R.N., CEGEP Biology or Biology L201, or equivalent. A course on the functions of the human body. A detailed analysis of homeostasis from a systems approach will be given. Physiological processes as applied to clinical testing will be described. (6 credits)

HEALTH L208
(Also given as Bio-PE L488)
Nutrition in the 70's
This course will study the influence of socioeconomic and political systems on the nutritional status of the individual and the interrelationship between food habits and the cultural, social and psychological aspects of life. Topics will include diet-related problems such as obesity, heart disease, faulty eating habits, malnutrition. Food budgeting for all levels of the socio-economic structure will be examined. (6 credits)

HEALTH L209
(Also given as Andr L209)
Personal Interrelations
This course is designed to provide an orientation to the field of interpersonal relationship and human awareness, focusing particularly on relating to and working with other people. Concepts of personal growth and development will be highlighted. (3 credits)

HEALTH L212
(Also given as Bio-PE L482)
Clinical Epidemiology and Bio-Statistics
An introductory course on the methods of measuring the distribution and determinants of disease frequency in Man. Measures of population health and health services utilization will be covered. Variability and the need of statistics will be stressed. (6 credits)

HEALTH EDUCATION L251
Hunger in the Classroom: The School's Role
Review of evidence indicating existence of malnutrition in schools in Quebec. Followed by discussion of observable effects of hunger and malnutrition in the classroom. Discussion of various programs and approaches by the school administration, the school board, the teachers, nurses, etc., taken to alleviate the problem. Topics of discussion will include: Action for school lunches — Malnutrition — learning and behaviour — Nutrition education program. (3 credits)

HEALTH L261
Community Health Information
This course will investigate the formal and informal patterns in Health Education. This information will be applied to plan pertinent programs that serve society. Data collected will be used in curriculum planning exercises and programme development within formal educational systems such as schools and CEGEPs, in such areas as cardiovascular disease, anti-smoking clinics, family life education. (3 credits)

HEALTH L270
School Health Services Seminar
The seminar will deal with current issues of school health, nationally and locally and their effect on our present school health programmes. It will consider the interrelation of the school administrators, the family, community and health professionals in utilizing existing resources for a more efficient distribution of health care to school age children. The need for leadership, group participation and community cooperation in defining and dealing with priorities will be demonstrated through a medium of case studies and problem solving techniques. (6 credits)
HEALTH L303
Community Dental Health
This course is designed to enlighten the student of problems associated with dental care within the community. With the help of films and audio-visual aids, we will explore the realms of dentistry and consider the importance of the Dossier, Prevention and Rehabilitation. Our approach will permit the student to encourage openness in discussion and seminars during lecture hours. (3 credits)

HEALTH L319
(Also given as Bio-PE L483)
Drug Use and Abuse
The course is structured to introduce nonmedical personnel to the modern concepts of drug therapeutics, and to discuss the consequences of use and abuse of drugs. The drug classifications will include steroids, antibiotics, minor and major psychotropics and the potential chronic abuse of drugs such as amphetamines and other stimulants, barbiturates and other sedatives, hallucinogens, minor tranquilizers, opiate narcotics, alcohol and tobacco. (3 credits)

HEALTH L320
(Also given as Andragogy L320, Bio-PE L484, and Nursing L320)
Interviewing Techniques and Counselling Concepts
Prerequisite: Heal L209 or equivalent. A course in which the student examines the dynamics of helping interviews, models of human effectiveness, and theories of counselling. The variety of issues to be covered include the enhancement of specific skills through different training experiences, a proper emphasis on self-understanding, an awareness of the role of philosophy, ethical standards and research. This course demands a high level of observation, participation and involvement from each student. (6 credits)

HEALTH L323
(Also given as Bio-PE L481 and Nurs L323)
Teaching Strategies for the Health Professional
Prerequisite: Heal L209 and Nurs L320, or permission of the Programme Coordinator. This course is designed to meet the needs of individuals who are involved in education programmes, i.e., schools, industry, clinics, volunteer agencies, in-service programmes, etc., aimed at promotion and maintenance of health, prevention of disease, and rehabilitation. (3 credits)

HEALTH L331
Health Professional Role in Pre-and Post-Retirement
This course will investigate the needs, motivations, and level of interest of individuals considering sex, age, education, culture, environment, socio-economic status or life experiences. It will determine the role of adequate health care, family interaction, community support, short and long term planning in dealing with the identified needs. The course will provide an opportunity for the student to investigate legal, economic and social aspects in developing programmes that are realistic within our present society. (3 credits)

HEALTH L397
Selected Topics in Health Education
Prerequisites: As determined by the Programme Coordinator. The theme and the methodology will vary according to the special interests of the professor and the needs of the students. The course is designed to provide students with the opportunity to extend their studies beyond the subjects already included in the curriculum. (3 credits)

HEALTH L398
Selected Topics in Health Education
Prerequisites: As determined by the Programme Coordinator. A student may repeat Health L397, provided that the content is different, by registering for credits under Health L398. (3 credits)

HEALTH L401
Public Health Administration
The basic objective of this course is to make the student aware of the administrative structure of the health care system in the Province of Quebec and elsewhere. Emphasis will be centered around the planning of health care programmes, health economics and various health administrative systems currently in use. Case analysis will be used to study the solving of health administrative problems. (3 credits)

HEALTH L403
The Law and the Health Professional
This course is designed for nurses, other health professionals and administrators working in various health services. The content includes an analysis of Quebec and Canadian law, civil and criminal liability and how it affects the health workers, the legal status of a hospital corporation and a community clinic and their interior workings. This course will also provide discussions of patients' rights, informed consent to treatment, recent Canadian court decisions on malpractice and other subjects of interest to the students. (3 credits)

HEALTH L408
(Also given as Andragogy L408 and Bio-PE L486)
Group Structure and the Role of the Community Worker
The course is developed to assist volunteers, interested citizens, street workers, and individuals with no formal health training, but working as a part of a multidisciplinary team, to identify their roles in order to play a more effective part as a community worker. Assignments will be directed toward practical applications of field work to problem-solving in a field of their choice: i.e., post-retirement, rehabilitation of drug addicts and alcoholics, single parents, etc. (6 credits)

HEALTH L410
Community Mental Health
This course will explore the historical and traditional models of mental health as they relate to the more progressive model of community mental health. The intent is to gain some knowledge of topics of concern within the community: crisis and suicide prevention, how to handle specific situations such as problems in a school, industry, home and clinical setting. The course is structured for people in the helping professions: nurses, social workers, counsellors, teachers, nutritionists, etc. (6 credits)

HEALTH L418
Current Health Issues
Prerequisite: Heal L261. This course deals with areas selected for their epidemiological importance in the understanding of modern health problems, implications of human ecology, pollution and environment on disease outcomes will be described. (6 credits)
HEALTH L472
(Also given as Bio-PE L480)
Special Workshop on Human Sexuality
The course investigates "Psychological Concepts of Human Sexuality as they influence Family Planning and Sex Education". The study will explore variations in sexual patterning, therapy and counselling, biological, anthropological and ontological perspectives of sexuality. Open to educators, guidance counsellors, nurses, social workers, and psychologists. (6 credits)

The following course is a university level course which was offered in the years indicated but did not appear in the official Calendar.
1975 and 1976 (Summers)
Health Education 596Z
Comparative Social Change in Health Education (6 credits)
51.16 Department of History

Associate Professor and Chairman
R. TITTLE
Professor
C. B. O'KEEFE, S. J.
Associate Professors
F. G. W. ADAMS
W. E. AIN
R. T. COOLIDGE
M. G. DECARIE

W. H. HUBBARD (Vice-Chairman)
M. MASON
Assistant Professors
R. PORTER
M. J. VIPOND
Lecturer
R. RUDIN

51.16.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with §51.1.

The superscript indicates credit value.

NOTE: Students may take a Double Major in History and in another department. They may also couple a Major in History with a Minor (24 credits) in any of the programmes listed under Interdisciplinary Studies, such as: Third World Studies, Canadian Studies, Women's Studies, Medieval Studies. (see § 51.17)

72 BA Joint Honours in English and History

6 Engl L41B
18 Engl credits chosen from three different periods, at least two of which should be supported by parallel Hist courses
6 Engl Elective credits
6 Engl or Hist Elective credits
12 Hist credits to parallel Engl courses
12 Hist Honours Seminars
6 Hist Elective credits
6 Joint Engl/Hist tutorial, Engl or Hist L490

72 BA Joint Honours in French and History

30 History credits:
18 Chosen from Hist L206, L250, L266, and two Honours Seminars
12 Hist chosen from: L450, L452, L454
6 Elective credits in French or History
6 Hist L492 or Fr L498

*NOTE: Fr L396 counts for 3 credits in Quebec Literature, and the other 3 credits count as electives. (see note on Literature § 51.12.2)

60 BA Honours in History

Year I
6 Hist L201 and L202, or L203 and L205
3 Hist L200
9 Hist Elective credits*

Year II
6 Hist Elective credits
12 Hist Honours Elective credits**

Year III
6 Hist L496
6 Hist Honours Elective credits**
6 Hist Elective credits#
6 Hist Elective credits##

NOTE: Students must pass an oral comprehensive examination.

* Hist credits chosen from Survey or Intermediate courses.
# Hist credits chosen from Survey, Intermediate or Honours courses.
## Hist credits chosen from Honours courses.
### Credits from an approved course in a related discipline or a History course.

NOTE: A student may enter the Honours programme after completing two History courses. Students seeking admission to the Honours programme on or after June 1st 1977 will be bound by the Honours requirements outlined in § 16.2.4 of this Calendar. Students who already had Honours status by June 1st 1977 will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.
LOYOLA
FACULTY OF
ARTS AND
SCIENCE
51.16.1
DEPARTMENT OF HISTORY:
PROGRAMMES

Of the Honours History courses in the second and third year, one must be in a field other than the tutorial. All students will be assigned a faculty adviser with whom they must consult concerning their selection of courses.

60 BA Specialization in History

48 Hist credits. No more than 30 credits may be at the survey ("200") level, but these must include either Hist L201 and L202, or Hist L203 and L205. The 48 credits must be in at least two different areas as listed under Hist L496.

12 credits in a related field or in Hist courses in related fields must be approved as part of the programme prior to registration by the student's adviser or the Chairman.

60 BA Specialization in English and History

12 Engl credits chosen from two different periods which should be supported by parallel Hist courses

18 Engl Elective credits

51.16.2 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.5.

INTRODUCTORY SURVEY COURSES

HISTORY L200
The Nature and Practice of History

The course embraces two fundamental concerns. Students will examine the nature of historical enquiry: its varieties, purposes, traditions, and place in contemporary society. In addition, they will receive a systematic introduction to the practical aspects of critical scholarship: the use of the library, methods of research, and forms of writing critical essays. (3 credits)

HISTORY L201
Introduction to European History, 1400—1789

A survey of the history of Europe from the Renaissance to the French Revolution with emphasis on the development of ideas and political institutions. (3 credits)

HISTORY L202
Introduction to European History, 1789—present

A survey of the history of Europe from the French Revolution to the present with emphasis on the development of ideas and political institutions. (3 credits)

HISTORY L203
History of Canada, Pre-Confederation

A survey of Canadian history, from settlement to Confederation, which emphasizes readings and discussions on selected problems. (3 credits)

HISTORY L205
History of Canada, Post-Confederation

A survey of Canadian history from Confederation to the present, which emphasizes readings and discussions on selected problems. (3 credits)

12 Hist credits to parallel Engl courses

18 Hist Elective credits

NOTE: This programme replaces the joint Majors Programme.

36 BA Major in History

Year I

6 Hist L201 and L202; or L203 and L205

6 Hist Elective credits

Year II

12 Hist Elective credits

Year III

12 Hist Elective credits

* Hist credits chosen from Survey or Intermediate courses.

# Hist credits chosen from Survey, Intermediate or Honours courses. Choice from Honours courses with permission of instructor only.

24 Minor in History

24 Hist credits. Students in other departments who wish advice as to those courses most helpful to them may consult the Chairman.

HISTORY L206
History of Quebec

Social, economic and political history of Quebec from the origins to the present, with emphasis on the period since 1760. (6 credits)

HISTORY L207
The Indian in Canadian History

Survey of Amerind history from 1500 to the present day. Students will be encouraged to carry on further studies in areas of special interest. (3 credits)

HISTORY L208
(Also given as Interdisciplinary Studies L300)
Native Peoples of Canada

This course examines the Canadian Native experience from a multi disciplinary perspective including history, law, education, the arts, etc. Focusing on Eastern Canada and in particular, Quebec, it attempts to understand the Native experience and contemporary situation. Indians, Inuit and people who work with them are invited to speak on topics related to their special interest. (6 credits)

HISTORY L211
History of the United States, to 1877

Survey of American history from settlement to 1877. The course will deal with the political and economic framework of American history, and with social and cultural trends. (3 credits)

HISTORY L213
History of the United States, since 1877

Survey of American history from 1877 to the present. The course will deal with the political and economic framework of American history, and with social and cultural trends and movements. (3 credits)

HISTORY L219
(Also given as Classics L230)
The Ancient Near East I

A short introduction to the Neolithic Period will be followed by the history of Egypt, with emphasis on economic, political and religious factors. (3 credits)
The purpose of this course is to give a survey of the history of Mesopotamia, Syria, Ancient Israel and the Hittites. Ancient sources will be used whenever possible. (3 credits)

HISTORY L223
(Also given as Classics L240)
Greek History
A survey of Greek history from Minoan-Mycenaean time to the Roman conquest of Greece, viewed primarily through the eyes of contemporaries, emphasizing those issues that have excited and continue to arouse interest and controversy among historians. Though Athens, for its unique cultural and political achievement, inevitably occupies the central interest, due attention will be paid her critics as well as admirers. The credibility of the ancient evidence will be carefully assessed and emphasis will be placed on social and economic as well as political matters. (3 credits)

HISTORY L225
(Also given as Classics L241)
Roman History
A survey of Roman history from 776 B.C. to 476 A.D. viewed primarily through the eyes of contemporaries, emphasizing those issues that have excited and continue to arouse interest among historians. The central interest will inevitably be Rome's administrative genius and imperial successes. Social and economic as well as political data will be considered and the credibility of the ancient evidence will be carefully assessed. (3 credits)

HISTORY L227
(Also given as Classics L264)
An Introduction to Archaeology
Archaeology as a science; its purpose, methods, theories, and techniques. The relationship of Archaeology to Pre-History, Ancient History, Fine Arts, and Anthropology. The Neolithic Revolution and the emergence of the earliest civilizations: Mesopotamia, Egypt, India, and China. The Bronze Age in Crete and in Greece. Most of the course will consist in the presentation, classification, dating, and interpretation of selected artifacts. Some work at the Montreal Museum of Fine Arts. (3 credits)

HISTORY L229
(Also given as Classics L265)
Greek and Roman Art and Archaeology
The archaeology of Greece and Rome with particular attention to painting (especially ceramics), sculpture, and architecture. The concept of "style" in archaeology and in art history and criticism. The works of Exekias and Douris, of Phidias and Praxiteles, and of Iktinos and Kranitos as representative of the "ideal" in Classical Greek Art. Roman Art as Greek and Etruscan derivative as well as evidencing the peculiarly Roman. The falsifications of history and the truth that can be recovered by the archaeologist. Some work at the Montreal Museum of Fine Arts. (3 credits)

HISTORY L230
History of Medieval Europe
A study of Western Europe (France, Germany and Italy with occasional reference to neighboring areas) during the period 300 to 1300 A.D. The purpose of the course will be to discover the positive meaning of the term "medieval" by an examination of the political and cultural interaction of the Greco-Roman, Judeo-Christian and Germanic traditions, as revealed in primary sources. Reading will be assigned from a number of recent collections of translated contemporary source material which will form the basis for class discussions. Required Reading: C. Warren Hollister, Medieval Europe. (6 credits)

HISTORY L235
Renaissance Europe
Will explore the elements of transition from the Medieval to the Modern World. Particular attention to changing social and moral values (as expressed in art, literature and social behavior) and to the growth of nation states in Europe. (3 credits)

HISTORY L237
History of the Reformation
A study of the religious, social and political doctrines of the age of the Reformation. Emphasis on the Medieval and Renaissance origins of Reformation ideas, and on the ways in which this era has proven seminal for the development of modern Western civilization. (3 credits)

HISTORY L240
History of England, 1485 to the Present
Emphasis on the development of English society and political structure, with some attention to religious, cultural, and economic development as well. (6 credits)

HISTORY L250
The Ancien Regime, 1660-1789
Prerequisite: History L201 and L202 or its equivalent. A historical survey of this period and a study of selected themes and problems: the cultural and political supremacy of France; the strength and weaknesses of absolute government as seen in the reign of Louis XIV; the growth of the nobility; unrest and social and economic reform; contemporary appraisals of the ancien regime. (6 credits)

HISTORY L254
The World Since 1914
Prerequisite: History L201 and L202 or its equivalent. A discussion of the main trends of world history—political, diplomatic, socio-economic and cultural—since World War I. Special attention will be given to European developments. (6 credits)

HISTORY L258
History of Modern Italy
Prerequisites: History L201 and L202 or its equivalent. Survey of the history of modern Italy. Emphasis will be placed on the Risorgimento, the crisis of liberal democracy, the rise of fascism and post-war problems. (6 credits)

HISTORY L264
(Also given as German L264)
Germany and Austria in Modern Times
Prerequisites: History L201 and L202 or its equivalent. Socio-economic change and the development of nation-states in German Central Europe from the eighteenth century to the present. For advance reading the student might consult H. Holborn, A History of Modern Germany. (6 credits)

HISTORY L266
France since 1815
Prerequisites: History L201 and L202 or its equivalent. A study of French history since the defeat of Napoleon, with special emphasis on social and intellectual developments. (6 credits)
HISTORY L268
History of Russia
Prerequisites: History L201 and L202 or its equivalent. Survey of the history of Russia from the origins to the present, with emphasis on the Russian Revolution of 1917 and the Soviet period. (6 credits)

HISTORY L272
A History of China
In the first term the course will examine the evolution of Chinese society from approximately 2000 B.C. to the Nineteenth Century A.D., stressing the development of political and social structures, the dynastic cycle, and early contacts with the West. In the second term the Western challenge to China in the modern period will be considered, the nature of this penetration, its effects, and the reaction to it in the form of the rise of nationalism and the victory of communism. (6 credits)

HISTORY L273
A History of Modern Japan
The course will consider the impact of Western civilization and technology on Japan in the 19th and 20th centuries. (3 credits)

HISTORY L275
A History of Modern India
The course will consider the impact of Western civilization and technology on India in the 18th, 19th and 20th centuries. (3 credits)

HISTORY L278
An Introduction to the History of North and West Africa in the 19th and 20th c.
This course will focus on the relationship between western imperialism and indigenous political, economic, social and religious developments from c. 1800 to c. 1960. Students will be encouraged to consider specific themes such as the development of the indigenous working class, the role of local entrepreneurs and the place of local elites in the process of change. (6 credits)

HISTORY L280
An Introduction to the History of Central, South and East Africa in the 19th and 20th centuries
This course will focus both on the origins and development of indigenous African trade and politics and on those of the European settler societies. Emphasis will be placed on the effects on African societies of the development of the European and Afrikaaner-dominated mining and agricultural economies. The theme of African political resistance will especially be stressed. (6 credits)

HISTORY L281
(Also given as Political Science L355)
The Middle East in World Politics
May be taken either as a History or a Political Science course. Islamic Heritage: Nationalism, Zionism and Contemporary Problems (Arab-Israeli Conflict: U.S.A.-U.S.S.R. Power Struggle). (3 credits)

HISTORY L283
(Also given as Political Science L357)
Mid-East Political Systems
May be taken either as a History or a Political Science course. A comparative study of a selected number of Mid-East Governments (Turkey, Egypt, Libya, Syria, Iraq, Lebanon, Israel, Jordan, Saudi Arabia and Yemen). (3 credits)

HISTORY L291
Selected Topics in History
Content will depend on the theme designated by the department, which varies from year to year. (6 credits)

HISTORY L292
Selected Topics in History
A student may repeat History L291, provided that the content is different, by registering for credits under History L292. (3 credits)

INTERMEDIATE COURSES
These courses cover geographical or thematic specialties beyond the level presented in the introductory courses. Greater stress is placed on student participation in discussions than on lectures. Prerequisites are normally required.

HISTORY L302
Approaches to Canadian History
Prerequisite: Canadian history survey at CEGEP or university. Canadian history as seen by propagandists, rebels, reactionaries and poets. Students will be expected to read widely. (6 credits)

HISTORY L303
Interpretations of Canadian History
Prerequisite: Canadian survey. Canadian History has been seen in many different ways—as part of British History, as a rejection of Britain, as a struggle between exploiters and exploited. This course examines the leading interpretations and the reasons for their differences. (3 credits)

HISTORY L304
Protest Movements in Canada since Confederation
Prerequisite: Canadian history or political science survey. A survey of the social and intellectual origins of political protest in Canada since 1867. Topics will include agrarian revolt, labour organization and sectional discontent, with emphasis on such third parties as Canada First, Progressive Party, C.C.F., Social Credit, Union Nationale and Parti Quebecois. (6 credits)

HISTORY L305
The Ideology of French Canada
Prerequisite: Any Canadian history at CEGEP or university. A study of the ways in which francophone Canadians have seen their societies and their roles in Canada. While the course will emphasize the francophones of Quebec, some time will be spent on those who live in such other parts of Canada as New Brunswick and the West. (3 credits)

HISTORY L307
History of Montreal
Prerequisite: Any Canadian history at CEGEP or university. 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. (3 credits)

HISTORY L309
History of the Canadian North
Prerequisite: Any Canadian history at CEGEP or university. An intense study of the advance of the northern frontier of Canada, with emphasis on the period 1840-1945. The course will stress exploration, problems of sovereignty, conflict of cultures, and economic development. (3 credits)
HISTORY L310
American Social and Intellectual History
Prerequisite: American survey. The course will deal with the origins and development of social institutions, colonial, regional and national economics, class structure, popular culture, literature, ideas and myths in the United States. First term covers from settlement to Civil War, second term from Civil War to present. (6 credits)

HISTORY L311
The United States in the 20th Century: 1900-1941
Prerequisite: American survey. An examination of the political, economic, social and cultural trends and conflicts from the beginning of the Twentieth Century to World War II. (3 credits)

HISTORY L313
The United States in the 20th Century: 1941 to Present
Prerequisite: American survey. An examination of the political, economic, social and cultural trends and conflicts from World War II to the present. (3 credits)

HISTORY L316
History of Women in England and North America
Prerequisite: Permission of instructor. Themes and issue-oriented discussion of the problems in women’s history in North America since 1800. A comparative examination of the women’s movement in Canada, the U.S. and England, with emphasis on the myths of womanhood and the realities of the legal, economic and social position of women. (6 credits)

HISTORY L317
Canada Views the United States
Prerequisite: Canadian survey. An examination of Canadian attitudes to the United States from 1776 to the present, with respect to both specific incidents and general trends. Emphasis will be placed on the discussion of primary source material. (3 credits)

HISTORY L319
A Literary History of Twentieth-Century Canada
Prerequisite: Canadian survey. An examination of some of the major themes of Canadian history in the 20th century as seen by Canadian novelists, English and French. Themes studied will include the struggle for survival; regional, ethnic and religious pluralities; and the response to urbanization and industrialization. (3 credits)

HISTORY L324
(Also given as Classics L346)
Continuity and Change: An Intellectual History of the Late Roman Empire
Prerequisite: Permission of instructor. A study of the main intellectual and social forces in the late Roman Empire that contributed most significantly to the formation of European culture. Among those topics treated will be: Neo-Platonism, Gnosticism, the Greek and Roman system of education, government and private welfare policies, mystery religions, late Judaism, early Christianity, the religious policy of pagan and Christian Emperors, contemporary art and architecture. (6 credits)

HISTORY L330
Readings in Medieval History
Prerequisite: Survey course or permission of instructor. This course will consist of discussion periods using translated primary source materials taken from standard collections. Outside reading will also be required. Term papers will be assigned, and mid-term tests will be given. (6 credits)

HISTORY L331
Comparative Renaissances in the Western Tradition
Prerequisite: Permission of instructor. A colloquium on selected renaissances, including the 12th Century European Renaissance, the Italian Renaissance of the fourteenth and fifteenth centuries, the American Renaissance of the nineteenth century and possibly the Irish Renaissance of the same century. Students will use literary as well as more traditional historical sources to explore such questions as: What is a cultural "renaissance"? What forms help to create a cultural renaissance? How have traditional societies reacted to the phenomenon of cultural renaissances? Emphasis on discussion and research papers rather than lectures in a formal sense. (3 credits)

HISTORY L333
Comparative Counter-Cultures in the Western Tradition
Prerequisite: Permission of instructor. A colloquium on selected counter-cultural movements, including the medieval counter-cultural tradition, the Anabaptists of the 16th century, the English counter-cultures of 1649-1660. These classic movements will then be contrasted with such modern movements as the literary and artistic counter-culture of Gertrude Stein's Paris, the social counter-culture of the 19th century North American communal movement, and finally the counter-cultures in the same society in the past decade. Through a variety of sources, including literary and artistic, students will explore the nature of counter-cultural movements in the context of traditional societies. (3 credits)

HISTORY L346
History of British Diplomacy
The course will attempt to ascertain and evaluate the guiding principles of Britain's foreign policy as they are illustrated by practice in the nineteenth and twentieth centuries. The study will embrace the struggle to maintain the balance of power within Europe, the acquisition of Empire, British involvement in the Great War, the period between the wars, with special reference to the League of Nations, and British policy since World War II with special reference to the Cold War, devolution of Empire, and the European Economic Community. Certain aspects of contemporary international relations theory may also be discussed. There will be frequent seminars. (6 credits)

HISTORY L350
Problems in Church and State in Modern Europe
An examination of some of the important themes in Church and State relations in Europe with emphasis on Early Modern Europe. Some of the themes to be discussed are: the changing theory in church and state relations; the growth of secularization; the development of the notion of religious tolerance; established churches and social unrest. (6 credits)

HISTORY L351
Social History of Seventeenth Century Europe
Prerequisite: History L201 or L202 or its equivalent. A study of social trends in seventeenth-century Europe with emphasis on the
elements of tradition and transition in institutions, classes, and orders. (3 credits)

**HISTORY L353**
Social History of Eighteenth Century Europe
Prerequisite: History L201 or L202 or its equivalent. A study of social trends in eighteenth-century Europe with emphasis on the elements of tradition and transition in institutions, classes, and orders. (3 credits)

**HISTORY L355**
History of Ireland
A survey course that traces the history of Ireland from 432 to the present. Emphasis will be on the 19th and 20th centuries. Special attention will be given to the development of Irish nationalism and relations with Great Britain. Irish music and literature will be used to supplement the historical perspective. (3 credits)

**HISTORY L358**
19th Century Civilization seen through the Novel
Prerequisites: History L201 and L202 or its equivalent, or permission of instructor. An examination of the major currents in 19th century European history as seen in the novels of such writers as Dickens, Balzac, Stendhal, Dostoevsky, Flaubert and Zola. (3 credits)

**HISTORY L359**
20th Century Civilization seen through the Novel
Prerequisites: History L201 and L202 or its equivalent, or permission of instructor. A study of the main themes in contemporary history as expressed in the novels of such writers as Remarque, Malraux, Hamsun, Solzhenitsyn, Pasternak, Camus, and Mailer. (3 credits)

**HISTORY L361**
Europe and the Industrial Revolution: The Origins of Modern Society
Prerequisites: History L201 and L202 or its equivalent. An examination of change and stability in the social and economic structure of Europe during the first age of industrialization, c. 1760 to c. 1900. (3 credits)

**HISTORY L363**
European Society and Economy in the Twentieth Century: The Crisis of Capitalism
Prerequisites: History L201 and L202 or its equivalent. An examination of stability and change in the social and economic structure of Europe in the contemporary age. (3 credits)

**HISTORY L364**
Nazism and Fascism
Prerequisites: History L201 and L202 or its equivalent, or History L264. Emphasis will be on an analysis of the origins and policies of the National Socialist movement in Germany. The course will also deal with fascistic political movements in Italy, Austria, Hungary, and Romania. For advance reading the student might consult K. Bracher, The German Dictatorship and S. Woolf (ed.), The Nature of Fascism. (6 credits)

**HISTORY L371**
Colonialism and Neo-Colonialism in Africa
Prerequisite: African survey course or permission of instructor. A study of the liberation movements in Guinée, Angola, Mozambique, Rhodesia and Namibia. (3 credits)

**HISTORY L373**
Africa and the Caribbean
Prerequisite: African survey course or permission of instructor. The African origins of the people of the West Indies, the slave trade, and the modern history of the Caribbean Islands will be studied. (3 credits)

**HISTORY L374**
Industry and Empire
This course will investigate the nature of capitalist imperialism as it emerged in the nineteenth century by a study of Great Britain and her colonial world. The course will begin with a study of British economy and society itself so that we may see the changes brought about by the Industrial Revolution. Then we will look at the forms of British domination, formal and informal, and finally we will examine some of the theories that have risen to explain the connection between industrialization and imperialism. (6 credits)

**HISTORY L390**
(Also given as Philosophy L390)
Philosophy of History
Prerequisite: Second or third year standing in a History programme, or permission of the Philosophy Department. An analysis of the nature of historical knowledge and explanation will be 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. (6 credits)

**HISTORY L392**
History of Education
Prerequisite: University II or III level or permission of instructor. A study of the History of Education from the Greeks to the present day. (6 credits)

**HISTORY L397**
Independent Study Programme
See Department Chairman for further information. (3 credits)

**HISTORY L399**
Independent Study Programme
See Department Chairman for further information. (3 credits)

**ADVANCED SEMINARS: HONOURS COURSES**

The following courses are open to Honours students in all departments. History Majors and students Majoring in other departments may take these courses with the permission of the instructor, provided they have completed an introductory course in the same area.

**HISTORY L402**
Problems in Canadian Intellectual History
Prerequisite: Canadian survey. A study of social and political thought, with emphasis on nationalism in both English and French Canada. (6 credits)

**HISTORY L404**
The City in Canadian History
Prerequisite: Canadian survey. A study of urban development. For the first term, study will be devoted to world urban history. In the second term, study will concentrate on urban history in Canada. Students will have an opportunity to carry out original research in areas of interest to them. (6 credits)
HISTORY L406
Canada in the 1920's and 1930's
Prerequisite: Canadian survey. The course will examine many facets of Canadian life, economic, political, social, and intellectual, during the inter-war decades. Emphasis will be on individual research projects. (6 credits)

HISTORY L408
Problems in Canadian Social History
Prerequisite: Canadian survey. A seminar and research course in Canadian social history. Topics to be studied will include sports, religion, morality, architecture and poverty. Classes will meet for discussion based on papers prepared by students. Students will also prepare a major paper based on original research. (6 credits)

HISTORY L410
Problems in American History
Prerequisite: American survey. An intensive study of themes in recent American history, emphasis on historiography, social and intellectual history. (6 credits)

HISTORY L420
(Also given in alternate years as Classics L448)
Julius Caesar and Alexander the Great
Prerequisite: Ancient history course. May be taken either as a History or Classics course. Three centuries separate them, perhaps history's greatest field marshals, reformers, and visionaries, two men more than all others loved, despised, admired, and condemned by contemporaries and posterity alike. This course will seek to discover them as they were, the worlds they conquered, and what Alexander and Caesar wanted and planned their worlds to be. (6 credits)

HISTORY L422
(Also given in alternate years as Classics L449)
Human Beginnings: The Stone Ages

HISTORY L430
Priesthood and Politics in the Middle Ages
Prerequisite: Intermediate course in Medieval history or permission of instructor. A study of the working out in practice, in the relations between the holders of temporal and spiritual power, of the medieval concepts of sacerdotium and imperium. (6 credits)

HISTORY L442
Tudor England
Prerequisite: English history survey. A study of the political, religious and social problems of the Tudor Age (1485-1603). The seminar will consist of regular discussions and individual research papers, centered around the broad themes of the age. It is hoped that students will be able to use primary as well as secondary sources. (6 credits)

HISTORY L444
Religious Dissent and Social Protest in the English tradition, 1530-1660
Prerequisite: English history survey. Examination of the Dissenting religious groups in the English tradition, including the Lollards, Puritans, Presbyterians, Baptists, Quakers, etc., and their impact on society and social protest movements. (6 credits)

HISTORY L446
Stuart England
Prerequisite: English history survey. A study of the political, social, and religious problems of the Stuart Age, with an emphasis on the era from the accession of James I (1603) to the Glorious Revolution of 1688-9. (6 credits)

HISTORY L450
The Enlightenment: 18th Century Intellectual History
Prerequisite: Early Modern European survey. A study of the European Enlightenment with emphasis on its development in France. The main themes in the movement will be explored, e.g., nature, reason, tolerance, progress, happiness, etc.; the careers of the leading philosophers and their chief writings will be examined. Various reactions to the Enlightenment in the eighteenth and nineteenth centuries will be studied. (6 credits)

HISTORY L452
The French Revolution and Napoleon
Prerequisite: Introductory survey course in 18th or 19th century Europe. An examination of the socio-economic, political and religious changes in French society between 1787 and 1815. (6 credits)

HISTORY L454
The Revolutionary Tradition in 19th Century France
Prerequisite: French history or Modern European. An analysis of the revolutions of 1848 and 1871. (6 credits)

HISTORY L460
Studies in 19th Century Central Europe: The Era of Bismarck
Prerequisite: Survey in German history or nineteenth century Europe. An analysis of socio-economic change and the growth of nationalism in the Habsburg and Hohenzollern states during the age of Bismarck. (6 credits)

HISTORY L462
Studies in 20th Century Central Europe: Fascism and Communism
Prerequisite: Survey in German history or twentieth century Europe. Problems in the modernization of the socio-economic and political order in Central and Eastern Europe following the dissolution of the Habsburg and Hohenzollern empires. Special attention will be paid to the role of fascism and communism in promoting social change. For advance reading students might consult R. Dahrendorf, Society and Democracy in Germany, and H. Seton-Watson, Eastern Europe. 1918-1941. (6 credits)

HISTORY L464
Problems in the Socio-Economic History of Modern Europe
Prerequisite: Introductory survey course in 19th and 20th century Europe. Selected themes in the evolution of industrial society in Europe:
social stratification, urbanization and its effects, social mobility and changing composition of elites. The course will focus mainly on England and Central Europe in the nineteenth and twentieth centuries. (6 credits)

HISTORY L470
East Asia To-Day (China, Japan and Hong Kong)
Prerequisite: Chinese and/or Japanese survey course. In the first term the seminar will deal with the revolution in China since 1949; in the second term the seminar will study developments in either Japan or Hong Kong since World War II. (6 credits)

HISTORY L472
South Asia Today (India and Vietnam)
Prerequisite: Some knowledge of Indian and Chinese history. In the first term the seminar will deal with issues in Indian politics, society, economy and diplomacy since independence in 1947 — the nation's problems and prospects. In the second term the seminar will study the Vietnamese people's struggle for freedom since World War II, and will contrast conditions of life in North and South Viet Nam. (6 credits)

HISTORY L476
Imperialism and Revolution in the Third World
Prerequisite: Asian and African survey courses or permission of instructor. A comparison of the techniques and effects of imperialism in Asia, Africa and Latin America during the late 19th and 20th centuries. Modern independence and revolutionary movements in these areas will be examined from a comparative perspective. (6 credits)

HISTORY L490
Joint History-English Tutorial
A tutorial conceived as an interdisciplinary effort between the Departments of History and English, and designed specifically to satisfy a requirement for the History-English joint Honours program. Tutorials may be arranged with members of the respective departments. (6 credits)

HISTORY L492
Joint History-French Tutorial
Prerequisite: Permission of instructor. A tutorial conceived as an interdisciplinary effort between the Departments of History and Etudes Francaises and designed specifically to satisfy a requirement for the History-French joint Honours program. Tutorials may be arranged with members of the respective departments. (6 credits)

HISTORY L493
Advanced Topics in History
This course focuses on advanced topics of interest in History. Content will depend on the theme designated by the Department, which varies from year to year. (6 credits)

HISTORY L494
Advanced Topics in History
A student may repeat History L493, provided that the content is different, by registering for credits under History L494. (3 credits)

HISTORY L495
Special Studies
(6 credits)

HISTORY L496
Honours History Tutorial
The history tutorial is open to Honours students only. All Honours students in History must select an area of concentration from the list below, and a tutorial director. The tutorial director will supervise an intensive reading programme in the student's area of special interest, and consult with the student individually to discuss his reading programme:
—01 North American History
—02 British History
—03 Ancient History
—04 European History, 400-1660
—05 European History, 1660 to the present
—06 The Third World
(6 credits)

HISTORY L498
Honours History Thesis
Optional project open to Honours students only. At the end of the second year students must choose, in consultation with their tutorial director, a research topic for intensive analysis during the third year. The student will independently research the topic and present a paper at the end of the third year. Students may concentrate in the same areas of concentration as for History L496. (6 credits)
OBJECTIVES:
To accept the challenge implicit in living in a world where specialization can so easily be synonymous with narrowness of vision. This narrowness can be overcome if the specialist is able to see the interconnection between all fields of endeavor. Interdisciplinary Studies attempts to integrate knowledge, providing the specialist with a perspective which his discipline alone cannot give. Our primary aim, therefore, is to work with specialists and specialization rather than to provide a substitute for them.

1. We hope to achieve this objective through individual courses in Interdisciplinary Studies which are of high academic quality and are offered to students on an elective basis.

2. This process of integration can also be achieved through a Minor, i.e., 24 credits in a particular field which may be complementary to an existing Major, Specialization or Honours Programme. Such a Minor permits a more exhaustive treatment of an area than does an individual course, and may entail taking courses offered through Departments in addition to one or more seminars in Interdisciplinary Studies.

3. We must also construct programmes which constitute 'neglected areas' of curriculum, neglected because they do not fit neatly into any one department. Many of these programmes concern areas which have become important recently, i.e., after the evolution of the more traditional disciplines. Thus we have programmes in Canadian Studies and in Recreation and Leisure Studies. This objective is achieved through the coordination of existing courses in departments together with one or more seminars in Interdisciplinary Studies. Each programme will have its own coordinator and counselling service.

4. We hope to assist those students whose areas of interest, although truly academic, are not catered to in any single department or programme. A Self-Elected Specialization programme has been designed whereby a student may, in close consultation with the Director of Interdisciplinary Studies and other qualified faculty, submit his own programme consisting of ten existing courses from various departments. Care is taken that such programmes constitute a coherent whole both by the selection of courses and by the possible addition of a tutorial whereby the student in question integrates his knowledge under the direction of one faculty member. Students are accepted into a Self-Elected Specialization programme only after the Centre is satisfied that no other department can adequately cater to his academic aspirations.

NOTE: Students should register with the Centre for Interdisciplinary Studies if they intend to pursue any of the following programmes or Minors.

51.17.1 CANADIAN STUDIES PROGRAMME

Coordinator:
DR. G. DECARIE (History)

The Canadian Studies programme seeks to give students a better understanding of the diverse origins and multi-faceted character of Canada.

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

Selection Rules
1. Hist L203 and L205 or History L206a.
2. Eng L352 or English L233 and L235.
3. 6 credits in French language at a level to be determined by the French Department, section de langue, from the following list:
   - If a student is placed at the elementary level—Fr L200a, L201a or L202a.
   - If a student is placed at the intermediate level—Fr L303a, L305a.
   - If a student is placed at the advanced level—Fr L336.
5. Canadian Studies Seminar Int St L411§ and L413§. In each 3-credit course two professors from different disciplines discuss a common Canadian theme or problem with students.

In addition all students will be required to take Int St L212§: Introduction to the Methods of the Humanities and Social Sciences.

Requirements for a BA with Specialization in Canadian Studies (Interdisciplinary Studies)

Courses totalling 60 credits selected from the list of Courses with Canadian Content incorporating the five selection rules listed above.

Requirements for a BA with a Major in Canadian Studies (Interdisciplinary Studies)

Courses totalling 42 credits selected from the list of courses with Canadian Content incorporating the five selection rules listed above.

Requirements for a BA with a Minor in Canadian Studies (Interdisciplinary Studies)

To be taken supplementary to a Major, Specialization or Honours in another department.

Courses totalling 24 credits selected from:

1. History L203§ or L205§ or History L206§.
2. English L352§ or English L233§ and L235§.
3. 6 credits from any discipline other than History or English.
4. Canadian Studies Seminar Int St L411§ and L413§. In each 3-credit course, two professors from different disciplines discuss a common Canadian theme or problem with students.

**COURSES WITH CANADIAN CONTENT**

For a complete course description see the appropriate section.

**Communication Studies § 51.8.3**

L316§ The Canadian Cinema
L467§ Broadcasting Policy in Canada

**Economics § 51.10.3**

L338§ Contemporary Economic Issues
L414§ Economic History of Canada
L440§ Economics of Social Welfare

**English § 51.11.3**

L352§ Introductory Survey of Canadian Literature (Major and Honours)
L233§ Canadian Literature I
L235§ Canadian Literature II
L236§ Canadian Criticism, Thought and Controversy
L487§ Advanced Studies in Canadian Literature I

**Etudes Francaises § 51.12.3**

L213§ Quebec literature in translation I
L215§ Quebec literature in translation II

L252§ Littérature québécoise: le roman I
L261§ Littérature québécoise: le roman II
L263§ Poésie, théâtre et conte français du Québec: Le patriotisme littéraire
L265§ Poésie, théâtre et conte français du Québec: Voix de l'homme et du monde
L267§ Poésie et théâtre français du Québec: L'interrogation spirituelle et charnelle
L269§ Poésie et théâtre français du Québec: Voix du pays réinventé
L396§ Littérature comparée
L471§ Civilisation Française: ses rapports avec le Québec
L473§ Essai et civilisation de Québec
L477§ Histoire et mouvement des idées au Québec

**Geography § 51.13.3**

L326§ Historical Geography of North America
L342§ Geography of Canada
L349§ Geography of Northern Lands

**History § 51.16.2**

L203§ History of Canada—Pre-Conference
L205§ History of Canada—Post-Conference
L206§ History of Quebec
L207§ The Indian in Canadian History
L208§ Native Peoples of Canada
L302§ Approaches to Canadian History
L303§ Interpretations of Canadian History
L304§ Protest Movements in Canada Since Confederation
L305§ The Ideology of French Canada
L307§ History of Montreal
L309§ History of the Canadian North
L317§ Canada Views the U.S.
L319§ A Literary History of Twentieth-Century Canada
L402§ Problems in Canadian Intellectual History
L404§ The City in Canadian History
L406§ Canada in the 1920’s and 1930’s.

**Interdisciplinary Studies § 51.17.9**

L226§ Alienation—English and French Canadian Literature
L300§ The Native Peoples of Canada
L311§ Selected Topics in Canadian Studies
L313§ Selected Topics in Canadian Studies
L411§ Canadian Studies Seminar I
L413§ Canadian Studies Seminar II

**Political Science § 51.23.3**

L220§ Canadian Government and Politics
L320§ Parties, Pressure Groups and Public Opinions
L324§ An Introduction to Law and the Canadian Constitution
L328§ Public Administration
L373§ Nationalism, The Canadian Experience
L420§ Seminar on Quebec Government and Politics
Recreation and leisure service is a basic social and cultural need, and is concerned with the interrelationships among people in their environment. A great deal of money is poured into recreation and leisure at all governmental levels, leading to a pressing need for people to administer and develop programmes at the necessary standards of sophistication.

This programme attempts to fulfill this need and is offered to those students interested in a career in recreation and leisure services together with those students who foresee the increasing academic enquiry into the problems derived from recreation and leisure within the work ethic.

The primary focus is on managing, programming, counselling and coordinating rather than instructing. The programme draws from the departments of Bio-Physical Education, Etudes Françaises, Interdisciplinary Studies, Psychology, Sociology and the Faculty of Commerce and Administration.

**Requirements:**
Both required and elected courses within the Social Science and Applied Recreation options should be chosen in consultation with the coordinator.
Additionally it will be required that students must maintain a 65% average in all courses in the programme in order to continue into the second and third year of their studies.

**Representatives:**
Bio-Physical Education: A. Wright
Commercial: P. Brunet
Interdisciplinary Studies: M. Hogben
Psychology: E. Mouldoux
Sociology: B. M. Petrie

Upon completion of all requirements the student will receive a BA with Specialization in Recreational and Leisure Studies (Interdisciplinary Studies).

**Programme Outline**

**Recreation and Leisure Studies**

Coordinator: PROF A. WRIGHT (Bio-PE)
DR. B. M. PETRIE (Sociology)

LoYola Faculty of Arts and Science
51.17.2 Centre for Interdisciplinary Studies: Recreation and Leisure Studies
A. Foundation.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>Bio-PE L241</td>
<td>3</td>
</tr>
<tr>
<td>Bio-PE L342</td>
<td>4</td>
</tr>
<tr>
<td>Bio-PE L426</td>
<td>3</td>
</tr>
<tr>
<td>Bio-PE L464</td>
<td>3</td>
</tr>
<tr>
<td>Phil L210</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
</tr>
</tbody>
</table>

**Programme Outline: 93 credits**

**42 1. Major in Psychology or Sociology**

**51 2. Major in Recreation and Leisure Studies**

**B. Applied Recreation Component:**

(Choose X or Y)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Econ L209</td>
<td>3</td>
</tr>
<tr>
<td>Econ L210</td>
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<tr>
<td>Man C213</td>
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<td>Mark C266</td>
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<tr>
<td>Fin C314</td>
<td>3</td>
</tr>
<tr>
<td>Fin C315</td>
<td>3</td>
</tr>
</tbody>
</table>

**DOUBLE MAJOR IN RECREATION AND LEISURE STUDIES AND EITHER PSYCHOLOGY OR SOCIOLOGY**

1. The title or theme of the proposed area of specialization must be interdisciplinary, i.e., it must contain a coherent perspective that cuts across at least three traditional disciplines.

2. A student must maintain a 70% average in those courses proposed in the Major or Specialization in a single discipline. These courses must include some of the "core" courses towards a Major in that discipline. This practice is not only sound pedagogy but has added significance in that a student failing to maintain a 70% average can then transfer to the department of the foundation discipline and still continue towards a Major or Specialization in that field.

3. The programme must include at least four courses (24 credits) failing within a single discipline — hereafter called the foundation discipline. These courses must include some of the "core" courses towards a Major in that discipline. This practice is not only sound pedagogy but has added significance in that a student failing to maintain a 70% average can then transfer to the department of the foundation discipline and still continue towards a Major or Specialization in that field.

4. The final year, the student must enroll in L450 (6 credits), the Self-Elected Specialization Tutorial. All students will be required to take Int St 512, Introduction to the Methods of the Humanities and Social Sciences.
Requirements leading to a Bachelor of Science with a "self-elected" Specialization in . . . "title of chosen specialization" . . . (Interdisciplinary Studies)

1. Normal entrance requirements to Pure and Applied Science programmes.

51.17.4 MINOR IN ENVIRONMENTAL SCIENCE

Coordinator: To be announced.

There is a growing awareness of the vital necessity to understand man's relationship to and effect upon the environment. This Minor would enable the student to deepen both his social concern and his scientific understanding of the problems involved.

Environmental courses already exist in Biology, Chemistry, Geography and Interdisciplinary Studies.

Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bio 331A†</td>
<td>Environmental Biology I</td>
</tr>
<tr>
<td>Chem 411B†</td>
<td>Environmental Chemistry</td>
</tr>
<tr>
<td>Geog L275†</td>
<td>Climate and the Biosphere</td>
</tr>
<tr>
<td>Geol 202B†</td>
<td>Elementary History of the Earth, or</td>
</tr>
<tr>
<td>Geol 205A†</td>
<td>Environmental Geology</td>
</tr>
</tbody>
</table>

Plus 6 credits from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bio 333B†</td>
<td>Environmental Biology II</td>
</tr>
<tr>
<td>Chem 541A†</td>
<td>Nature and Analysis of Pollutants (Prerequisites: Chem 342A and 344B)</td>
</tr>
<tr>
<td>Geog L375†</td>
<td>Biogeography (Prerequisites: Geog L200 or L275 and L276)</td>
</tr>
<tr>
<td>Geol 207A†</td>
<td>Geology of Resources</td>
</tr>
<tr>
<td>Geol 221B†</td>
<td>Physical Oceanography</td>
</tr>
</tbody>
</table>

After completion of all requirements the students will, on graduation, receive on their transcripts "Minor in Environmental Science (Interdisciplinary Studies)."

It is to be understood that Science students will be exempted from the required courses in their own discipline. They must make up these credits in courses outside their own discipline from the optional courses.

51.17.5 MINOR IN MEDIEVAL STUDIES

Coordinator: R. COOLIDGE (History)

The purpose of this programme is to give students a broad knowledge of the middle ages as a period in which many of the most important ideas, institutions, value systems, and modes of creative expression in Western civilization arose and developed significantly toward their present forms. Students will be encouraged to relate the insights of various disciplines to each other and to gain an environmental view of human experience in this period.

Requirements:

1 Selection of 18 credits dealing with the Medieval World from at least two departments other than that of the student's Honours or Major Programme. This selection will be made in close consultation with the Coordinator. Such courses may be selected from the following list:

For a complete course description see the appropriate section.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>L346a</td>
<td>Continuity and Change: An Intellectual History of the Late Roman Empire</td>
</tr>
<tr>
<td>L392a</td>
<td>Late Latin</td>
</tr>
<tr>
<td>L402a</td>
<td>Anglo-Saxon</td>
</tr>
<tr>
<td>L405†</td>
<td>Middle English</td>
</tr>
<tr>
<td>L407†</td>
<td>Chaucer I</td>
</tr>
</tbody>
</table>

2. Programme requirements: The same regulations as the Self-Elected Specialization BA degree.

30 credits must be in Pure Science courses and the remaining 30 credits must be Science-related courses. All courses must be approved by the Director.

2. Programme requirements: The same regulations as the Self-Elected Specialization BA degree.

30 credits must be in Pure Science courses and the remaining 30 credits must be Science-related courses. All courses must be approved by the Director.

LOYOLA FACULTY OF ARTS AND SCIENCE
51.17.5 CENTRE FOR INTERDISCIPLINARY STUDIES: MINOR IN MEDIEVAL STUDIES

L409† | Chaucer II |
L410† | Medieval Literature |
L412† | Masterpieces of English Literature written before 1603 |

Etudes Françaises § 51.12.3
L430* | Littérature du moyen âge |

History § 51.16.2
L230* | History of Medieval Europe |
L330* | Readings in Medieval History |
L430* | Priesthood and Politics in the Middle Ages |

Interdisciplinary Studies § 51.17.9
L321† | Selected Topics in Medieval Studies |
L323† | Selected Topics in Medieval Studies |

Italian § 51.20.3
L330* | Dante |
L331† | Divina Commedia |
L340† | Petrarch and Early Italian Poetry |
L341† | Boccaccio and the Novella |

Philosophy § 51.21.3
L410† | History of Medieval Philosophy |
L480* | Author Course (Medieval Authors only) |

Political Science § 51.23.3
L293* | Roman, Medieval, and Renaissance Philosophy |

Spanish § 51.20.3
L400* | The High Middle Ages |
L401† | The Late Middle Ages |
LOYOLA
FACULTY OF
ARTS AND
SCIENCE
51.17.5
CENTRE FOR
INTER-
DISCIPLINARY
STUDIES:
MINOR IN
MEDIEVAL
STUDIES

Theological Studies § 51.26.3
L463 Religion and Society in the Early Middle Ages
L464 Religion and Society in the Later Middle Ages

2 Participation in Medieval Studies Seminar (Int St L420) in third year.

Representatives:
Classics S. Casey
English A. Hooper
English R. Monaghan
English M. Philmus

After completion of all requirements the students will, on graduation, receive on their transcripts "Minor in Medieval Studies (Interdisciplinary Studies)".

51.17.6 MINOR IN "SOCIAL RESPONSIBILITY IN SCIENCE"

Coordinator:
J. CRELINSTEN

This programme is concerned with developing an awareness of the social and moral dimensions of Science. It is designed for Arts students who wish to examine the role of science as a potent social force, and for Science students who find it necessary to understand the social context of their discipline. The programme coordinates Social Studies of Science and Technology with studies of their practical applications.

Requirements:
Selection of 24 credits or their equivalent from the following groups: (in close consultation with the coordinator)

For a complete course description see the appropriate section.

A. At least 6 credits from:
Int St L236 The Technological Society
Int St L264 Scientists and the State
Sci. and the Arts a dialogue: "Three Quarks for Muster Mark"
Int St L290 Introduction to Futures Studies
Int St L361 Selected Topics in Social Responsibility in Science

B. At least 6 credits from:
Int St L230 Environmental Studies I
Bio 331A Environmental Biology I
Bio 333B Environmental Biology II
Bio 434Z Ecology
Chem 441B Environmental Chemistry
Chem 541A Nature and Analysis of Pollutants
Comp Sc 301 Computers in Society

C. Int St L360 Science and Cultural Crisis

Representatives:
Chemistry R. Pallen
History M. Mason
History R. Porter
Interdisciplinary Studies J. Crelinsten
Interdisciplinary Studies M. Hogben
Philosophy D. O'Connor
Physics C. Kalman
Sociology S. Drysdale

After completion of all requirements the students will, on graduation, receive on their transcripts "Minor in Social Responsibility in Science (Interdisciplinary Studies)".

51.17.7 MINOR IN THIRD WORLD STUDIES

Coordinator:
L. EVOY

The Third World Studies Programme aims at encouraging and integrating interest in Asia, Africa and Latin America. Courses relating to these areas are offered in History, Political Science, Sociology, Geography, Economics and Interdisciplinary Studies at the Loyola Campus of Concordia.

Requirements:
Students enrolled in the programme will be required to take an introductory course, Interdisciplinary Studies L250, together with 18 credits selected from at least two of the disciplines listed below.

For a complete course description see the appropriate section.

Interdisciplinary Studies § 51.17.9
L250 An Introduction to the Third World
L351 Selected Topics in Third World Studies
L353 Selected Topics in Third World Studies
L350 Third World Studies Seminar

Economics § 51.10.3
L307 The Chinese Economy
L401 Theories of Economic Growth
L403 Planning for Economic Growth
51.17.8 MINOR IN WOMEN'S STUDIES

Coordinator:
A. FURLONG

This programme consists of courses dealing with the status, participation and problems of women in Western culture. The courses include such concerns as women in the arts, literature, history, the family and society. The aims of the programme are to introduce the student to the study of women and to offer some background for those who will work in institutions and occupations concerned with women.

Requirements:
The Minor consists of a selection of 18 credits offered in the programme in consultation with the coordinator. In addition, the Third-Year Interdisciplinary Seminar is required of all students in their senior year. All courses are also open to students who are not taking the complete Minor.

For a complete course description see the appropriate section.

Interdisciplinary Studies § 51.17.9
L221* Women in Christianity
L307 Selected Topics in Women’s Studies
L309 Selected Topics in Women’s Studies
L314 Women in Modern Society I
L315 Women in Modern Society II
L441 Seminar in Women’s Studies I
L442 Seminar in Women’s Studies II

L357 Mid-East Political Systems
L360 Politics of Developing Areas

Sociology § 51.25.3
L321 Sociology of Economic Development
L462* Topical Seminar in Capitalism and Underdevelopment in Africa and Latin America

Representatives:
Geography R. Duffy
Interdisciplinary Studies L. Evoy
Economics S. Alvi
Economics D. Otchere
History M. Mason
History R. Porter
Political Science H. Habib
Political Science K. Oh
Political Science F. Stark
Sociology S. Hophe
Sociology J. Tresierra

After completion of all requirements the students will, on graduation, receive on their transcripts “Minor in Third World Studies (Interdisciplinary Studies)”.

51.17.9 COURSES IN INTERDISCIPLINARY STUDIES

All students are invited to take courses in Interdisciplinary Studies. There are no prerequisites unless otherwise stated.

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.5.
INTERDISCIPLINARY STUDIES L201
(Also given as Chem 300Z)
Concepts in Science
Prerequisites: None. An elective course for students outside the science discipline who perceive that a lack of science background may alienate them from much of the world's activities and writing. The aim of the course is to learn the fundamental principles and concepts within the physical sciences: heat, light, atomic structure; chemical principles; Newtonian versus quantum mechanics; relativity; life, the universe and its structure. Emphasis will be placed upon understanding the nature of science, applying the principles to the practical disciplines of astronomy and photography. Mathematics will be kept to a minimum. Lectures: 3 hours per week for two terms plus occasional labs. (6 credits)

INTERDISCIPLINARY STUDIES L204
Aesthetics: An Interdisciplinary Approach
This course attempts to bring together a number of areas central to the cultural climate of our time, with emphasis on aesthetics, that is, man's encounter with the creative arts. The course examines the relation of aesthetics generally (and art in particular) to the crisis in values, and to contemporary identity crisis. More specifically, artistic questions such as the meanings and functions of style, taste and criticism; the questions of form and content, subjectivity and objectivity in art; and the comparison of different artistic media, are integrated with the broader issues remarked above. The course's format is lecture and discussion with the use of slides, recordings and films as illustrative material. Lectures: 3 hours per week for two terms. (6 credits)

INTERDISCIPLINARY STUDIES L212
Introduction to the Methods of the Humanities and Social Sciences
This course will introduce students to representational methods used in the humanities and social sciences. Methodologies suitable to each discipline will be shown through examples and projects centered upon themes with Canadian content where possible. Instruction will be shared by the professors from the disciplines concerned. Lectures: 3 hours per week for two terms. (6 credits)

INTERDISCIPLINARY STUDIES L220
Comparative Literature (6 credits)
INTERDISCIPLINARY STUDIES L221
(Also listed as Theology L221)
Women in Christianity
A study of the theological and historical roles of women in Christianity. The course will examine female prototypes and images of women in the Old and New Testaments, Fathers of the Church, canon law, medieval theology, the Reformation and modern theology. It will also treat the roles of prominent women in the history of Christianity. Lectures: 3 hours per week either term. (3 credits)

INTERDISCIPLINARY STUDIES L224
(Also given as French L396)
Littérature comparée—Comparative literature, Littératures canadiennes—Canadian literature
L'étude comparée des littératures canadiennes d'expression française et d'expression anglaise. Existe-t-il une seule littérature canadienne dans les deux langues, ou, en réalité, y a-t-il deux littératures séparées au Canada? Comparative study of French and English Canadian Literature. Is there only one literature in two languages or has Canada produced two distinct and separate literatures? Textes—Texts: Grove, Settlers of the Marsh; Ringuet, Trente arpent; MacLennan, The Watch that Ends the Night; Langevin, Poussé sur la ville; Laurence, Rachel, Rachel; Davies, Fifth business; Carrier, La guerre, Yes Sir; Cohen, Beautiful Losers; Bessette, Incubation; Hébert, Kamouraska. (6 credits)

INTERDISCIPLINARY STUDIES L226
Alienation—English and French Canadian Literature
The theme of "alienation" as it appears in English and French Canadian Literature will be explored through the poetry and fiction of both languages. The course will consist of lectures in English, lectures in French and joint seminars in which both professors and students will discuss the relationship between the two cultures. A minimal knowledge of both languages is required (many texts are translated). Lectures: 3 hours per week for two terms. (6 credits)

INTERDISCIPLINARY STUDIES L230
Environmental Studies
The course is designed to provide a general background to the scientific and sociological study of man's relationship to his environment. Each lecture will attempt an in-depth treatment of a specific aspect issue and will be presented by an invited specialist in that field. The course will present an overall view of the general problems followed by a serious analysis of specific areas of concern, such as the pollution of water, air and soil; pollution of the oceans; energy resources and population. Possible solutions for the restoration and preservation of our environment will be discussed and the associated social, political and economic considerations will be presented. The general content of the lectures, where applicable, will be directed to problems in our city and province. The presentation of material will include lectures, discussion groups, films and panel discussions. Readings on the various topics will be assigned and students will be involved in projects and term papers. Lectures: 3 hours per week for two terms. (6 credits)

INTERDISCIPLINARY STUDIES L233
(Also listed as Economics L333)
Economics of the Environment
Prerequisite: Economics L209 and L210 or equivalent. This course will be devoted to an examination of the economic aspects of current environmental problems. Topics will include: economy, ecology, and the environment; economic growth and the environment; the circular flow of economic activity and space and earth; private costs and social costs; market failure, externalities, and collective goods; fiscal instruments and pollution; an evaluation of federal and provincial policies. Lectures: 3 hours per week either term. (3 credits)

INTERDISCIPLINARY STUDIES L236
The Technological Society
The purpose of this course is to familiarize the student with the characteristics of contemporary society which specifically relate to the large-scale application of technology and to appreciate the historical uniqueness of these characteristics. The course will concentrate on four main areas:
1. What is technology? Science as technique. Organization as technique. Machines as tech-
interdisciplinary studies

INTERDISCIPLINARY STUDIES L250
An Introduction to the Third World
While this course is designated to provide an interdisciplinary background to students enrolled in the Third World Studies Programme, it is open to all students, irrespective of faculty. Lectures: 3 hours a week for two terms. (6 credits)

INTERDISCIPLINARY STUDIES L264
Scientists and the State: Issues in Science and Politics
The advent of two scientific concepts, Evolution and Atomic Energy, will be examined in detail. The course will be divided into three parts: 1. The advent of Darwinian Theory; 2. The New Physics from 1900 to the present; 3. The Current Soviet Dissent.
The first two parts will comprise a history of the science and intellectual climate of the time, a study of the basic scientific principles, and a look at specific related topics. The third part will examine the domination over research and teaching in science by political systems. In particular, the current dissent of Soviet scientists, e.g., Medvedev and A. Sakharov will be investigated. Lectures: 3 hours per week for two terms. (6 credits)

INTERDISCIPLINARY STUDIES L270
Science and the Arts, a dialogue: "Three Quarks for Muster Mark"
A course for Science and Arts students which will attempt to elucidate the interaction between scientific and cultural developments throughout history and in the present day. Using works by various philosophers, scientists and creative writers, we will trace the continuing dialogue between science and the arts and its relevance for man's attitude toward himself and his world. Lectures: 3 hours per week for two terms. (6 credits)

INTERDISCIPLINARY STUDIES L272
Astronomy, Cosmology and the Space Age
Although it deals descriptively with a specific science, namely astronomy, it is interdisciplinary in nature as it also uses the history and methodology of astronomy to examine such areas as the history of ideas, interaction between science and established beliefs, and methodology of science. Previous courses in science are not necessary. Topics will include: Motions of the sky; The Solar System; structure and evolution of the stars; galactic astronomy; radio astronomy; pulsars, quasars and "black holes" cosmology; the historical development of ideas of the universe; history of the calendar; the search for, meaning and implications of, extra-terrestrial life. Lectures: 3 hours per week for two terms. (6 credits)

INTERDISCIPLINARY STUDIES L290
Introduction to Future Studies
Prerequisite: Second or third year standing. The course is designed to develop a reasoned awareness of alternative futures. The course approaches the future from four perspectives: the futures as possible, as probable, as preferable, and as practicable. A considerable emphasis is placed on the study of the person as a responsible innovator and inventor of the future(s). (6 credits)

INTERDISCIPLINARY STUDIES L300
(Also listed as History L208)
The Native Peoples of Canada
This course examines the Canadian Native experience from a multidisciplinary perspective, including history, law, education, culture, etc. Focusing on Eastern Canada and in particular, Quebec, it attempts to understand the Native experience and contemporary situation. Indians, Inuit and people who work with them are invited to speak on topics related to their special interest. Lectures: 3 hours per week for two terms. (6 credits)

INTERDISCIPLINARY STUDIES L307
Selected Topics in Women's Studies
This course focuses its attention on one or more aspects of the Women's Studies programme. The theme and methodology chosen will depend upon the background and interests of the instructor. Students are advised to consult the Interdisciplinary Studies Centre before registering in order to be sure of the title of the course in any one session. Lectures: 3 hours per week. (3 credits)
NOTE: Students who receive credit for L307 may take it again as L309, provided that a different topic is dealt with the second time.

INTERDISCIPLINARY STUDIES L311
Selected Topics in Canadian Studies
This course focuses its attention on one or more aspects of the Canadian Studies programme. The theme and methodology chosen will depend upon the background and interests of the instructor. Students are advised to consult the Interdisciplinary Studies Centre before registering in order to be sure of the title of the course in any one session. Lectures: 3 hours per week. (3 credits)
NOTE: Students who receive credit for L311 may take it again as L313, provided that a different topic is dealt with the second time.

INTERDISCIPLINARY STUDIES L314
Social Change: Women in Modern Society I
An interdisciplinary course designed to survey some of the major theories on women's role in society. The specific discipline emphasized will vary from year to year depending upon the background of the instructor. Lectures and/or seminars: 3 hours per week for one term. (3 credits)

INTERDISCIPLINARY STUDIES L315
Social Change: Women in Modern Society II
An interdisciplinary course designed to survey some of the major theories on women's role in society. The specific discipline emphasized will vary from year to year depending upon the background of the instructor. Lectures and/or seminars: 3 hours per week second term. (3 credits)

INTERDISCIPLINARY STUDIES L321
Selected Topics in Medieval Studies
This course focuses its attention on one or more aspects of the Medieval Studies pro-
LOYOLA FACULTY OF ARTS AND SCIENCE
51.17.9 CENTRE FOR INTER-DISCIPLINARY STUDIES: COURSES IN INTER-DISCIPLINARY STUDIES

INTERDISCIPLINARY STUDIES
COURSES IN INTERCENTRE FOR DISCIPLINARY SCIENCE ARTS AND FACULTY OF

parative basis.

Third World Studies Seminar

This course focuses attention on some aspects of development and tradition in the Third World. The theme and methodology chosen will depend upon the background and interests of the instructor. Students are advised to consult the Interdisciplinary Studies Centre before registering in order to be sure of the title of the course in any one session. Lectures: 3 hours per week. (3 credits)

NOTE: Students who receive credit for L331 may take it again as L333, provided that a different topic is dealt with the second time.

INTERDISCIPLINARY STUDIES L343
Sociology of Leisure
(Also listed as Sociology L343)

Prerequisite: Sociology L201 or permission of the instructor. Second year course, compulsory for Recreation students and elective for all students. This course deals with Leisure and Recreation in the context of industrial-urban social structures. It entails a sociological approach to the analysis of leisure and recreational activities as affected by contemporary social, economic, and political institutions. Critical emphasis shall be placed on the historical changes in leisure as a social reality with particular attention to the structural properties of alienation, anomie and inequality in modern social and cultural milieux. Lectures: 3 hours per week for one term. (3 credits)

INTERDISCIPLINARY STUDIES L350
Third World Studies Seminar

Prerequisite: Open only to students in their second or third year or to post-graduate students. This seminar will deal with one or other special aspects of the Third World on a comparative basis. Lectures: 3 hours per week for two terms. (3 credits)

INTERDISCIPLINARY STUDIES L351
Selected Topics in Third World Studies

This course focuses attention on some aspects of development and tradition in the Third World. The theme and methodology chosen will depend upon the background and interests of the instructor. Students are advised to consult the Interdisciplinary Studies Centre before registering in order to be sure of the content of the course in any one session. Lectures: 3 hours per week. (3 credits)

NOTE: Students who receive credit for L351 may take it again as L353, provided that a different topic is dealt with the second time.

INTERDISCIPLINARY STUDIES L360
Science and Cultural Crisis

This course will attempt to develop a framework for responding to problems posed by recent and projected achievements in the sciences, especially the life sciences. Our thesis is that scientific break-throughs have precipitated a crisis, or series of crises, with respect to man's self-understanding, his relations to his fellow man, and his relations with nature. Our aim will be to understand the historical and intellectual roots of these crises and to formulate responses which grow out of scientific-philosophic dialogue. Topics will include: Objectivity; scientific, philosophic; Alienation and the "two cultures"; DNA and being human; Death with dignity; Biogenetic engineering; the "right" to privacy; the difficulty of dialogue. Lectures: 3 hours per week for two terms. (6 credits)

INTERDISCIPLINARY STUDIES L361
Selected Topics in Social Responsibility in Science

This course focuses attention on one or more aspects of the Social Responsibility in Science programme. The theme and methodology chosen will depend upon the background and interests of the instructor. Students are advised to consult the Interdisciplinary Studies Centre before registering in order to be sure of the title of the course in any one session. Lectures: 3 hours per week. (3 credits)

NOTE: Students who receive credit for L361 may take it again as L363, provided that a different topic is dealt with the second time.

INTERDISCIPLINARY STUDIES L391/L393
Selected Topics in Interdisciplinary Studies

The theme and methodology chosen will depend upon the background and interests of the instructor. Students are advised to consult the Interdisciplinary Studies Centre before registering in order to be sure of the title of the course in any one session. Lectures: 3 hours per week either term. (3 credits each)

INTERDISCIPLINARY STUDIES L411
Canadian Studies Seminar I

Prerequisite: Enrolment in Canadian Studies Programme. An interdisciplinary seminar in which professors from two of the following disciplines will discuss together some themes or problems central to Canadian life: Communication Studies, Economics, English, Etudes Francaises, History, Political Science, Sociology, Geography, Fine Arts, Theological Studies. Lectures: 3 hours per week first term. (3 credits)

INTERDISCIPLINARY STUDIES L413
Canadian Studies Seminar II

Prerequisite: Enrolment in Canadian Studies Programme. Same format as Canadian Studies Seminar L411, but including two other disciplines from the same list. Lectures: 3 hours per week second term. (3 credits)

INTERDISCIPLINARY STUDIES L420
Medieval Studies Seminar

Prerequisite: 12 credits in different departments within the Minor. The seminar will be designed to coordinate the student's work in the field of Medieval Studies, both within and outside their Major or Honours programmes, and to broaden their knowledge of the Middle Ages, with the cooperation of the various departments involved in the programme. Lectures: 3 hours per week for two terms. (6 credits)

INTERDISCIPLINARY STUDIES L441
Seminar in Women's Studies I

Prerequisite: Open to all third year students. This is an interdisciplinary seminar on selected themes related to women in society, utilizing the perspectives of a number of academic disciplines. The emphasis is on independent study. Lectures: 3 hours per week first term. (3 credits)
INTERDISCIPLINARY STUDIES L442
Seminar in Women's Studies II
Prerequisite: Permission of the instructor. This is a continuation of the interdisciplinary seminar Int St L441 on selected topics related to women in society. Lectures: 3 hours per week second term. (3 credits)

INTERDISCIPLINARY STUDIES L450
Self-Elected Specialization Tutorial
Prerequisite: For Self-Elected Specialization students in their final year. This tutorial is directed by a faculty member from a field of studies relevant to the student's programme. He will be chosen by the Director of the Centre for Interdisciplinary Studies in consultation with the student concerned. The tutorial Director will supervise an intensive reading programme and assist the student in the preparation of a paper. The tutorial is intended to bring together the various fields of knowledge included in the student's programme. (6 credits)

INTERDISCIPLINARY STUDIES L460
Recreation and Leisure Studies Seminar
Prerequisite: Enrolment in the final year of Recreation and Leisure Studies Programme. This is a third-year interdisciplinary seminar in which students can tie together all they have learned in the Recreation and Leisure Studies Programme. Additionally, students will be set on a course of study that should continue after they graduate so that they can keep up with future developments in this area. Lectures: 3 hours per week for two terms or equivalent time in independent study. (6 credits)

INTERDISCIPLINARY STUDIES L491/L493
Advanced Topics in Interdisciplinary Studies
The theme and methodology chosen will depend upon the background and interests of the instructor. Students are advised to consult the Interdisciplinary Studies Centre before registering in order to be sure of the title of the course in any one session. Lectures: 3 hours per week either term. (3 credits each)
**51.18 Library Studies**

Coordinator:
ANNE M. GALLER

Assistant Coordinator:
CATHRIN CAMPBELL

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### 51.18.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequences must be read in conjunction with § 51.1.

The superscript indicates credit value.

#### 36 BA Major in Library Studies

**Year I**
- 12 Libr L201, L202, L320, L325

**Year II**
- 15 Libr L303, L305, L331, L333, L345

**Year III**
- 6 Libr ‘400’ level Elective credits
- 3 Libr L495

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### 51.18.2 LIBRARY STUDIES

Library Studies Programme offers a Major in Library Studies to those who wish to pursue a career in library work at a non-graduate level. For those interested in taking advanced studies at the Master’s level a Double Major will be necessary. (36 credits are required in Library Studies for a Major.)

All new applicants must be interviewed by the coordinator or assistant coordinator. Appointments may be made at the Library Studies Office, Vanier Library, Room V-125. All students must pre-register with the Programme and obtain course approval prior to the date of registration.

Students will be expected to maintain an average of 65% throughout the Programme.

The Certificate in Library Studies is offered to meet the needs of students who may not wish to fulfill the requirements of a Bachelor of Arts degree. All courses in the Programme are 3-credit courses. Sixty-six (66) credits are required to complete the Certificate Programme, thirty-six (36) of which consist of Library Studies with thirty (30) credits of academic electives.

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#### Prerequisites To All Other Courses

Library L201 - Principles of Library Service
Library L202 - The Organization of Library Services

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#### 66 Certificate in Library Studies

- 6 Libr ‘400’ Level Elective credits
- 30 Libr Elective credits

**NOTE:** Degree students must take Library L201 and L202 as prerequisites to all other Library courses. The thirty-six (36) credits pertaining to Library Studies in the Certificate Programme must be completed in their entirety.

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#### Required Courses

Library L303 - Informations Services
Library L305 - Bibliographic Searching
Library L320 - Cataloguing and Classification Part I
Library L325 - Cataloguing and Classification Part II
Library L331 - Data Processing and Automation
Library L333 - Technical Skills - Multi-Media Operations
Library L345 - Technical Skills - Collection Control

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#### Electives

Library L374 - Selected Topics in Library Studies
Library L376 - Selected Topics in Library Studies
Library L407 - Research Methodology
Library L411 - Library Service and Work with Children
Library L421 - Library Service and Work in Schools
Library L432 - Library Service and Work in the College and University
Library L435 - The Organization of Audiovisual Collections
Library L441 - Library Service and Work in Business and Industry
Library L451 - Library Service and Work in The Public Library
51.18.3 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.5.

LIBRARY L201
Principles of Library Service
This course, which is the prerequisite to all others in the programme, attempts to lay the groundwork for the development of sound supportive staff in libraries. The effective use of the library, its basic tools and terminology, the skills and duties required of the library technician in the library organization and the objectives of library service in different types of libraries, will be introduced as they relate to the principles of librarianship required to provide service to users. Text: Bloomberg, Marty: *Introduction to Public Services for Library Technicians* (Littleton, Libraries Unlimited, 1972) (3 credits)

LIBRARY L202
The Organization of Library Services
Prerequisite: Library L201. Having acquired a basic knowledge of library resources, books, pamphlets, periodicals, documents and media; the processes required for their control, ordering, indexing, classification, cataloguing and circulation will be introduced and practised. Combined with L201, the student is prepared to consider a professional career in library science or further course work. Text: Bloomberg, Marty and Evans: *Introduction to Technical Services for Library Technicians* (Littleton, Libraries Unlimited, 2d ed, 1974) (3 credits)

LIBRARY L303
Information Services
Prerequisites: Library L201 and L202. The course will examine the basic informational services given in all types of libraries relating to book and non-book materials. Standard general reference works will be studied to enable the student to work under a professional librarian in the Information Services Department of a library. Text: Katz, William: *Introduction to Reference Work, V. 1, Basic Information Sources* (New York: McGraw-Hill, 2d ed, 1974) (3 credits)

LIBRARY L320
Cataloguing and Classification, I
Prerequisites: Library L201 and L202. This course is designed to give the student a basic knowledge of book and serial cataloguing. Coverage includes: Pre-cataloguing routines, the composition of catalogue cards, and descriptive cataloguing. Weekly laboratory sessions, assignments and readings are required. A knowledge of typing is essential. (3 credits)

LIBRARY L325
Cataloguing and Classification, II
Prerequisites: Library L201, L202, and L320. This course is designed to give the student who possesses a thorough understanding of descriptive cataloguing a basic knowledge of and ability to assign classification numbers and subject headings. Sears and Library of Congress subject headings and the Dewey Decimal classification systems will be studied in depth; the Library of Congress classification system to a lesser extent. (3 credits)

LIBRARY L331
Data Processing and Automation
Prerequisites: Library L201 and L202. A basic introduction to the use of computers and a systems approach in solving library problems. Students will receive instruction in flowcharting and other concepts of systems design and data processing. Automated library applications, services, and networks will be considered. Tours of an automated library and a data centre will provide an insight into the practical application of library automation and the routine technical activities performed by the library staff. No previous knowledge or experience in mathematics, business administration or data processing is required. (3 credits)

LIBRARY L333
Technical Skills—Multi-Media Operations
Prerequisites: Library L201 and L202. This course will be largely practical in nature, giving the student an opportunity to operate audiovisual machinery. He will handle the main types of filmstrips, flipcharts, tape recorders, video and other media software found in today's modern library. Practical assignments will allow the student to create a variety of software such as slide tape presentations, transparencies, graphics and filmstrips. (3 credits)

LIBRARY L345
Technical Skills—Collection Control
Prerequisites: Library L201 and L202. The course is designed to provide the student with a thorough understanding of library practices and procedures as related to the acquisition, housing and maintenance of library collections. The student will study different types of circulation control systems and the various circulation functions including loan policies and procedures, inter-library loans, reserves, overdues, statistics, weeding, inventory control and library security. The acquisition, organization, housing,
and maintenance of monographs, serials and uncatalogued collections of material will be examined. The latter includes government publications, technical reports and pamphlets. (3 credits)

**LIBRARY L374**
**Selected Topics in Library Studies**
Content will depend on the theme designated by the Programme, which varies from year to year. (3 credits)

**LIBRARY L375**
**Selected Topics in Library Studies**
A student may repeat Library L374, provided that the content is different, by registering for credits under Library L375.

**LIBRARY L376**
**Selected Topics in Library Studies**
Content will depend on the theme designated by the Programme, which varies from year to year. (3 credits)

**LIBRARY L377**
**Selected Topics in Library Studies**
A student may repeat Library L376, provided that the content is different, by registering for credits under Library L377. (3 credits)

**LIBRARY L407**
**Research Methodology**
Prerequisites: Library L303 and L305. The aim of this course is to develop an understanding and appreciation of research methods and approaches specific to subject disciplines, based on the consideration of general principles of research methodology and the planning of logical research strategies. The library-oriented approach insures a solid background of data from which problems can be attacked and solutions arrived at. Topics covered in logical progression include: selecting and defining the problem; planning the research programme; developing and testing hypotheses; collecting, classifying, evaluating and analyzing evidence; drawing conclusions; presenting results. Sound knowledge of general reference and bibliographic sources, and those of one academic discipline is assumed. Students will be evaluated principally on a term paper related to research strategy and methods applied to a problem of their own choosing, and class participation.


**LIBRARY L411**
**Library Service and Work with Children**
The major kinds of literature for children will be discussed to illustrate the desirable components to be encouraged for the development of reader interest and ability in the young child. The techniques used in the library such as story telling, book talks and graphics will be studied and practised and children's libraries visited and demonstrated. (3 credits)

**LIBRARY L421**
**Library Service and Work in Schools**
Prerequisites: Library L201 and L202. The duties and responsibilities of the library assistant in the school, and those of the teacher-librarian, will be discussed including programmes for teaching the use of the library, methods for cooperating with teachers, assembling materials for instructional units, curriculum demands upon the library, and the effects of new curriculum trends in education upon the school library/resource centre. (3 credits)

**LIBRARY L432**
**Library Service and Work in the College and University**
Prerequisites: Library L201 and L202. The organization, administration and functions of academic libraries will be studied with special references to curriculum-oriented library service, together with services relating to large academic research libraries and library colleges. (3 credits)

**LIBRARY L435**
**The Organization of Audio-Visual Collections**
Prerequisites: Library L320, L325, L333. This course will study audio-visual materials and the tools and aids for their acquisition, cataloguing and maintenance. Descriptive cataloguing and classification of the various audio-visual documents, such as tapes, cassettes, filmstrips, film loops, films, kits and the processing of these materials as well as their storage and circulation will be discussed. (3 credits)

**LIBRARY L441**
**Library Service and Work in Business and Industry**
Prerequisites: Library L201 and L202. The role of the library related to its particular business or industry will be examined and the specific skills and devices employed to provide direct information to the users explored. Guest speakers will be invited to illustrate how the library becomes the central source of information within its organization. (3 credits)

**LIBRARY L451**
**Library Service and Work in the Public Library**
With emphasis on the place of the supportive staff in the development of public libraries in Quebec, their objectives and services will be discussed. Topics such as library legislation, financing, public lending rights and services to the community will be explored. (3 credits)

**LIBRARY L461**
**Library Service and Work with the Young Adult**
The course will explore the major phenomena of the teenager's world, his lifestyle, problems and his responsibilities. Some of the skills needed to serve young adults in a library setting will be examined. Literature written especially for young adults, and some adult literature which is especially popular with, and suitable for, young people, will be studied. A pre-course reading list is available. (3 credits)

**LIBRARY L465**
**Records Management**
The principles of records administration, of creation, use, maintenance and destruction will be discussed, including storage facilities, records classification, forms, reports control, protection of vital records, and micro-image systems. No previous experience in libraries or business is required. (3 credits)

**LIBRARY L466**
** Archives Management**
The principles of archives administration, of creation, use, maintenance and destruction will be discussed, including storage facilities, classification, forms, reports control, protection of vital archives, and micro-image systems. No previous experience in libraries or business is required. (3 credits)
LIBRARY L478
Advanced Topics in Library Studies
This course focuses on advanced topics of interest in Library Studies. Content will depend on the theme designated by the Programme, which varies from year to year. (3 credits)

LIBRARY L479
Advanced Topics in Library Studies
A student may repeat Library L478, provided that the content is different, by registering for credits under Library L479. (3 credits)

LIBRARY L480
Advanced Topics in Library Studies
This course focuses on advanced topics of interest in Library Studies. Content will depend on the theme designated by the Programme, which varies from year to year. (3 credits)

LIBRARY L481
Advanced Topics in Library Studies
A student may repeat Library L480, provided that the content is different, by registering for credits under Library L481. (3 credits)

LIBRARY L495
Practice Work
Upon the completion of all other Library courses, the student will be placed by the Coordinator to gain practical experience in a library system complementary to his interests. Under the supervision of a professional librarian, he will work throughout the system and submit a study of some aspect of the type of library represented. (3 credits)
51.19 Department of Mathematics

Associate Professor and Chairman
J. SORIC

Associate Professors
H. KIM
K. N. MAJUMDAR
A. J. PRILLO
T. N. SRIVASTAVA

51.19.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

90 BSc or BA Honours in Mathematics

Year I
3 Math 321A/B, or 3 Math Elective credits
18 Math 323A/B, 326Z, 334Z, 353A/B
3 Math Elective credits
6 Elective credits

Year II
6 Math 402Z
18 Math 325A/B, 426Z, 436Z, 451A/B
6 Elective credits

Year III
9 Math 535A/B, 551A/B, 567A/B
15 Math Elective credits
6 Elective credits

90 BSc or BA Specialization in Mathematics

Year I
3 Math 321A/B, or 3 Math Elective credits
12 Math 323A/B, 334Z, 341A/B
6 Math Elective credits
9 Elective credits

Year II
18 Math 326Z, 353A/B, 402Z, 451A/B
3 Math Elective credits
9 Elective credits

Year III
6 Math 436Z
12 Math Elective credits
12 Elective credits

90 BSc Specialization in Statistics

Year I
3 Math 321A/B, or 3 Math Elective credits
15 Math 323A/B, 334Z, 402Z
12 Elective credits

Year II
9 Math 325A/B, 341A/B, 353A/B
9 Math 305A/B, 507A/B, 509A/B
12 Elective credits

Year III
9 Math 407A/B, 501A/B, 503A/B
15 Elective credits in Mathematics, subject to prior approval from the Department
6 Elective credits

90 BSc Specialization in Mathematics & Computer Science

Prerequisites: Math 216, 217, CompSc 211, 241

Year I
6 Comp Sc 341, 343
6 Elective credits

Year II
6 chosen from Comp Sc 423, 425, 427, 433, 451, 551 or 561
15 Math 326Z, 353A/B, 402Z
9 Elective credits

Year III
6 Comp Sc 424
12 Comp Sc Elective credits
6 Math Elective credits
6 Elective credits

42 BSc or BA Major in Statistics

The following courses in an approved sequence constitute a Major in Statistics.

3 Math 321A/B, or 3 Math Elective credits
6 Elective credits chosen with prior departmental approval from the following courses:
Comp Sc 241, Math 341A/B, 405A/B, 505A/B, 507A/B
### 51.19.3 COURSE DESCRIPTIONS

#### MATHEMATICS 200A/B

**Ideas in Mathematics**

- A course for non-Science students. The course endeavours to reveal the extent and power of mathematics and to give some insight into its historical development. The topics chosen will be presented in a way that requires a minimal mathematics background. This course has no formal prerequisites and does not serve as a prerequisite for any other course in Mathematics. Students should consult with the professor before registering for this course. (3 credits) NOT A/See § 200.5

#### MATHEMATICS 202A/B

**Ideas in Mathematics**

- A course for non-Science students. The course objectives are identical to Mathematics 200A/B but different topics are covered. This course has no formal prerequisites and does not serve as a prerequisite for any other course in Mathematics. Students should consult the department before registering for this course. (3 credits) NOT A/See § 200.5

#### MATHEMATICS 213A/B

**Intermediate Algebra**

- Numbers, sets, functions, equations, inequalities, matrices and determinants, binomial theorem, exponents, logarithms and analytic geometry of a straight line. (3 credits) NOTE A/See § 200.5

- NOTE: This course may not be taken for university credit by Mathematics students.

#### MATHEMATICS 214A/B

**Elementary Functions and Analytic Geometry**

- Prerequisite: Mathematics 213A/B. Exponential and logarithmic functions, circular and trigonometric functions, trigonometric analysis, analytic geometry, circle, parabola, ellipse, hyperbola, mathematical induction. (3 credits) NOTE A/See § 200.5

- NOTE: This course may not be taken for university credit by Mathematics students.

#### MATHEMATICS 215A/B

**Calculus I**

- Prerequisites: Functions 521; or Mathematics 213A/B and 214A/B. Limits, continuous functions, derivative, differentiation formulas, chain rule, higher order derivatives, inverse function, applications of derivatives, differentiation of trig, log and exponential functions, antiderivative of the above functions. Lectures: 3 hours per week. Tutorials: 2 hours per week. (3 credits) NOTE A/See § 200.5

- NOTE: This course may not be taken for university credit by Mathematics students.

#### MATHEMATICS 216A/B

**Calculus II**

- Prerequisite: Mathematics 215A/B. The definite and indefinite integrals, applications of integrals, methods of integration, indeterminate forms, improper integrals, series, sequences and tests for convergence. Lectures: 3 hours per week. Tutorials: 2 hours per week. (3 credits) NOTE A/See § 200.5

- NOTE: This course may not be taken for university credit by Mathematics students.

#### MATHEMATICS 217A/B

**Vectors and Analytic Geometry**

- Prerequisites: Functions 521; or Mathematics 213A/B and 214A/B. Translation and rotation of axes, polar coordinates, vectors in the plane, vectors and parametric equations, differentiation of vectors, vectors and solid analytic
geometry, equations of lines and planes, scalar and cross product of vectors, surfaces, spherical and cylindrical coordinates, introduction to linear algebra. (3 credits) NOTE A/See § 200.5

NOTE: This course may not be taken for university credit by Mathematics students.

MATHMATICS 301A/B
Elementary Statistics
Empirical frequency distributions and descriptive measures; elementary probability; populations, samples, and theoretical distributions; sampling distributions; estimation of confidence intervals; tests of hypotheses; two sample techniques; tests for goodness of fit, regression and correlation; analysis of variance. (3 credits)

NOTE: This course may not be taken for university credit by Mathematics students, or by students taking an equivalent course in another department.

MATHMATICS 305A/B
Introduction to Discrete Probability Theory
Prerequisite: Mathematics 216A/B, 217A/B or its equivalent. Combinatorial analysis, axioms of probability, conditional probability and independence, discrete probability distributions (binomial, Poisson, geometric, negative binomial, hypergeometric and zeta distributions), expectation, covariance, variance, moment generating function, computing expectation and probabilities by conditioning, evaluation of arguments, occupancy and order problems, Chebyshev's inequality and law of large numbers, central limit theorem and convergence theorems. (3 credits)

MATHMATICS 307
Mathematics for Elementary School Teachers
A comprehensive course in Mathematics designed for teachers of elementary grades who are responsible for developing ideas of Mathematics with children and for parents interested in the basic concepts and philosophy of the New Mathematics. The course will be a laboratory approach to mathematics content relevant to the elementary grades. Included will be elementary topics from sets, numeration, number operations and properties, geometry and number systems. The development of content will be combined with pedagogical implications through relevant applications to the classroom. This will be accomplished through discussion of learning theories, teaching strategies, consideration and development of various materials of instruction, and evaluative procedures. In general the course will be experimental with participants "doing" as well as "discussing". A wide variety of instructional materials will be utilized and course activity will be oriented toward an awareness of the materials which are potentially available for use in the classroom. (9 credits)

MATHMATICS 310Z
Mathematics for the Social and Management Sciences
Prerequisite: Mathematics 213A/B or its equivalent. For non-science students. Linear programming, progressions, compound interest, permutations and combinations, probability; the derivative, appropriate applications of the derivative, exponential and logarithmic functions, integration with appropriate applications. (6 credits)

MATHMATICS 311A/B
Elementary Statistics II
Prerequisite: Mathematics 301A/B. Mathematical expectation, curve fitting, statistical inference, inference from small samples, linear regression and correlation, analysis of enumerative data, design of experiments, the analysis of variance, nonparametric statistics. (3 credits)

MATHMATICS 312A/B
Linear Algebra I
Prerequisite: Mathematics 217A/B or its equivalent. Systems of linear equations, Gaussian Jordan elimination, vectors in n-space, norms, scalar products, matrices, determinants, Cramer's rule, vector spaces, subspaces, linear independence, introduction to linear transformations, matrix representations. (3 credits)

MATHMATICS 321A/B
Linear Algebra II
Prerequisite: Mathematics 321A/B. Vector spaces, subspaces, bases and dimensions, linear transformations, rank, nullity, inverse, matrix representation, isomorphism, unitary and orthogonal transformation, eigenvalues and eigenvectors, diagonalization process, applications to linear differential equations, Jordan matrices. (3 credits)

MATHMATICS 322A/B
Linear Algebra III
Prerequisite: Mathematics 322A/B. Canonical forms, minimal polynomial, invariant subspaces, Hamilton-Cayley theorem, metric concepts, inner products, isometries, function spaces, orthogonality, bilinear and quadratic forms, symmetric, Hermitian and unitary operators, spectral theorem, complex case. (3 credits)

MATHMATICS 325A/B
Algebra I
MATHEMATICS 329A/B
Mathematics of Investment
Prerequisite: Mathematics 213A/B and 214A/B or their equivalents, or Functions. Theory of interest; annuities certain; amortization and sinking funds; evaluation of bonds and other investments; depreciation, depletion and capital cost. Brief introduction to life insurance. (3 credits)

MATHEMATICS 332Z
Advanced Calculus
Prerequisite: Mathematics 216A/B, 217A/B or their equivalents. For Chemistry students only. Differential equations; limits and continuity; multiple integrals; Green's, Stokes', Gauss' Theorem. Series; improper integrals and Laplace transform. (6 credits)

MATHEMATICS 334Z
Advanced Calculus
Prerequisites: Prerequisite: Mathematics 216A/B, 217A/B or their equivalents. Functions of several variables, limits, continuity, partial derivatives, maxima and minima, extremal problems with constraints, differentiability, Taylor's series, double and triple integrals, curves and surfaces, line and surface integrals, Green's theorem and Stokes' theorem. (6 credits)

MATHEMATICS 341A/B
Numerical Methods I
Prerequisites: Mathematics 216A/B, 217A/B or their equivalents. This course is designed to acquaint students with the standard numerical methods and their mathematical foundations. Topics covered include evaluation of polynomials and their derivatives, polynomial approximations, zeros of functions, systems of linear algebraic equations, matrix inversion. (3 credits) NOTE A/See § 200.5.

MATHEMATICS 343A/B
Numerical Methods II
Prerequisite: Mathematics 341A/B. This course is a continuation of Mathematics 341. Topics covered include numerical differentiation and integration, Legendre and Chebyshev polynomials, Gaussian quadrature, numerical solution to differential equations, polynomial approximations. (3 credits) NOTE A/See § 200.5.

MATHEMATICS 353A/B
Ordinary Differential Equations I
Prerequisites: Mathematics 215A/B, 215A/B and 321A/B or their equivalents. First order differential equations; linear differential equations with constant and variable coefficients, with the emphasis on techniques and applications; introduction to the Laplace transform. (3 credits)

MATHEMATICS 388Z
Actuarial Mathematics
Prerequisite: Mathematics 329A/B. The measure of mortality, Life annuities, life insurance, net annual premiums, net level premium reserves. The expense factor, special topics, population theory. (6 credits)

MATHEMATICS 371A/B
Introduction to Logic

MATHEMATICS 373A/B
Set Theory
Elementary properties of sets, relations, and functions. Equivalence relations. Axiom of choice and equivalent conditions. Ordinal and cardinal numbers. (3 credits)

MATHEMATICS 375A/B
Introduction to Combinatorial Mathematics
Elementary Graph Theory. Permutations and combinations. Principle of inclusion and exclusion and its applications; various combinatorial problems, recurrence relations. (3 credits)

MATHEMATICS 377A/B
Introduction to Game Theory

MATHEMATICS 390Z
Selected Topics in Mathematics
Lectures: 3 hours per week. (6 credits)

MATHEMATICS 401A/B
Mathematics for the Biological Sciences I
Prerequisite: Enrolment in a Biology programme. Discrete probability, Binomial, Multinomial, and Poisson distributions, vectors, matrices, determinants, eigenvalues, linear programming, simplex method. Text: Grossman and Turner: Mathematics for Biological Sciences. (3 credits)

MATHEMATICS 402Z
Mathematical Statistics
Prerequisites: Mathematics 215A/B, 215A/B or their equivalents. Frequency distribution; averages and measures of dispersion; introduction to probability theory; random variables and mathematical expectation; moments and moment-generating functions; binomial, gamma, beta, exponential, normal, student-T, chi-square, and F-random variables; derivation of the probability density functions of these random variables and the study of their properties; distribution of sample statistics; estimation and small sampling theory; tests of hypotheses; curve fitting and correlation; partial and multiple correlation theory. (6 credits)

MATHEMATICS 403A/B
Mathematics for the Biological Sciences II

MATHEMATICS 405A/B
Stochastic Processes

MATHEMATICS 407A/B
Information Theory
Prerequisite: Mathematics 305A/B. Information and sources, Shannon's Theorem for Markov sources, probability relations in a channel, mutual information, error probabilities and decision rules. (3 credits)

MATHEMATICS 415A/B
Boolean Algebra
The algebra of sets. Boolean algebra, symbolic logic and propositional algebra, switching
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algebra and other topics to suit the class. (3 credits)

MATHEMATICS 426Z
Algebra II
Prerequisite: Mathematics 326Z. Advanced
topics in group theory including Sylow theo­
rems. Fundamental theorem of finitely generat­
ed abelian groups, composition series. Galois' theo­
rem for permutation groups. Introduction to
field theory; normal and separable extension,
Galois theory and unsolvability of the Quintic. (6 credits)

MATHEMATICS 436Z
Real Analysis
Prerequisite: Mathematics 334Z. The real
number system; Dedekind cuts, metric spaces,
sequences, series convergence tests, limits of
functions, continuity, the Bolzano-Weierstrass
theorem, derivatives; Taylor's theorem. func­
tions of bounded variation, Riemann-Stieljes
integral, sequences and series of functions,
uniform convergence. (6 credits)

MATHEMATICS 445A/B
History of Mathematics
Prerequisite: None. Early mathematics,
Greek mathematics, European mathematics in
the Middle Ages, the origin and development of
analytic geometry and calculus, mathematics as
a free creation, the generality of mathematics in
the 20th Century. (3 credits)

MATHEMATICS 451A/B
Complex Analysis
Prerequisite: Mathematics 334Z. Roots of a
complex number. Functions, limits and continui­
ity. Branch points; analytic functions; Cauchy-
Riemann equations; singular points; complex
integration; Green's formula. Liouville theorem,
Taylor's and Laurent's theorem. Theory of Resi­
dues. Evaluation of integrals. Selected topics. (3 credits)

MATHEMATICS 473Z
Ordinary Differential Equations II
Prerequisite: Mathematics 353A/B. Laplace
transforms; series solutions of linear differential
equations with analytic coefficients; boundary
value problems, Fourier series, orthogonal sets
of functions; Sturm-Liouville problems. (3 credi­
ts)

MATHEMATICS 501A/B
Sampling Theory and Multivariate
Distributions
Prerequisites: Mathematics 325A/B and
402Z. Basic concepts of sampling, optimum
allocation ratio estimates, bivariate distribution,
multivariate normal distribution, marginal and
conditional distribution, conditional expectation
and regression, quadratic forms. X^n and F-Sta­
tistics. (3 credits) NOTE A/See § 200.5.

MATHEMATICS 503A/B
Introduction to Regression and
Analysis of Variance
Prerequisite: Mathematics 501A/B. General
regression model, least square estimation, linear
regression, confidence intervals, prediction and
prediction improvement. Analysis of variance
principle, design models, one way and two way
classifications, interaction, fixed effect and ran­
dom effect models, randomized block, latin
square and balanced incomplete designs. (3 credits) NOTE A/See § 200.5.

MATHEMATICS 505A/B
Industrial Statistics
Prerequisite: Mathematics 402Z. Concepts
of statistical controls, X, R, P and G charts;
acceptance sampling, sequential probability
ratio tests, sampling inspection, continuous
sampling plans, reliability and life tests. (3 credits)

MATHEMATICS 507A/B
Theory of Point Estimation and
Testing of Hypotheses
Prerequisite: Mathematics 402Z. Sufficient
statistic, unbiased minimum variance, linear un­
biased estimators, Rao and Blackwell theorem,
Rao and Cramer inequality, maximum likelihood
method of estimation, Neyman-Pearson lemma,
construction of uniformly most powerful unbi­
ased test, likelihood ratio test. (3 credits)

MATHEMATICS 509A/B
Introduction to Non-Parametric Statistics
Prerequisite: Mathematics 507A/B. The
exact chi-square distribution, idea of goodness
of fit, applications of chi-square test to counted
data, contingency tables, order statistics, dis­
dtribution of probabilities, confidence limits and
tolerance limits, simple application of binomial
and multinomial distribution, the Mann-Whitney
Test, Wilcoxon's signed rank test, rank correla­
tion. (3 credits)

MATHEMATICS 526Z
Algebra III
Prerequisite: Mathematics 426Z. Rings and
modules, structure of groups, lattices, cate­
gories and functors and multi-linear algebra. (6 credits)

MATHEMATICS 535A/B
Measure Theory and Integration
Prerequisite: Mathematics 436Z. The
Lebesgue integral and the classical problems it
lays to rest. An exploration of more general
theories of measure and integration in view of
their mathematical clarifications or their appli­
cations. Topics covered include measure,
outer measure, measurable sets, non-measur­
able sets, Lebesgue integration, convergence,
differentiation. (3 credits)

MATHEMATICS 540Z
Numerical Analysis
Prerequisites: Mathematics 341A/B,
343A/B or their equivalents, or special permis­
sion of the professor. Polynomial approxima­
tion. Interpolation; numerical differentiation;
quadrature and summation; numerical solution
of ordinary differential equations. Functional
approximations. Least square techniques. Solu­
tions of non-linear equations. Solutions of simul­
taneous linear equations, calculation of Eigenva­
values and Eigenvectors of matrices. (6 credits)

MATHEMATICS 551A/B
Complex Analysis II
Prerequisite: Mathematics 451A/B. Analytic
continuation. Maximum modulus theorem and
its application. Argument principle. Rouche's
(3 credits)

MATHEMATICS 567A/B
Topology
Prerequisite: Mathematics 436Z. Topologi­
cal spaces, neighbourhoods, subspaces, con­
tinuous functions, compactness, connectedness,
separation axioms, approximation. (3 credits)
MATHEMATICS 571A/B  
**Algebraic Topology**  
Prerequisites: Mathematics 326Z and 567A/B. Homotopy theory. Fundamental groups, classification and polygon representation of the topological surfaces. Orientability. Handles and cross caps. Triangulation, simplices, chains and normal forms. Homology theory. (3 credits)

MATHEMATICS 575A/B  
**Senior Thesis**  
Prerequisite: Approval of the Department Chairman. Under special circumstances, approval will be given to undertake a research problem requiring independent work. The results will be directed and evaluated by a member of the department. (3 credits)

MATHEMATICS 579A/B  
**Calculus of Variations**  
Prerequisite: Mathematics 334Z. Euler-Lagrange equation, Legendre and Jacobi conditions, the E-function, Hilbert's invariant integral. Hamilton-Jacobi theory. Introduction to optimal control problems. Introduction to direct methods and partial differential equations (3 credits)

MATHEMATICS 580Z  
**Advanced Topics in Mathematics**  
Lectures: 3 hours per week. (6 credits)

MATHEMATICS 581A/B  
**Number Theory**  
Arithmetical functions $d(n)$, $o(n)$, $\phi(n)$ and their formulas. Mersenne numbers, perfect numbers. Congruences; Fermat theorem. Euler-Fermat theorem; Wilson's theorem. Divisibility properties of products of consecutive integers. Linear and quadratic congruences. Law of quadratic reciprocity. Mobius functions. Mobius inversion formula. Gauss theorem on $\phi(n)$. Gauss theorem on primitive roots. (3 credits)

MATHEMATICS 594Z  
**Methods of Mathematical Physics II**  
51.20 Department of Modern Languages and Linguistics

Associate Professor and Chairman
H. FAMIRA
Professor
C. FONDA
Associate Professor
F. ANTOLIN

51.20.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1. The superscript indicates credit value.

60 BA Honours in one of the Modern Languages and Linguistics
54 Ger or Ital or Ling or Span
6 Ling
Every Honours student must take 6 credits in Linguistics within his Programme.

42 BA Major in one of the Modern Languages and in Linguistics
42 Ger or Ital or Ling or Span

30 Minor in one of the Modern Languages and in Linguistics
30 Ger or Ital or Ling or Span or Russ

72 BA Joint Honours in one of the Modern Languages and in English
6 Engl L418
18 Engl in credits chosen from three different periods to parallel Modern Language courses.
6 Engl Elective credits
18 credits chosen from one modern language in different periods to parallel English courses.
12 Elective credits from one modern language.
6 Engl or Modern Language Elective credits

51.20.2 DEPARTMENT OF MODERN LANGUAGES AND LINGUISTICS

For any combinations of programmes, students may consult the Chairman of the Department. All courses numbered '300' and higher are of a similar academic level. Students who want to take a Minor in Russian must consult the Chairman of the Department.

6 Joint English/Modern Languages Tutorial Engl L492

60 BA Specialization in one of the Modern Languages and English
6 Engl L418
12 Engl credits chosen from two different periods to parallel Modern Language courses.
12 Engl Elective credits
12 credits chosen from one modern language in two different periods to parallel Engl courses.
18 Elective credits chosen from one modern language.
NOTE: This programme replaces the Joint Majors programme.

72 BA Joint Honours in one of the Modern Languages and in French*
36 French: 6 credits in the XXth century, 6 credits in Quebec literature; 12 credits chosen from the XVIIIth, XIXth, and XXth century; L210 or L211 plus 3 credits in the missing century (XVIIIth, XIXth, or XXth century); 6 Elective credits chosen from the list of French Honours and Major courses or a full tutorial.

36 Modern Languages: These 36 credits are to be chosen in German, Italian or Spanish in consultation with the Chairman of Modern Languages and Linguistics. Literature courses will be chosen to parallel as much as possible the choice in French courses.
*NOTE: Sequence of courses to be determined in consultation with the departments concerned.

72 Students seeking admission to the Honours programme on or after June 1st, 1977 will be bound by the Honours requirements outlined in § 16.2.4 of this Calendar. Students who already had Honours status by June 1st, 1977 will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.
GERMAN

GERMAN L200
Introduction to German Studies I
A comprehensive and thorough introductory language course for the student with little or no formal knowledge of German. May be taken concurrently with German L202. Students who have already taken German L203 may not take this course. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

GERMAN L201
Introduction to German Studies II
Prerequisite: German L200 or equivalent. A comprehensive and thorough introductory language course for the student with little or no formal knowledge of German. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

GERMAN L202
Elementary German I
An introductory language course which develops all basic skills. For students with no knowledge of German. Emphasis on the audio-lingual approach. May be taken concurrently with German L200. Students who have already taken German L200/L201 may not take this course. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

GERMAN L203
Elementary German II
Prerequisite: German L202 or equivalent. An introductory language course which develops all basic skills. Emphasis on the audio-lingual approach. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

GERMAN L204
Elementary German
Offered during second semester, this course is identical in content with German L202 and L203. Lectures: 6 hours, including 1 hour in the language lab per week for one term. (6 credits)

GERMAN L206
Reading German and Introduction to Translation I
Prerequisite: German L200/L201 or L202/L203 or equivalent. An introduction to translation from German to English. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

GERMAN L207
Reading German and Introduction to Translation II
Prerequisite: German L206 or equivalent. An introduction to translation from German to English. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

GERMAN L208
Intermediate German I
Prerequisite: German L200/L201 or L202/L203 or equivalent. Advanced German Grammar. Conversation and writing of compositions. Readings from German authors and other texts. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

GERMAN L209
Intermediate German II
Prerequisite: German L206 or equivalent. Advanced German Grammar. Conversation and writing of compositions. Readings from German authors and other texts. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

GERMAN L270
Advanced Composition and Stylistics I
Prerequisite: German L206/L207 or L208/L209 or equivalent. Introduction to comparative stylistics. Vocabulary expansion by word formation and derivation; selected grammatical problems. Analysis of various texts. Lectures: 3 hours per week. (3 credits)

GERMAN L271
Advanced Composition and Stylistics II
Prerequisite: German L270 or equivalent. Comparative stylistics. Vocabulary expansion by word formation and derivation; selected grammatical problems. Analysis of various texts. Lectures: 3 hours per week. (3 credits)

GERMAN L276
German Translation I
Prerequisite: German L206/L207 or equivalent, or permission of the Department. This course is a continuation of German L206/L207 and presents more complicated problems of translation from German into English. It is also an introduction to the basic skills of translating English into German. Lectures: 3 hours per week. (3 credits)

GERMAN L277
German Translation II
Prerequisite: German L276 or equivalent. This course presents complicated problems of translation from German into English. It is also an introduction to the basic skills of translating English into German. Lectures: 3 hours per week. (3 credits)

GERMAN L320
Survey of German Literature 800-1550
A chronological survey of Old High German, Middle High German and Early New High German literature. Lectures: 3 hours per week. (3 credits)

GERMAN L321
Survey of German Literature 1550-1750
Prerequisite: German L320 or equivalent. A chronological survey of the main currents of German literature from Luther to Lessing. Lectures: 3 hours per week. (3 credits)

GERMAN L350
Classicism in German Literature I
Prerequisite: German L206/L207 or L208/L209 or equivalent. The preclassic and early classic period of German literature with its philosophical background. Lectures: 3 hours per week. (3 credits)

GERMAN L351
Classicism in German Literature II
Prerequisite: German L350 or equivalent. The classic period of German literature and its impact upon "world literature". Lectures: 3 hours per week. (3 credits)

GERMAN L380
The Romantic Period I
Romanticism as a universal attitude. Theories and writings of the early German romantics. Lectures: 3 hours per week. (3 credits)
GERMAN L381
The Romantic Period II
Prerequisite: German L380 or equivalent. The works of the major German romanticists and their influence upon European and American literature. Lectures: 3 hours per week. (3 credits)

GERMAN L400
German Literature of the 19th Century I
A study of representative post-romantic authors and their works. Lectures: 3 hours per week. (3 credits)

GERMAN L401
German Literature of the 19th Century II
Prerequisite: German L400 or equivalent. A study of representative authors of German realism and their works. Lectures: 3 hours per week. (3 credits)

GERMAN L430
The Rise of 20th Century German Literature I
Prerequisite: German L206/L207 or L208/L209 or equivalent. Naturalism and other literary trends in Germany between 1880 and 1910. Readings from the works of representative authors. Lectures: 3 hours per week. (3 credits)

GERMAN L431
The Rise of 20th Century German Literature II
Prerequisite: German L430 or equivalent. Expressionism and other literary trends in Germany between 1910 and 1933. Readings from the works of representative authors. Lectures: 3 hours per week. (3 credits)

GERMAN L450
Contemporary German Literature I
Literary trends in Germany since 1933. Literature in Hitler-Germany and German Emigrant literature. Lectures: 3 hours per week. (3 credits)

GERMAN L451
Contemporary German Literature II
Prerequisite: German L450 or equivalent. Post-war German literature. Lectures: 3 hours per week. (3 credits)

GERMAN L470
Masters of German Literature I
An in depth study of at least one German writer. The selection depends on the necessities of the programme. Lectures: 3 hours per week. (3 credits)

GERMAN L471
Masters of German Literature II
Prerequisite: German L470 or equivalent. An in depth study of at least one major German writer. The selection depends on the necessities of the programme. Lectures: 3 hours per week. (3 credits)

GERMAN L480
Tutorial I
Prerequisite: Permission of the Department. Guided reading in German literature to meet the student's individual need. (3 credits)

GERMAN L481
Tutorial II
Prerequisite: Permission of the Department. Guided readings in German literature. Written and oral criticism of the works studied. (3 credits)

GERMAN L264
(Also given as History L264)
Germany and Austria in Modern Times
Prerequisite: History L201 and L202 or equivalent. Course description see § 51,16,2. May be taken, with the permission of the Department, by German Majors or German Honours students as part of their requirements. (6 credits)

ITALIAN
ITALIAN L200
Introduction to Italian Studies
An introductory language course for students with little or no knowledge of Italian. Oral proficiency. Essentials of grammar. May be taken concurrently with Italian L202. Students who have already taken Italian L202/L203 may not take this course. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

ITALIAN L201
Italian Studies
Prerequisite: Italian L200 or equivalent. A comprehensive and thorough language course. Development of oral and written proficiency. Principles of grammar. Reading of basic texts. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

ITALIAN L202
Elementary Italian Conversation
An elementary language course for students with no knowledge of Italian. Audio-visual and audio-lingual techniques are employed in this course. May be taken concurrently with Italian L200. Students who have already taken Italian L200/L201 may not take this course. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

ITALIAN L203
Italian Conversation
Prerequisite: Italian L202 or equivalent. Development of conversational proficiency. Students who have already taken Italian L200/L201 may not take this course. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

ITALIAN L204
Basic Italian Conversation
Offered during second semester this course is identical in content with Italian L202 and L203. Lectures: 6 hours per week. Lab: 2 hours per week. (6 credits)

ITALIAN L210
Basic Intermediate Italian
Prerequisite: Italian L200/L201 or L202/L203 or equivalent. Italian grammar. Oral and written composition. Intensive reading of a play. Students who have already taken Italian L200/L201 may not take this course. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

ITALIAN L211
Intermediate Italian
Prerequisite: Italian L210 or equivalent. Problems in Italian grammar. Development of oral and written composition. Readings from modern Italian authors. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

ITALIAN L220
Introduction to Translation
Prerequisite: Italian L200/L201 or L202/L203 or equivalent. Translation of selected
ITALIAN L221
Principles of Translation
Prerequisite: Italian L220 or equivalent. Progressive translation. Rendering of selected texts from Italian into English and from English into Italian with emphasis on the latter. Lectures: 3 hours per week. (3 credits)

ITALIAN L251
Stylistics
Prerequisite: Italian L210/L211 or L220/L221 or equivalent. Stylistic theories. Analysis of literary styles: prose, poetry, drama. Writing of critical papers. Lectures: 3 hours per week. (3 credits)

ITALIAN L250
Advanced Composition
Prerequisite: Italian L210/L211 or L220/L221 or equivalent. Creative writing: study and application of different writing techniques. Lectures: 3 hours per week. (3 credits)

ITALIAN L261
Problems in Translation
Prerequisite: Italian L260 or equivalent. Translation of selected scientific and literary texts. Lectures: 3 hours per week. (3 credits)

ITALIAN L300
Italian Civilization
Prerequisite: Italian L210/L211 or L220/L221 or equivalent. A survey of Italy's cultural and scientific achievements from the origin to Unification. Lectures: 3 hours per week. (3 credits)

ITALIAN L301
Italy Today
Prerequisite: Italian L210/L211 or L220/L221 or equivalent. A survey of Italy's cultural and scientific achievements from Unification to the present. Social, political and economic life in contemporary Italy. Lectures: 3 hours per week. (3 credits)

ITALIAN L310
Italian Literature to 1600
Prerequisite: Italian L210/L211 or L220/L221 or equivalent. A survey of Italian literature of the Middle Ages and Renaissance. Lectures: 3 hours per week. (3 credits)

ITALIAN L311
Italian Literature After 1600
Prerequisite: Italian L210/L211 or L220/L221 or equivalent. A survey of literary and cultural trends from 1600 to the present. Lectures: 3 hours per week. (3 credits)

ITALIAN L320
Italian Theatre to 1800
Prerequisite: Permission of the Department. Origin and evolution of the Italian Theatre. Emphasis on Goldoni and the Commedia dell'arte. Allieri and tragedy. Lectures: 3 hours per week. (3 credits)

ITALIAN L321
Modern Italian Theatre
Prerequisite: Permission of the Department. A study of representative theatrical works of the nineteenth and twentieth century. Particular attention will be given to the innovative theatre of Pirandello. Lectures: 3 hours per week. (3 credits)

ITALIAN L330
Dante
A study of Dante's minor works. Introduction to the Divine Commedia. Lectures: 3 hours per week. (3 credits)

ITALIAN L331
"Divina Commedia"
Prerequisite: Italian L330 or equivalent. Analysis of the Divine Commedia. Lectures: 3 hours per week. (3 credits)

ITALIAN L340
Petrarca and Early Italian Poetry
Prerequisite: Italian L210/L211 or L220/L221 or equivalent. A study of poetic works from the poets of the Scuola siciliana and the Dolce stil nuovo. Emphasis on Petrarca's Canzoniere. Lectures: 3 hours per week. (3 credits)

ITALIAN L341
Boccaccio and the Novella
Prerequisite: Italian L210/L211 or L220/L221 or equivalent. Origin and evolution of the early Italian novella. Emphasis on the Decameron. Lectures: 3 hours per week. (3 credits)

ITALIAN L350
Fifteenth-Century Prose
The rise of Humanism in Italy. A study of representative prose writings of fifteenth-century authors. Lectures: 3 hours per week. (3 credits)

ITALIAN L351
Fifteenth-Century Poetry
A study of the epic and lyric poetry of the fifteenth century: chivalresque poetry in Italy; the lyric poetry of Poliziano and Lorenzo de' Medici. Lectures: 3 hours per week. (3 credits)

ITALIAN L360
The Italian Renaissance
A study of the Italian Renaissance with emphasis on Machiavelli's Principe and La mandragola. Lectures: 3 hours per week. (3 credits)

ITALIAN L361
Ariosto and Tasso
A study of Orlando Furioso and La Gerusalemme liberata. Lectures: 3 hours per week. (3 credits)

ITALIAN L370
Seventeenth and Eighteenth-Century Prose
A study of representative scientific, philosophical and literary texts. Emphasis on Galileo, Vico, Goldoni and Alfieri. Lectures: 3 hours per week. (3 credits)

ITALIAN L371
Seventeenth and Eighteenth-Century Poetry
A study of representative poetry of the Baroque and the Enlightenment. Emphasis on Marino, Parini and Alfieri. Lectures: 3 hours per week. (3 credits)

ITALIAN L380
Nineteenth-Century Novel
A study of different approaches to the novel by Italian writers of the nineteenth century. Emphasis on Manzoni and Verga. Lectures: 3 hours per week. (3 credits)
ITALIAN L381
Nineteenth-Century Poetry
Romanticism in Italy. A study of the major poetic works of Foscolo, Manzoni and Leopardi. Lectures: 3 hours per week. (3 credits)

ITALIAN L390
Twentieth-Century Novel
A study of representative novelistic works of this century. Lectures: 3 hours per week. (3 credits)

ITALIAN L391
Modern Italian Poetry
A study of the principal literary trends in modern Italian poetry. Lectures: 3 hours per week. (3 credits)

ITALIAN L400
Literary Criticism to 1900
A survey of literary criticism from the Renaissance to the end of the nineteenth century. Readings from the critical works of Vico, Foscolo and De Sanctis. Lectures: 3 hours per week. (3 credits)

ITALIAN L401
Modern Literary Criticism
Readings from the critical works of Benedetto Croce. Critical theories and trends of modern Italian criticism. Lectures: 3 hours per week. (3 credits)

ITALIAN L410
Tutorial
Prerequisite: Permission of the Department is required for enrolment in this course. A course designed to meet the individual needs of advanced students. Guided readings in Italian literature under the supervision of the Department. Written and oral criticism of the works studied. (6 credits)

SPANISH

SPANISH L204
Elementary Spanish
Offered during the second semester, this course is identical in content with Spanish L202 and L203. Lectures: 5 hours per week. Lab: 1 hour per week. (6 credits)

SPANISH L206
Idiomatic Spanish and Introduction to Translation I
Prerequisite: Spanish L200/L201 or L202/L203 or equivalent. Grammatical review. Introduction to translation from Spanish to English. Contemporary readings of literary, commercial, and journalistic texts. Lectures: 3 hours per week. (3 credits)

SPANISH L207
Idiomatic Spanish and Introduction to Translation II
Prerequisite: Spanish L206 or equivalent. Grammatical review. Introduction to translation from Spanish to English. Contemporary readings of literary, commercial, and journalistic texts. Lectures: 3 hours per week. (3 credits)

SPANISH L208
Intermediate Spanish I
Prerequisite: Spanish L200/L201 or Spanish L202/L203 or equivalent. Review of Spanish grammar. Composition and oral practice with special stress on conversation by means of audio-visual practice. Students who have already taken Spanish L208/L209 may not take this course. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

SPANISH L209
Intermediate Spanish II
Prerequisite: Spanish L208 or equivalent. Review of Spanish grammar. Composition and oral practice with special stress on conversation by means of audio-visual practice. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)

SPANISH L270
Advanced Composition and Stylistics I
Prerequisite: Spanish L206/L207 or L208/L209 or equivalent. Creative composition and comparative stylistic analysis of selected Spanish and Spanish-American texts. A course designed to give the student practical experience in the use of the spoken and written language as well as clear criteria on stylistics. Lectures: 3 hours per week. (3 credits)

SPANISH L271
Advanced Composition and Stylistics II
Prerequisite: Spanish L270 or equivalent. Creative composition and comparative stylistic analysis of selected Spanish and Spanish-American texts. A course designed to give the student practical experience in the use of the spoken and written language as well as clear criteria on stylistics. Lectures: 3 hours per week. (3 credits)

SPANISH L276
Spanish Translation I
Prerequisite: Spanish L206/L207 or equivalent. This course presents complicated problems of translation from Spanish into English. It is also an introduction to the basic skills of translation from English into Spanish. Lectures: 3 hours per week. (3 credits)
SPANISH L277
Spanish Translation II
Prerequisite: Spanish L276 or equivalent. This course presents complicated problems of translation from Spanish into English. It is also an introduction to the basic skills of translation from English into Spanish. Lectures: 3 hours per week. (3 credits)

SPANISH L280
The Spanish Language in America I
Prerequisite: Spanish L206/L207 or L208/L209 or equivalent. This course will present the characteristics of Spanish usage in North, Central and South America. Lectures: 3 hours per week. (3 credits)

SPANISH L281
The Spanish Language in America II
Prerequisite: Spanish L280 or equivalent. This course will present the characteristics of Spanish usage in North, Central and South America. Practice with students from different regions of the Spanish-speaking world. Lectures: 3 hours per week. (3 credits)

SPANISH L300
Spanish Civilization
A study of the development of Spanish Civilization from prehistoric times to the present. Lectures will be supplemented by films and other audio-visual aids. Lectures: 3 hours per week. (3 credits)

SPANISH L301
Spanish American Civilization
A study of the development of Spanish American Civilization from pre-Columbian times to the present. Lectures will be supplemented by films and other audio-visual aids. Lectures: 3 hours per week. (3 credits)

SPANISH L310
Introduction to Spanish Literature
Analysis of selected masterpieces from El Cid to the twentieth century. All literary genres will be included. Lectures: 3 hours per week. (3 credits)

SPANISH L311
Introduction to Spanish American Literature
Analysis of selected masterpieces from pre-Columbian times to the present day. All literary genres will be covered. Lectures: 3 hours per week. (3 credits)

SPANISH L320
Spanish Theatre I
Prerequisite: Permission of the Department. Evolution of the Spanish Theatre. Study of some classic outstanding plays. Lectures: 3 hours per week. (3 credits)

SPANISH L321
Spanish Theatre II
Prerequisite: Spanish L320 or equivalent. Stress on oral practice and the performance of a play. Lectures: 3 hours per week. (3 credits)

SPANISH L400
The High Middle Ages
Prerequisite: Spanish L270/L271 or L276/L277 or equivalent. Study of Spanish literary works from 1140 until 1300. Special emphasis will be placed on El libro del buen Amor and La Celestina. Lectures: 3 hours per week. (3 credits)

SPANISH L410
Don Quijote
Analysis of the themes, structure and form of Cervantes' immortal novel. Lectures: 3 hours per week. (3 credits)

SPANISH L411
The Theatre of the Golden Age
An analysis of the major works of Lope de Vega, Tirso de Molina and Calderon de la Barca. Lectures: 3 hours per week. (3 credits)

SPANISH L420
Enlightenment and Romanticism (Theatre)
A study of the principal authors and works of the 18th century. The origins of Romanticism and the theatre of the Romantic period. Lectures: 3 hours per week. (3 credits)

SPANISH L421
Romanticism (Poetry) and Realism
The poetry of the Romantic movement. Principal novels of the realistic period. Lectures: 3 hours per week. (3 credits)

SPANISH L430
The Generation of 1898 I
A study of three writers of this generation: Unamuno, Valle-Inclan and Machado. Lectures: 3 hours per week. (3 credits)

SPANISH L431
The Generation of 1898 II
A study of three writers of this generation: Baroja, Azorin and Maeztu. Lectures: 3 hours per week. (3 credits)

SPANISH L440
Lorca and the Generation of 1927
Analysis of the theatre and poetry of Lorca and his contemporaries: Juan Ramon Jiminez, Guillen, Alberti, etc. Lectures: 3 hours per week. (3 credits)

SPANISH L441
Spanish Literature Since the Civil War
General characteristics of literature since the Civil War. A study of some of the following authors: Cela, Malute, Ferlosio, Martin-Santos, Sender, Goytisolo, etc. Lectures: 3 hours per week. (3 credits)

SPANISH L450
Romanticism and Modernism in Spanish America
A study of the principal works and authors of these periods. Lectures: 3 hours per week. (3 credits)

SPANISH L451
Writers of the "Boom"
A study of the major works of some of the following authors: Carpentier, Rullo, Paz, Fuentes, Asturias, Garcia Marquez, Roa Bastos, Vargas Llosa, Borges, Cortazar, etc. Lectures: 3 hours per week. (3 credits)

SPANISH L460
The Short Story
A seminar on the principal writers of short stories in Spain and Spanish America. Lectures: 3 hours per week. (3 credits)

SPANISH L470
Mexican Literature
A study of Mexican literature from pre-Columbian times to the present. Lectures: 3 hours per week. (3 credits)
LOYOLA  
FACULTY OF  
ARTS AND  
SCIENCE  
51.20.3  
DEPARTMENT  
OF MODERN  
LANGUAGES  
AND  
LINGUISTICS  
COURSE  
DESCRIPTIONS  

SPANISH L480  
Tutorial I  
Prerequisite: Permission of the Department.  
Guided readings in Spanish or Spanish-American literature to meet the student's individual needs. (3 credits)  

SPANISH L481  
Tutorial II  
Prerequisite: Permission of the Department.  
Guided readings in Spanish or Spanish-American literature. Written and oral criticism of the works studied. (3 credits)  

RUSSIAN L200  
Elementary Russian I  
An elementary course in reading, writing and grammar for students with little or no knowledge of Russian. Lectures: 3 hours per week. Lab: 1 hour per week. (3 credits)  

RUSSIAN L201  
Elementary Russian II  
Prerequisite: Russian L200 or equivalent. An elementary course in reading, writing and grammar. Lab: 1 hour per week. (3 credits)  

NOTE: Students interested in studying Russian language and literature beyond the levels reached in the courses described above should consult Section 41.8.2, where they will find an array of courses in that subject offered by the Sir George Williams Faculty of Arts. A Russian Studies programme is also offered (see Section 41.5.6).  

51.20.4 LINGUISTICS  

Linguistics deals with the study of language as a phenomenon of human behaviour. The Linguistics section of the Department of Modern Languages does not undertake the teaching of any specific language. Such instruction is provided by the other sections of the Department as well as by other Departments such as Classics, French, English.  

The section of Linguistics offers a Major and Honours Programme to students wishing to concentrate in Linguistics.  

Students must have the permission of the Department to enrol in any Linguistics courses.  

Major Programme  
The Major Programme consists of:  

36 credits in Linguistics.  

I. The following courses are required:  
L2001, L2011, L2101, L2111, L3201, L3211, L3701, L3711. The remaining 12 credits in Linguistics are selected in consultation with the Department.  

II. 18 credits taken in consultation with the Department, in one or two of the following: Latin, Greek, Hebrew, Russian, German, Spanish, Italian, French language, English language, Sociology, Philosophy.  

III. Students with no knowledge of a second language should take at least six of the 18 credits in No. II above in a language course.  

Honours Programme  
The Honours Programme consists of:  

60 credits in Linguistics.  

I. The following courses are required:  

II. In consultation with the Department, 12 credits in one or two of the following languages may be taken in lieu of 12 credits in Linguistics: Latin, Greek, Hebrew.  

III. 18 credits taken in consultation with the Department in one or two of the following: Latin, Greek, Hebrew, Russian, German, Spanish, Italian, French language, English language, Sociology, Philosophy.  

IV. Students with no knowledge of a second language must take in consultation with the Department, at least 12 of the 18 credits in any one or two of the language courses listed in No. III above.  

V. The remaining 6 credits are Linguistics Elective credits.  

LINGUISTICS L200  
Introduction to Linguistics I  

LINGUISTICS L201  
Introduction to Linguistics II  
Linguistics L210
Historical and Comparative Linguistics I
The history of the Indo-European languages and their interrelations. Exercises in etymology. Lectures: 3 hours per week. (3 credits)

Linguistics L211
Historical and Comparative Linguistics II
Prerequisite: Linguistics L210 or permission of the Department. The major language families of the world. Exercises in etymology and semantics. Lectures: 3 hours per week. (3 credits)

Linguistics L250
Language in Culture and Society I
Interrelations of language and other aspects of culture and society. Paralanguage. The cultural contents of language: Gestalt theory and language. Lectures: 3 hours per week. (3 credits)

Linguistics L251
Language in Culture and Society II
Prerequisite: Linguistics L250 or permission of the Department. Educational implications of sociolinguistic studies. Bilingualism, Multilingualism, Pidgins and Creoles. Language problems and literacy. Lectures: 3 hours per week. (3 credits)

Linguistics L300
Sociolinguistics I
The interaction of linguistic and social structures. Regional and social linguistic variations. Social variables. Linguistic variations and linguistic theory. Attitudes towards linguistic variety and educational policies. The social psychology of language choice. Language problems and literacy. Users and uses of language. Social processes in linguistic structure. Lectures: 3 hours per week. (3 credits)

Linguistics L301
Sociolinguistics II
Prerequisite: Linguistics L300 or permission of the Department. Directions in sociolinguistics. The Whorf-Sapir hypothesis. Conceptual categories in primitive communities. Ethnography of cognitive systems. American-Indian grammatical categories. Lectures: 3 hours per week. (3 credits)

Linguistics L320
Semantics I
Prerequisite: Linguistics L200/L201 or equivalent, or permission of the Department. Linguistic history of semantics. The emotive elements in name and sense. Central and contextual meaning, feeling, tone. Synonymy, homonymy, polysemy. Synchronic and diachronic semantics. Lectures: 3 hours per week. (3 credits)

Linguistics L321
Semantics II

Linguistics L330
Anthropological Linguistics I
Prerequisite: Linguistics L200/L201 or equivalent. Theories about the development of language in mankind and individuals. The characteristics of human language as opposed to animal languages and other communication systems. Similarity and diversity among languages. Lectures: 3 hours per week. (3 credits)

Linguistics L331
Anthropological Linguistics II
Prerequisite: Linguistics L330 or permission of the Department. Speech surrogates and paralanguage. Language and thought in primitive communities. Swadesh, Sapir, Whorf's theories on some American-Indian languages. Linguistic change and reconstruction. Lectures: 3 hours per week. (3 credits)

Linguistics L350
Analytical Procedures and Descriptive Techniques I
Prerequisite: Linguistics L200/L201 or equivalent. The analysis of speech sounds: methods and procedures. The tools of modern phonetic and phonemic analysis. Lectures: 3 hours per week. (3 credits)

Linguistics L351
Analytical Procedures and Descriptive Techniques II
Prerequisite: Linguistics L350 or permission of the Department. Problems in phonetic and phonemic analysis. Speakers of various languages will act as informants to provide practice in recording and classifying data. Lectures: 3 hours per week. (3 credits)

Linguistics L360
Language and Thought I
Prerequisite: Linguistics L200/L201 or equivalent. Meaning and the structure of languages. Grammar, competence and performance. Language and perception. Universals in linguistic theory. Lectures: 3 hours per week. (3 credits)

Linguistics L361
Language and Thought II
Prerequisite: Linguistics L360 or permission of the Department. Cognition and the development of language. The cognitive basis of language learning in infants. Linguistic relativism. The structure of the psychological lexicon. Psychological models of bilingualism. Computer and linguistic processes. Lectures: 3 hours per week. (3 credits)

Linguistics L370
General Phonetics I
Prerequisite: Linguistics L200/L201 or equivalent. Description of speech sounds in articulatory terms. Identification and production of sounds that occur outside the Indo-European family of languages. Lectures: 3 hours per week. (3 credits)

Linguistics L371
General Phonetics II
Prerequisite: Linguistics L370 or permission of the Department. Description of speech sounds as to their acoustic qualities: frequency, amplitude, pitch, stress. Interpretation of sound spectrograms. Lectures: 3 hours per week. (3 credits)

Linguistics L400
Linguistics Applied to Language Learning I
Contrastive linguistic analysis of English and French/German/Italian/Russian/Spanish as related to language learning. Lectures: 3 hours per week. (3 credits)
Linguistics Applied to Language Learning II
Prerequisite: Linguistics L400 or permission of the Department. Cognitive and psychological problems in learning our "first language" and in learning foreign languages. Lectures: 3 hours per week. (3 credits)

Theory of Morphology and Syntax I
Prerequisite: Linguistics L200/L201 or equivalent. Traditional grammar and syntax. Structuralist grammar and syntax. Lectures: 3 hours per week. (3 credits)

Theory of Morphology and Syntax II
Prerequisite: Linguistics L410 or permission of the Department. The theory of generative grammar. Phrase structure rules and specific transformational rules. Metatheoretical constraints. Theories of syntactic structures. Lectures: 3 hours per week. (3 credits)
51.21 Department of Philosophy

Professor and Chairman of the Department
ANDREW KAWCZAK

Professor
ERNEST JOOS

Associate Professors
JOHN DOYLE
EDMUND EGAN

JOHN McGRAW
VINCENT McNAMARA
DESIREE PARK
MARTIN REIDY

Assistant Professors
CHRISTOPHER GRAY
HENRI LAU
DENNIS O'CONNOR

51.21.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

60 BA Honours in Philosophy

| Year I       | 12 Phil L202, L400* |
| Year II      | 12 Phil L410, L440*  |
| Year III     | 12 Phil L420, L450*  |
|              | 6 Phil Elective credits |

Electives to be chosen in consultation with the Department.

36 BA Major in Philosophy

| Year I       | 12 Phil L202, L400* |
| Year II      | 6 Phil L410*        |
| Year III     | 6 Phil Elective credits |

Electives to be chosen in consultation with the Department.

24 Minor in Philosophy

| Year I       | 6 Phil Elective credits |
| Year II      | 6 Phil Elective credits |
| Year III     | 12 Phil Elective credits |

Electives to be chosen in consultation with the Department.

Students seeking admission to the Honours programme on or after June 1st 1977 will be bound by the Honours requirements outlined in § 16.2.4 of this Calendar. Students who already had Honours status by June 1st 1977 will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.

The programme of courses leading to a BA with a Major in Philosophy consists of thirty-six credits taken in the Department.

The programme of courses leading to a BA with a Minor in Philosophy consists of twenty-four credits taken in the Department.
51.21.3 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.5.

PHILOSOPHY L202
Introduction to Philosophy
A study of basic questions in the major areas of philosophy and the classical attempts to answer them. (6 credits)

PHILOSOPHY L204
Introduction to Logic
A study of the basic elements of Aristotelian and modern logic, including an analysis of argumentation, language, definition, fallacies, deduction and induction. (6 credits)

PHILOSOPHY L206
Deductive Logic
An analysis of Aristotelian syllogistic and a study of propositional logic, quantification and modern predicate logic, with special stress on the techniques of formal proof. Application of logic in computer science will be given special consideration. (3 credits)

PHILOSOPHY L208
Methods of Enquiry
A comparative study of the methods and structure of four basic types of knowledge: mathematics, science, history and normative disciplines. Consideration will be given to traditional issues in the theory of knowledge and scientific methodology, including the problem of axiomatization and induction. (3 credits)

PHILOSOPHY L210
Philosophy of Man
A study of representative classical and contemporary positions on human nature, action and life. Such topics as knowledge, affectivity, freedom, person, will be treated. (6 credits)

PHILOSOPHY L212
Ethics
A study of the principles underlying moral conduct with reference to classical and contemporary positions. (6 credits)

PHILOSOPHY L214
Social and Political Philosophy
Prerequisite: 6 credits in Philosophy or the permission of the Department. This course treats of the individual in relation to the State and Society through the reading and discussion of selected texts. Problems treated: political authority, its sources and varieties; the limits of political authority; classical images of man; personality and society; the paradox of social control. (6 credits)

PHILOSOPHY L322
Political Philosophy: Communism, Fascism, and Democracy
Prerequisite: 6 credits in Philosophy or the permission of the Department. This course concentrates on the theoretical foundations of communism, fascism, and democracy through the reading and discussion of selected texts. (6 credits)

PHILOSOPHY L326
Legal Philosophy
Prerequisite: 6 credits in Philosophy or the permission of the Department. This course concentrates on definitions of law and the ways of reasoning in Law. It includes discussion of such basic legal issues as responsibility and excuse, person and property, right and obligation, contract and punishment. (6 credits)

PHILOSOPHY L328
Symbolic Logic
Prerequisite: 6 credits in Logic or permission of the Department. A study of first order predicate calculus, techniques of formal proof, and the development of axiomatic systems. Attention will be given to the application of logic in computer science. (6 credits)

PHILOSOPHY L330
Philosophy of Social Science
Prerequisite: 6 credits in Philosophy or third year standing in a social science department or permission of the Department. Following the distinction between natural and social sciences, this course will be concerned with philosophies of the social sciences. It will investigate the structure, methodology, and problems of these sciences toward understanding and clarifying how they function as quasi-separable disciplines and how they contribute to a wider understanding of man and his varied social relations. (6 credits)

PHILOSOPHY L340
Contemporary Theories of Love
Prerequisite: One previous course in Philosophy. A two-semester topical analysis of love and attendant phenomena with special emphasis on their metaphysical, epistemological, psychological, aesthetic, social, theological and linguistic dimensions. The classes will be conducted on a lecture-seminar basis. (6 credits)

PHILOSOPHY L350
Philosophy of Communication
This course is concerned with a philosophical analysis of the foundations of communication acts; linguistic and non-linguistic, cognitive and affective. Philosophical sources may include: F. Nietzsche, M. Black, M. Merleau-Ponty and P. Ricoeur. (6 credits)

PHILOSOPHY L360
Philosophy of Culture
Prerequisite: 6 credits in Philosophy or the permission of the Department. This course entails a philosophical critique of contemporary western culture, stressing such issues as identity crisis, the weakening of structures of orthodoxy, meditation and humour in relation to the vita activa, work in relation to labour, and the socio-cultural manifestation of value crisis. (6 credits)

PHILOSOPHY L375
Philosophy of Religion
Prerequisite: 6 credits in Philosophy or permission of the Department. A critical assessment of modern developments in Philosophy regarding the question whether thinking man can maintain a religious belief in God. (6 credits)

PHILOSOPHY L385
Philosophy of Education
An examination of philosophical principles underlying educational theories and of the problems arising from the practical implementation of those theories. (6 credits)

PHILOSOPHY L390
(Also given as History L390)
Philosophy of History
Prerequisite: Second or third year standing in a History programme or permission of the
Department. An analysis of the nature of historical knowledge and explanation will be 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. (6 credits)

PHILOSOPHY L400
History of Ancient Philosophy
A study of Western Philosophy from the Pre-Socratics to Plotinus. (6 credits)

PHILOSOPHY L410
History of Mediaeval Philosophy
Prerequisite: Philosophy L400 or the permission of the Department. A study of Western Philosophy from Augustine to the later Scholastics. (6 credits)

PHILOSOPHY L420
History of Modern Philosophy
Prerequisite: 6 credits in Philosophy or permission of the Department. A study of Western Philosophy from Descartes to Hegel. (6 credits)

PHILOSOPHY L430
Contemporary Philosophy
Prerequisite: 6 credits in Philosophy or permission of the Department. Selections from main authors and trends in recent Philosophy, such as Existentialism, Phenomenology, Analytical Philosophy and Marxism. (6 credits)

PHILOSOPHY L440
Second Year Seminar
Prerequisite: 2nd year standing in a philosophy programme or permission of the Department. Problems in Moral Philosophy. Topics to be announced. This seminar will conduct the students through a series of problems on moral topics. (6 credits)

PHILOSOPHY L450
Third Year Seminar
Prerequisite: 3rd year standing in a philosophy programme or permission of the Department. Themes selected from modern and contemporary Philosophy. Topics and authors to be announced. (6 credits)

PHILOSOPHY L455
Aesthetics
Prerequisite: 6 credits in Philosophy or the permission of the Department. This course will examine central problems in the philosophy of art and sensibility, examining the works of major authors in this area, such as Aristotle, Longinus, Kant, Hegel, Dewey, Santayana. (6 credits)

PHILOSOPHY L460
Epistemology
Prerequisite: 12 credits in Philosophy or permission of the Department. A study of characteristic problems in epistemology with particular emphasis on their historical and systematic contexts. The concepts analyzed include fundamental questions in the empirical sciences. (6 credits)

PHILOSOPHY L470
Metaphysics
Prerequisite: 12 credits in Philosophy or permission of the Department. In this course, metaphysics will be treated in two ways; firstly, the problem of being in classical and contemporary ontologies; secondly, the metaphysical suppositions underlying epistemological, moral and social theories. (6 credits)

PHILOSOPHY L475
Philosophy of God
Prerequisite: 6 credits in Philosophy or permission of the Department. The problem of the natural knowledge of God including readings from Plato, Aristotle, Anselm, Aquinas, Descartes, Hume, Pascal, Kant, Hegel, Feuerbach, Marx, Kierkegaard, Newman, Nietzsche, Sartre, Ayer and Russell. (6 credits)

PHILOSOPHY L480
Author course in Philosophy
Prerequisite: 18 credits in Philosophy or permission of the Department. An author course is an intensive study of the writings of selected authors. The author or authors to be announced. (6 credits)

PHILOSOPHY L491
Tutorial in Philosophy
Prerequisite: 18 credits in Philosophy or permission of the Department. If permission for a Tutorial is granted, the Tutorial Director will supervise an intensive reading programme in the student’s area of special interest. (3 credits)

PHILOSOPHY L492
Tutorial in Philosophy
Prerequisite: 18 credits in Philosophy or permission of the Department. If permission for a Tutorial is granted, the Tutorial Director will supervise an intensive reading programme in the student’s area of special interest. (3 credits)

The following course is a university level course which was offered in the year indicated but did not appear in the official Calendar.

1976-1977
Philosophy 511A
Tutorial in Philosophy
(3 credits)
51.22 Department of Physics

Associate Professor and Chairman
M.S. DUBAS, S.J.
Professor
S.N. BAGCHI
Associate Professors
C.E. EAPPEN

C.S. KALMAN
R.L. KOVACS
T.A. KOVATS
J. SHIN
Senior Lab Demonstrator
S. MARKIZA

51.22.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

97 BSc Honours in Physics
6 Math 334Z
33 Phys* Elective credits
18 Elective credits
*A 3-credit course in Ordinary Differential Equations is required in all programmes and this requirement can be fulfilled through elective credits if the student has not already had the equivalent.

91 BSc Specialization in Physics
6 Math 334Z
21 Phys* Elective credits
24 Elective credits
*A 3-credit course in Ordinary Differential Equations is required in all programmes and this requirement can be fulfilled through elective credits if the student has not already had the equivalent.

24 Minor in Physics
18 Phys 301A, 308Z, 311B, 400A, 405B
3 Phys (Lab) 381, 382 or 481
3 Phys* Elective credits
*A 3-credit course in Ordinary Differential Equations is required in all programmes and this requirement can be fulfilled through elective credits if the student has not already had the equivalent.

51.22.2 DEPARTMENT OF PHYSICS

The Department offers programmes leading to a 24-credit Minor, a 37-credit Major, a Specialization and an Honours degree. Students in the Specialized programmes will be required to take a number of specified courses to which a variety of Physics electives can be added depending upon the degree of specialization desired and the current availability of course offerings.

Students seeking admission to the Honours programme on or after June 1st 1977 will be bound by the Honours requirements outlined in § 16.2.4 of this Calendar. Students who already had Honours status by June 1st 1977 will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.
51.22.3 COURSE DESCRIPTIONS

NOTE: All Physics courses except Phys 201Z, 315A, 316Z, 317B, 345A, 351A and 355B require the equivalent of 6 credits of Collegial Physics and 6 credits of Collegial Calculus as prerequisites. Phys 203A as well as the courses listed above may not be taken for university credits by students registered in Physics programmes.

PHYSICS 201Z
General College Physics


PHYSICS 203A
Heat and Sound

Temperature and thermometry, heat effects, measurement and transfer, thermal properties of matter, thermodynamics, kinetic theory, waves, vibrations and acoustical phenomena. Lectures: 3 hours per week. Lab: 2 hours per alternate week. Reference text: Sears and Zemansky: University Physics (4th ed). (3 credits) NOTE A/See § 200.5

PHYSICS 301A
Optics


PHYSICS 302Z
Space Physics

A highly descriptive course for university science students in the elements of astronomy, astro-physics, artificial satellite motion and space travel. The topics covered are: The earth and its motions; celestial mechanics; the solar system; objects of atomic physics; radio astronomy; the sun, other stars, galaxies and nebulae; artificial satellite motions; communication satellites; rocket motion; space travel; apol­lo missions and their findings, the nature of our universe. Lectures: 3 hours per week for two terms. Reference text: S.P. Wyatt: Principles of Astronomy (Allyn & Bacon). (6 credits)

PHYSICS 306Z
Electricity and Magnetism


PHYSICS 311B
Mechanics


PHYSICS 315A
The Mechanics of Visual Representation

An introductory course combining laboratories and lectures illustrating the basic laws which govern and control the mechanism of image reproduction. Relevant topics concerning the interaction of light and materials are discussed and demonstrated. Students perform experiments with light-sensitive materials, the pin-hole camera, light intensity and illumination measurement. Human visual response, the gray scale, sensitometry, densitometry, the characteristic curve and ASA, DIN, film speeds are examined in depth. This course parallels the Chemistry lab course 315A, and both are designed to complement the "Dynamics of Visual Representation" course (Communication Studies L275). This course is designed for students in Communication Studies Lab & Lectures: 3 hours per week. Reference texts: M.J. Langford: Basic Photography (Amphoto). T.H. James and G.C. Higgins: Fundamentals of Photographic Theory (Morgan & Morgan). (3 credits)

PHYSICS 316Z
Understanding the Physics of Media

The course covers the evolution of Physics in the discoveries that apply to our technology and media. This course is designed for Communication Studies students. Lab: one 3-hours, session per week for two terms. Reference text: A. Einstein and L. Infeld: The Evolution of Physics. (6 credits)

PHYSICS 317B
The Physics of Photo-Reproduction

Prerequisite: Phys 315A. A combined laboratory and lecture course designed for students in Communication Studies who have some basic knowledge of physical laws. Ideas introduced in the "Mechanics of Visual Representation" (Phys 315A) are further developed, covering such topics as exposure measurements and control, and the Standard Association institute Photographic Exposure Guide. The mechanics of a lens, image formation, f-stops diaphragm openings, the 3-colour composition of light, the colour-temperature scale, and filters, are studied. This course is so designed that the student will gain an intelligent and efficient use of his equipment. Lab and Lectures: 3 hours per week. Reference text: M.J. Langford: Basic Photography (Amphoto). (3 credits)

PHYSICS 320B
Mathematical Physics I

Vector spaces. Matrices and determinants. Linear operators. Linear coordinate transformations. Systems of simultaneous linear equations. Lectures: 3 hours per week. Reference text: To be announced. (3 credits)

PHYSICS 323A
Mathematical Physics II

LOYOLA SCIENCE ARTS AND DEPARTMENT OF PHYSICS: COURSE DESCRIPTIONS

PHYSICS 345A
Introduction to Consumer and Commercial Electronics
A course primarily for people who wish to acquire a basic knowledge of some of today's consumer and commercial electronics, but leaving out most of the extensive theories. The course consists of a series of lectures, laboratory projects and demonstrations. Topics to be treated are: High Fidelity Amplifiers; Program Sources and Reproducers; AM, FM and SSB Transmission; Black and White and Colour Television Reception; Auto-Electronics; Electronic Control Systems; Applications of Linear and Digital Integrated Circuits. Lectures: 2 hours per week. Lab: 2 hours per week. Reference text: P. Zbar: Industrial Electronics (2nd ed); Printed notes. (3 credits)

PHYSICS 351A
Biomechanics of Human Motion
The application of elementary laws of mechanics to the understanding of static equilibrium conditions of the human body subjected to external forces—the efficiency of human movement seen from the reference point of physical laws as applied to sports. This course is intended for the physiotherapist, the athlete, and all those interested in understanding body mechanics in the light of inanimate physical laws. Lectures: 3 hours per week. Reference text: Geoffrey Dyson: The Mechanics of Athletics (U. of London, 6th ed). (3 credits)

PHYSICS 353B
Biophysics

PHYSICS 355B
Electronic Instrumentation
This course is recommended for Science students and others who might be working in scientific research laboratories. This course begins with basic electrical measurements and gradually leads to amplifier circuits of vacuum tubes and transistors, operational amplifiers, oscillators, servo systems as in strip chart recorders, feed-back control, digital circuits and other devices currently used in research laboratories. Lectures: 3 hours per week. Lab: 2 hours per week. Reference text. To be announced. (4 credits)

PHYSICS 391A/392B
Selected Topics in Physics
The topics chosen will vary from year to year. The course is designed to provide students with the opportunity of extending their studies beyond subjects already included in the curriculum. Open to all students with permission of the department. (3 credits each)

PHYSICS 400A
Atomic Physics

PHYSICS 405A
Classical Thermodynamics

PHYSICS 408A
Electronics I
Prerequisite: Phys 308Z or equivalent. Review of AC and DC network theory; Elementary semi-conductor theory as applied to P-N junctions; Power supplies and diode applications; Theory of transistors; Hybrid models of transistors; Analysis of single and multi-stage amplifiers. Field effect transistors, MOS devices; Silicon control rectifiers. Lectures: 3 hours per week. Reference text: To be announced. (3 credits)

PHYSICS 409A/B
Statistical and Thermal Physics
Prerequisites: Phys 400A, 412B and 405A. Elementary probability theory, Gaussian distribution, statistical enumeration of microstates, equilibrium distributions, thermal and mechanical interactions, definitions of temperature and entropy, laws of thermodynamics and applications; partition functions, canonical ensembles, statistical distribution functions and their applications. Lectures: 3 hours per week. Reference texts: Reif: Statistical and Thermal Physics (McGraw-Hill); K.C. Macdonald: Introductory Statistical Mechanics for Physicists (Wiley). (3 credits)

PHYSICS 411A
Mechanics
Prerequisite: Phys 311B. Kinematics of systems of particles and rigid bodies. Particle collisions, rocket motion, plane motion of rigid bodies. Impulse. Particle motion in non-inertial frames, space motion of a particle. Rigid body motion about a fixed point, gyroscopes. Introduction to equations of Lagrange and Hamilton. Lectures: 3 hours per week. Reference text: H. Goldstein: Classical Mechanics (Addison-Wesley). (3 credits)

PHYSICS 412B
Introduction to Quantum Mechanics

PHYSICS 413A/B
Advanced Mechanics
Prerequisites: Phys 320B, 323A and 411A. Lagrange equations, variational principles, central force scattering, kinematics of rigid bodies using orthogonal matrices—Cayley-Klein parameters and Pauli-spin matrices. Rigid body
PHYSICS 512A/B
Electromagnetic Theory
Prerequisite: Phys 408A, 4128 and 420A. Derivation of the laws of electrostatics and magnetostatics from the basic experimental laws; method of images; solutions of Laplace's and Poisson's equations for electrostatic problems; magnetism, Maxwell's equations. Lectures: 3 hours per week. Reference text: J.D. Jackson: Classical Electrodynamics (Wiley). (3 credits)

PHYSICS 513A/B
Electromagnetic Theory

PHYSICS 514A/B
Quantum Mechanics
Prerequisite: Phys 400A, 412B, 420A/B. Postulates of quantum mechanics; operator formalism; algebraic methods, angular momentum; approximation methods; scattering identical particles. Lectures: 3 hours per week. Reference text: S. Weider: The Foundation of Quantum Theory (Academic Press). (3 credits)

PHYSICS 591A/592B
Advanced Topics in Physics
The topics chosen will vary from year to year. The course is designed to provide students with the opportunity of extending their studies beyond subjects already included in the curriculum. Open to all students with permission of the department. (3 credits each)

PHYSICS 381
Optics Lab
Prerequisite: Phys 301A.
(1 credit)

PHYSICS 392
Electricity and Magnetism Lab
Prerequisite: Phys 308Z.
(2 credits)

PHYSICS 401
Atomic Physics Lab I
Prerequisite: Phys 400A.
(2 credits)

PHYSICS 482
Electronics Lab I
Prerequisite: Phys 408A.
(2 credits)

PHYSICS 581
Atomic Physics Lab II
Prerequisite: Phys 400A.
(2 credits)

PHYSICS 582
Electronics Lab II
Prerequisite: Phys 408A, 482 and 508 concurrently.
(2 credits)
Assistant Professor and Chairman
E. M. PRICE

Professor
H. P. HABIB

Associate Professors
R. C. COYTE

51.23 Department of Political Science

51.23.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

53 BA Honours in Political Science

Year I
6 Pol Sc L200* or equivalent
12 Pol Sc*

Year II
18 Pol Sc**

Year III
24 Pol Sc***#
3 Pol Sc L499*

42 BA Major in Political Science

Year I
6 Pol Sc L200* or equivalent
6 Pol Sc*

Year II
12 Pol Sc**

Year III
18 Pol Sc***

24 Minor in Political Science

Year I
6 Pol Sc L200* or equivalent
6 Pol Sc Elective credits

Year II
12 Pol Sc Elective credits

Year III
12 Pol Sc Elective credits

60 BA Specialization in Political Science

Year I
6 Pol Sc L200* or equivalent
12 Pol Sc*

Year II
18 Pol Sc**

Year III
24 Pol Sc***#

NOTE:
* To be chosen from the '200' or '300' level.
** To be chosen from the '300' or '400' level; to be chosen from the '200' level only with the permission of the Department.
*** To be chosen from the '300' or '400' level.

# 6 credits may be taken in a cognate discipline with the permission of the Department.

51.23.2 DEPARTMENT OF POLITICAL SCIENCE

The Department of Political Science offers four programmes of study: an Honours, a Specialization, a Major, and a Minor.

The programme of courses leading to an Honours BA in Political Science consists of 63 credits in the Department or 57 credits in the Department and 6 credits in a cognate discipline with the permission of the Department. In addition 30 elective credits in other departments must be taken to complete the degree requirements. In Year II and Year III students are required to take 18 credits in the Seminars listed at the '400' level. (Students intending to pursue graduate studies in Political Science are strongly advised to include Pol Sc L440.) Students entering on or after June 1st 1977 are governed by the following grade requirements: An Honours student will be required to maintain an average of 73% in all his/her courses; a minimum of 70% in each Political Science course and an average of 75% in all Political Science courses taken throughout his/her entire Honours programme. (Honours standing will be reviewed at the end of each academic year.) In order to maintain Honours status no acceleration of courses will be permitted. In the second year of the Honours programme each student will choose a faculty adviser who will advise the student on course selection and his/her Honours thesis topic.

The programme of courses leading to a Specialization BA in Political Science con-
sists of 60 credits in the Department or 54 credits in the Department and 6 credits in a cognate discipline with the permission of the Department. In addition 30 elective credits in other departments must be taken to complete the degree requirements. This programme is designed for students who wish to acquire a broad knowledge of the discipline without the quality requirements of the Honours programme.

1. The programme of courses leading to a BA with a Major in Political Science consists of 42 credits in the Department. In addition 48 credits must be taken to complete the degree requirements.

The programme 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.

51.23.3 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.5.

Explanation of Course Numbers
1. Courses in the '200' and '300' range are open to all Political Science students and students in other departments.
2. Courses in the '400' range are open to all students in Political Science who are in their second and third year. Students in other departments may take these courses with the permission of the Political Science Department.

POLITICAL SCIENCE L200 Introduction to Political Science
A description of the features universal to the governing processes of societies and the nature and consequences of the major variations in these processes. The course combines a theoretical and conceptual framework with a study of selected political systems and countries. It is designed to act both as introduction to the discipline for those students who plan to study further and to serve also those students who require a systematic examination of the field in a single course. (6 credits)

POLITICAL SCIENCE L210 International Politics
Prerequisite: Political Science L200 or CEGEP equivalent. This course is designed to offer an introduction to International Politics for Majors and Honours students in Political Science. The course will be devoted to a systematic study of international behaviour both in the period of peace and war. It will include a study of the theoretical approaches, nation-state system, national power and capability, techniques for the management of power, diplomacy and foreign policy, propaganda and psychological warfare, role of International Law and world organization, and world politics. (6 credits)

POLITICAL SCIENCE L221 American Government and Politics
Prerequisite: Political Science L200 or CEGEP equivalent. This course is designed to offer an introduction to American politics for students interested in political science. It will cover the constitutional development of the United States, the executive, legislative, judicial and administrative branches of the Canadian Government. A study of the Canadian political process: the electoral system, political parties, interest groups and public opinion. Seminars on issues and problems in Canadian politics: the constitutional question, economic and fiscal policy, foreign policy, health, education and welfare: pollution, drugs and civil rights. (6 credits)

POLITICAL SCIENCE L240 The Soviet Union
Prerequisite: Political Science L200 or CEGEP equivalent. A survey and analysis of attempts to institutionalize order and change in international society. Chief emphasis will be on the United Nations and its affiliates. (3 credits)

POLITICAL SCIENCE L251 British Government and Politics
Government and Politics in Britain with particular emphasis on political parties and pressure groups, the changing role of the legislature and executive, and the Public Corporations. The issues of current constitutional interest will be discussed such as the office of Prime Minister and parliamentary sovereignty. (3 credits)

POLITICAL SCIENCE L261 International Organization
A survey and analysis of attempts to institutionalize order and change in international society. Chief emphasis will be on the United Nations. (3 credits)

POLITICAL SCIENCE L263 Regional Organizations
A survey and analysis of attempts to institutionalize order and change in international society. Chief emphasis will be on the European Community, COMECON, NATO, OAS, etc. (3 credits)

POLITICAL SCIENCE L291 Ancient Greek Political Philosophy
A study of the political thought of the ancient Greeks with particular attention given to The Republic of Plato and The Politics of Aristotle. (3 credits)

POLITICAL SCIENCE L293 Roman, Medieval and Renaissance Political Philosophy
A study of the political thought of Rome during the Republic, with special emphasis on Cicero’s On the Commonwealth; the political thought of the mediaeval period with emphasis on St. Augustine’s The City of God and The Selected Political Writings of St. Thomas Aquinas; and the political thought of the Renaissance where the emphasis will be placed on Machiavelli’s The Prince and The Discourses. (3 credits)
POLITICAL SCIENCE L307
Selected Topics in Political Science
Prerequisite: Permission of the Department.
The selected topic will vary with the special interest of the instructor offering the course in any given year. (3 credits)

POLITICAL SCIENCE L309
Selected Topics in Political Science
Prerequisite: Permission of the Department.
The selected topic will vary with the special interest of the instructor offering the course in any given year. (3 credits)

POLITICAL SCIENCE L311
An Introduction to International Law I
The meaning of international law, its sources, subjects and its relationship with municipal law, recognition, state succession and state territory; rights and duties of states; roles of international law in the international community. (3 credits)

POLITICAL SCIENCE L313
An Introduction to International Law II
International transactions; Evolution and History of Diplomacy; its relationship to international law; diplomacy of the great powers; law and practice as to treaties; disputes, war and neutrality. (3 credits)

POLITICAL SCIENCE L320
Parties, Pressure Groups and Public Opinion
An examination of the functions of party and pressure groups with an emphasis on political socialization and education, ideology, political recruitment and leadership selection, interest aggregation, and intragovernmental organization; the process of the formulation of public opinion, the nature of its expression, and its impact on public policy; the course will be centered on the Canadian political system. (6 credits)

POLITICAL SCIENCE L324
An Introduction to Law and the Canadian Constitution
An introduction to law in general and the Civil Code, in particular, with references to the Criminal Code, Companies Act and others. This course will also deal with the Canadian Constitutional System and its major interpretations by the Courts. (6 credits)

POLITICAL SCIENCE L328
Public Administration
A theoretical study of government management and institutions, based on the Canadian administrative experience and related to Anglo-American comparative practice. (6 credits)

POLITICAL SCIENCE L331
Statistics for Political Scientists—Theory
This course provides a framework of those statistics useful to political scientists; the theory of statistics, summarization of distributions, measures of association, categories of data, scaling, statistical inference, probability, problems of spurious correlation, and introduction to computer techniques. (3 credits)

POLITICAL SCIENCE L333
Statistics for Political Scientists—Application
This course deals with the most common applications of statistics to political concerns; the structure of quantitative hypotheses and research designs, the construction of opinion surveys and sampling procedures; Guttman scaling, analysis of legislative voting, content analysis of documents, J-curve analysis of political change, factor analysis of international affairs, democratization and the problems of applying quantitative methods to human beings. (3 credits)

POLITICAL SCIENCE L341
Contemporary Politics of China
An analysis of the present government and politics of the People's Republic of China, with special emphasis on the Communist movement, the rise of Mao Tse-tung, the triumph of Communism in China, the role of CCP, political structure and governmental performance, socio-political reform, and China and the World. (3 credits)

POLITICAL SCIENCE L343
Contemporary Politics of Japan
An analysis of the political development of Japan since the end of World War II with special emphasis on the construction of new Japan, old and new constitutions, political structure and governmental performance, parties and interest groups, domestic and foreign policies, and Japan and East Asia and the World. (3 credits)

POLITICAL SCIENCE L348
Comparative Government
Prerequisite: Political Science L200 or CEGEP equivalent. A comparative study of the Governments of the United Kingdom, France and the Federal Republic of Germany. (6 credits)

POLITICAL SCIENCE L350
African Government and Politics
The government and politics of African states south of the Sahara with reference to traditional political systems, colonial policies, nationalism, and the problem of nation building. (6 credits)

POLITICAL SCIENCE L355
The Middle East in World Politics

POLITICAL SCIENCE L357
Mid-East Political Systems
A comparative study of a selected number of Mid-East Governments (Turkey, Egypt, Libya, Syria, Iraq, Lebanon, Israel, Jordan, Saudi Arabia and Yemen). (3 credits)

POLITICAL SCIENCE L371
Nationalism: Origins, Operation, Significance
Prerequisite: Political Science L200 or CEGEP equivalent or permission of instructor. Examines the foundations of nationalist ideology developed originally in the early 19th century as a purely European phenomenon. Considers specific nationalist ideologies-European, African, Asian, etc.—with regard to their modality of operation and their significance in relation to a society's capacity to evolve and confront the demands, both internal and external, of the contemporary environment. (3 credits)

POLITICAL SCIENCE L373
Nationalism, The Canadian Experience
Prerequisite: Political Science L200 or CEGEP equivalent or permission of instructor. Examines the origins and development of nationalism and regionalism in Canada with particular attention centered upon the interaction between French-Canadian and English-Canadian nationalist sentiments. Considers the similari-
POLITICAL SCIENCE L380
Politics of Developing Areas
An examination of the effects of social change on political institutions in developing areas. The course will deal with such questions as: How do actions of governments directly influence the process of modernization? How do patterns of governmental organization influence the speed and direction of change? What organs of government seem best able to deal with the increasingly numerous problems caused by modernization? Are specific types of political institutions required for modernization? (6 credits)

POLITICAL SCIENCE L391
Early Modern Political Philosophy
The Reformation and the rise of modern individualism. The principal political thinkers studied in this period will be Luther, Calvin, Bellarmine, Bodin, Hobbes, Harrington, Locke. (3 credits)

POLITICAL SCIENCE L393
Late Modern Political Philosophy
The Enlightenment and its critics and the political thought of the early industrial period. The most important thinkers to be studied in this period are de Montesquieu, Hume, Rousseau, Burke, J. S. Mill and Marx. (3 credits)

POLITICAL SCIENCE L410
Advanced Topics in Political Science
Prerequisite: Permission of the Department. This course is designed primarily for Honours students. Its purpose is to provide an opportunity for students to intensify their study beyond the areas of specialization already represented in the curriculum. The Advanced Topic will vary with the special interest of the instructor offering the course in any given year. (6 credits)

POLITICAL SCIENCE L420
Seminar on Quebec Government and Politics
An institutional and functional survey of the executive, legislative, judicial and administrative branches of the Quebec government. A detailed study of Quebec's jurisdictional and fiscal problems with the federal government. Discussions on the political process in Quebec; the electoral system, political parties, pressure groups and public opinion. The role of the Catholic Church in Quebec politics. A study of the most important thinkers in French Canada. (6 credits)

POLITICAL SCIENCE L424
Seminar on Canadian Federal, Provincial and Municipal Government
A broad survey of the basic constitutional powers under Sections 91-92 of the BNA Act, judicial review, federal-provincial fiscal relations and the state of federalism in Canada today. The main emphasis of the course falls on the provincial-municipal relations, the organization and structure of local government and services, forms of metropolitan and regional government. (6 credits)

POLITICAL SCIENCE L430
Communications and Politics
This course will deal with the subject of communications and politics. Some subjects covered will include: communication and national unity, communications and social mobilization, politics and the mass media, the use of political symbols, communication and authority, cybernetics and systems theory, and the "Canadian School" of culture and communications based on Harold Innis and developed by Marshall McLuhan. Communications theorists covered will include Karl Deutsch, Norbert Wiener, Murray Edelman, Colin Cherry, Hugh Daniel Duncan, David Easton, George Herbert Mead, Harold Innis and Marshall McLuhan. (6 credits)

POLITICAL SCIENCE L434
Contemporary Political Analysis
The course will deal with the question of the epistemological approach to Political Science. The main part of the course will consist of a survey of recent works in empirical political analysis including Deutsch, Easton, Almond, and Verba, Liphart, Gurr, et al., on contemporary topics of research. (6 credits)

POLITICAL SCIENCE L440
Seminar on Methodology of Political Science
An analysis of the various methodologies in use in Political Science today—with emphasis on the behavioral techniques. The Behavioralist vs. Traditionalist debate will be explored. Designed for third year Honours students in Political Science. (6 credits)

POLITICAL SCIENCE L442
Seminar on Asian Communism
An intensive analysis of Communism as it relates to the implication of political ideas, institutions, and domestic and foreign policies of East Asian countries. Some of the topics to be examined are: (1) ideological factors, (2) socio-political base, (3) institutional organizations, (4) political leadership, (5) Tactics and strategies, (6) current problems, (7) Communist movement of Non-Communist party-states. (6 credits)

POLITICAL SCIENCE L444
Seminar on the Politics of Eastern Europe
A study of selected problems of government in the Soviet Union and Eastern Europe. Participants must present two major research papers for discussion. (6 credits)

POLITICAL SCIENCE L450
Federalism and the Modern Technological World Society
A consideration of the accrued importance of the federal principle of government in the political organization of humanity resulting from the centralizing and decentralizing influences of modern technology on today's global society. Examines the global problem of co-existence in today's multi-national world society and evaluates the capacity of federalism to assure a certain measure of progress in the political organization of humanity more in accord with the social, economic and technological realities of contemporary world society. Considers federalism's ability to provide mechanisms for absorbing the tensions that can arise from the co-habitation of divergent communities and to
surmount the primordial obstacle that has prevented evolution in the political organization of humanity, namely: mankind's tendency to remain blindly dominated by its various nationalistic passions. Particular attention is given to the Canadian federal system as well as to several other multi-communitary federal states, with regard to the problem of cohabitation in multi-communitary societies. (6 credits)

POLITICAL SCIENCE L460
Seminar on Advanced Political Systems
A seminar on the major political systems with special emphasis on Europe. (6 credits)

POLITICAL SCIENCE L470
Seminar on Government and Economic Policy
A seminar on the role of government in the economic life of different countries; the relation of economic and political power, the changing balance of public and private power in political systems. Emphasis will be on Canadian government and economic policy formation. (6 credits)

POLITICAL SCIENCE L480
Seminar on Legislative, Executive and Judicial Decision-Making
An examination, using Canada as the model, of the formation of decisions in the legislative, executive, and judicial branches of government. Special attention will be given to: the structural-functional approach; developmental analysis of such an explanation of behavioural patterns; and comparative analysis to identify uniformities in patterns of behaviour. (6 credits)

POLITICAL SCIENCE L491
Seminar on Political Theory and Historiography
Prerequisite: Political Science L391 or L393 or History L240. A study of the manner in which political theory regulated historical understanding in Britain in the seventeenth and eighteenth century. The seminar will focus upon the historical writings of the major political thinkers of the period: Coke and the common lawyers, Hobbes, Harrington, Bolingbroke, Hume and others. (3 credits)

POLITICAL SCIENCE L493
Seminar on Modern Political Thought
A study of the main currents in modern political thought in the past century with special emphasis on the outstanding political philosophers of this period. (3 credits)

POLITICAL SCIENCE L499
Honours Political Science Thesis
A required course for third year Honours students in Political Science. At the end of their second year, Honours students must choose, in consultation with their faculty adviser, a research topic for intensive analysis during the third year. The completed thesis will be presented to the Department at the end of the third year. (3 credits)
**51.24 Department of Psychology**

**Associate Professor and Chairman**
M. L. SHAMES

**Professor**
H. W. LADD

**Associate Professors**
P. BABARIK
J. H. BAUER
R. M. LAMBERT
V. MAHEUX

**Assistant Professors**
M. BROSS
H. I. GLAZER
E. MOULEDOUX
Y. L. PERRAULT
R. D. SEENS
F. SPRINGSTON

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### 51.24.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

#### 60 BA Honours in Psychology

**Year I**
- 12 Psyc L202\(^4\), L203\(^1\), L205\(^3\)

**Year II**
- 6 Psyc L301\(^4\) and L303\(^1\), or Psyc L301\(^4\) and L305\(^3\), or Psyc L301\(^4\) and L309\(^4\)

**Year III**
- 12 Psyc L400\(^4\), L402\(^4\)

30 Psyc Elective credits in any year, of which:
- 12 are from Category I courses
- 12 are from Category II courses
- 6 are from Either I or II

**NOTE:** Of these electives, 12 credits shall be 300 or 400 level courses.

#### 60 BA Specialization in Psychology

**Year I**
- 12 Psyc L202\(^4\), L203\(^1\), L205\(^3\)

**Years II and III**
- 6 Psyc L301\(^4\) and L303\(^1\), or Psyc L301\(^4\) and L307\(^1\) and L309\(^4\), or Psyc L301\(^4\) and L305\(^3\), or Psyc L301\(^4\) and L309\(^4\)

42 Psyc Elective credits, of which:
- 12 are from Category I courses
- 12 are from Category II courses
- 18 are from Either I or II

**NOTE:** Of these electives, 12 credits shall be 300 or 400 level courses.

#### 75 BSc Honours in Psychology

**Year I**
- 12 Psyc L202\(^4\), L203\(^1\), L205\(^3\)
- 9 (Bio 321A/B\(^3\), Chem 326A\(^1\), 328B\(^1\)) or (Math 305A\(^4\), 321A\(^1\), Phys 301A\(^3\))

Year II
- 6 Psyc L301\(^4\) and L303\(^1\), or Psyc L301\(^4\) and L305\(^3\), or Psyc L301\(^4\) and L309\(^4\)

Year III
- 12 Psyc L400\(^4\), L402\(^4\)
- 6 Science Elective credits

30 Psyc Elective credits in any year, of which:
- 18 are from Category I courses
- 12 are from Category II courses

**NOTE:** Of these electives, 12 credits shall be 300 or 400 level courses.

#### 69 BSc Specialization in Psychology

**Year I**
- 12 Psyc L202\(^4\), L203\(^1\), L205\(^3\)
- 9 Bio 321A/B\(^3\), Chem 326A\(^1\), 328B\(^1\) or Math 305A\(^4\), 321A\(^1\), Phys 301A\(^3\)

**Years II and III**
- 6 Psyc L301\(^4\) and L303\(^1\), or Psyc L305\(^3\) and L307\(^1\) and L309\(^4\), or Psyc L301\(^4\) and L309\(^4\), or Psyc L301\(^4\) and L303\(^1\) and L309\(^4\)

42 Psyc Elective credits in any year, of which:
- 24 are from Category I courses
- 12 are from Category II courses
- 6 are from Either I or II

**NOTE:** Of these electives, 12 credits shall be 300 or 400 level courses.

#### 69 BSc Specialization in Psychology and Biology

**Year I**
- 12 Psyc L202\(^4\), L203\(^1\), L205\(^3\)
- 6 Chem 326A\(^1\), 328B\(^1\)
- 3 Bio 321A/B\(^3\)

**Year II**
- 12 Bio 420Z\(^4\), 430Z\(^4\)

**Year III**
- 12 Bio 4402\(^4\), 524Z\(^4\)

24 Psyc Elective credits in any year, of which:
- 12 are from Category I courses
- 12 are from Category II courses

**NOTE:** Of these electives, 12 credits shall be 300 or 400 level courses.
51 BSc Major in Psychology

Year I
12 Psyc L202¹, L203¹, L205¹
9 Bio 321A¹/B¹, Chem 326A¹, 328B²; or Math 305A¹, 321A¹, Phys 301A¹

Year II and III
30 Psyc Elective credits, of which:
18 are from Category I courses
12 are from Category II courses

NOTE: Of these electives, 12 credits shall be 300 or 400 level courses.

51.24.2 DEPARTMENT OF PSYCHOLOGY

The Department of Psychology offers a programme leading to a BA and a BSc with a Major, Honours degree or Specialization in Psychology. The BSc programme (Major, Honours, or Specialization) offers two options: either Chemistry-Biology or Mathematics-Physics. In addition, there is a BSc Specialization in Psychology and Biology. Double Majors with other departments can be arranged. The curriculum is designed to provide for a broad general education, as well as to give adequate preparation for graduate studies in Psychology. Although some courses in Applied Psychology are offered, the major emphasis of the programme is theoretical and experimental.

Students entering the Arts or Science programme in Psychology must have satisfied the admission requirements as outlined in § 51.2. Students wishing to take Psychology L406, Directed Readings, should prepare, before the beginning of the Fall term, a list of books that have relevance to the problem area undertaken for study by the student. For courses at the 300 and 400 level, there are specific prerequisites. The relevant prerequisites are listed with each course. Students wishing to take these courses who do not have the necessary prerequisites may register for the course with approval of the instructor. Students in their third year are to take Psychology courses only at the 300 and 400 levels. Among their Psychology electives, all Honours, Major, and Specialization students must choose a specified number of credits from both Category I and Category II.

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<td>L312⁴</td>
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NOTE: Science electives must be chosen from the following departments: Physics, Chemistry, Biology, Geology, Mathematics.

42 BA Major in Psychology

Year I
12 Psyc L202¹, L203¹, L205¹

Year II and III
30 Psyc Elective credits, of which:
12 are from Category I courses
12 are from Category II courses
6 are from Either I or II

NOTE: Of these electives, 12 credits shall be 300 or 400 level courses.

Description of the Major Programme

A Major consists of a minimum of 42 credits in Psychology for both the BA and the BSc, including Psychology L202, L203 and L205 in the first year. These courses will provide the student with practical experience in psychological research of all types, and an understanding of the philosophical and scientific origins of Psychology and of the epistemological basis of scientific research methodologies. In addition, the BSc programme requires nine Science credits in either Chemistry and Biology or in Mathematics and Physics.

Description of “Specialization” Programme

The department offers a “SPECIALIZATION” in both Arts and Science, which affords a greater degree of specialization in the field than does a Major programme. A total of 60 credits in Psychology are required, including L202, L203 and L205 in the first year and six credits chosen from one of five streams in the second year. In addition, the “SPECIALIZATION” in science includes nine required credits from either Biology and Chemistry or Mathematics and Physics.

Description of the Honours Programme and Special Requirements

The department offers an Honours degree in both Arts and Science. Honours represents a greater degree of specialization in the field than a Major programme allows and is an indication of higher academic standing. In order to be admitted to the programme a student must have met the same criteria which define the successful Honours student. A successful Honours student must achieve and maintain a minimum grade of 70% in each of his Psychology courses and a minimum grade of 55% in non-Psychology courses, an average of 75% in Psychology courses and a 73% overall average. A student not meeting these requirements will lose his Honours status, but may continue in the Major programme.

Acceptance for the Honours Programme will depend upon performance during the first University year.

Students wishing to register for Honours must apply at the end of the first year and not later than registration time in the second year. It is possible, however, for a student who, although he may not have been registered as an Honours student, nonetheless has the necessary requirements, to enter the programme at any time before registration for the final year. The standing of Honours students will be reviewed each year by the
department. Those students wishing to apply for admission should obtain an application form from the secretary's office, B-306, Bryan Building. The completed application together with one copy of the applicant's latest transcript of grades must be filed with the secretary. All applicants will be notified in writing of their acceptance or non-acceptance into the Honours programme. Successful applicants will be required to meet with a faculty sponsor to work out their course programme. Successful candidates for the Honours degree will be required to complete 102 credits as opposed to 90 credits required in the Majors programme. The twelve extra credits required of all Honours candidates consist of: 1) a seminar course, and 2) an Honours Thesis. These two extra courses will be taken in the candidate's final year.

Psychology L402, Honours Seminar, is a course for Honours students only.

NOTE: A cognate elective is to be decided upon in concert with the Department.

Required course for all majors in Psychology.
Lectures: 3 hours per week, first term. Lab: 3 hours per week, first term. (3 credits)

PSYCHOLOGY L206
Developmental Psychology
A study of physical, cognitive, emotional and social development, with emphasis on childhood, adolescence and normal development, with some consideration of age-related deviant patterns. The course is given in lecture style, but with weekly informal workshops on special interest areas and on the development of students' skills in observation methods. Students are required to carry out observations of children in a variety of natural settings. Lectures: 3 hours per week for two terms. (6 credits)

PSYCHOLOGY L208
Personality: Normal and Abnormal
The organization, functioning and development of personality will be elaborated according to personality theories. Evidence from experimental and field studies which are relevant to personality will be related to the basic theoretical development. Lectures: 3 hours per week for two terms. (6 credits)

PSYCHOLOGY L210
Sensation and Perception
In this course the importance of sensory systems in interpreting (perception) as well as receiving (sensation) information about the external world will be considered. The psychophysical study of the five human senses will be complemented by behavioural and neurophysiological studies in animals. General principles of sensory function and their interrelationships will be stressed. Lectures: 3 hours per week for two terms. (6 credits)

PSYCHOLOGY L212
Learning
The course is a study of behaviour in terms of the principles of conditioning and learning. The first half of the course is concerned with the basic issues central to conditioning and learning. In the second half the emphasis is on human learning. Lectures: 3 hours per week for two terms. (6 credits)

PSYCHOLOGY L213
Psychology in Action: Developments in the Science and Application of Psychology
"Psychology is a heterogeneous science". This fact is represented by subdividing the American Psychological Association into 30 divisions of interest. The origins of each psychology specialty will be determined and the changes leading to the actual nature of each psychology field will be covered. There will be a seminar/lecture format. Lectures: 3 hours per week, first term. (3 credits)

LOYOLA
FACULTY OF ARTS AND SCIENCE
51.24.3
DEPARTMENT OF PSYCHOLOGY:
COURSE DESCRIPTIONS

51.24.3 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent courses numbers under the old system, please consult § 200.5.

PSYCHOLOGY L200
Introductory Psychology
This course is intended for the general Arts and Science student. In addition to introducing some major ideas and findings of Theoretical Psychology, we will examine the advantages and strengths of a behaviouristic approach which studies man as an organism by means of the experimental methods of the biological and social sciences. We will also explore some esoteric psychologies. This course does not constitute a Psychology credit for the Psychology Major or Honours student. Lectures: 3 hours per week for two terms or six hours per week in the second term. (6 credits)

NOTE: This course may not be taken for Psychology credit by Psychology students.

PSYCHOLOGY L202
Historical Approach to Systematic Psychology
This is a comprehensive course which is intended to give an appreciation of how and why Psychology developed as it did in relation to historical-cultural milieus, major trends in intellectual history, contending philosophical assumptions and technical and methodological developments. Lectures: 3 hours per week for two terms. (6 credits)

PSYCHOLOGY L203
Statistics
Material presented in this course will include: Probability theory, frequency and probability distribution, measures of central tendency and dispersion, theory of sampling distributions, normal distributions, theory of hypothesis testing and the theory of inferences about population means. This material is intended to provide both a theoretical and a practical foundation in statistics for the student interested in conducting or utilizing the results of psychological research. Lectures: 3 hours per week, second term. (3 credits)

PSYCHOLOGY L204
Human Motivation
This course will consider determinants of human motivation. Theories of human motivation will be studied and evaluated. Lectures: 3 hours per week for two terms. (6 credits)

PSYCHOLOGY L205
Research Methods
A lecture and laboratory course in basic methods used in psychological research. Students will be required to design, conduct, analyze and report on a number of experiments.
PSYCHOLOGY L215
Anatomical and Physiological Bases of Motivation and Emotion
An introduction to the gross structure and physiological functions of the central nervous system in relationship to behaviour. Consideration will be given to phylogenetic development, sensory and motor systems, and functional disorders of brain damage. This course is a prerequisite for Psychology L313. Lectures: 3 hours per week, first term. (3 credits)

PSYCHOLOGY L300
History of Psychology
Prerequisites: Psychology L202, L203, L205. A survey of the historical antecedents of modern theoretical and applied psychologies with application of the historical perspective to understanding the twentieth century systems of psychology and some contemporary theories, methods, issues and trends within the discipline. The course is given in seminar style with at least one written paper. Lectures: 3 hours per week for two terms. (6 credits)

PSYCHOLOGY L301
Statistics II
Prerequisites: Psychology L203, L205. Material presented in this course will include: "chi-square" and "F distributions", the "fixed effects" models for analysis of variance, regression and correlation. "Chi-square" tests and non-parametric tests of hypotheses. This material is intended to provide both a theoretical and a practical foundation in statistics for the student interested in conducting or utilizing the results of psychological research. Lectures: 3 hours per week, first term. (3 credits)

PSYCHOLOGY L302
Social Psychology
Prerequisite: Psychology L202. An introduction to the methodology, concepts, and research in some areas of contemporary social psychology. Group dynamics such as coalition formation, group problem-solving, communication networks, and leadership will be considered along with social influences such as interpersonal perception, conformity, attitude development and change and aggression. Lectures: 3 hours per week for two terms. (6 credits)

PSYCHOLOGY L303
Research Methods II
Prerequisites: Psychology L203, L205, L301. This course is a continuation of Research Methods I. This part of Research Methods will be devoted to a critical examination of more complex experimental designs used in Psychology. Students will be required to design, conduct, and evaluate experiments, and an opportunity will be provided for independent research. Lectures: 3 hours per week, second term. Lab: 3 hours per week, second term. (3 credits)

PSYCHOLOGY L304
Practicum in Early Childhood Development
Prerequisites: Psychology L202, L208. This course combines an intensive study of development in early childhood with practical experience in a pre-school. In addition to one class meeting per week, each student must be able to commit himself or herself to three hours per week of observation and work as a teacher's aide in the college-related day nursery. After an introductory study of nursery school philosophy and observational methods, weekly seminars and readings will focus on aspects of child development which are observable in the nursery school, such as motor development, language, play, social interaction, concept formation, use of art and play materials, behaviour in routine situations, etc. The course assumes previous course work in developmental psychology or its equivalent. Lectures: 3 hours per week for two terms. (6 credits)

PSYCHOLOGY L305
Scaling
Prerequisites: Psychology L202, L203, L205. This course is designed to introduce the student to theory and methods, i.e., fractionation and equisection methods, etc. This course will appeal to those students interested in attitude measurement and test construction. Lectures: 3 hours per week for one term. Lab: Possible seminars and/or labs. (3 credits)

PSYCHOLOGY L306
Community Psychology
Prerequisite: Psychology L202. This course will relate psychology to the problems of man-in-society and consider basic areas of psychological knowledge as they bear upon the behaviour of man-in-institutions: that is, the strategies that man used to create a habitat which in turn determines his development. The contributions of psychology to community leadership in the search for new and better personal, social, cultural and ecological arrangements will be considered as they relate to such institutions as industry, education, and the health, welfare and political structures. Lectures and seminars: 3 hours per week for two terms. (6 credits)

PSYCHOLOGY L307
Measurement
Prerequisites: Psychology L202, L203, L205. This course will define fundamental, derived and "pointer" measurement in science; and will examine the nature of psychological tests as "pointer" measures. The notion of "uniqueness" of a scale will be defined and related to the feasibility of performing arithmetic operations on measurement scores. Lectures: 3 hours per week for one term. (3 credits)

PSYCHOLOGY L308
Human Information Processing
Prerequisite: Psychology L202. Examines the way in which sensory input is transformed, recognized, stored, recovered and used. The course looks at pattern and speech recognition, memory and attention, decision-making and reasoning in the context of recent experimental and theoretical work. Lectures: 3 hours per week for two terms. (6 credits)

PSYCHOLOGY L309
Field Research Methodology
Prerequisite: Psychology L202. Introduction to issues, rationales and techniques of analyses of complex behaviour in non-laboratory, field settings. Examples for study will be drawn from applied fields such as community and social issues, clinical and counseling psychology, education, and industry. Lectures: 3 hours per week for one term. Labs: to be arranged. (3 credits)

PSYCHOLOGY L310
Behaviour Disorders
Prerequisite: Psychology L208. Offered primarily to students in psychology. Designed to acquaint the student with contemporary approaches to abnormal psychology. The course will include discussion of a broad range of abnormal behaviour patterns, including the psy-
animal behaviour, its description, function and causes from a comparative biological point of view. Lectures: 3 hours per week for two terms. Possibility seminars and/or labs scheduled during regular lecture periods. (6 credits)

PSYCHOLOGY L313
Anatomical and Physiological Bases of Motivation and Emotion II
Prerequisite: Psychology L215. A study of determinants: neural, hormonal, stimulus, experiential of behaviour. Emphasis will be on factors which account for the initiation, direction, and regulation of behaviour. Animal and human research data underlying major psychological theories of motivated behaviours will be emphasized. Lectures: 3 hours per week, second term. (3 credits)

PSYCHOLOGY L314
Physiological Psychology
Prerequisites: Psychology L202, L203, L205, L215. A study of some biochemical and physiological mechanisms underlying behaviour. The topics studied include enzymes, nucleic acids, the nervous, endocrine and sensory systems, response mechanisms, emotions, etc. A good background in biology through not required, is strongly recommended. Lectures: 3 hours per week for two terms. (6 credits)

PSYCHOLOGY L315
Psychology of Time
Prerequisite: Psychology L202. A basic framework for behaviour is time. A review of psychological studies of time from the beginning of the scientific study of psychology will be undertaken. Experiments and theory will be considered in the frames of reference of biological, psychophysical, psychoanalytic, and social psychology. An experiment which may replicate a previous study will be carried out. Lectures: 3 hours per week, second term. (3 credits)

PSYCHOLOGY L317
The Psychology of Communication and Language
Prerequisite: Psychology L202. This course will deal with nonverbal communication systems among infrahuman and human organisms. Primary emphasis, however, will be laid upon language which will be treated in terms of its structures and functions. Topics chosen from among language acquisition, theories of meaning and the use of language, types of language, classification, language and socialization and other cognitive dimensions of language. Lectures/seminars: 3 hours per week, first term. (3 credits)

PSYCHOLOGY L319
Psycholinguistics
Prerequisite: Psychology L202. This course will begin by introducing the student to the general ideal of "a grammar" and will then proceed to the following topics:
(a) Constituent Structure and Transformational Grammars,
(b) Cognitive Implications of Transformational Grammars,
(c) The Concept of a "Morpheme" and its Meaning, and
(d) Phonetics, Phonemics and Speech. Lectures: 3 hours per week, second term. (3 credits)

PSYCHOLOGY L321/L323
Selected Topics in Psychology
Prerequisite: Permission of the instructor. Subject matter will differ from one offering to another. The course provides students with an opportunity for advanced study in a field of current research importance. (3 credits each)

PSYCHOLOGY L400
Honours Thesis
This course will require the Honours student to propose and complete a research thesis according to the APA format. The student's work will be supervised by a Thesis Chairman, selected from within the department by the student, and at least one additional member of the departmental staff selected jointly by the Thesis Chairman and the student. Required of all third year Honours students and open to Qualified Majors who have completed Psychology L202, L203, L205, L301 and L303, and who have permission of faculty. (6 credits)

PSYCHOLOGY L402
Honours Seminar
This course will consist of a sequence of topical lectures or discussions conducted by the departmental staff. Topics will be of a contemporary nature, and will focus on current research. (6 credits)

PSYCHOLOGY L404
Mathematical Theories of Behaviour
Prerequisites: Psychology L202, L203, L205, L301, L303 or instructor's permission. This course is intended to demonstrate how mathematical concepts and techniques are employed in the formulation of psychological theories. Theories of simple learning, perception, decision-making and reasoning will be examined. The course pre-supposes no particular background in mathematics and will be taught at a level of mathematical sophistication determined by the skills that students bring to it. It is a course that may be of interest to the general student of Science, or the psychology student seriously concerned with problems in theoretical psychology. Lectures: 3 hours per week for two terms. (6 credits)

PSYCHOLOGY L406
Directed Readings
This course is designed for the exceptional, advanced psychology student (3rd year Major and Honours only) who wishes to do independent literature research on a specific topic in psychology. This research will culminate in a written paper. Students should have a well defined research topic before they register for this course. Final acceptance to this course is subject to department approval. Seminars to be scheduled individually. (6 credits)
PSYCHOLOGY L408
Community Psychology Practicum
Prerequisite: Psychology L306. The student will operate as an enabler or technical assistant to a community action agency applying community psychology principles. He will develop and maintain an information system or equivalent programatic activity for his host agency and be descriptively evaluated by his agency as well as by the professor. Lectures: 3 hours per week for two terms. (6 credits)

PSYCHOLOGY L421/L423
Advanced Topics in Psychology
Prerequisite: Permission of the instructor. Subject matter will differ from one offering to another. The course provides students with an opportunity for advanced study in a field of current research importance. (3 credits each)
51.25 Department of Sociology

51.25.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1.

The superscript indicates credit value.

60 BA Honours in Sociology

Year I
18 Soc Elective credits [see § 51.25.2 (A. & C.)]

Year II
6 Soc L300*
6 Soc L330*
6 Soc L350*
6 Soc Elective credits [see § 51.25.2 (D.)]

Year III
6 Soc L400*
6 Soc L450*
6 Soc Elective credits [see § 51.25.2 (E.)]

51.25.2 DEPARTMENT OF SOCIOLOGY

The Department of Sociology offers programmes leading to a Major or Honours degree. One or more of the following guidelines will be applied in decisions regarding the registration of students in programmes or specific courses in the Department.

A. Honours and Majors who have completed an Introductory Sociology at CEGEP or elsewhere are encouraged to take Sociology L203 and L205 plus the appropriate number of general electives and electives in Sociology.

B. Honours and Majors who have not completed an Introductory Sociology at CEGEP or elsewhere should register in Sociology L201 in the First Term and Sociology L203 and/or L205 in the Second Term, plus the appropriate number of general electives and electives in Sociology. Sociology L201 is intended to accommodate students who enter university at mid-year and others who wish to acquire the prerequisite credits for subsequent study in Sociology during 1978-79.

C. University I students are usually limited to the Sociology 200 level courses in choosing their electives.

D. University II students may choose their electives in Sociology from those of the 200 and/or 300 level courses.

E. University III students may choose their electives in Sociology from the 300 and/or 400 level courses. One cognate course may be included with departmental approval.

F. The elective Sociology courses should be distributed among the three university levels.

G. Students seeking admission to the Honours programme on or after June 1st 1977 will be bound by the Honours requirements outlined in § 16.2.4 of this Calendar. Students who already had Honours status by June 1st 1977 will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.
51.25.3 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.5.

SOCIOLOGY L201
Introduction to Sociology
A survey type course which examines society in terms of social structure and social processes using the basic concepts of scientific Sociology. A preliminary examination of the substantive areas of social life is undertaken, i.e., the family, socialization, religion, stratification, social control and deviance, education, economic systems and political institutions, etc. (3 credits)

SOCIOLOGY L202
Canadian Society
Prerequisite: Sociology L201. First part of the course will be spent developing a theoretical framework — the "hinterland-metropolis" perspective — which will be used to examine the dynamics of different "inter-groups" in Canada. This will be done within the context of three basic structures, economic, political and regional. The second part of the course will be concerned with applying this metropolis-hinterland framework to two specific areas from the following: multinational corporations and underdevelopment, agrarian protest movements, community studies in Canada, Canadian identity and regional disparity, native peoples, and third Party political movements in Canada. (6 credits)

SOCIOLOGY L203
Social Organization
Prerequisite: Sociology L201 or the equivalent. Examines the main concepts and basic characteristics of social organization in comparative and evolutionary perspectives. Emphasis will be upon the presentation of a basic conceptual framework with which to examine the specific forms of and changes in the comprehensive pattern of social organization. (3 credits)

SOCIOLOGY L204
Quebec Society
Prerequisite: Sociology L201. Is Quebec a region or a society? Within the context of the trend towards continental integration, this course studies the evolution of Quebec class structure and economic and social institutions from New France to the present. Throughout, the unifying theme is the interplay between external forces and internal developments, the relationship between Quebec and Greater North America. Of special importance is the development of the distinct rural and urban societies during the 19th century, their interdependence and the social conflict which accompanied their fusion during the 20th century. The impact of rapid urbanization on power relationships both within Quebec and between Quebec and English Canada follows. This course ends with an assessment of Quebec's potential as an independent society. (6 credits)

SOCIOLOGY L205
Individual and Society
Prerequisite: Sociology L201 or the equivalent. This course focuses upon the relations between individuals and their social environment which includes the family, peer groups, social movements, government and other large organizations. Selected theoretical orientations and research methods are considered and discussed in conjunction with findings of various studies. (3 credits)

SOCIOLOGY L206
Socialization
Prerequisite: Sociology L201. An examination of the social and cultural processes by which the individual becomes a functioning member of society. Among the perspectives considered are the symbolic interactionist theories of Cooley and Mead, the psychological theories of Freud and Erikson, and the sociological theories of Parsons, Elkin, Clausen, Inkeles, Brim, Wheeler and others. Emphasis is also given to adult socialization and re-socialization in such diverse institutional contexts as the school, occupations and professions, hospitals, prisons, the army, etc. The relation of social structure to role acquisition and role performance constitutes a major focus of the course. (6 credits)

SOCIOLOGY L207
Sociology of Deviance
Prerequisite: Sociology L201 or equivalent. An examination of 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 action, interaction and relationships that derive from the social structure and have consequences for it. Various forms of deviance, from extreme under-conformity to extreme over-conformity are considered in terms of contemporary social theory and research. (3 credits)

SOCIOLOGY L209
Sociology of Crime and Delinquency
Prerequisite: Sociology L201 or equivalent. An analysis of the concepts of "crime" and "delinquency", and the criminal-justice and juvenile-justice systems. The extent and distribution of crime and delinquency are considered, as well as the various sociological and psychological perspectives of contemporary theory and research. Emphasis will be given to an examination of the social policy on crime and delinquency as manifested in societal programs of treatment and control. (3 credits)

SOCIOLOGY L211
Race and Ethnic Relations
Prerequisite: Sociology L201. Explores the emergence of contemporary ideas about skin colour and ethnic or national group sentiment as they re-shape the social landscape determining ways of individual and collective behaviour as well as self-perception. The course is designed to allow the students to more easily comprehend the ideas of race and culture through the exploration of discrimination, prejudice and intergroup accommodation and studies of the role of these ideas in other societies, at other historical periods, as well as our own society in present time. (3 credits)

SOCIOLOGY L213
Social Stratification
Prerequisite: Sociology L201 or equivalent. An examination of the major stratification systems — caste, estate, class in their social and historical contexts. Consideration of various theoretical and empirical approaches to stratification with emphasis on contemporary societies. (3 credits)
SOCIOL OGY L214  
Marriage and the Family  
Prerequisite: Sociology L201. Sociological study of marriage and the family. Earlier phases of marriage and the family, dating and marriage, marital adjustment and problems in marriage generated by social change. Later phases of marriage will entail an analysis of the family as a basic social institution within a structural-functional framework. Patterns of interaction between family members and between the family and other institutions will be examined. Sources of strain and tension in such relationships will be discussed. (6 credits)

SOCIOL OGY L300  
Methodology of Sociology  
Prerequisite: Sociology L201 or the equivalent plus University II standing. A survey of problems and issues in the philosophy of social research, consideration of the relation between sociological theory and research and examination of the major methodologies in Sociology. (6 credits)

SOCIOL OGY L302  
Social Psychology  
Prerequisite: Sociology L201 plus University II standing. Human beings change as to their definitions of reality as they interact with others. In this course the focus will be on the reciprocal relationships between the individual and social matrix as they impinge upon each other. Concepts and theories regarding the self, personality, significant others groups, attitudes, etc., will be explored. (6 Credits)

SOCIOL OGY L304  
Sociology of Urban Regions  
Prerequisite: Sociology L201 or the equivalent plus University II standing. The first semester will be devoted to the historical development of the city, focusing on an analysis of the pre-industrial city from a cross-cultural perspective. The second semester will study the growth of urbanization in North America, concentrating on Canada and the social and spatial organization of Canadian cities. Focus will be on the problems that industrial Canada faces, and an exploration of the nature of these problems in the eco-political economic organization of the nation. The ideologies of planning and urban renewal will be critically evaluated, especially as they are manifested in the functioning of the Montreal Urban Community. Finally, an analysis of citizens' groups and community organization in Canadian cities will be offered. (6 credits)

SOCIOL OGY L310  
Social Movements in Quebec  
Prerequisite: Sociology L201 or the equivalent plus University II standing. Analysis of major movements for social change that have developed historically in Quebec. Concentration on the rebellion for economic independence in 1837; the Louis Riel affair; the anti-conscription movements; Catholicism and the organizing of youth; the labour movement and the separatist movement RIN through Quebec. (6 credits)

SOCIOL OGY L316  
Economy and Society  
Prerequisite: Sociology L201 or the equivalent plus Sociology L203 or the equivalent. Examines the relationship between the organization of man's economic life and the range of his social possibilities. The course emphasizes the examination of the ways in which economic activities are legitimized 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 technological and of new industrial organizations. (3 credits)

SOCIOL OGY L318  
Complex Organizations  
Prerequisite: Sociology L201 or the equivalent plus Sociology L203 or the equivalent. Presents a sociological analysis of some of the main facets of large and complex organizations. Examines the nature and types of these organizations, various aspects of their internal structure and the relationships between them and their social environment. (3 credits)

SOCIOL OGY L320  
Social and Cultural Anthropology  
Prerequisite: Sociology L201 or the equivalent plus University II standing. An analysis and description of the social structure, ritual, symbolism, kinship and political systems of Complex Societies. Special emphasis is laid on Afro-American Anthropology, the Native Peoples of Canada and African traditional political systems. Modern myths on the occult, Edward T. Hall's Silent Language and Edmund Carpenter's Anthropologist in the Electronic World also constitute an integral part of this course. (6 credits)

SOCIOL OGY L321  
Sociology of Economic Development  
Prerequisite: Sociology L201 or the equivalent plus University II standing. A look at the theories and models of economic development with special reference to the metropolis-satellite model of multinational corporation monopoly capitalism. Developmental processes of foreign aid, Peace Corps and CUSO Volunteerism, the role of local political elites and self-reliance are critically analyzed as possible alternatives of obstacles to economic development. (3 credits)

SOCIOL OGY L323  
Population  
Prerequisite: Sociology L201 or the equivalent plus University II standing. A theoretical approach to current issues related to the determinants and consequences of population structure and dynamics. Emphasis will be given to the relationship between economic development and population growth. (3 credits)

SOCIOL OGY L325  
Sociology of Religion  
Prerequisite: Systematic Sociology L201 or the equivalent plus University II standing. Analysis of religious experience, beliefs, ritual, and organizations as social facts. Consideration of both traditional and contemporary religious institutions as sources of meanings and values which may either support or subvert ongoing social structures. Attention also given to how non-religious situations generate religious movements and reversely, how religious situations generate non-religious (i.e., social, economic, political) movements. (3 credits)

SOCIOL OGY L327  
Sociology of Labour and Capital in Quebec  
Prerequisite: Sociology L201 or the equivalent plus University II standing. Study of the development of the labour force, the evolution of working men's organizations, the clash between American and domestic unions; the evolution of the new working class; the relationships between the state and the labour movement. (3 credits)
SOCIOLOGY L329
Human Ecology
Prerequisite: Sociology L201 plus University II standing. This course will focus on the analysis of social organization as a mechanism of interrelationship between human population and environment. It places particular emphasis on the ways in which human populations live in their community, the forms and patterns of development of the human community, the organization and differentiation of functions within the community and the impact of technology and population growth on the spatial and temporal patterning of social relationships. (3 credits)

SOCIOLOGY L330
Classical Social Theory
Prerequisite: Sociology L201. Examination of the origins of Sociology and of the sociological works of nineteenth and early twentieth century European theorists, with consideration of the social and political context. Particular emphasis will be given to the works of Durkheim, Marx and Weber. Reading will include primary sources and critical commentaries. Required of all Major and Honours students in Sociology. (6 credits)

SOCIOLOGY L343
(A Also given as Interdisciplinary Studies L343)
Sociology of Leisure
Prerequisite: Sociology L201 or permission of the instructor. Second year course, compulsory for Recreation students and elective for all students. This course deals with leisure and recreation in the context of industrial-urban social structures. It entails a sociological approach to the analysis of leisure and recreational activities as affected by contemporary social, economic, and political institutions. Critical emphasis shall be placed on the historical changes in leisure as a social reality with particular attention to the structural properties of alienation, anomie and inequality in modern social and cultural milieux. (3 credits)

SOCIOLOGY L350
Sociological Statistics
Prerequisites: Sociology L201 or the equivalent plus University II standing. This course will deal principally with aspects of measurement in Sociology. The first part will be devoted to the discussion of descriptive statistics in terms of scaling techniques, measures of central tendency, dispersion, location, and numerical analysis of sociological data. The second part will cover inferential statistics. The principal topics to be discussed will be probability theory, sampling procedures, testing hypothesis and correlational analysis. (6 credits)

SOCIOLOGY L365
Topical Seminar in Sociology
Prerequisites: Sociology L201 or the equivalent plus University II standing. Restricted to Sociology Majors and Honours. Seminar focusing in special sociological topics or areas as designated by those instructors offering such seminars in a given year. For further information consult the Departmental Curriculum Addendum published in spring. (3 credits)

SOCIOLOGY L400
Contemporary Social Theory
Prerequisites: Sociology L201 or the equivalent plus University III standing. Critical examination of contemporary social theories against the background provided by Marx, Durkheim, Weber. Major attention will be given to the critical assumptions, conceptual distinctions, methodological features and ethical implications of theories. Course will require extensive reading, critical papers and other assignments including class presentations. (6 credits)

SOCIOLOGY L401
Social Change
Prerequisites: Sociology L201 plus University III standing. The course examines the sources, mechanisms and consequences of social and cultural change; it includes classical and contemporary theories of change and important theoretical and empirical studies in this area. (3 credits)

SOCIOLOGY L402
Sociology of Work
Prerequisites: Sociology L201 or the equivalent plus University III standing. First Semester — a macro analysis of the theory and practice of work as it has evolved in western society. Focus will be on tracing the change in the nature of work — the emergence of class, changes in work relationships, in the concepts of leadership, authority, and decision-making — as these are influenced by the emergence of the monopoly capitalist system. Second Semester, a micro analysis of the nature of work in North American Industrial Society. Special emphasis will be placed on comparing the Blue and White Collar worlds of work. The key problems of alienation, automation and powerlessness will be explored. A survey of worker response to these problems will conclude the course. (6 credits)

SOCIOLOGY L403
Sociology of Knowledge
Prerequisites: Sociology L201 or equivalent plus University III standing, or permission of the Department. Study of the relationship between ideas and social structure. Consideration of classic and modern sociological theories on the construction, maintenance, justification, subversion, and change of socially shared ideas about reality. Primary objective of the course will be the use of perspectives derived from the sociology of knowledge in the analysis of social reality presently found in social, political, religious and economic contexts. (3 credits)

SOCIOLOGY L404
Sociology of Economic Change in Quebec
Prerequisites: Sociology L201, L204, or the equivalent plus University III standing. Study of Quebec economic institutions as developing historically. Special emphasis on internal colonization and external dependence. To be focused on macro analysis. (6 credits)

SOCIOLOGY L406
Sociology of Women
Prerequisites: Sociology L207 or the equivalent plus University III standing. An examination of the status of women in North American society — especially regarding socialization, marriage and the family, education, religion and the law. Within an historical and comparative framework, consideration will be given to the ideology of sexism, revolution, life cycles and socio-economic and ethnic dimensions as well as Woman’s Liberation as a social movement. (6 credits)

SOCIOLOGY L421
Sociology of Education
Prerequisites: Sociology L201 or the equivalent plus University III standing. An analysis of
the social relationships emerging within a formal education system. The concept of education as a powerful tool for socialization and social control will be explored. Special emphasis will be placed on alternative approaches to the present formal structure, i.e., "living-learning", independent study, etc. The phenomena of technology and depersonalization in education are also examined. (3 credits)

SOCIOLOGY L423
Political Sociology
Prerequisites: Sociology L201 or the equivalent plus University III standing. Socio-economic and cultural determinants of political power and political behaviour in Canada will be analyzed. Of special interest will be those situations and epochs in which political behaviour and the institutions of political power are radically modified. An analysis of the new parties and extra-electoral protest movements which influence behaviour and power will be important themes. (3 credits)

SOCIOLOGY L450
Honours Seminar and Essay
Prerequisites: Sociology L201 or the equivalent plus University III standing. A departmental seminar during the first term which will include discussion of methodological and theoretical concerns related to the formulation of the Honours proposals and presentation by students on topics related to their essay. Second term will involve completion of independent research and submission of the Honours Essay. Required of all Third Year Honours students. (6 credits)

SOCIOLOGY L458
Introduction to Social Work
Prerequisites: Sociology L201 or the equivalent plus University III standing. This course attempts to provide the student who is giving consideration to Social Work as a career an opportunity to finalize a decision by examining the nature and scope of this profession, its history and methods; and the basic elements of the casework process; namely, the study, diagnosis and treatment procedures. Also examined will be the role of community resources in the casework approach. (6 credits)
51.26 Department of Theological Studies

Associate Professor and Chairman
S. McEVENUE
Associate Professors
W. BEDARD, O.F.M.
REV. R. W. BREEN
M. FAHEY, S.J.
P. GARNET

51.26.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 51.1

The superscript indicates credit value.

60 BA Honours in Theological Studies

Year I
18 Theo Elective credits
Year II
24 Theo Elective credits
Year III
18 Theo Elective credits

NOTE: Each student must have his programme approved by the Department. The following directives should normally be observed:

1) 6 credits (1 full course) should be chosen in each of the theological areas: Old Testament, New Testament, Systematic, Historical.
2) 6 credits (1 full course) should be chosen in a non-Christian tradition.
3) A maximum of 18 credits (3 full courses) may be chosen among the 200-level courses.
4) 6 credits (1 full course) may be taken as a cognate course, offered in another department.
5) A group of 18 to 24 credits (3 to 4 full courses) within one area should be planned in order to assure each student of expertise in some aspect of Theology.

42 BA Major in Theological Studies

Year I
12 Theo Elective credits
Year II
18 Theo Elective credits
Year III
12 Theo Elective credits

NOTE: Each student must have his programme approved by the Department. One course (6 credits) may be taken as a cognate course offered in another Department.

24 Minor in Theological Studies

24 Theo Elective credits

NOTE: Each student must have his programme approved by the Department. Three courses (18 credits) must be chosen among the offerings at the 300 level and 400 level. The fourth course (6 credits) may be chosen at any level.

51.26.2 DEPARTMENT OF THEOLOGICAL STUDIES

All courses in the Department with the exception of L499, are open to any qualified student of Concordia.

The various Catholic School Commissions have openings for those qualified to teach religion. Interested students should take at least a Major in Theological Studies. From an educational point of view, we advise interested students to enrol in a Double Major, i.e. Theology plus another subject which the student would like to teach.

Shifting governmental policies in the classification of teachers have led us to offer the following programme options: Specialization: with the approval of the Department, a student in a particular case may be granted a specialized degree after completion of 60 credits in Theological Studies.
Joint Honours or Joint Specialization programmes involving Theology and other disciplines are available. The Department also offers a Diploma Programme intended primarily to meet the needs of teachers of religion. It is described in the Graduate Studies Calendar of Concordia University.

THEOLOGY L210
Contemporary Atheism
The Christian of today has to face an accelerated process of secularization and new forms of atheism. This course seeks to analyse the contemporary phenomenon of "atheism", to examine its roots, to raise the question of its positive meaning, and to define a Christian attitude towards it. Through this dialogue with atheism we shall attempt to uncover the essentials of Christianity itself. (6 credits)

THEOLOGY L211
Christian Ethics
Through an analysis of the main present-day moral problems, and in confrontation with non-Christian and non-religious interpretations, we intend to elaborate the specific character of Christian ethics. Particular attention will be given to the necessary changes within any moral system. (6 credits)

THEOLOGY L212
Religious Experience in Contemporary Society
An exploration of some of the less orthodox paths taken by modern man in his search for religious meaning. Presentations will be given by those involved in this search in a variety of ways. The course will also uncover historical precedents for modern religious manifestations in the Hindu, Buddhist, Jewish and Christian cultures. The occult and its appeal. Chemically-induced religious experience and its authenticity. Hasidic Judaism. Spiritualism. The "charismatic movement" in Christianity. Eastern mysticism in the West. (6 credits)

THEOLOGY L213
Christianity and Marxism
This course will examine the basic premises by means of which Christians and Marxists believe and hope they can cope with the problem of personal and social human existence. An insight into the meaning of transcendence, theism-atheism, humanism; the future; freedom and creativity will be gained through the study of the development of the Marxist-Christian dialogue. The theology of hope will be explored as a possible answer to man's quest for meaning and purpose. (3 credits)

THEOLOGY L221
The Christian Mystical Tradition
A study of mystical experience in Christianity through the ages. The course will include not only an investigation of great representatives of mystical traditions but also an exploration of how ordinary Christians search for communion with God. (6 credits)

THEOLOGY L222
Christian Ethics
An exploration of some of the less orthodox paths taken by modern man in his search for religious meaning. Presentations will be given by those involved in this search in a variety of ways. The course will also uncover historical precedents for modern religious manifestations in the Hindu, Buddhist, Jewish and Christian cultures. The occult and its appeal. Chemically-induced religious experience and its authenticity. Hasidic Judaism. Spiritualism. The "charismatic movement" in Christianity. Eastern mysticism in the West. (6 credits)

THEOLOGY L223
Religious Experience in Contemporary Society
An exploration of some of the less orthodox paths taken by modern man in his search for religious meaning. Presentations will be given by those involved in this search in a variety of ways. The course will also uncover historical precedents for modern religious manifestations in the Hindu, Buddhist, Jewish and Christian cultures. The occult and its appeal. Chemically-induced religious experience and its authenticity. Hasidic Judaism. Spiritualism. The "charismatic movement" in Christianity. Eastern mysticism in the West. (6 credits)

THEOLOGY L224
Christianity and Marxism
This course will examine the basic premises by means of which Christians and Marxists believe and hope they can cope with the problem of personal and social human existence. An insight into the meaning of transcendence, theism-atheism, humanism; the future; freedom and creativity will be gained through the study of the development of the Marxist-Christian dialogue. The theology of hope will be explored as a possible answer to man's quest for meaning and purpose. (3 credits)

THEOLOGY L225
The Christian Mystical Tradition
A study of mystical experience in Christianity through the ages. The course will include not only an investigation of great representatives of mystical traditions but also an exploration of how ordinary Christians search for communion with God. (6 credits)

THEOLOGY L226
Christian Ethics
An exploration of some of the less orthodox paths taken by modern man in his search for religious meaning. Presentations will be given by those involved in this search in a variety of ways. The course will also uncover historical precedents for modern religious manifestations in the Hindu, Buddhist, Jewish and Christian cultures. The occult and its appeal. Chemically-induced religious experience and its authenticity. Hasidic Judaism. Spiritualism. The "charismatic movement" in Christianity. Eastern mysticism in the West. (6 credits)

THEOLOGY L227
Religious Experience in Contemporary Society
An exploration of some of the less orthodox paths taken by modern man in his search for religious meaning. Presentations will be given by those involved in this search in a variety of ways. The course will also uncover historical precedents for modern religious manifestations in the Hindu, Buddhist, Jewish and Christian cultures. The occult and its appeal. Chemically-induced religious experience and its authenticity. Hasidic Judaism. Spiritualism. The "charismatic movement" in Christianity. Eastern mysticism in the West. (6 credits)

THEOLOGY L228
Christianity and Marxism
This course will examine the basic premises by means of which Christians and Marxists believe and hope they can cope with the problem of personal and social human existence. An insight into the meaning of transcendence, theism-atheism, humanism; the future; freedom and creativity will be gained through the study of the development of the Marxist-Christian dialogue. The theology of hope will be explored as a possible answer to man's quest for meaning and purpose. (3 credits)

THEOLOGY L229
The Christian Mystical Tradition
A study of mystical experience in Christianity through the ages. The course will include not only an investigation of great representatives of mystical traditions but also an exploration of how ordinary Christians search for communion with God. (6 credits)

THEOLOGY L230
Christian Ethics
An exploration of some of the less orthodox paths taken by modern man in his search for religious meaning. Presentations will be given by those involved in this search in a variety of ways. The course will also uncover historical precedents for modern religious manifestations in the Hindu, Buddhist, Jewish and Christian cultures. The occult and its appeal. Chemically-induced religious experience and its authenticity. Hasidic Judaism. Spiritualism. The "charismatic movement" in Christianity. Eastern mysticism in the West. (6 credits)
THEOLOGY L218
Soviet Humanism and Religion
This course will explore the spiritual and human existential agony manifested in contemporary Soviet writers: Zamyatin, Dostoevsky, Bulgakov, Pasternak and Solzhenitsyn. This exploration will serve as an insight into the possibility of whether humanity can or cannot exist without religious experience in the context of a socio-political negation of God. (3 credits)

THEOLOGY L219
Theology and Development
A study of the role that Christianity has played and has still to play in the development of the third world. The focus of this course will be one of the developing areas, e.g., Latin America, Africa, Asia, depending on the interests and needs of the students. (6 credits)

THEOLOGY L221
(Also listed as Interdisciplinary Studies L221)
Women in Christianity
A study of the theological and historical roles of women in Christianity. The course will examine female prototypes and images of women in the Old and New Testaments, Fathers of the Church, canon law, mediaeval theology, the Reformation and modern theology. It will also treat the roles of prominent women in the history of Christianity. (3 credits)

THEOLOGY L224
Alternate Modes of Christian Commitment
A study in alternate modes of Christian living distinguished by a rigorous communal adherence to the evangelical counsels of poverty, chastity and obedience. Christian history speaks of these adherents as cenobites, monks, nuns, friars or clerks regular. The variety of this Christian experience and its influence on the development of society will be the two main focal points. (6 credits)

THEOLOGY L225
Marriage
A study of the phenomena that expresses man's need for love and union. Marriage has traditionally been the most common symbol of this love and union answering a psychological, social and religious need. Questions are being asked concerning the necessity and permanence of marriage as a civil or religious institution. (6 credits)

THEOLOGY L231
Twentieth Century Consciousness of God
A study of representative intellectuals of various religious denominations and in different academic disciplines in relation to their challenges to traditional ongoing theological discourse. The pathos of the intellectual will be contrasted with the understanding faith of the theologian. The open-endedness of the Catholic faith will be discussed. (3 credits)

THEOLOGY L232
Nineteenth Century Criticism of Christianity
The course entails: a) an introductory consideration of the Enlightenment and, in particular, of Lessing as theologian; b) theological perspectives of Schleiermacher and Hegel; c) the theological reductions and caricatures of Strauss, Feuerbach, Marx, Kierkegaard and Nietzsche. (3 credits)

THEOLOGY L237
The Problem of Evil
An exploratory course that will treat, from a theological and philosophical perspective, the problem of evil both historically and thematically: historically by considering occurrences of various modes of speaking about evil; thematically, by considering the methodological issue involved in the legitimacy, relevance, and dynamics of such an enquiry. (6 credits)

INTERDISCIPLINARY EXPLORATIONS
THEOLOGY L240
Theology and the Arts I: The Mythic Image
An examination of the classical media and art forms in music and painting, exploring the mythic and poetic foundations of theological discourse and its relation to the imagination of the artist. (3 credits)

THEOLOGY L241
Theology and the Arts II: The Open-Eye
An exploration of the most recent media, art forms and underground films in order to see the "god metaphors" and, with a theological reflection, to become aware of the new allegory and the civilizing function of the God of the imagination. (3 credits)

THEOLOGY L255
Ultimate Concern in North American Literature
Existential questions (the absurd, alienation, utopia, etc.) will be explored in a theological perspective, through the study of representative works of drama and fiction. (6 credits)

THEOLOGY L261
Theology and Politics
A study of the historical reciprocity between political structures and the theological expression of man's social and political existence. (6 credits)

THEOLOGY L264
Theological Dimensions of Psychology I
The course is a theological exploration in psychological studies embracing: a) a critical and constructive consideration of Freud and Jung; b) a survey of neo-Freudian social psychologist, such as Horney and Sullivan; c) a survey of third force psychologists such as Rogers, Maslow and May. (3 credits)

THEOLOGY L265
Theological Dimensions of Psychology II
This course consists of exploratory studies on main themes and fields of concern related to psychology and theology such as faith, anxiety, psychic projections, devil-beast, adulthood, and informed consciousness and transformation. Audio-visual methods and seminar sessions will be used. Individual projects and research on a tutorial basis will be encouraged. (3 credits)

THEOLOGY L270
Science and Religion
A study of representative classic and contemporary formulations of the nature of scientific and religious truth. This course will examine both the types and the bases of various claims made in the areas of science and religion. (6 credits)

RELIGIOUS DIVERSITY
THEOLOGY L277
Primitive Religions
A consideration of the basic religious attitudes and postures of primitive man and of the
role of religion in his life. An attempt will be made to assess the contribution of the religion of primitive man to Christian theology. (6 credits)

THEOLOGY L279
Eastern Religions (Reading Course)
Introduction to the classical works of major Eastern Religions. (6 credits)

THEOLOGY L280
World Religions I: Islam
This course intends to acquaint the student with the different stages of the Muslim Tradition and the characteristic features of the Islamic world-view. It combines a survey of Islam with an interpretation of the specific practices and articulations of the Muslim faith. Main areas discussed: Qur’an (Coran), Muhammad (The Prophet), Hadith (Prophecic Tradition), Shari’a (Religious Law of Islam), Islamic (Muslim Theology), Sufism (Islamic Mysticism), Shi’ism (Islamic Heterodoxy), and Modern Socio-Religious Developments. (3 credits)

THEOLOGY L281
World Religions II: Buddhism
This course intends to initiate the student into Buddhism as a world-view and Way of Life. A survey of its religio-historical and religio-geographical development will be combined with readings in Buddhist texts. The course follows the traditional Buddhist Triratna structure, including: The Life of the Buddha, the Dharma (Buddhist Doctrine and Principles), and the Sangha (the Buddhist Community and its Schools). (3 credits)

THEOLOGY L285
Ancient Near Eastern Religions
The religions of ancient Mesopotamia, Egypt and the Levant during the Bronze and early Iron ages. This material provides our best documented examples of the religions of early civilized man and constitutes invaluable background material for the study of the religion of the Old Testament. (6 credits)

THEOLOGY L287
Contemporary North American Judaism
Its historical, philosophical and theological developments with special consideration given to twentieth-century patterns and problems. (6 credits)

THEOLOGY L293
Introduction to Orthodox Christianity
This course will explore the religious thought and religious experience of the segment of the Christian community known as Orthodox. This exploration will be conducted through the media of history, culture, and mystical theology. The historical, cultural and ethnic diversity of the Orthodox community and its status, problems, and future in the North American society will also be examined. Another perspective on Orthodox Christianity will be yielded through the study of its interrelationship with Catholicism and Protestantism and the resulting theological, spiritual and ecumenical influences, mutually exerted. Thus the student can become aware of the forces shaping 20th-century Christianity. (6 credits)

THEOLOGY L298
Catholicism from Trent to the French Revolution
The religious experience of Catholicism after the Protestant reform. The areas of concern will deal with the Council of Trent, the Spanish mystical reform, “L’Ecole Francaise”, the Jesuits and Jansenism. (6 credits)

THEOLOGY L299
Catholicism from the French Revolution to the Present
A search for the roots of the Catholic mentality in 19th and 20th century sources. The course will deal with Ultramontanism, Modernism, Papal social doctrine and the “aggiornamento” of John XXIII. (3 credits)

INTRODUCTORY COURSES

THEOLOGY L300
Introduction to the Old Testament
An introduction to the Old Testament experience of man with God in its various expressions (in the historical, prophetic, and wisdom literature). Emphasis will be given to the methods of Old Testament interpretation in its permanent significance for Christian thought. (6 credits)

THEOLOGY L301
Introduction to the Pentateuch
A reading of the ancient texts using current methods of interpretation. (3 credits)

THEOLOGY L302
Introduction to the Historical, Prophetic and Wisdom Books of the Old Testament
A reading of the ancient texts using current methods of interpretation. (3 credits)

THEOLOGY L310
Introduction to the New Testament
This course is designed to introduce the student to the methodology and the tools of New Testament interpretation as a whole. Particular emphasis will be given to the literary, historical, and doctrinal analysis of the Gospel of Mark. (6 credits)

THEOLOGY L311
Introduction to Jesus and the Gospels
The date, authorship, purpose, structure and sources of the canonical gospels. The work and words of Jesus in their historical setting. (3 credits)

THEOLOGY L312
Introduction to the Early Church
The date, authorship, purpose, structure and sources of the Acts, the Epistles, and the Revelation. The birth, growth, life and teaching of the first-century Church in its historical context. (3 credits)

THEOLOGY L330
Introduction to Systematic Theology
After an introduction to the realm, methods, tools, and sources of theology, the course intends to elaborate the overall dynamic structure of the dialogical existence of man with God, which is the horizon in which man and world obtain an intelligent and positive meaning. (6 credits)

THEOLOGY L350
Introduction to History of Christianity
An introduction to the historical dimension of Christian existence, of its structure, methods, major driving ideas and personalities within the different epochs. (6 credits)

THEOLOGY L351
Introduction to Ancient and Medieval Christianity
A reading of ancient and medieval texts in their cultural context with attention to pertinent

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social, economic, political and theological developments in each period. (3 credits)

THEOLOGY L352
Introduction to Reformation and Modern Christianity
A reading of reformation and modern texts in their cultural context with attention to pertinent social, economic, political and theological developments in each period. (3 credits)

THEOLOGY L370
Methods in the Study of Religion
This course will examine some of the main approaches to the study of religion, giving emphasis to the key problems and techniques of inquiry in these approaches, with special attention to the theological method in its distinctive Christian context. (6 credits)

THEOLOGY L372
Religious Language
A study of religious and theological language in relation to scientific, philosophical and symbolic forms of human self-expression. This course will examine different forms of creativity in religious language and of critical interpretation in theological language. (6 credits)

ADVANCED COURSES

Prerequisite: Successful completion of a corresponding 300 level course or its equivalent.

THEOLOGY L400
Advanced Topics in Theology
This course focuses on advanced topics of interest in Theology. Content will depend on the theme designated by the Department, which varies from year to year. (3 credits)

THEOLOGY L401
Advanced Topics in Theology
A student may repeat L400, provided that the content is different, by registering for credits under Theology L401. (3 credits)

THEOLOGY L402
Advanced Topics in Theology
This course focuses on advanced topics of interest in Theology. Content will depend on the theme designated by the Department, which varies from year to year. (3 credits)

THEOLOGY L403
Advanced Topics in Theology
A student may repeat Theology L402, provided that the content is different, by registering for credits under Theology L403. (3 credits)

SCRIPTURE

THEOLOGY L405
The Pentateuch
In the light of the present state of research, the oral and written traditions of the Pentateuch will be explored with a particular emphasis on the different kerygmatic and theological interests. (3 credits)

THEOLOGY L406
The Historical Books
In the light of the present state of research, the oral and written traditions of the Historical Books will be explored with a particular emphasis on the different kerygmatic and theological interests. (3 credits)

THEOLOGY L407
The Prophetic Traditions
An introductory theological survey of the prophetic traditions in Israel's history: the origin, character and motive of this activity. Special attention will be given to the fundamental and unique role played by the individual prophets, through an arrangement of themes and structures. Special attention will be given to selected texts. (3 credits)

THEOLOGY L408
The Psalms and Wisdom Literature
An introductory theological survey focusing on: 1) the Psalms: their conception and creation as man's prayer; a link in the history of God's revelations; and 2) the Wisdom movement: its development and its bearing on biblical theology. Special attention will be given to selected texts. (3 credits)

THEOLOGY L411
The Synoptic Gospels
An introduction to the study of the gospels as sources for the life and teaching of Jesus. It will cover the history of the synoptic problem, critical approaches, and the results of investigations into the synoptic gospels for an understanding of Jesus of Nazareth. Particular attention will be given to the Gospel of Luke. (3 credits)

THEOLOGY L412
Acts and the Beginning of Christianity
Continuation of L411 (though it may be taken separately by permission of the Professor) concentrating upon the historiography of Luke and his description of the rise of Christianity as a separate group within Judaism. Attention will be paid to Luke's use of sources in the formulation of his theology, especially with respect to his Christology and Ecclesiology. (3 credits)

THEOLOGY L414
The Johannine Writings
An extended examination of Gospel, Letters and Revelation situated within the context of first-century Christian and non-Christian religious thought. (6 credits)

THEOLOGY L416
The Theology of St. Paul
A historical-critical examination of Paul's theological thought, tracing its development through the chronological sequence of his letters. The focus is on what is central and normative for Christian theology, and what is particularly relevant for today. (6 credits)

THEOLOGY L418
New Testament Christologies
Seminar dealing critically and historically with key sections of the New Testament relating to the person of Jesus of Nazareth. Their background, sources, and Christological relevance will be examined. (6 credits)

SYSTEMATIC THEOLOGY

THEOLOGY L431
Theology of Revelation
This course will offer an inquiry into the concept of revelation as a central concept of fundamental theology and will deal with the questions of the possibility, knowability, and mystery of revelation. It will consider the contributions of representative theologians, both Catholic and Protestant, to the development of the theology of revelation. (6 credits)
THEOLOGY L438
Problems of Eschatology
The seminar will investigate the relationship between history and eschatology, the problem of death, resurrection, millennium, etc., in order to update theology so as to be a challenge to the modern mind. (6 credits)

THEOLOGY L440
Theology of the Church
A study in the development of the self-understanding of the Church. (5 credits)

THEOLOGY L442
Christology
This course is an inquiry into the mystery of the Incarnation. After a short survey of the biblical foundations and of the definitive establishment of the traditional Christological doctrine, more recent insights about the God-man Jesus-Christ will be proposed and critically evaluated. (3 credits)

THEOLOGY L443
Theology of Redemption
This course will develop a contemporary understanding of the doctrine based on Christian revelation as it has been crystalized in the Bible and explained by historically unfolding doctrines of the Church. Three questions will be emphasized: From what have the world and man been redeemed? What is the outcome of redemption on the world and man? By whom and how is redemption performed? (3 credits)

THEOLOGY L444
The Trinity I—Historical Presentation
The traditional doctrine of the Trinity as developed in Scriptures, the Church Fathers, and Councils of the Church. (3 credits)

THEOLOGY L445
The Trinity II—Systematic Interpretation
An examination of current discussions of the Trinity in theological inquiry. (3 credits)

THEOLOGY L451
Recent Developments in Moral Theology
This course will focus on the Protestant and Catholic theologians who have in the recent past developed changes in the approaches to moral theology and to particular moral problems. (3 credits)

THEOLOGY L452
Contemporary Moral Problems
A continuation of Theology L451 with particular emphasis on specific themes. (3 credits)

HISTORY OF CHRISTIANITY

THEOLOGY L461
Post-Apostolic Christianity (98-180 A.D.)
(3 credits)

THEOLOGY L462
Christian Communities in the Third Century
(3 credits)

THEOLOGY L463
Religion and Society in the Early Middle Ages
A study of theology and religion in the Europe of the 12th and 13th centuries, using the manifestations of popular piety as an introduction to the various developments of the period. (3 credits)

THEOLOGY L464
Religion and Society in the Later Middle Ages
A study of Christianity in the 14th and 15th centuries. The rise of reform movements from within the Church will be studied as a means of understanding the theological and social situation of the period. (3 credits)

THEOLOGY L465
The Catholic and Protestant Reformations of the XVI Century
An historical and theological analysis of the events, personalities and ideas emerging from the religious upheaval of the XVth century. Emphasis will be placed on the parallel restructuring, re-thinking and renewal that existed in both Catholic and Protestant communities. (6 credits)

THEOLOGY L466
Protestant Origins and Their Distinctive Development
This course traces the characteristic doctrines and movement of Protestantism through the essential phases of their evolution. (6 credits)

THEOLOGY L467
History of Christianity: 20th Century
This course will discuss issues of contemporary Christianity: modernism, theological revival, ecumenism, the contribution of the Second Vatican Council. (6 credits)

THEOLOGY L468
Canadian Church History: Pre-confederation
A survey of the persons, institutions, and religious thought that formed the mentality of the Christian Churches prior to Confederation. (3 credits)

THEOLOGY L469
Canadian Church History: Post-confederation
A survey of the persons, institutions, and religious thought that formed the variety of mentalities in Canadian Christianity. (3 credits)

THEOLOGY L499
Honours and Major Theology Tutorial
Open to Honours and Major Theology students. At the end of the second year, students choose, in consultation with a tutorial director, a research topic or other specialized work for an intense analysis during the final year. (6 credits)

The following courses are university level courses which were offered in the year indicated but did not appear in the official Calendar.

THEOLOGICAL STUDIES
1976
THEOLOGY 300B
Theologies of Liberation and Political Theology
(3 credits)
THEOLOGY 400B
Introduction to the Historical Prophetic and Wisdom Books of the Old Testament
(3 credits)

THEOLOGY 410B
Introduction to the Early Church
(3 credits)

THEOLOGY 450B
Introduction to Reformation and Modern Christianity
(3 credits)

THEOLOGY 505Z
Theologies of the Old Testament
(6 credits)

THEOLOGY 553Z
Ethical Problems of Life and Death
(6 credits)
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61.4 ACCOUNTANCY

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61.7 MANAGEMENT

61.8 MARKETING

61.9 QUANTITATIVE METHODS

61.10 ECONOMICS

61.11 COMPUTER SCIENCE

61.12 ADDITIONAL COURSES FOR COMMERCE STUDENTS

61.13 SPECIAL PROGRAMMES IN ACCOUNTANCY

61.14 SPECIAL CERTIFICATES

61.15 COMMERCE & ADMINISTRATION CONSULTATIVE COMMITTEE
61.1 Commerce & Administration

Dean
ANDREW BERCZI

Assistant Dean—Administrative Affairs
HENRY S. TUTSCH

Assistant Dean—Student Affairs
ROLAND O. WILLS

61.2 Admission Requirements

General admission requirements are listed in § 13
Specific requirements for admission to the Faculty of Commerce & Administration for students in CEGEP are two semester courses in mathematics—College Algebra and Introduction to Calculus. Arrangements will be made in the first-year programme to give special instruction to those students who lack adequate mathematical preparation.

61.2.1 BACHELOR DEGREE PROGRAMMES

The faculty of Commerce and Administration offers two distinct Bachelor programmes. The Bachelor of Commerce (BComm) degree is the more structured "professional" type programme in which the student will select a Major from those offered in Commerce or Economics. The Bachelor of Administration (BAdmin) degree is a less structured "liberal" type programme which permits the student to pursue interests within or outside the Faculty 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 programme on or after June 1, 1976.

61.2.2 CORE REQUIREMENTS

The required 51-credit core is identical for both programmes and comprises the following courses:

<table>
<thead>
<tr>
<th>1st Year</th>
<th>Accountancy</th>
<th>C213</th>
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<tbody>
<tr>
<td></td>
<td>Quantitative Methods</td>
<td>C243</td>
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<td></td>
<td>Economics (L210)</td>
<td>S210</td>
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<td>Management</td>
<td>C266</td>
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<td>Marketing</td>
<td>C213</td>
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<td></td>
<td>Accountancy</td>
<td>C218</td>
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<td></td>
<td>Quantitative Methods</td>
<td>C244</td>
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<td>Economics (L209)</td>
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<td>Management</td>
<td>C213</td>
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<td>Finance</td>
<td>C314</td>
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<td>2nd Year</td>
<td>Management</td>
<td>C475</td>
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<td>Quantitative Methods</td>
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<td>Marketing</td>
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<td>C340</td>
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<tr>
<td></td>
<td>Quantitative Methods</td>
<td>C314</td>
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<td></td>
<td>Finance</td>
<td>C315</td>
</tr>
<tr>
<td>3rd Year</td>
<td>Management</td>
<td>C460</td>
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</tbody>
</table>

NOTE: The student is responsible for following the correct sequence of courses required for the completion of a particular programme.

61.2.3 BACHELOR OF COMMERCE PROGRAMME

This programme provides the student with an education for business life. It is our intention to graduate students liberally educated about business. To accomplish this, we have designed a multi-disciplinary and interdisciplinary curriculum which is intellectually challenging.

The first year of the programme is intended to provide an informative accumulation of operational attitudes, skills and tools which form the base for the core concentration.

The core concentration in the second year attempts to give broad experience in all phases of business in a coordinated, analytical and reflective period of study. All the resources of the student's intellectual ability are combined with his interdisciplinary studies to analyze, formulate, judge, and solve challenging business situations.
The last year of the programme is intended to provide the student with an opportunity to immerse himself in an area of specialized study. In addition, the student participates in a course which is designed to test his ability to integrate his knowledge and to view the study of business as a whole.

In view of this design, all students must follow the sequence of the courses on the basis of an academic year as outlined in the curriculum. No student will be permitted to register for second or third year courses without having completed the courses of the first academic year.

### Degree Requirements

To obtain the degree of Bachelor of Commerce, all students are required to follow a Major Programme. A Major consists of at least 24 credits in the chosen discipline in addition to the required 51-credit core. The remaining credits may be selected to form a Minor programme if applicable. Major and Minor programmes are available in the following areas:

<table>
<thead>
<tr>
<th><em>Concordia Faculty of Commerce and Administration</em></th>
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<tbody>
<tr>
<td><strong>Bachelor of Commerce</strong></td>
</tr>
<tr>
<td>Accountancy</td>
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<tr>
<td>Economics</td>
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<td>Finance</td>
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<td>Management</td>
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<td>Administrative Management</td>
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<td>Human Resource Management</td>
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<td>Personnel Management</td>
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<td>Entrepreneurship &amp; Small Business</td>
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<tr>
<td>Management</td>
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<td>Managerial Law</td>
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<tr>
<td>Marketing</td>
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<tr>
<td>Quantitative Methods</td>
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<tr>
<td>Business Statistics</td>
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<tr>
<td>Management Operations Research</td>
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<tr>
<td>Business Systems</td>
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</tbody>
</table>

Students of this Faculty who elect to major in any of the disciplines of the Faculty of Economics will be enrolled in a Bachelor of Commerce degree programme.

<table>
<thead>
<tr>
<th><em>Bachelor of Administration</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialization</td>
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</tbody>
</table>

Students will indicate their preferred field of concentration, either Major or Honours, at the time of application for entry. It should be noted, however, that since the programme of study of the first year is common to all programmes, students may change to another programme, provided, of course, that the capacity of the programme permits it.

*Both degrees have a common core of 51 credits out of a total of 90 credits.*
61.2.4 BACHELOR OF ADMINISTRATION PROGRAMME

The Bachelor of Administration Programme is designed to develop problem-solvers and decision-makers in all walks of life. A successful graduate is able to develop objectives and strategies, organize people and resources, direct an organization’s activities and control these activities, and appraise objectives and strategies in the light of results.

The programme has been made flexible enough to allow a student to develop according to his own needs. This programme provides the student with a fundamental grounding in administration and offers the opportunity to pursue varied interests among courses offered by the University.

Degree Requirements

To obtain the degree of Bachelor of Administration, students are required to complete the 51-credit core and 9 elected credits from Commerce and/or Economics to complete the 60 credits required for specialization. The remaining 30 credits may be selected from any of the offerings of the University but at least half of these must be beyond the introductory level.

61.3 General Information

Old Credit Programme (Transition)

Students who have enrolled in a programme at this Faculty prior to June 1, 1976 will complete the programme as shown in the University Announcement 1975/76. For substitution of courses not offered in the new programme, students will consult with representatives of the respective departments.

Failures

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 have two alternatives available:

1. They may drop the second term course and register in a section of the failed course, if available.
2. They may drop the second term course and apply to write the supplemental examination (in March for potential graduates and in July for others) if they are eligible to do so. In this case, students may register in another course for which they have the necessary prerequisite.

There will be a course change period at the beginning of the second term at which time students falling in the above categories must make arrangements with the Office of the Registrar for the necessary course changes.

French Language

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.

Courses/Non Commerce Students

Students not registered in the Faculty of Commerce & Administration, who wish to undertake any courses offered by the faculty, but do not have the stated prerequisites, must obtain permission in writing from the chairman of the department concerned, prior to registration.
61.4 Accountancy

Professor and Chairman of the Department

H. MANN

Professors

L. BESSNER
A. DICKIE
J. G. FINNIE

Associate Professors

G. R. CURNEW
H. DAUDERIS
F. P. DOUGHERTY
D. F. MacDONALD
E. B. MARKLAND
H. B. RIPSTEIN
N. VAN ZANTE

Assistant Professors

K. ARTHUR
H. CHAN

Lecturers

M. GOLD
T. KAY
W. E. PIETZSCH

Lecturers

P. DECELLES
J. FISHER
C. H. LIEBMAN
G. LOWENFELD

Lecturers

H. S. GREENSPON
G. KOURI
H. ZIMMER
F. ZWIRZ

61.4.1 PROGRAMMES

33 Major in Accountancy

3  Acc C323
3  Acc C325
3  Acc C326
3  Acc C403
3  Acc C414
3  Acc C429
3  Acc C441
3  Acc C461
9  additional credits offered by the Department.

12 Minor in Accountancy

3  Acc C323
3  Acc C326
6  additional credits offered by the Department.

61.4.2 COURSE DESCRIPTIONS

ACCOUNTANCY C213
Financial I

This course examines the theory and practice involved in recording and reporting an organization's financial information for interested parties. It includes the preparation and analysis of financial statements. This course is required for all Commerce and Administration students and is recommended for non-Commerce and Administration students, particularly those considering graduate studies in business administration. (3 credits) NOTE A/See § 200.2

ACCOUNTANCY C217
Financial and Managerial

Prerequisite: Accountancy C213. This course is designed to develop, through ver-

bal analysis of business cases, an understanding and skill in the preparation of statements for financial accounting purposes taking into account the needs of business management. The student must be able to analyze these statements and comment critically thereon. (3 credits) Major and Honours students in Accountancy may not take this course for credits. NOTE A/See § 200.2

ACCOUNTANCY C218
Managerial I

Prerequisite: Accountancy C213. This course is an introduction to the development of accounting information for purposes of control, decision making and the more efficient operation of the enterprise. (3 credits) NOTE A/See § 200.2
ACCOUNTING C220
An Accounting Approach to Management
This course is designed to cover certain major aspects of management related to the accounting process. These include: business organization; accounting concepts; financial statement analysis; management uses of accounting information; and, the effect of taxation on business decisions. (3 credits). NOTE A/See § 200.2; Commerce and Administration students may not take this course for credits.

ACCOUNTANCY C221
Accounting and Management
Prerequisite: Accountancy C220. This course is sequential to Accountancy C220, and examines in greater depth the areas covered in that course. (3 credits).NOTE A/See § 200.2; Commerce and Administration students may not take this course for credits.

ACCOUNTANCY C323
Intermediate I
Prerequisite: Accountancy C213. This course extends, at a senior level, the material covered in earlier courses, integrating the previous work with advanced theory and application. Intensive study is made of the theory and practice of external reporting by commercial and other entities. Concepts and procedures involved in the valuation of resources are studied, as are the concepts of income determination. (3 credits) NOTE A/See § 200.2

ACCOUNTANCY C325
Advanced
Prerequisite: Accountancy C326. This advanced course is primarily concerned with corporate combinations. A study is made of other advanced accounting areas. (3 credits) NOTE A/See § 200.2

ACCOUNTANCY C326
Intermediate II
Prerequisite: Accountancy C323. This course continues the intensive study of Intermediate I with particular emphasis on obligations, funds valuation statements and financial statement analysis. (3 credits)

ACCOUNTANCY C403
Cost and Management Accounting
Prerequisite: Accountancy C323. This course, based primarily on lectures and problem-solving is directed to needs of students who contemplate careers in professional accounting as members of recognized accounting bodies. A detailed examination is made of the various techniques, systems and procedures applicable to the managerial use of accounting information for decision-making, profit-planning and control. (3 credits) NOTE A/See § 200.2

ACCOUNTANCY C407
Accounting Practice and Policy
Prerequisite: Accountancy C323. Co-require: Accountancy C326, C410 and Accountancy C429, C432. If any of the related courses have not been taken previously, they must be taken simultaneously. This course, based almost exclusively on the case method of instruction, is of particular relevance to students who contemplate professional accounting careers as members of recognized accounting bodies. Areas previously concurrently covered in the field of corporate financial reporting are extended, and current accounting literature and current pronouncements of professional accounting bodies are examined. Course objectives include further development of theoretical concepts through which appropriate solutions to practical problems may be derived, and the development of accounting policies to meet given and general situations. (3 credits).NOTE A/See § 200.2

ACCOUNTANCY C410
Specialized
Prerequisite: Accountancy C325. In this course an examination is made of specialized aspects of financial accounting. Some of the areas to be covered are government accounting, fund accounting and unusual aspects of statement preparation for entities such as banks and insurance companies. (3 credits)

ACCOUNTANCY C414
Information Systems and Control
Prerequisite: Accountancy C213. This course includes information systems theory, control theory and practice, responsibility accounting, and a survey of selected management science techniques. Through case analysis and discussions the interrelationships between information and control systems, managerial style and human behaviour are established. (3 credits) NOTE A/See § 200.2

ACCOUNTANCY C422
Cost Accounting (Advanced)
Prerequisite: Accountancy C403. This course continues at an advanced level the study of modern cost accounting systems, and emphasizes the contemporary problems facing cost accountants, and their potential solutions by the use of sophisticated techniques. (3 credits) NOTE A/See § 200.2

ACCOUNTANCY C429
Analytical Auditing
Prerequisite: Accountancy C326. This course introduces auditing theory and its application by external and internal auditors in fulfilling their respective objectives and responsibilities. The focus is on the audit of transactions or procedures used by organizations. An analytical approach is used to discuss different accounting systems and to evaluate systems of internal control. The development and use of detailed audit procedures and audit programs is also covered. Cases and problem solving form the basis of student involvement in this course. (3 credits) NOTE A/See § 200.2
ACCOUNTANCY C432
Financial Auditing
Prerequisite: Accountancy C429. This course emphasizes the role of the public accountant in expressing an opinion on the financial statements of an organization. The use of audit standards, procedures and internal control is related to the expression of an auditor's opinion. Cases and problem solving form the basis of student involvement in this course. (3 credits) NOTE A/See § 200.2

ACCOUNTANCY C433
Auditing and Investigation
Prerequisite: Accountancy C429. This course deals with questions related to professional accounting practices and also covers different types of management services that auditors are frequently requested to undertake. (3 credits) NOTE A/See § 200.2

ACCOUNTANCY C441
Taxation I
Prerequisite: Accountancy C213. This course examines the Canadian taxation structure. Emphasis is given to the income taxes levied on individuals, and includes the taxation of capital gains, employment, business and investment income. (3 credits) NOTE A/See § 200.2

ACCOUNTANCY C442
Taxation II
Prerequisite: Accountancy C441. This course extends the coverage of Accountancy C441 with a detailed examination of taxes on corporate incomes, and of corporate distributions. Sales taxes, succession duties and other tax areas are also examined. (3 credits) NOTE A/See § 200.2

ACCOUNTANCY C451
Computer Auditing
Prerequisite: Computer Science C211 or equivalent, and Accountancy C429. This course explores the impact of large scale computer use on the auditor and his examination of a company's records and systems of internal control. The emphasis is on helping the auditor understand when a computer can be used to assist him and how to follow through with its use. Topics covered include the different controls and techniques required in a computer system, the audit trail, approaches to computer auditing and computer application for auditing, computer and software security, and consideration of the various computerized audit packages available. (3 credits) NOTE A/See § 200.2

ACCOUNTANCY C461
Accounting Theory I
Prerequisite: Accountancy C325. This course examines the framework underlying current accounting thinking and procedures, and a study is made of the development and the influence of professional accounting organizations and regulatory bodies on accounting theory. Controversial areas are emphasized. (3 credits) NOTE A/See § 200.2

ACCOUNTANCY C462
Accounting Theory II
Prerequisite: Accountancy C461. This course extends the coverage of Accountancy C461. Particular emphasis is placed on developments in the current literature and in problem areas facing the accounting profession. (3 credits)

ACCOUNTANCY C470
Special Topics in Accounting
Prerequisite: Departmental approval. Intended to complement and supplement accounting courses taken previously or currently at the senior level, this course emphasizes accounting literature and modern thought. Students are encouraged to work independently on research topics of interest to them. Enrolment is restricted and is subject to departmental approval. (3 credits) NOTE A/See § 200.2

ACCOUNTANCY C471
Accounting Seminar
Prerequisite: Accountancy C470. This course examines in greater depth areas of individual interest. Enrolment is restricted and is subject to departmental approval. (3 credits) Students repeating Accountancy C471 register for credits under Accountancy C472. NOTE A/See § 200.2
ADMISTRATION C201
Introduction to Administration
This course is designed to develop a basic understanding of the role of administration in our society (the efficient organization and employment of people in the techno-structure). (3 credits)
NOTE: Commerce and Administration students may not take this course for credits.

ADMISTRATION C202
Perspective on Business
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. (3 credits)
NOTE: Commerce and Administration students may not take this course for credits.

ADMISTRATION C350
Transportation
This course will deal with economic principles underlying the various modes of transport: i.e. rail, water, motor, air and pipeline. Current problems of each will be discussed. In addition, a survey of the principles of business logistics will be covered. Cases will be utilized when possible. (3 credits) NOTE A/See § 200.2
61.6 Finance

**Professor and Chairman of the Department**

C. C. POTTER

**Associate Professors**

C. C. POTTER

L. BOYLE

B. ENGLISI

A. ILANO

M. LIVINGSTON

**Assistant Professors**

T. BARNES

E. DOUGLAS

J. FLYNN

Y. GEYIKDAGI

L. KRYZANOWSKI

R. MCKEOWN

K. PRADHAN

J. TOMASKI

Special Lecturers

E. BOUCAI

W. T. G. HACKETT

M. KATZ

S. SILVERTON

61.6.1 PROGRAMMES

24 Major in Finance

3 Fin C440

3 Fin C441

18 additional credits offered by the Department

12 Minor in Finance

3 Fin C440

3 Fin C441

6 additional credits offered by the Department

61.6.2 COURSE DESCRIPTIONS

**FINANCE C314**

Introduction to Finance I

Prerequisites: Economics S210 or L210 or equivalent, Accountancy C213, and Accountancy C218 previously or concurrently. A course dealing with financial standards and forecasting; the theory of interest; capital expenditure decisions; current asset management and the behaviour of money and capital markets. (3 credits) NOTE: Students who have previously taken Finance 215 may not take this course for credit. NOTE A/See § 200.2

**FINANCE C315**

Introduction to Finance II

Prerequisites: Finance C314 and Economics S209 or L209 or equivalent. A course dealing with short, intermediate and long-term financing instruments, financial structure and valuation, cost of capital and dividend policy. (3 credits) NOTE: Students who have taken Finance 215 should consult the Department concerning permission to take this course. NOTE A/See § 200.2

**FINANCE C417**

Capital Budgeting Theory

Prerequisite: Finance C315. An examination of the criteria for efficient investments and optimum financial budgeting. (3 credits) NOTE A/See § 200.2

**FINANCE C418**

Cost Benefit Analysis

Prerequisite: Finance C315. Private and public resource investment and associated problems. (3 credits) NOTE A/See § 200.2

**FINANCE C430**

Financial Management I

Prerequisite: Finance C315. A study of the role and responsibility of the senior financial officer in the achievement of current control through operational finance. A variety of case studies are used to encourage the students to develop a critical approach to the subject. (3 credits) NOTE A/See § 200.2

**FINANCE C431**

Financial Management II

Prerequisites: Finance C430. A study of the role and responsibility of the senior financial officer in the achievement of 'current control' and 'performance review' through operational finance, etc. (3 credits) NOTE A/See § 200.2

**FINANCE C440**

Finance Theory I

Prerequisite: Finance C315. This course discusses the role of research and theory in finance, and the theories of wealth allocation, interest, capital markets, and asset pricing. The discussion of these topics includes the effects of such influences as risk and inflation. (3 credits) NOTE A/See § 200.2

**FINANCE C441**

Finance Theory II

Prerequisites: Finance C440. This course will be a continuation of Finance C440 covering such topics as: dividends and the value of the corporation, cost of capital, game theory and liquidity. (3 credits) NOTE A/See § 200.2
FINANCE C452
Investment Analysis
Prerequisite: Finance C315. The examination of the workings of security markets and analytical techniques for the valuation of securities. (3 credits) NOTE A/See § 200.2

FINANCE C453
Investment Management
Prerequisite: Finance C315. A study of diversification and portfolio management techniques. (3 credits) NOTE A/See § 200.2

FINANCE C455
Seminar in Finance
Prerequisite: Finance C315. This course is intended primarily for Honours or Majors students and provides an opportunity for more intensive study in one or more specific topics of finance. The topic will vary according to the special interests of the professor and the students. (3 credits) Students repeating Finance C455 register for credits under Finance C456 NOTE A/See § 200.2

FINANCE C460
Financial Intermediaries (National)
Prerequisite: Finance C315. Principles of money and credit in their application to the operations of the central bank, chartered banks, and the financial system and markets generally. (3 credits) NOTE A/See § 200.2

FINANCE C461
Financial Intermediaries (Quebec)
Prerequisite: Finance C315. A study of the operation of financial institutions in the province of Quebec. (3 credits) NOTE A/See § 200.2
61.7 Management

Associate Professor and Chairman of the Department
R. L. CRAWFORD

Professors
G. BRINK
J. KELLY
J. SMOLA

Associate Professors
M. FRANKLIN
T. KUBICEK
P. E. PITSILADIS
G. S. RAJAN
S. F. ROBBINS
H. S. TUTSCH

Assistant Professors
V. BABA
J. P. BRUNET
D. FRANKLIN

J. GOODWIN
M. JAMAL
G. JOHNS
R. KNOOP
E. MENIPAZ
A. SANDERS

Lecturers
E. KAPLAN
R. OPPENHEIMER

Sessional Lecturer
J. B. FISHER

Special Lecturers
L. ABRAMS
R. DAINOW
M. DeBEAUPRE
P. FILIATRAULT
R. LEROUX
B. PELLETIER

61.7.1 PROGRAMMES

24 Major in Administrative Management

3 Man C345
3 Man C369
3 Man C442
3 Man C461
3 Man C462
3 Man C464
3 Man C476
3 one of Man C420, C402, C474

12 Minor in Administrative Management

3 Man C369
3 Man C442
3 Man C461
3 Man from the programme of Major in Administrative Management

12 Minor in Entrepreneurship and Small Business Management

3 Man C451
3 Man C452
3 Man C454
3 Mark C352 or C485

24 Major in Human Resource Management

3 Man C341
3 Man C342

3 Man C420
3 Man C462
3 Man C463
3 Man C464
6 two of Man C369, C441, C479

12 Minor in Personnel Management

3 Man C341
3 Man C462
3 Man C464
3 Man from programme of Major in Human Resource Management

12 Minor in Managerial Law

3 Man C476
3 Man C477
3 Man C478
3 Man C479
61.7.2 COURSE DESCRIPTIONS

MANAGEMENT C211
Business Law
A general survey of the law obtaining in the Province of Quebec 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. (6 credits) NOTE A/See § 200.2; Commerce and Administration students may not take this course for credits.

MANAGEMENT C213
Foundations of Behaviour
The purpose of this course is to introduce the student to those behavioral concepts relevant to the study of organizational problems. Topics include perception, attitudes, personality, group behavior, roles and culture as they relate to organizational processes. (3 credits)

MANAGEMENT C266
Management: Theory & Practice
Prerequisite: Second year standing in any faculty. The purpose of this course is to introduce the student to management theory and practice. Management will be viewed as a discipline and as a process (planning, organizing and evaluating). The evolution and scope of management will be considered with illustrations drawn from Canadian experiences. (3 credits)

MANAGEMENT C340
Organizational Behaviour
Prerequisites: Management C213, C266. This course is designed to provide the student with an opportunity to study behaviour within formal organizations. Through theoretical and experiential approaches, the focus of instruction progressively moves through the different levels of analysis, particularly motivation, leadership and group behaviour. The objective of the course is to improve the student's perceptual, analytical and problem solving skills in the diagnosis and innovative resolution of behavioural problems in organizations. (3 credits)

MANAGEMENT C341
Organization Theory
Prerequisites: Management C266; C340. The function, structure and processes of organizations will provide the focus for study. Inter-relationships among the psychosocial, technological, and formal properties of organizations will be examined. Emphasis will be placed on the diagnosis, analysis of organizational problems and optimal design alternatives for improving organizational performance and effectiveness will be explored. The objective is to provide the student with a thorough understanding of the nature of contemporary complex organizations. (3 credits)

MANAGEMENT C342
Organizational Change
Prerequisites: Management C266; C340. An administrative perspective of the behavioural and rational empirical strategies for effecting change in organizations. Emphasis will be placed on an eclectic approach to the planning and implementation of change. Models and methods of change will be reviewed and opportunities for the development of change-agent skills will be provided. (3 credits)

MANAGEMENT C345
Production Management I
Prerequisite: Quantitative Methods C314. It is the production function of the enterprise that gives us the products or 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, production incentive systems, management information systems and plant location. (3 credits)

MANAGEMENT C346
Production Management II
Prerequisite: Management C345. This course is a continuation of Production Management I and is designed to supplement the knowledge of those students choosing to minor in Production Management. One or more of the following topics will be dealt with in depth: work measurement and development of standard data for incentive systems; production planning, scheduling and control; research and development; plant layout and materials handling. (3 credits)

MANAGEMENT C368
Social Aspects of Enterprise
Prerequisite: Second year standing in any faculty. The purpose of this course is to facilitate understanding of the impact of social, economic, political and ethical environment on the process of managerial decision-making. Consideration is given to the conceptual foundations of business including the business corporation, its function and the legitimacy of its power structure. (3 credits) NOTE A/See § 200.2

MANAGEMENT C369
Canadian Business and its Environment
Prerequisite: Second year standing in Commerce. 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. (3 credits) NOTE A/See § 200.2

MANAGEMENT C402
Supervisory Practice
Prerequisites: Management C266; C340. A seminar focusing on the emerging understanding of leadership and supervisory techniques in task oriented organizations. Contemporary concepts and research on leadership and supervision will be examined. The seminar will analyze 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 will be emphasized. (3 credits)
MANAGEMENT C409
Principles of Insurance
This course examines the growth of insurance companies in Canada and their effect upon the economy. In addition, the basic fundamentals of insurance are covered, including such topics as life insurance, income replacement, annuities, group insurance, liability, auto, fire and theft insurance. Practical applications and use of insurance dealing with both personal and business situations will be noted. (3 credits) NOTE A/See § 200.2

MANAGEMENT C420
Business Research Methods
Prerequisites: Management C340 and C243-C244 or equivalent. This seminar focuses on the means by which social and organizational data can be gathered, analyzed, 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 will parallel the class-room activities by designing and conducting business research studies of limited scale. (3 credits)

MANAGEMENT C441
Conflict Management
Prerequisites: Management C340; C266. An administrative approach to the study of interpersonal, intergroup, and intra-organizational conflict. Utilizes lectures, case studies and inter-group action exercises to convey theory, empirical research and applications. (3 credits)

MANAGEMENT C442
Managerial Concepts
Prerequisites: Management C340; C266. This course provides an opportunity for intense study of recent developments in the discipline. Topics might include women in management, managing in Quebec, Management By Objectives, long-range planning, equity theories of motivation, changing roles of managers. (3 credits)

MANAGEMENT C451
Managing a Small Business
Prerequisite: Accountancy C213. This introductory course emphasizes the operational aspects of management that are uniquely important to a small enterprise. It provides opportunity to practice operational decision-making under conditions characteristic for small firms. (3 credits)

MANAGEMENT C452
Entrepreneurship
Prerequisite: Third year standing and Departmental approval. This course will provide for the student, a source of the basic techniques needed to start or purchase a business of his own. Consideration will be given to evaluation methods, the nature of an entrepreneur, legal and tax aspects and other aspects of interest to an individual starting a venture as a career alternative. (3 credits)

MANAGEMENT C454
Policy and Strategy for the Small Enterprise
Prerequisites: Third year standing and Departmental approval. This course will help the student to familiarize himself with problems of strategy formulation and implementation within the framework of starting and/or managing a small or medium-sized enterprise. All functions of management will be considered in this context and field work will be encouraged. (3 credits)

MANAGEMENT C460
Business Policy I
Prerequisite: Third year standing in Commerce. This course is designed to introduce the student to strategy formulation and implementation. Emphasis will be on integrating the learning of the programme in order to develop in students a global view of the organization. Cases will be drawn from the private, public, and non-profit sectors and consideration will be given to policy problems in both the Canadian and international contexts. (3 credits)

MANAGEMENT C461
Business Policy II
Prerequisite: Management C460. This course will concentrate on how the strategy formulated in Business Policy I will be implemented by the organization. Organization structures will be studied in differing environments. The relationships between organization structures and the organization's strategy will be analyzed. The problems encountered by general managers as well as middle managers in the process of the implementation of the set policies will be studied. (3 credits) NOTE A/See § 200.2

MANAGEMENT C462
Personnel Management I
Prerequisite: Management C340. The aim of this course is to provide a sound background in fundamentals, theory, principles, and practice of personnel management. It will focus on the philosophies underlying current personnel policy and practices. (3 credits) NOTE A/See § 200.2

MANAGEMENT C463
Personnel Management II
Prerequisite: Management C462 or equivalent. The course will focus on the techniques of: recruitment, selection, training, executive development, labour relations, performance appraisal, and compensation administration. (3 credits)

MANAGEMENT C464
Labour and Industrial Relations I
Prerequisite: Management C340. Labour relations is a survey course designed to provide a practical and comprehensive approach to the state of labour-management relations in Canada. (3 credits) NOTE A/See § 200.2

MANAGEMENT C465
Collective Bargaining and Industrial Relations II
Prerequisite: Management C464. This course is designed to help the student to look at day-to-day problems connected with negotiation and administration of collective bargaining agreements. The course puts some stress on the behavioural aspects of industrial relations. (3 credits) NOTE A/See § 200.2

MANAGEMENT C467
Management Theory II
Prerequisite: Management C266. This course will attempt to further develop the conceptual framework which was established in Management Theory I. To this end it will examine selected management concepts and appraise their value in terms of their application to the actual practice of business. Issues such as the effect of innovation and technological
change, managing the knowledge worker, organization planning and comparative management will be considered. (3 credits) NOTE A/See § 200.2.

**MANAGEMENT C474**

**Institutional Administration**

Prerequisite: Management C340. Management of institutions and agencies in the non-profit (private and public) sector presents unique opportunities and challenges to the manager. This class will provide an introduction to that field. Emphasis will be given to those characteristics of the organization and functioning of these programmes which distinguish them from commercial firms, including the peculiar nature of human services, and the influence of social-political processes. Class activities will utilize theoretical and case material and field observations. Student projects will concentrate on policy formulation and administrative function in an agency of the students' choice. (3 credits)

**MANAGEMENT C475**

**Business Law I**

Prerequisite: Second Year Standing in Commerce. This course deals with the Canadian and Quebec Law governing business organizations and the Quebec Civil Law concerning property, contracts, sales, lease, agency, commercial paper, consumer protection, regulation of finance, warranties and product liability, civil responsibility and obligations. It is essentially the body of law governing the relationships among businessmen and between businessmen and consumers, i.e. private business law. (3 credits)

**MANAGEMENT C476**

**Business Law II**

Prerequisite: Management C475. Federal and provincial government regulation of business including bankruptcy, anti-competes, trademarks and patents, labour law, insurance, special commercial contracts including secured transactions, fair employment, environmental law. (3 credits)

**MANAGEMENT C477**

**The Law of Insolvency and Secured Transactions**

Prerequisite: Management C475. 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 creditors rights in bankruptcy including the role of inspectors and the trustee. An examination of the various forms of secured transactions, which creditors may avail themselves of, more particularly financial institutions including assignment of book debts, pledge, mortgages, bonds, trust deeds. (3 credits)

**MANAGEMENT C478**

**Company Law**

Prerequisite: Management C475. 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 will be studied through the Federal, Quebec and Ontario Companies' Acts and relevant court cases. (3 credits)

**MANAGEMENT C479**

**Labour Law**

Prerequisite: Management C475. A study of the law and relevant court cases dealing with major labour-management issues including collective bargaining, union certification, strike, lock out, grievances and arbitration. Covers Canadian law, primarily Quebec. (3 credits)

**MANAGEMENT C499**

**Special Topics in Administration**

Enrolment is restricted and subject to departmental approval. 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. (3 credits) Students repeating Management C499 register for credits under Management C498. NOTE A/See § 200.2.
61.8 Marketing

Associate Professor and Chairman of the Department
G. R. CURNEW

Professors
V. H. KIRPALANI
B. MALLEN

Associate Professors
K. C. DHAWAN
P. LYNAGH
R. ROTENBERG

Assistant Professors
B. BARBIERI
Z. GIDENGIL (Visiting)

61.8.1 PROGRAMMES

24 Major in Marketing

3 Mark C352
3 Mark C402
3 Mark C490
15 Mark credits offered by the Department.

12 Minor in Marketing

3 Mark C352
3 Mark C402
3 Mark C490
3 Mark credits offered by the Department.

61.8.2 COURSE DESCRIPTIONS

MARKETING C213
The Marketing Process (Introductory)
The course examines the nature of marketing and its role in society as well as the inter-relationships that are operative within the marketing process — both external as related to society and the consumer and internal as related to the organization of the marketing process within the firm. Many of the factors influencing these relationships are also examined. (3 credits) NOTE A/See § 200.2

MARKETING C350
Marketing Management
Prerequisites: Accountancy C213 and Marketing C213. An introduction to the managerial concepts and practices involved in planning and carrying out corporate marketing policies and strategies. The four basic elements of the marketing mix, product, price, promotion and distribution and their interrelationships will be examined in detail. The case method will also be used in order to apply these concepts to realistic marketing problems. (3 credits)

MARKETING C352
Buyer Behaviour
Prerequisites: Marketing C213, Management C213; and Quantitative Methods C243 and C244. This course analyzes the motivations, roles and behaviour of the industrial buyer and the consumer, how he and she are affected by economic, social and cultural influences, and how the marketer may model this behaviour for decision-making purposes. (3 credits) NOTE A/See § 200.2

MARKETING C402
Marketing Research I (Methods)
Prerequisites: Marketing C350 and Quantitative Methods C244. The role of research in marketing process, 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 analyzing data. The student is also briefly introduced to applications of marketing research. (3 credits) NOTE A/See § 200.2

MARKETING C452
Marketing Research II (Application)
Prerequisite: Marketing C402. The application of marketing research to problem areas such as advertising, sales management and product strategy. Alternative research designs are applied to actual problems. (3 credits) NOTE A/See § 200.2
MARKETING C453
Advertising and Sales Promotion Management
Prerequisite: Marketing C350. The course deals with the theory and practice of advertising and sales promotion. Through case studies, field trips and simulations the student learns how to analyze media and budgets, plan promotional campaigns, utilize research findings and evaluate advertising effectiveness. (3 credits) NOTE A/See § 200.2

MARKETING C454
Sales Management
Prerequisite: Marketing C350. The course deals with the theoretical and applied aspects of the management of personal selling. Through cases, simulations and special presentations the student learns how to recruit, select, train, organize, motivate, evaluate, compensate, supervise and control the sales forces. (3 credits) NOTE A/See § 200.2

MARKETING C455
Industrial Marketing
Prerequisites: Marketing C350 and C352. Products and services to other industrial customers are studied; first at the technical representative and selling level, then at the product manager and new products development level, and finally at the level of industrial marketing management. (3 credits) NOTE A/See § 200.2

MARKETING C456
Product Management
Prerequisite: Marketing C453. The course deals with the development and management of new products and services. Through case studies, field trips and simulations the student learns how to analyze market opportunities, develop new products, and manage product lines. (3 credits) NOTE A/See § 200.2

MARKETING C457
Multinational Marketing Management
Prerequisite: Marketing C350. In this course the student analyzes the major forms of international marketing; the impact of differing environments upon marketing policies and strategies; the segmentation of multinational markets; the development of international channel systems; the roles of marketing in developing countries, in communist countries and in integrated markets and trade blocs. (3 credits) NOTE A/See § 200.2

MARKETING C458
Retail Management
Prerequisite: Marketing C213. 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 will also be considered. (3 credits) NOTE A/See § 200.2

MARKETING C459
Retail Management Policy
Prerequisites: Marketing C350 and 9 additional credits in marketing courses. A capstone course in Marketing, utilizing readings, projects and selected case studies requiring the student to incorporate concepts and techniques of previous marketing courses in determining marketing policy. (3 credits) NOTE A/See § 200.2

MARKETING C460
Special Projects Seminar
Prerequisite: Permission of the Department. Individual study or special project in marketing field. (3 credits) Students repeating Marketing C491 register for credits under Marketing C492. NOTE A/See § 200.2

MARKETING C461
Consumerism
Prerequisite: Marketing C213. The current evolution of marketing and consumerism is subjected to critical evaluation and analytical review. Problem areas which may be examined include marketing costs and efficiency, the social objectives of and objections to marketing, the impact of marketing on the environment, the 'pollution of advertising', ethics of marketers, and the role of governments in the market place. (3 credits) NOTE A/See § 200.2

MARKETING C462
Industrial Marketing
Prerequisites: Marketing C350 and C352. Products and services to other industrial customers are studied; first at the technical representative and selling level, then at the product manager and new products development level, and finally at the level of industrial marketing management. (3 credits) NOTE A/See § 200.2

MARKETING C463
Product Management
Prerequisites: Marketing C453. The course deals with the development and management of new products and services. Through case studies, field trips and simulations the student learns how to analyze market opportunities, develop new products, and manage product lines. (3 credits) NOTE A/See § 200.2

MARKETING C464
Multinational Marketing Management
Prerequisite: Marketing C350. In this course the student analyzes the major forms of international marketing; the impact of differing environments upon marketing policies and strategies; the segmentation of multinational markets; the development of international channel systems; the roles of marketing in developing countries, in communist countries and in integrated markets and trade blocs. (3 credits) NOTE A/See § 200.2

MARKETING C465
Retail Management
Prerequisite: Marketing C213. 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 will also be considered. (3 credits) NOTE A/See § 200.2

MARKETING C466
Product Management
Prerequisites: Marketing C213 and C350. In addition to analyzing product cycles and their characteristics and strategies which relate to each stage, this course delves into some of the more practical aspects of product policy setting, strategy formulation of the analysis, development and execution of marketing programs for new and existing products. This course should make the student familiar with one or more product management operations through case discussions and/or field studies. (3 credits)

MARKETING C467
Industrial Marketing
Prerequisites: Marketing C350 and C352. Products and services to other industrial customers are studied; first at the technical representative and selling level, then at the product manager and new products development level, and finally at the level of industrial marketing management. (3 credits) NOTE A/See § 200.2

MARKETING C468
Product Management
Prerequisites: Marketing C213 and C350. In addition to analyzing product cycles and their characteristics and strategies which relate to each stage, this course delves into some of the more practical aspects of product policy setting, strategy formulation of the analysis, development and execution of marketing programs for new and existing products. This course should make the student familiar with one or more product management operations through case discussions and/or field studies. (3 credits)
61.9 Quantitative Methods

Associate Professor and Chairman of the Department
D. WEST

Professor
A. BERGZI
G. PEDERZOLI

Associate Professors
C. BAYNE
D. DOREEN
Z. G. POPP
L. SMITH
S. SRINIVASAN
E. N. WEST
R. O. WILLS

Assistant Professors
A. CLAUS
M. KUSY
L. MOTTOLA
A. RIDING
C. SANDBLOM

Lecturer
J. DEMOCKO

Special Lecturers
J. KHAN
P. MAHLER
B. SMITH
D. SMITH

61.9.1 PROGRAMMES

24 Major in Quantitative Methods
9 QM C316, C327, C345
6 QM C423, C424
3 QM C412, C414, C416
3 QM C444, C447, C448
3 QM C425, C426

12 Minor in Business Statistics
3 QM C345
3 QM C444
3 QM C447
3 QM C448

12 Minor in Business Systems
3 QM C327
3 QM C423
3 QM C424
3 QM C425, C426

61.9.2 COURSE DESCRIPTIONS

QUANTITATIVE METHODS C243
Introductory Business Statistics I
Prerequisites: One CEGEP course in each of Algebra and Calculus, or equivalent. The objectives of the course are to introduce the student to applications of statistics in managerial decision-making. Topics covered include descriptive measures, frequency distribution analysis, probability theory, probability distributions, estimation, hypothesis testing. All examples will be derived from the functional areas of business, including Finance, Accounting, Production, Purchasing, Marketing, etc. (3 credits)

QUANTITATIVE METHODS C244
Introductory Business Statistics II
Prerequisite: QM C243 or equivalent. This course offers further development of probability and statistics concepts needed for management decisions. Topics covered include regression and correlation analysis, forecasting and smoothing techniques, time series analysis, sampling theory, quality control and analysis of variance. The usefulness of these techniques in managerial applications will be discussed with examples, problems and cases. (3 credits)
QUANTITATIVE METHODS C313
Managerial Operations Research
Prerequisite: OM C243 and C244, or equivalent. This course is an introduction to managerial operations research and its role and function in executive decision. It emphasizes both assumptions and management applications. The basic areas covered include: formulation, solution techniques, optimization concepts and model building; linear programming and related economic interpretation; transportation problems; transshipment problems; assignment problems; network analysis (CPM and PERT); game theory. (3 credits)

QUANTITATIVE METHODS C314
Operations Research and Production Systems
Prerequisite: OM C313 or equivalent. This course is an extension of OM C313. The basic areas covered include: Managerial Decision theory and utility theory, inventory control, waiting lines, time and motion studies; plant lay-out, design of the production planning systems; capacity planning models, sequencing and routing, Markov chains and applications, simulation. (3 credits)

QUANTITATIVE METHODS C316
Optimization Techniques
Prerequisite: OM C313 or equivalent. This course deals with optimization techniques in Management Sciences. It includes linear programming, simplex algorithm, sensitivity testing and duality, postoptimality analysis, separable programming, dynamic programming, integer programming, non-linear programming; stochastic programming; multiplier theory. Management applications such as portfolio selection, capital budgeting, production smoothing, inventory scheduling, competitive strategies, regeneration models will be given particular attention. (3 credits)

QUANTITATIVE METHODS C327
Business Systems
This course provides a panoramic view of the systems tools, techniques and equipment and relates them to practical situations arising in an enterprise in this age of change. Topics covered include: translation of management objectives into business system procedures and methods, organization planning, project control techniques, work measurements, information gathering, processing, distribution and retention equipment from simple office machines to computers. Applications of Finance, Accounting, Marketing, Budgeting and Production systems will be discussed. (3 credits)

QUANTITATIVE METHODS C345
Business Decision Analysis
Prerequisites: OM C243 and C244 or equivalent. This course deals with the analysis of choices under uncertainty. It provides a coverage of Bayesian inference, decision theory, prior, posterior and pre-posterior distributions (discrete and continuous). It includes the analysis of uncertain payoffs and biased measurements, analytical utility functions and their properties; the use of judgment probability and the principle of substitution for strategies. Economics of sampling, risk sharing, group decision will also be considered. Examples of decision making in production planning, research and development, manpower planning, finance etc. will be presented and discussed. (3 credits)

QUANTITATIVE METHODS C353
Mathematical Analysis for Business—Calculus
Prerequisite: One CEGEP course in each of Intermediate Algebra and Calculus or equivalent. The various applications of differential and integral calculus and the use of difference and differential equations in the functional areas of management, e.g., production, marketing, accounting and finance, personnel administration and purchasing, will be studied. Special applications (e.g., Input-Output Analysis) will be explored. (3 credits) NOTE A/See § 200.2

QUANTITATIVE METHODS C354
Mathematical Analysis for Business—Matrix Algebra
Prerequisite: One CEGEP course in each of Intermediate Algebra and Calculus or equivalent. Properties and applications of matrix algebra in the functional areas of management, e.g., production, marketing, accounting and finance, personnel administration and purchasing, will be studied. Special applications (e.g., Input-Output Analysis) will be explored. (3 credits) NOTE A/See § 200.2

QUANTITATIVE METHODS C412
Network Optimization Models
Prerequisites: OM C313 and C314 or equivalent. This course includes a detailed study of Network Models in Management Sciences. It includes classical transportation problem; transshipment model; assignment model; shortest-route algorithms in cyclic and acyclic networks; critical path scheduling; maximum flow through a capacitated network; out-of-kilter algorithm multicommodity network. Special applications to production scheduling, employment engagement, machine replacement, allocation situations, catering problems will be considered. (3 credits)

QUANTITATIVE METHODS C414
Operations Research Models in the Social Environment
Prerequisites: OM C313 and C314 or equivalent. This course is designed to keep the student informed of most recent and successful applications of Operations Research Models in the Social Environment. The topics to be discussed will be selected from: Criminal Justice, Educational Systems, Pollution, Rural and Agricultural Models, Transportation, Energy Models etc. (3 credits)

QUANTITATIVE METHODS C416
Inventory, Replacement, Maintenance Models
Prerequisites: OM C313 and C314 or equivalent. This course covers deterministic inventory models, stochastic inventory models, special structures of inventory control practice; replacement of items which deteriorate with time; replacement of items which fail suddenly, staffing problems; maintenance models, reliability theory; analysis of operational warranty techniques; renewal theory and managerial applications. (3 credits)

QUANTITATIVE METHODS C423
Computers and Data Processing
Prerequisite: Computer Science S211 or equivalent. This course provides an introduction to business data processing. It introduces the Common Business Oriented Language (COBOL) and concentrates on mass storage characteristics and techniques with special reference to file organization and design. Basic
business applications (e.g., accounts receivable, inventory, payroll, forecasting) will be studied. (3 credits) NOTE A/See § 200.2

QUANTITATIVE METHODS C424
Data Processing Systems and Applications
The course will survey and study the various currently available data processing systems and their applications (e.g., time sharing, real-time, multiprogramming and multiprocessing, data communications, computer utilities). The selection and evaluation of both hardware and software will be discussed. This is an appreciation course oriented towards the potential user. (3 credits) NOTE A/See § 200.2

QUANTITATIVE METHODS C425
Business Systems Analysis and Design
Prerequisite: Computer Science S211 or equivalent. This is an introductory course in business systems theory. It will study the various characteristics and nature of business systems. System components and input-processing-output relationships will be examined and the methodology and techniques of systems design and analysis will be explored. (3 credits) NOTE A/See § 200.2

QUANTITATIVE METHODS C426
Business Systems Simulation and Control
Prerequisite: Computer Science S211, Quantitative Methods C244, and C314; or equivalent. Digital simulation of stochastic and deterministic business sub-systems will be studied and executed in FORTRAN; various other simulation languages and models will be reviewed and evaluated; large scale simulation models (total system approach) and computer oriented management planning and control models will be examined. (3 credits) NOTE A/See § 200.2

QUANTITATIVE METHODS C433
Topics in Quantitative Methods
Prerequisite: Permission of the Department. This course is intended primarily for honours or major students, and affords an opportunity for more intensive examination of one or more particular topics in quantitative methods. The specific subject will vary according to the special interest of the professor offering the course in any given year. (3 credits) Students repeating Quantitative Methods C433 register for credits under Quantitative Methods C434 NOTE A/See § 200.2

QUANTITATIVE METHODS C444
Business Experimental Analysis
Prerequisites: OM C243 and C244 or equivalent. This course deals with the design and the analysis of experiments which are relevant to the decision-maker in management fields. It includes analysis of variance; orthogonal classification; factorial experiments; block designs; mixed models; replication; calibration studies; economics of experimentation; non-parametric statistical inference; discriminant analysis. All functional areas of management application will be considered and used as examples and in cases. (3 credits)

QUANTITATIVE METHODS C447
Statistical Forecasting
Prerequisites: OM C244 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 stationary time series; models for nonstationary time series; models for seasonal time series; Box and Jenkins methods; forecast evaluation. (3 credits)
# 61.10 Economics

## MAJOR

Up to 30 credits (beyond the core) in Economics to be specified by the Economics Departments.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics L202</td>
<td>Principles of Economics</td>
<td>6</td>
</tr>
<tr>
<td>Economics L209</td>
<td>Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Economics L210</td>
<td>Introduction to Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Economics L304</td>
<td>Economic History</td>
<td>6</td>
</tr>
<tr>
<td>Economics L307</td>
<td>The Chinese Economy</td>
<td>3</td>
</tr>
<tr>
<td>Economics L309</td>
<td>Intermediate Microeconomic Theory I</td>
<td>3</td>
</tr>
<tr>
<td>Economics L311</td>
<td>Intermediate Macroeconomic Theory I</td>
<td>3</td>
</tr>
<tr>
<td>Economics L313</td>
<td>Intermediate Microeconomic Theory II</td>
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<tr>
<td>Economics L315</td>
<td>Intermediate Macroeconomic Theory II</td>
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</tr>
<tr>
<td>Economics L322</td>
<td>Mathematics for Economists</td>
<td>6</td>
</tr>
<tr>
<td>Economics L333</td>
<td>Economics of the Environment</td>
<td>3</td>
</tr>
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<td>Economics L338</td>
<td>Contemporary Economic Issues</td>
<td>6</td>
</tr>
<tr>
<td>Economics L401</td>
<td>Theories of Economic Growth</td>
<td>3</td>
</tr>
<tr>
<td>Economics L402</td>
<td>Labour Law</td>
<td>6</td>
</tr>
<tr>
<td>Economics L403</td>
<td>Planning for Economic Growth</td>
<td>3</td>
</tr>
<tr>
<td>Economics L404</td>
<td>Statistical Methods</td>
<td>6</td>
</tr>
<tr>
<td>Economics L405</td>
<td>Economic Fluctuations</td>
<td>3</td>
</tr>
<tr>
<td>Economics L407</td>
<td>Money and Banking</td>
<td>3</td>
</tr>
<tr>
<td>Economics L411</td>
<td>Economics of Transportation and Communications</td>
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</tr>
<tr>
<td>Economics L413</td>
<td>Economics of Socialism</td>
<td>3</td>
</tr>
<tr>
<td>Economics L414</td>
<td>Economic History of Canada</td>
<td>6</td>
</tr>
<tr>
<td>Economics L418</td>
<td>Regional Economics</td>
<td>6</td>
</tr>
<tr>
<td>Economics L434</td>
<td>Comparative Economic Systems</td>
<td>6</td>
</tr>
<tr>
<td>Economics L436</td>
<td>Economic Welfare and Governmental Activity</td>
<td>6</td>
</tr>
<tr>
<td>Economics L438</td>
<td>Labour Economics</td>
<td>6</td>
</tr>
<tr>
<td>Economics L440</td>
<td>Economics of Social Welfare</td>
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## MINOR

Course programme to be determined by Economics Departments where applicable.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
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<tr>
<td>Economics L403</td>
<td>Planning for Economic Growth</td>
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<td>Economics L404</td>
<td>Statistical Methods</td>
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<td>Economics L405</td>
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<td>Economics L411</td>
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<td>Economics L413</td>
<td>Economics of Socialism</td>
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<td>Economics L414</td>
<td>Economic History of Canada</td>
<td>6</td>
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<td>Economics L418</td>
<td>Regional Economics</td>
<td>6</td>
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<tr>
<td>Economics L434</td>
<td>Comparative Economic Systems</td>
<td>6</td>
</tr>
<tr>
<td>Economics L436</td>
<td>Economic Welfare and Governmental Activity</td>
<td>6</td>
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<tr>
<td>Economics L438</td>
<td>Labour Economics</td>
<td>6</td>
</tr>
<tr>
<td>Economics L440</td>
<td>Economics of Social Welfare</td>
<td>6</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<tr>
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<td>-----------------------------------------------------------------</td>
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</tr>
<tr>
<td>Economics L445</td>
<td>Structure of the Economy and Public Policy</td>
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<tr>
<td>Economics L447</td>
<td>International Trade</td>
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<tr>
<td>Economics L448</td>
<td>Industrial Relations</td>
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<tr>
<td>Economics L449</td>
<td>International Finance</td>
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</tr>
<tr>
<td>Economics L451</td>
<td>Welfare Economics</td>
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<tr>
<td>Economics L455</td>
<td>Introduction to Econometrics</td>
<td>3 credits</td>
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<tr>
<td>Economics L462</td>
<td>History of Economic Thought</td>
<td>6 credits</td>
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<tr>
<td>Economics L465</td>
<td>Advanced Microeconomic Analysis</td>
<td>3 credits</td>
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<tr>
<td>Economics L467</td>
<td>Advanced Monetary and Income Theory</td>
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<tr>
<td>Economics L471</td>
<td>An Introduction to Linear Programming and Input-Output Analysis</td>
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<tr>
<td>Economics L481</td>
<td>Advanced Macroeconomic Analysis</td>
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</tr>
<tr>
<td>Economics L491</td>
<td>Honours Thesis</td>
<td>3 credits</td>
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</table>

**61.10.2 SIR GEORGE WILLIAMS CAMPUS**

For a more detailed description of these courses refer to § 41.15.2.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Economics S209</td>
<td>Introduction to Microeconomics</td>
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<td>Economics S210</td>
<td>Introduction to Macroeconomics</td>
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<td>Economics S221</td>
<td>Introduction to Economic History</td>
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<td>Economics S270</td>
<td>Mathematics for Economists I</td>
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<td>Economics S271</td>
<td>Mathematics for Economists II</td>
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</tr>
<tr>
<td>Economics S274</td>
<td>The Use of Economic Data</td>
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<td>Economics S304</td>
<td>Canadian Economic Policy I</td>
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</tr>
<tr>
<td>Economics S305</td>
<td>Canadian Economic Policy II</td>
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</tr>
<tr>
<td>Economics S306</td>
<td>Monopoly, Competition, and Regulation</td>
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<tr>
<td>Economics S307</td>
<td>Economics of the Environment</td>
<td>3 credits</td>
</tr>
<tr>
<td>Economics S308</td>
<td>Economics of Natural Resources</td>
<td>3 credits</td>
</tr>
<tr>
<td>Economics S309</td>
<td>Economics of Human Resources</td>
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<td>Economics S310</td>
<td>Economics of Discrimination</td>
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<td>Economics S318</td>
<td>Intermediate Macroeconomic Theory</td>
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<tr>
<td>Economics S375</td>
<td>Introduction to Statistics for Economists</td>
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<td>Economics S411</td>
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<td>Economics S412</td>
<td>Mathematical Economics I</td>
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<td>Economics S413</td>
<td>Mathematical Economics II</td>
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<tr>
<td>Economics S415</td>
<td>History of Economic Thought</td>
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<tr>
<td>Economics S418</td>
<td>Advanced Macroeconomic Theory</td>
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</tr>
<tr>
<td>Economics S420</td>
<td>Economics of the Public Sector</td>
<td>6 credits</td>
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<tr>
<td>Economics S422</td>
<td>International Economic Relations</td>
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<tr>
<td>Economics S423</td>
<td>Theory of International Trade</td>
<td>3 credits</td>
</tr>
<tr>
<td>Economics S426</td>
<td>Urban Economics</td>
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<tr>
<td>Economics S427</td>
<td>Regional Economics</td>
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</tbody>
</table>

FACULTY OF COMMERCE AND ADMINISTRATION 61.10.2 ECONOMICS: SIR GEORGE WILLIAMS CAMPUS
Economics S428  
Labour Economics  
(3 credits)

Economics S429  
Industrial Relations  
(3 credits)

Economics S430  
Economic History of Europe  
(6 credits)

Economics S434  
Economic History of Canada  
(6 credits)

Economics S438  
Economic History and Development of the United States  
(6 credits)

Economics S440  
Economic Development  
(6 credits)

Economics S442  
Quantitative Development Economics I  
(3 credits)

Economics S443  
Quantitative Development Economics II  
(3 credits)

Economics S446  
The Economic Development of Quebec  
(3 credits)

Economics S460  
Comparative Economic Systems  
(6 credits)

Economics S464  
Marxian Economics  
(3 credits)

Economics S465  
Soviet Economics  
(3 credits)

Economics S468  
Theory and Practice of Corporation  
(6 credits)

Economics S476  
Econometrics I  
(3 credits)

Economics S477  
Econometrics II  
(3 credits)

Economics S490  
Study in a Special Subject  
(6 credits)

Economics S491  
Study in a Special Subject  
(6 credits)

Economics S493  
Study in a Special Subject  
(3 credits)

Economics S494  
Study in a Special Subject  
(3 credits)
Students in the Bachelor of Administration programme may, on completion of their core programme, select their electives from the offerings of the Computer Science Department. The course programme specified by that Department may lead to a Major or Minor in Computer Science where applicable.

90 Major in Data Processing

Year I
6 Acc C213, C214
6 Q M C243, C244
6 Comp Sc L221, L223
6 Commerce Elective credits
6 Elective credits

Year II
6 Acc C217, C218
6 Fin C215, C314
12 Comp Sc L311, L313, L451, L555
6 Commerce Elective credits

Year III
6 Q M C313, C314
18 Comp Sc L521, L523, L525 and 3 Elective credits
6 Elective credits

NOTE: This Programme is subject to change after the Academic Year 1976/77.

61.12 Additional Courses for Commerce Students

COMPUTER SCIENCE
Courses in Computer Science are available as electives to Commerce students. Refer to § 51.9.3 and § 71.8.2 of this calendar for a complete listing.

FINE ARTS
The following course in Fine Arts is available to Commerce students.

THEATRE C320
Theatre Administration
A course in theatre administration covering office and plant management, production, touring, and prepackaged plant costing; contracts, insurances, budgeting and seasonal planning. Lectures with actual case studies in depth. (6 credits)

61.12.1 NON-CREDIT COURSES

The following courses, are offered from time to time to meet the needs of various business organizations. They do not carry credits towards the Bachelor of Commerce degree. Students must consult the timetable to determine which of the following courses are offered in the current academic year.

BUSINESS C221 (NON-CREDIT)
Office Management
A course in the principles of office management, including such topics as the function of the office in business; organization and principles of control; office systems and routines; office equipment and labour saving devices; office planning and layouts; selection and training of office personnel; office communications.
NOTE: This course was previously designated as Administration 221. Students who have taken Administration 221 should not take this course.

BUSINESS C222 (NON-CREDIT)
Procurement Principles
This course is designed to cover the fundamentals of purchasing policies and procedures and the organization and functions of the purchasing department in business and industry. Topics covered will include pricing, negotiation, quality and quantity determination, budgetary institutions etc., as well as the relationship between purchasing and other management functions. Class discussion and case studies are the basic method of study employed.
NOTE: This course was previously designated as Administration 442 and 443. Students who have taken Administration 442 and/or 443 should not take this course.

BUSINESS C223 (NON-CREDIT)
Business Systems
This course is designed primarily for students with practical business experience, managers, and potential system men. It provides a panoramic view of the systems tools, techniques and equipment and relates them to practical situations arising in an enterprise in this age of change. Topics
covered include: translation of management objectives into business system procedures and methods; organization planning; fact finding and related tools such as flow charting, work measurement, information requirement studies; selling implementation and management of system and organization changes including planning, presentation and documentation tools such as a critical path scheduling, decision table construction, procedure writing, project control techniques; information gathering, processing, distribution and retention equipment from simple office machines to computers.

NOTE: This course was previously designated as Executive Training 441 and 442. Students who have taken Executive Training 441 and/or 442 should not take this course.

BUSINESS C241 (NON-CREDIT)
International Trade
The fundamental and practical aspects of importing and exporting, covering such subjects as trade terms and definitions, import and export regulations; export credits insurance; customs regulations; handling of export traffic; trading documents; air cargo and air express; marine insurance; financing.

NOTE: This course was previously designated as Marketing 241. Students who have taken Marketing 241 should not take this course.

BUSINESS C251 (NON-CREDIT)
Transportation and Traffic (Introductory)
This course in freight traffic management is primarily for students who wish to specialize in this line of endeavour. It covers the practical aspects of transportation in Canada including such matters as bills of lading and shipping procedures; special services of railways; express; claims and claims prevention; freight contracts; marine insurance; customs; interpretation of the railway act and railway law.

NOTE: This course was previously designated as Marketing 251. Students who have taken Marketing 251 should not take this course.

BUSINESS C252 (NON-CREDIT)
Transportation and Traffic (Advanced)
Prerequisite: Business 251. This course in freight traffic management is primarily for students who wish to specialize in this line of endeavour. It covers the practical aspects of transportation in Canada including such matters as tariff construction and freight rate structures; condition of carriage; ocean freight contracts; marine insurance; customs; interpretation of the railway act and railway law.

NOTE: This course was previously designated as Marketing 252. Students who have taken Marketing 252 should not take this course.

BUSINESS C260 (NON-CREDIT)
Basic Mathematics for Business
Review of elementary algebraic operations; fractions, ratios, proportions, percent-

ages, simple equations, arithmetic and geometric progressions, logarithms; graphical algebra; simple and compound interest; annuities, amortization and sinking funds, depreciation and bond values; simple business statistics including: the collection of statistical data, various methods of presentation including tables and graphs, the frequency distribution and its mathematical analysis including averages, measures of dispersion, measures of skewnesses, normal curve, and correlation.

61.13 Special Programmes in Accountancy

The Quebec business community is served by three professional accountancy organizations, whose members, after rigorous training and successful completion of professional examinations, are granted diplomas and professional designations. These are the:

Order of Chartered Accountants of Quebec: CHARTERED ACCOUNTANT (C.A.)

Professional Corporation of Registered Industrial Accountants of Quebec: REGISTERED INDUSTRIAL ACCOUNTANT (R.I.A.)

Professional Corporation of Certified General Accountants of Quebec: CERTIFIED GENERAL ACCOUNTANT (C.G.A.)

Graduates of Concordia University who have taken appropriate courses recognized by these organizations, are usually exempted from a substantial portion of the courses in the organizations' educational programmes which lead to being granted permission to write their professional examinations. Students interested in obtaining any of the above designations may obtain further information from the respective organization or the Department of Accountancy.

61.14 Special Certificate Programmes

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 programme.

The Faculty of Commerce and Administration cooperates with these business organizations by permitting personnel to register as independent (partial) 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 independent (partial) student entrance requirements as outlined in the Academic Calendar § 11. In addition to this, they must meet the requirements of the specific organization.

The credit course taken may be applied towards the Bachelor of Commerce degree provided the student meets the admission requirements and wishes to transfer from independent (partial) status to undergraduate status after completing a certificate programme. Students are advised that they must meet the Bachelor of Commerce curriculum requirements in force at the date of transfer.

Each certificate programme has one or more special courses required to complete the programme. These courses do not carry credit toward a Bachelor's degree and are designated as non-credit courses.

Students interested in the following certificate programmes will obtain details of required courses from the organization concerned:

- The Administrative Management Society (Montreal Chapter) Inc.
- The American Marketing Association (Montreal Chapter)
- The Institute of Chartered Secretaries & Administrators
- The Canadian Association of Purchasing Agents (Montreal Division)
- Data Processing Management Association (Montreal Chapter)
- Institute of Canadian Bankers
- The Montreal Personnel Association
- The Systems and Procedures Association of America (Montreal Chapter)

61.15 Commerce & Administration Consultative Committee

The purpose of this committee is the maintenance of a continuing and constructive relationship and dialogue between the Faculty of Commerce and Administration and a broadly representative group of senior business executives. In this way the relevance of the work of the Faculty to the needs of the business community is kept under review, while the objectives, roles and accomplishments of the Faculty and the qualifications of its graduates are made better known in business circles.

The personnel of the Committee comprises senior members of the business community, senior faculty representatives and also representatives of student organizations.

Chairman
WILLIAM T. G. HACKETT, Special Lecturer, Department of Finance

Vice-Chairman (Business)
DAVID E. SLOAN, Treasurer, Canadian Pacific Limited

Vice-Chairman (Academic)
BRUCE MALLEN, Professor, Department of Marketing

BUSINESS
DONALD S. BARTLETT, President, Bar-Well Foods Ltd.

J. H. BIRKETT, Vice-President Administration and Director, Celanese Canada Limited

MARGARET E. CAMERON, Vice-President and Secretary Treasurer, McLean Budden Limited

RUPERT B. CARLETON, Vice-President and General Counsel, Cemp Investments Limited

MARCEL CAZAVAN, Chairman and General Manager, Caisse de Depot et Placement du Quebec

STANLEY D. CLARKE, President, Clarke Transportation Canada Ltd.

CREIGHTON CROSS, Vice-President, Business, Planning & Development, Alcan Smelters & Chemicals Ltd.

JAMES N. DOYLE, Vice-President, Steinberg's Limited

G. G. DUNNIGAN, Group Vice-President, Steelty Industries Limited

A. FISHER, President, FBI Foods Limited

LEO GOLDFARB, Executive Vice-President and Chief Operating Officer, Trizec Corporation

MARTHE HATCH, Director, Marketing Research, La Brasserie Molson du Quebec, Ltee.

WALTER J. McCARTHY, Senior Vice-President, Finance, Sun Life Assurance Company of Canada

PAUL BRITTON PAINE, Chairman and President, Montreal Trust Company

RONALD H. PEROWNE, President, Dominion Textile Limited

HARRY PILKINGTON, Vice-President, Personnel, Bell-Canada

A. J. FRED PRINCE, President, Johnson & Johnson Limited

R. J. REDDING, Vice-President, Marketing, Petrofina Canada Limited

GARD ROBERTSON, Senior Vice-President, Personnel Head Office, Bank of Montreal

FACULTY OF COMMERCE AND ADMINISTRATION

61.15 COMMERCE AND ADMINISTRATION CONSULTATIVE COMMITTEE
THE HON. MAURICE SAUVE, P.C. Vice-President, Administration, Consolidated-Bathurst Limited

DAVID E. SLOAN, Treasurer, Canadian Pacific Limited

HERBERT O. SPINDLER Partner, Coopers & Lybrand

NICHOLAS TAKACSY, Vice-President and Director, Greenshields Incorporated

FACULTY

ANDREW BERCZI, Dean of the Faculty of Commerce & Administration

GUNther BRINK, Director, Ph.D. Program

JEAN PIERRE BRUNET, Assistant Professor, Department of Management

RONALD L. CRAWFORD, Chairman, Department of Management

G. ROBERT CURNEW, Chairman, Department of Marketing

GARY JOHNS, Director, M.B.A. Programme

VERNON JONES, Assistant Professor Department of Marketing

HARVEY MANN, Chairman, Department of Accountancy

CALVIN C. POTTER, Chairman, Department of Finance

L. A. SMITH, Chairman, Undergraduate Curriculum Committee

DONALD C. WEST, Chairman, Department of Quantitative Methods

ERIC N. WEST, Chairman, Graduate Studies

ROLAND O. WILLS, Associate Professor, Department of Quantitative Methods

STUDENTS

JUDY ABBOTT, Commerce Representative, Part-Time Students Association

DANIEL HRYCISK, President, Commerce Students Association (Sir George Williams Campus)

R. K. KERKLAAN, President, M.B.A. Students Association

PATRICIA TINGLE, President, Commerce Students Association (Loyola Campus)

SUB-COMMITTEES:

Student-Business Relations Curriculum Internship and Job Placement Special Projects
Faculty of Engineering

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71.1 Faculty of Engineering

Dean
J. CLAIR CALLAGHAN
Vice-Rector, Academic, and Professor of Engineering
JACK BORDAN
Vice-Rector, Administration and Finance, and Associate Professor of Computer Science
GRAHAM MARTIN
Associate Dean (Loyola Campus)
GEORGE W. JOLY
Assistant Dean, Academic Programmes
Engineering and Computer Science
J. CHARLES GIGUERE

Note:
The following programmes are offered in the Faculty of Engineering:
(1) Bachelor of Engineering degrees in Civil, Electrical and Mechanical Engineering;
(2) Bachelor of Computer Science degree;
(3) Certificate in Quality Control.
The requirements for the three programmes are different, and the appropriate section in the following pages must be consulted for each.

71.2 Bachelor of Engineering Programme

71.2.1 ADMISSION REQUIREMENTS
Applications for admission to the BEng programme are submitted to the Admissions Office at the preferred campus.

Students are normally admitted in September for programmes in the Day Division, Evening Division or Industrial Parallel Studies, and to one of the Departments of Civil, Electrical and Mechanical Engineering.

On the Sir George Williams campus, applicants are also accepted to the First Year, Day Division, in January, and courses are scheduled to make it possible for them to enter Second Year in September of the same calendar year.

General Admission requirements are listed in § 13.

Specific requirements are those contained in the CEGEP pre-Engineering profile or their equivalent, that is:

CEGEP
Biology ........................................ 301
Chemistry ...................................... 101

Mathematics .................................. 101
........................................ 103
........................................ 105
........................................ 203

Physics ...................................... 101 or 102
........................................ 201 or 202
........................................ 301 or 302

Application from graduates of CEGEP technology programmes will also be considered. Such applicants admitted to the undergraduate programme may be required to take certain special courses.

71.2.2 CURRICULUM FOR THE DEGREE OF BACHELOR OF ENGINEERING

The University offers a programme leading to the degree of Bachelor of Engineering in the fields of Civil, Electrical and Mechanical Engineering. To be recommended for the degree of Bachelor of Engineering, students must satisfactorily complete all the General Requirements and all the requirements of the department in which they are registered. The General Requirements are given below and comprise the Graduation Regulations, the French Language Requirement and a uniform group of courses, as well as the Academic Regulations; all are common to the three departments. The individual Department Requirements are given in subsequent sections. They comprise a group of required courses with a group of elective courses which allow students to select part of their programme to provide some depth in an area of specialization according to their particular interests or breadth in the general field of their chosen department.

In their final undergraduate year, students with high standing may be granted permission by their department and the Engineering Graduate Studies Committee to register for a limited number of graduate courses offered.
by the Faculty in lieu of some courses in the undergraduate programme.

71.2.3 MEMBERSHIP IN THE ORDER OF ENGINEERS OF QUEBEC

The Order of Engineers of Quebec (OEQ) has fully accredited the Bachelor of Engineering curricula in Civil, Electrical, and Mechanical Engineering; and will admit graduates of these three programmes as members according to the Engineers Act and the OEQ By-Laws and providing applicants can show a working knowledge of French.

71.2.4 ACCREDITATION BY THE CANADIAN COUNCIL OF PROFESSIONAL ENGINEERS

The Accreditation Board of the Canadian Council of Professional Engineers (CCPE) has accredited the Bachelor of Engineering curricula in the Departments of Civil, Electrical, and Mechanical Engineering. The Board has recommended to the Constituent Associations of CCPE that graduation from the above curricula be considered as sufficient academic qualification for purposes of registration in all Provinces and Territories in Canada.

71.2.5 PROGRAMMES OF STUDY

Successful completion of the BEng degree programme 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 programmes of study.

Programmes of study are available in both the Day and Evening Divisions as described below. Students are subject to the same regulations regardless of their programme of study.

(1) Day Division

Scheduling of the BEng programme in the Day Division is designed to allow students to graduate at the end of six to eight terms of successful study after entry with the minimum admission qualifications.

In 1977/78 the first four terms of the six-and-eight-term sequences are scheduled at both the Loyola and Sir George Williams campuses. The remaining terms are scheduled at the Sir George Williams campus only. Students should consult with a faculty adviser concerning their individual programmes of study.

(2) Evening Division

The programme of study in the Evening Division at the Sir George Williams campus offers an opportunity for part-time study of engineering fundamentals. A limited number of courses is offered annually from those marked * in the lists in § 71.3 to § 71.6. Any special courses offered for graduates of CEGEP technology programmes admitted to Engineering undergraduate studies will also be offered in the Evening Division. Students will normally register for three courses per term, but they should consider their employment commitments as well as their academic ability in planning their programmes.

Evening Division students registered in the BEng programme must subsequently transfer to the Day Division to complete the requirements for that degree. An application for transfer to the Day Division will be considered when the applicant has completed the first year programme of the department in which he intends to continue his studies. Evening to Day transfers will be approved for the fall term only.

(3) Industrial Parallel Studies

Industrial Parallel Studies (IPS) are available in the Day Division at the Sir George Williams campus. They are offered for students who have successfully completed the First Year of the programme, or its equivalent, and whose employers are prepared to certify that they will be employed for a maximum of 20 hours per week during Winter Sessions. The Faculty timetable is arranged to allow students undertaking IPS to attend the University for either five half days or two and one-half days per week.

Priority for IPS is given to students who have completed the First Year of the programme in the Evening Division. All students undertaking such studies must have been granted permission by the Office of the Assistant Dean, Academic Programmes, Engineering, and Computer Science, from whom the pamphlet Industrial Parallel Studies, giving more detailed information, can be obtained upon request.

71.3 General Requirements

71.3.1 ACADEMIC REGULATIONS

Students should refer to the section presenting the Academic Regulations of the University, § 16.

71.3.2 ADDITIONAL REGULATIONS FOR THE BACHELOR OF ENGINEERING

Subject to the Senate Approval

Definitions

Programme: The programme consists of
i) All courses and other requirements specified in § 71 for the BEng degree, and/or
ii) All courses and other requirements specified in § 14 for the Pre-Engineering Mature Student programme, or,
iii) Any modifications to i) and ii) as specified by the Faculty on an individual basis.

Academic Year: A period of time which includes a Summer and its subsequent Fall and Winter terms.

Appropriate member of the Dean's Office: As appointed by the Dean of Engineering.

Student Adviser: Faculty member responsible for counselling students.

Objectives

The objectives of these regulations are:

First, to ensure that students can, with the assistance or intervention of the Faculty, assess themselves objectively, and plan programmes of study designed to meet their individual needs.
Second, to ensure that the Faculty can certify that each of its graduates is qualified to enter the Engineering profession.

**Grading System**

See 16.3 for the Concordia grading system. Results for courses specified in 71 for the B.Eng. degree are to be submitted as letter grades only. (e.g. C-, B+, A)

**Regulations**

1. At the completion of that term of study which includes for the first time, at least four of the courses specified in 71 for the B.Eng. degree, full-time students who have achieved C- or better in each of at least 3/5 of the courses for which they are registered, with no more than one failing grade, may register for six courses in the following term (See Table 1). Students thus registered, who do not meet this requirement, will have their programme for the next term determined by the appropriate member of the Dean's office in consultation with their adviser.

2. Student's standings are assessed at the end of each academic year providing they have registered for at least four courses in the programme subsequent to their previous assessment, or in the case of a first assessment, subsequent to their admission to the programme. Standings of students requiring fewer than four courses to complete the BEng programme will be determined on the basis of only those courses registered for in that academic year.

The assessment is based on the grades obtained for all courses in the programme for which they have registered, subsequent to their previous assessment, or in the case of a first assessment, subsequent to their admission to the programme. A grade obtained as a result of writing a supplemental examination and/or completing the work for a course, or passing the supplemental examination and/or completing the work for the course, or by replacing the failed course by an alternative approved by the student's Department.

3. Students' standings are determined according to the following criteria:

**Acceptable Standing**

"C-" or better in each of at least two-thirds of the courses registered for with no more than one failure if eight or fewer courses have been registered for, or two failures if more than eight courses have been registered for. (See TABLE 1)

**Conditional Standing**

"C-" or better in each of at least one-half of the courses registered for, with no more than two failures if eight or fewer courses have been registered for, or three failures if more than eight courses have been registered for. (See TABLE 2)

**Failed Standing**

Failure to meet the criteria for acceptable or conditional standings, or conditional standing over two consecutive assessments.

4. Students in acceptable standing may proceed subject to the following conditions:

Each failing grade must be cleared by passing the supplemental examination and/or completing the work for the course, or by repeating the failed course, or by replacing the failed course by an alternative approved by the student's Department.

5. Students in conditional standing may proceed for one year of study subject to the following conditions:

a) They must repeat successfully 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 appropriate member of the Dean's Office in consultation with the student's Department.

c) Full-time students may register for a maximum of five courses per term, part-time students for a maximum of two courses per term.

d) They must return to acceptable standing by the end of their next year of study, or else be classed as failed students.

6. Subject to regulation 7 below, failed students may be considered for re-admission upon application to the appropriate member of the Dean's Office. If re-admitted, they will be placed on academic probation, the conditions of their probation to be determined at the time of their re-admission. They must return to good standing at the time of their next assessment.

7. Failed students who were previously classed as failed students must withdraw from the University.

**71.3.3 FRENCH LANGUAGE REQUIREMENT**

All undergraduates registered for the BEng degree are required to pass, or be
exempt from, a French language examination at some time prior to graduation. Students whose previous education was conducted in the French language are exempt from this requirement upon application to the Assistant Dean, Academic Programmes, Engineering and Computer Science. Foreign students attending the University on a student visa at the start of the calendar year in which they expect to graduate are also exempt upon similar application.

Examinations will be held in the Fall and Spring terms of each year. It is recommended that students who do not have sufficient background in the French language take an appropriate French language course during their first year of study. This requirement is independent of the French Language requirement of the Order of Engineers of Quebec.

71.3.4 COURSE REQUIREMENTS
To be recommended for the degree of Bachelor of Engineering, students admitted after January 1977 must satisfactorily complete the following courses as well as those specified by their departments, as shown in subsequent sections. Students admitted for January 1977 or earlier should consult the 1976/77 Undergraduate Calendar.

Engineering Core

**EMAT C212** Calculus and Differential Equations

**EMAT C232** Matrices and Advanced Calculus

**EMAT C271** Applied Probability and Statistics

**ENGR C211** Engineering Graphics

**ENGR C242** Engineering Mechanics I

**ENGR C243** Engineering Mechanics II

**ENGR C251** Thermodynamics I

**ENGR C273** Basic Circuit Analysis

**ENGR C401** Engineering Economy and Practice

**ENGR C410** Technical Report

Two courses chosen from the "Social Aspects of Engineering" group:

**ENGR C481** Engineers and Society I

**ENGR C482** Engineers and Society II

**ENGR C483** The Impact of Science and Technology in Society I

**ENGR C484** The Impact of Science and Technology in Society II

**ENGR C485** Introduction to Technology and Human Affairs I

**ENGR C486** Introduction to Technology and Human Affairs II

*Offered in both Day and Evening Divisions

To be submitted at the beginning of the academic year in which the student expects to graduate.

Students admitted to the programme without previous credit for the CEGEP course Data Processing 901 or 911 or its equivalent must complete COMP S211 or its equivalent before entering their second year of study in the BEng programme.

71.3.5 GRADUATION REQUIREMENTS
Students must complete the programme in acceptable standing.
71.4 Department of Civil Engineering

Professor of Engineering and Chairman of the Department
PAUL P. FAZIO

Professors
GEORGE W. JOLY
CEDRIC MARSH
A. S. RAMAMURTHY
M. S. TROITSKY
Z. A. ZIELINSKI

Associate Professors
MATTHEW McC. DOUGLASS
CARL GOLDMAN
JULIUS KRANTZBERG
OSCAR PEKAU

Assistant Professors
H. K. HA
MARK A. LANG
M. S. NASSER
ALAN D. RUSSELL

Adjunct Professors
PAUL D. BECKER
PETER M. BLAIKIE
WILLIAM W. DAWSON
NEIL HUTCHEON

Adjunct Assistant Professor
A. KHALIL

Lecturers
SAMIR MATTAR
R. A. MOHSINI
MAL TURAGA

DEPARTMENT OF CIVIL ENGINEERING

Civil Engineering is primarily concerned with the creation of the complex systems of construction facilities for sound economic growth of the community. In a broad sense, civil engineers learn to control and modify the environment effectively so as to satisfy the needs and desires of society. Their responsibility for design ranges from foundations and superstructures of our common structures such as buildings, bridges, dams, tunnels, wharves, etc., to many unusual structures such as rocket installations, containment vessels for nuclear reactors, supports for radio telescopes, frameworks for aircraft. In addition, civil engineers are concerned with the engineering aspects of water resources, rivers, harbours, irrigation and drainage; with the disposal of wastes and the control of the quality of air and water; with highways, railroads, airports and other transportation facilities; with measuring, mapping and interpreting the physical conditions of the surface of the earth; and with planning metropolitan areas and constructing and managing their public facilities.

The programme is designed so that students may, after having obtained grounding in the fundamentals of Civil Engineering, specialize in one of five options.

Departmental Requirements

The award of the BEng degree in the Department of Civil Engineering requires completion of the Engineering core, § 71.3.4, the Civil Engineering core shown below, one of five elective option cores, and a minimum of 6.00 further elective units. Students must also satisfy the General Requirements, § 71.3. Students admitted for January 1976 or earlier should consult § 71.4.1 of the 1975/76 Undergraduate Calendar.

Civil Engineering Core

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMAT C311</td>
<td>Transform Calculus and Partial Differential Equations</td>
</tr>
<tr>
<td>EMAT C391</td>
<td>Numerical Methods in Engineering Systems</td>
</tr>
<tr>
<td>ENGR C221†</td>
<td>Materials Science</td>
</tr>
<tr>
<td>ENGR C244†</td>
<td>Mechanics of Materials I</td>
</tr>
<tr>
<td>ENGR C341</td>
<td>Mechanics of Materials II</td>
</tr>
<tr>
<td>ENGR C351</td>
<td>Fluid Mechanics I</td>
</tr>
<tr>
<td>ENGR C352</td>
<td>Fluid Mechanics II</td>
</tr>
<tr>
<td>CIVI C321</td>
<td>Engineering Materials</td>
</tr>
<tr>
<td>CIVI C331</td>
<td>Geology</td>
</tr>
<tr>
<td>CIVI C341</td>
<td>Civil Engineering Systems</td>
</tr>
<tr>
<td>CIVI C353</td>
<td>Structural Analysis</td>
</tr>
<tr>
<td>CIVI C354</td>
<td>Structural Design</td>
</tr>
<tr>
<td>CIVI C371*</td>
<td>Surveying</td>
</tr>
<tr>
<td>CIVI C372</td>
<td>Transportation Engineering</td>
</tr>
<tr>
<td>CIVI C381</td>
<td>Water Resources Engineering</td>
</tr>
<tr>
<td>CIVI C431</td>
<td>Soil Mechanics</td>
</tr>
<tr>
<td>CIVI C481</td>
<td>Water Supply Systems</td>
</tr>
<tr>
<td>CIVI C482</td>
<td>Urban Sanitation</td>
</tr>
<tr>
<td>CIVI C491†</td>
<td>Construction Engineering</td>
</tr>
</tbody>
</table>

†Offered in both Day and Evening Divisions

Technical Electives

Technical electives in the Department of Civil Engineering are offered in five broad interrelated areas. Students must complete one of the option cores listed below, and a minimum of 6.00 further elective units, chosen outside the option core.

1. Structural Engineering (S)
2. Water Resources Engineering (W)
3. Transportation Engineering (T)
### Electives Option

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCOUNTING C213</td>
<td>Financial 1</td>
<td>3.00</td>
<td>C</td>
</tr>
<tr>
<td>CIVI C411*</td>
<td>Building Enclosure Design</td>
<td>3.00</td>
<td>C</td>
</tr>
<tr>
<td>CIVI C412</td>
<td>Construction Methods and Equipment Management</td>
<td>3.00</td>
<td>C</td>
</tr>
<tr>
<td>CIVI C434</td>
<td>Advanced Soil Mechanics</td>
<td>3.00</td>
<td>F</td>
</tr>
<tr>
<td>CIVI C435</td>
<td>Foundation Design</td>
<td>3.75</td>
<td>F</td>
</tr>
<tr>
<td>CIVI C432</td>
<td>Matrix Analysis of Structures</td>
<td>3.00</td>
<td>X**</td>
</tr>
<tr>
<td>CIVI C453</td>
<td>Advanced Reinforced Concrete Design</td>
<td>3.00</td>
<td>S</td>
</tr>
<tr>
<td>CIVI C454</td>
<td>Advanced Steel Structures</td>
<td>3.00</td>
<td>S</td>
</tr>
<tr>
<td>CIVI C455</td>
<td>Advanced Structural Analysis</td>
<td>4.00</td>
<td>S</td>
</tr>
<tr>
<td>CIVI C456</td>
<td>Experimental Stress Analysis</td>
<td>3.50</td>
<td>T</td>
</tr>
<tr>
<td>CIVI C471</td>
<td>Highway Design</td>
<td>3.00</td>
<td>T</td>
</tr>
<tr>
<td>CIVI C472</td>
<td>Traffic Engineering</td>
<td>3.00</td>
<td>T</td>
</tr>
<tr>
<td>CIVI C473</td>
<td>Urban Planning</td>
<td>3.50</td>
<td>W</td>
</tr>
<tr>
<td>CIVI C483</td>
<td>Hydrology</td>
<td>3.50</td>
<td>W</td>
</tr>
<tr>
<td>CIVI C484</td>
<td>Hydraulic Engineering</td>
<td>3.00</td>
<td>W,F</td>
</tr>
</tbody>
</table>

* Students in the Construction option may, with the approval of the Department, substitute an approved course in the Faculty of Commerce and Administration for this course.

** acceptable as elective course for all options.
71.5 Department of Electrical Engineering

DEPARTMENT OF ELECTRICAL ENGINEERING

Electrical Engineering is concerned primarily with energy and information: their conversion, transformation and transmission in the most efficient, convenient and reliable manner.

Electric motors and illumination are two aspects of electrical engineering which are easily recognized. The electrical engineer is involved not only in their design, manufacture and application, but also in the original conversion from mechanical, thermal, solar, wind or nuclear energy to electrical form and its transmission to the place where it is required. Another important aspect of electrical engineering is in the field of information processing and transmission, for example: telegraph, telephone, radio, television, radar and computers. The activities of electrical engineers therefore may range from the generation and distribution of massive amounts of power, through information systems, computer science to various interdisciplinary fields such as biomedical engineering. Electrical engineers through their various functions, therefore, exert a profound influence in the cultural, social and economical life of a modern society. The Electrical Engineering programme emphasizes the breadth of the field through a course giving a unified treatment of several kinds of physical systems.

Departmental Requirements

The award of the BEng degree in the Department of Electrical Engineering requires completion of the Engineering Core § 71.3.4, the Electrical Engineering Core shown below, and one of four elective option cores. Students must also meet the General Requirements, § 71.3.

Students admitted for January 1976 or earlier should consult § 71.5 of the 1975/76 Undergraduate Calendar.

Electrical Engineering Core

- EMAT C252: Complex Variables
- EMAT C312: Laplace Transforms and Advanced Differential Equations
- EMAT C391: Numerical Methods in Engineering Systems
- ENGR C274: Physical Systems and Measurements
- ENGR C372: Fundamentals of Control Systems
- ELEC C251: Fundamentals of Electrical Engineering
- ELEC C311: Electronics I
- ELEC C312: Electronics II
- ELEC C321: Electrical Properties of Solids
- ELEC C331: Electromechanics
- ELEC C341: Linear Network Analysis
- ELEC C351: Electromagnetic Field Theory
- ELEC C401: Electrical Engineering Seminar
- ELEC C413: Design of Logic and Switching Circuits I
- ELEC C461: Communication Circuits and Systems

* Offered in both Day and Evening Divisions

Technical Electives

Departmental requirements include the completion of one of four options:

1. Electronics/Communications Option
   - Students must complete a minimum of 29.25 units from:
Units | Electric Machines | 3.75 | FACULTY OF
| ELEC C431 | Electrical Power Engineering | 3.75 |
| ELEC C433 | Thyristor Power Applications |

Students must also choose a minimum of 18.25 units from:

| Units | ENGR C411 | Computer Organization and Software |
| 3.75 | ENGR C412 | Operations Research |
| 4.00 | ENGR C471 | Time Domain Analysis and Design |
| 4.50 | ENGR C472 | Studies in System Optimization |
| 3.75 | ENGR C473 | Control System Design |
| 3.75 | ENGR C474 | Digital Computers in Systems |
| 3.75 | ELEC C411 | Pulse Circuits |
| 4.50 | ELEC C481 | Electrical Engineering Project |
| 4.00 | ELEC C482 | Topics in Electrical Engineering |

(2) Computer Engineering Option

Students must complete:

| Units | ENGR C411 | Computer Organization and Software |
| 3.75 | ENGR C471 | Time Domain Analysis and Design |
| 4.00 | ENGR C472 | Studies in System Optimization |
| 3.75 | ENGR C473 | Control System Design |

Students must also choose a minimum of 6.00 units from:

| Units | ENGR C411 | Computer Organization and Software |
| 3.75 | ENGR C471 | Time Domain Analysis and Design |
| 4.00 | ENGR C472 | Studies in System Optimization |
| 3.75 | ENGR C473 | Control System Design |

(4) Systems Option

Students must complete:

| Units | ENGR C411 | Computer Organization and Software |
| 3.75 | ENGR C471 | Time Domain Analysis and Design |
| 4.00 | ENGR C472 | Studies in System Optimization |
| 3.75 | ENGR C473 | Control System Design |

Students must also choose a minimum of 12.75 units from:

| Units | ENGR C411 | Computer Organization and Software |
| 3.75 | ENGR C471 | Time Domain Analysis and Design |
| 4.00 | ENGR C472 | Studies in System Optimization |
| 3.75 | ENGR C473 | Control System Design |

(3) Power Option

Students must complete:

| Units | ELEC C333 |
| 3.75 |
As in all branches of professional engineering, mechanical engineers are concerned with the creation of devices, systems, structures and processes for human use. Their task is to apply scientific, mathematical, economic and social knowledge to satisfy specific needs. The services required of mechanical engineers encompass a very wide range of professional activity, such as design, research, development and management carried out in environments of equally diverse nature, such as industry, medicine, private practice, university and government.

Representative fields of endeavour for mechanical engineers include all forms of power generating equipment (steam, internal combustion, nuclear, jet rocket, fuel cells), the design of mechanisms and machines, controls and automation, vibration analysis, environmental control (heating, ventilation and refrigeration), materials handling and precision measurement.

Any of the specific fields may involve the design, construction and control of machines and equipment as well as the research and development of new processes, materials and techniques.

In view of the very wide range of activities in the field, the mechanical engineering curriculum consists of a combination of core courses with a series of technical electives. Strong emphasis is given to building on the principles presented in the basic engineering science and physical systems courses of the General Requirements. Further core courses are taken by all mechanical engineering undergraduates and deal with topics basic to the field, including control theory, thermodynamics, fluid mechanics, heat transfer, machine design and metallurgy. Technical electives allow students to obtain some specialization in a particular area of the field, depending on their interests and expected future professional activity. Three general areas of specialization are available, namely conventional mechanical engineering which emphasizes thermal fluid power (Option A), design and production engineering (Option B), and electro-mechanical systems, including control systems (Option C).

Departmental Requirements

The award of the BEng degree in the Department of Mechanical Engineering requires completion of the Engineering core, § 71.3.4, the Mechanical Engineering core shown below, one of three option cores, and a minimum of 12.00 further elective units. Students must also satisfy the General Requirements, § 71.3.

Students admitted for January 1976 or earlier should consult § 71.6.1 of the 1975/76 Undergraduate Calendar.

Mechanical Engineering Core
EMAT C252 Complex Variables
EMAT C311 Transform Calculus and Partial Differential Equations
ENGR C221 Materials Science
ENGR C244 Mechanics of Materials I
ENGR C274 Physical Systems and Measurements
ENGR C341 Mechanics of Materials II
ENGR C361 Fluid Mechanics I
ENGR C362 Fluid Mechanics II
ENGR C372 Fundamentals of Control Systems
ELEC C334 Electric Machinery
MECH C311 Mechanical Engineering Laboratory I
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>MECH C312</td>
<td>Introduction to Engineering Design</td>
<td></td>
</tr>
<tr>
<td>MECH C321</td>
<td>Strength and Failure in Metals</td>
<td></td>
</tr>
<tr>
<td>MECH C341</td>
<td>Kinematics of Mechanisms</td>
<td></td>
</tr>
<tr>
<td>MECH C342</td>
<td>Dynamics of Machines</td>
<td></td>
</tr>
<tr>
<td>MECH C351</td>
<td>Thermodynamics II</td>
<td></td>
</tr>
<tr>
<td>MECH C352</td>
<td>Heat Transfer I</td>
<td></td>
</tr>
<tr>
<td>MECH C373</td>
<td>Measurement Systems</td>
<td></td>
</tr>
<tr>
<td>MECH C411</td>
<td>Mechanical Engineering Laboratory II</td>
<td></td>
</tr>
<tr>
<td>MECH C441</td>
<td>Mechanical Engineering Design</td>
<td></td>
</tr>
</tbody>
</table>

**Technical Electives**

Students must complete one option core and a minimum of 12.00 further elective units.

(1) **Option A — Thermal Fluid Power**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MECH C452</td>
<td>Heat Transfer II</td>
<td>3.75</td>
</tr>
<tr>
<td>MECH C461</td>
<td>Gas Dynamics</td>
<td>3.75</td>
</tr>
</tbody>
</table>

(2) **Option B — Design and Production**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MECH C421</td>
<td>Deformation and Mechanical Shaping of Metals</td>
<td>3.75</td>
</tr>
<tr>
<td>MECH C445</td>
<td>Machine Design</td>
<td>3.50</td>
</tr>
</tbody>
</table>

(3) **Option C — Systems and Control**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR C473</td>
<td>Control System Design</td>
<td>3.75</td>
</tr>
<tr>
<td>MECH C463</td>
<td>Fluid Power Control</td>
<td>3.75</td>
</tr>
</tbody>
</table>

Preferred Units for Option

<table>
<thead>
<tr>
<th>Option</th>
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<td>B,C</td>
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</table>

ENGR C411  Computer Organization and Software

ENGR C412  Operations Research

ENGR C441  A,B,C  3.50

Experimental Stress Analysis

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENGR C474</td>
<td>Digital Computers in Systems</td>
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<tr>
<td>ELEC C311</td>
<td>Electronics I</td>
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</tbody>
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MECH C423  Thermal Treatment and Processing of Metals

MECH C443  Mechanical Vibrations

MECH C453  Environmental Control

MECH C455  Introduction to Nuclear Engineering

MECH C462  Fluid Machinery

MECH C471  Process Dynamics and Control

MECH C481  Design or Experimental Project

MANAGEMENT C345  B  3.00

Production Management

Students may also choose from the following courses, providing these can be accommodated within their timetable:

<table>
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<tr>
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<th>Units</th>
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<tbody>
<tr>
<td>ENGR C471</td>
<td>Time Domain Analysis and Design</td>
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<tr>
<td>ENGR C472</td>
<td>Studies in System Optimization</td>
<td></td>
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<tr>
<td>ELEC C312</td>
<td>Electronics II</td>
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</tbody>
</table>

FACULTY OF ENGINEERING
71.6
DEPARTMENT OF MECHANICAL ENGINEERING

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Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.6.

ENGINEERING MATHEMATICS

ENGINEERING MATHEMATICS C212
Calculus and Differential Equations

Vector functions of one variable, with applications. Introduction to ordinary differential equations. Functions of several variables: differentiation and multiple integrals.

Lectures: 3 hours per week.
Tutorials: 2 hours per week.
Prerequisite: CEGEP Math 203.

ENGINEERING MATHEMATICS C232
Matrices and Advanced Calculus


Lectures: 3 hours per week.
Tutorials: 2 hours per week.
Prerequisite: Engineering Mathematics C212 previously or concurrently.

ENGINEERING MATHEMATICS C252
Complex Variables


Lectures: 3 hours per week.
Prerequisites: Engineering Mathematics C212; Engineering Mathematics C222; previously or concurrently.

ENGINEERING MATHEMATICS C271
Applied Probability and Statistics


Lectures: 3 hours per week.

ENGINEERING MATHEMATICS C311
Transform Calculus and Partial Differential Equations

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: 3 hours per week.
Prerequisites: Engineering Mathematics C232.

ENGINEERING MATHEMATICS C312
Laplace Transforms and Advanced Differential Equations


Lectures: 3 hours per week.
Prerequisites: Engineering Mathematics C232 and C252.

ENGINEERING MATHEMATICS C391
Numerical Methods in Engineering Systems


Lectures: 3 hours per week.
Prerequisites: Engineering Mathematics C212 and C232.

ENGINEERING MATHEMATICS N-471
Introduction to Stochastic Processes


Lectures: 3 hours per week.
Prerequisites: Engineering Mathematics C232 and C271.

NOTE: This course is no longer offered.

ENGINEERING

ENGINEERING C211
Engineering Graphics

Elements of orthogonal projection, principal and supplementary views, analysis of three-
dimensional spatial relationships of points, lines, planes and solids. Introduction to sectioning conventions, drawing identification by reconstructing technical drawings in free-hand isometric views, and preparation of detail and assembly drawings.

Lectures: 3 hours per week.
Laboratory: 2 hours per week.

ENGINEERING C221
Materials Science

Relationships between properties and internal structure; atomic bonding; molecular, crystalline and amorphous structures; crystal imperfections and mechanisms of structural change; microstructures, plastic deformation and fracture of metals; structures and mechanical properties of ceramics and polymers.

Lectures: 3 hours per week.
Tutorial: 1 hour per week.
Prerequisite: CEGEP Chemistry 202.

ENGINEERING C242
Engineering Mechanics I

Resultant of force systems; equilibrium of particles and rigid bodies; distributed forces; statically determinate systems; cables and trusses; friction; moments of inertia; virtual work; introduction to stress, strain and bending moment diagrams.

Lectures: 3 hours per week.
Tutorial: 1 hour per week.
Prerequisite: Mathematics C212 or concurrently; CEGEP Physics 101 or 102.
NOTE A/See § 200.6

ENGINEERING C243
Engineering Mechanics II

Kinetostatics 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: 3 hours per week.
Tutorial: 1 hour per week.
Prerequisite: Engineering Mathematics C212 or concurrently; CEGEP Mathematics 103.
NOTE A/See § 200.6

ENGINEERING C244
Mechanics of Materials I

Stress, strain and elasticity; analysis and design of structural and machine elements subjected to axial, torsional, and bending loads; shear and bending moment diagrams; deflections, analysis of statically indeterminate systems; combined stresses; composite beams.

Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Tutorial: 1 hour per week.
Prerequisites: Engineering C242, Engineering Mathematics C212; Engineering Mathematics C323 or concurrently.

ENGINEERING C251
Thermodynamics I

Basic principles of thermodynamics and their application to various systems composed of pure substances and their homogeneous nonreactive mixtures. Simple power production and utilization cycles.

Lectures: 3 hours per week.
Tutorial: 1 hour per week.
Prerequisite: CEGEP Math 103.

ENGINEERING C273
Basic Circuit Analysis


Lectures: 3 hours per week.
Tutorial: 1 hour per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Engineering Mathematics C212 or concurrently; CEGEP Physics 201 or 202.
NOTE A/See § 200.6

ENGINEERING C274
Physical Systems and Measurements

Time differentiation, time integration, and singularity functions. Network representation of mechanical, fluid and thermal systems in terms of lumped elements and through and across variables. Generalization of the methods of the basic electrical circuit analysis to the formulation of equilibrium equations and their solution. Application to problems of modelling and measurements in physical systems. Generalized impedances and system functions. Operational block diagrams and analog computer solutions.

Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Engineering C273.
NOTE A/See § 200.6

ENGINEERING C341
Mechanics of Materials II

Dynamic loading, repeated loads, stress concentrations and fatigue, introduction to inelastic action, energy methods, theories of failure, shear centre, unsymmetrical bending, bending of curved bars, introduction to linearized mathematical theory of elasticity, introduction to elastic stability.

Lectures: 3 hours per week.
Tutorial: 1 hour per week.
Prerequisites: Engineering Mathematics C232, Engineering C244.

ENGINEERING C361
Fluid Mechanics I

Fluid properties and flow characteristics; fluid statics, basic laws for systems and control volumes, conservation of mass, linear-momentum equations, moment-of-momentum equations, first law of thermodynamics, Bernoulli equation, kinematics of flow, dynamics of flow, dimensional analysis and similitude, characteristics of real fluid flow, flow measurement.

Lectures: 3 hours per week.
Tutorial: 1 hour per week.

ENGINEERING C362
Fluid Mechanics II

Incompressible viscous flow, steady closed conduit flow, fluid resistance and boundary layer effects, differential equations for open channel flow, specific energy, gravity waves, hydraulic jump. Fluid machinery. Selected experiments in incompressible flow and in open channel flow.

Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Engineering C361.
ENGINEERING C372
Fundamentals of Control Systems
General feedback theory; time and frequency domain analysis of feedback control systems; stability criteria; root-locus methods; modelling of d.c. servo; design of simple feedback systems; introduction to statespace methods.
Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisites: Engineering Mathematics C311 or C312; Engineering C274.

ENGINEERING C401
Engineering Economy & Practice
Lectures: 3 hours per week.

ENGINEERING C410
Technical Report
Each Engineering student must submit a technical report on entering his final year. This report should be from 2,000 to 5,000 words in length, on a topic drawn from the engineering experience of the student during his summer work. If a suitable topic based on personal experience is not available, the student may write on a topic connected with engineering, scientific or industrial work. Any student may consult the chairman of his department concerning the suitability of his proposed topic. If it is judged suitable, the letter of approval must accompany the report.

The report, including an abstract, must be suitably documented and illustrated, must be typewritten on one side only of 8½" x 11" white paper of good quality and must be suitably bound. Students are referred to Kate L. Turabian, A Manual for Writers of Term Papers, Theses and Dissertations, for matters of style and notation.

The report is to be submitted by the third Monday after Fall classes begin. With the exception of special circumstances approved by the Engineering Undergraduate Studies Committee in individual cases, any acceptable report submitted after this date will receive an "S" grade.

ENGINEERING C411
Computer Organization & Software
Logical basis of computer structure; machine organization and functional units; machine programming including subroutines, linkages, macros and assembly systems; compilers and operating systems.
Lectures: 3 hours per week.
Laboratory: 1½ hours per week.
Prerequisite: CECEP Data Processing 901 or 911 or equivalent.

ENGINEERING C412
Operations Research
An introduction to the application of mathematical models to various industrial problems; queuing theory, game theory, linear programming, inventory theory and Monte Carlo processes.
Lectures: 3 hours per week.
Prerequisite: CECEP Data Processing 901 or 911 or equivalent.

ENGINEERING C471
Time Domain Analysis and Design
State space analysis and design of continuous and discrete systems. Controllability and observability, modal control, pole placement techniques, Luenberger observers, Liapunov stability.
Lectures: 4 hours per week.
Prerequisite: Engineering C372.

ENGINEERING C472
Studies in System Optimization
Various techniques of system optimization, such as calculus of variations, Pontryagin's maximum principle, as well as some numerical methods, are studied. These techniques are applied to real systems in fields such as engineering, management and economics.
Lectures: 3 hours per week.
Laboratory: 3 hours per week.
Prerequisite: Engineering C471.

ENGINEERING C473
Control System Design
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; nonlinearities, introduction to multi-loop systems.
Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Engineering C371.

ENGINEERING C474
Digital Computers in Systems
A study of the application of digital computers to control systems. Topics to be studied include sampled data systems; coding and data transmission; interfaces and analog-digital conversion techniques; simulation of discrete systems.
Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisites: Engineering C411 or Computer Science S322; Engineering C372.

SOCIAL ASPECTS OF ENGINEERING

ENGINEERING C481
Engineers and Society I
Engineering undertakings have many indirect economic and environmental effects on society. This course traces the parallel developments in ideas and attitudes towards engineering and society.
Lectures: 3 hours per week.
Prerequisite: Completion of 20 courses.

ENGINEERING C482
Engineers and Society II
A continuation of Engineering C481 discussing methods of forecasting technological change and assessing its impact on society.
Lectures: 3 hours per week.
Prerequisite: Completion of 20 courses.

ENGINEERING C483
The Impact of Science and Technology in Society I
Exposition of the profound influences that (1) science has had on the intellectual life of mankind and (2) technological innovations have had on the organization of society. Part I considers the historical aspects, including the industrial revolution, by thoroughly examining certain highlights. Galileo, Descartes and Newton and the subsequent steady advance in technology. Darwin, evolution and evolutionism.
Advances in electricity and magnetism and industrial electrification.

Seminars: 3 hours per week.
Prerequisite: Completion of 20 courses.

ENGINEERING C484
The Impact of Science and Technology in Society II

This course considers the scientific and technological advances of the 20th century, examines the influences and problems of the present and proceeds to formulate criteria for directing technological innovation. Remote sensing, feedback control and automation. Mass production and quality control. Power and natural resources. Pollution, ecology and population density. Communications technology and the understanding of media. The two cultures and the new Ludites. Utopias.

Seminars: 3 hours per week.
Prerequisite: Completion of 20 courses.

ENGINEERING C485
Introduction to Technology and Human Affairs I

An examination of the social and historical context, and an assessment of the future consequences, of certain scientific and technological changes. The reciprocal interactions of certain engineering advances with national, regional and urban economic development, and with social, cultural and psychological evolution.

Seminars: 3 hours per week.
Prerequisite: completion of 20 courses.

ENGINEERING C486
Introduction to Technology and Human Affairs II

An extension of Introduction to Technology and Human Affairs I in which a different set of scientific and engineering advances are considered.

Seminars: 3 hours per week.
Prerequisite: completion of 20 courses.

CIVIL ENGINEERING

CIVIL ENGINEERING C321
Engineering Materials


Lectures: 3 hours per week.
Laboratory: 3 hours per week.
Prerequisite: Engineering C221

CIVIL ENGINEERING C331
Geology

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 interpretation and geological maps.

Lectures: 2 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Engineering C221

CIVIL ENGINEERING C341
Civil Engineering Systems

Development of concepts and techniques commonly associated with systems engineering which are applicable to the design and operation of systems that concern Civil Engineers. Problem formulation, optimization, linear programming, sequencing, routing and scheduling, mathematical expectation, random models and queues. The techniques developed are used to solve problems in Transportation, Water Resources, Structures and Construction Management.

Lectures: 3 hours per week.
Prerequisite: registration in second year in Civil Engineering programme, Engineering Mathematics C271, CEGEP Data Processing 901 or 911 or equivalent

CIVIL ENGINEERING C353
Structural Design


Lectures: 3 hours per week.
Laboratory: 2 hours per week.
Prerequisite: Engineering C341 previously or concurrently.
NOTE A/See § 200.6

CIVIL ENGINEERING C354
Structural Analysis

Analysis of statically determinate structures: influence lines, deflections. Analysis of statically indeterminate structures: the method of consistent deformations, the three moment equation, the slope deflection, and the moment distribution methods.

Lectures: 3 hours per week.
Laboratory: 2 hours per week.
Prerequisite: Engineering C341
NOTE A/See § 200.6

CIVIL ENGINEERING C371
Surveying

Elementary operations employed in engineering surveying; use, care and adjustment of instruments; 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, and topographic surveying and introduction to advanced surveying techniques; use of digital computers in survey calculations. Summer school taken before entering second year of study in the BEng programme.

Lectures and Field Work: 8 hours per day; 6 days per week for 3 weeks.

CIVIL ENGINEERING C372
Transportation Engineering

A survey of all transportation modes and introduction to some recent concepts of transportation system planning; Social and economic importance of transportation; essential elements of a transportation system, characteristics of different transportation modes.

Lectures: 3 hours per week.
Prerequisites: registration in second year of the Civil Engineering Programme; Civil Engineering C341

CIVIL ENGINEERING C381
Water Resources Engineering

Hydrologic data collection and interpretation; precipitation; evaporation; design examples. Open channel hydraulics; design of channels; practical design problems.

Lectures: 3 hours per week.
Laboratory: 3 hours per week.
Prerequisite: Engineering C362, Civil Engineering C331 previously or concurrently; Engineering Mathematics C271.
NOTE A/See § 200.6

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CIVIL ENGINEERING C411
Building Enclosure Design
Design aspects of building enclosures affecting the control of air flow, heat flow, sunlight and other forms of radiant energy, rain and snow, water vapour, noise. Consideration of user requirements, economics and codes.
Lectures: 3 hours per week.
Prerequisite: Completion of 20 courses in the Civil Engineering programme.

CIVIL ENGINEERING C412
Construction Methods and Equipment Management
Construction methods, sequences and material handling techniques; impact of safety considerations; work methods studies; equipment policy, selection and replacement analysis.
Lectures: 3 hours per week.
Prerequisite: Civil Engineering C491

CIVIL ENGINEERING C431
Soil Mechanics
Index properties and classification of soils, Weight-volume relationships, Soil structure, Moisture-density relationships, Capillarity, Permeability, Flow nets and seepage, Neutral and effective stresses, Cohesion, shear, strength. Stresses in soil due to external loads. Lateral pressures, Soil exploitation, Load tests, Laboratory tests to illustrate lecture topics.
Lectures: 3 hours per week.
Laboratory: 3 hours per week.
Prerequisite: Civil Engineering C321 and C331.

CIVIL ENGINEERING C434
Advanced Soil Mechanics
Selected topics in mechanics of soil media, including water flow, rheological behaviour and failure theories, Earth pressure theory, Slope stability.
Lectures: 3 hours per week.
Prerequisite: Civil Engineering C431
NOTE A/See § 200.6

CIVIL ENGINEERING C435
Foundation Design
Loads, bearing capacity and settlement, Lateral pressures, Foundation drainage and waterproofing, Spread footings, Strip footings, piles, foundations, Caissons, Retaining walls, Sheet piling walls, Braced cofferdams, Cellular cofferdams, Anchors.
Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Civil Engineering C354, C431.
NOTE A/See § 200.6

CIVIL ENGINEERING C451
Advanced Structural Analysis
Analysis of frames, arches and cable structures; influence lines for statically indeterminate structures, plastic analysis, computer applications.
Lectures: 3 hours per week.
Laboratory: 2 hours per week.
Prerequisite: Civil Engineering C354, C431.
NOTE A/See § 200.6

CIVIL ENGINEERING C452
Matrix Analysis of Structures
Classical and matrix methods of structural analysis, influence coefficients, transformation matrices, Matrix formulation of the force and of the displacement methods of analysis, Computer applications.
Lectures: 3 hours per week.
Prerequisites: Engineering Mathematics C311, Civil Engineering C451 previously or concurrently.

CIVIL ENGINEERING C453
Advanced Reinforced Concrete Design
Design of reinforced concrete slabs, frames, prefabricated structures, girders, and shells, prestressed concrete structures.
Lectures: 2 hours per week.
Laboratory: 3 hours per week.
Prerequisite: Civil Engineering C353.

CIVIL ENGINEERING C454
Advanced Steel Structures
Contemporary methods for analyzing and designing steel structures, Codes, Comprehensive design problems from the fields of steel buildings, bridges of various types, and cable structures.
Lectures: 2 hours per week.
Laboratory: 3 hours per week.
Prerequisite: Civil Engineering C451.

CIVIL ENGINEERING C456
Experimental Stress Analysis
A study of modern experimental methods of determining stresses and strains; mechanical, electrical and optical strain gauges, photoelasticity, brittle coatings, model analysis.
Lectures: 2 hours per week.
Laboratory: 3 hours per week.
Prerequisite: Engineering C341

CIVIL ENGINEERING C471
Highway Design
Design controls and criteria including traffic and highway characteristics and capacity, Location and right-of-way, Earthworks, Geometric design, Highways and terminals, Pavement design, Highway design project.
Lectures: 2 hours per week.
Laboratory: 3 hours per week.
Prerequisite: Civil Engineering C372.

CIVIL ENGINEERING C472
Traffic Engineering
Techniques used in transportation planning, economic base, demographic, land use, and traffic studies, origin-destination surveys, Use of mathematical models, Trip generation and distribution modal split, traffic assignment, Emphasis on use of these techniques for problem solving and interaction with other disciplines, Planning, economics, technology.
Lectures: 2 hours per week.
Laboratory: 3 hours per week.
Prerequisite: Civil Engineering C372.

CIVIL ENGINEERING C473
Urban Planning
The general planning process, Basic studies, population, economics and land use, Land use planning, Capital improvement programmes and financing, Plan implementation.
Lectures: 3 hours per week.
Prerequisite: Civil Engineering C372.

CIVIL ENGINEERING C481
Water Supply Systems
Water use cycle, capacity of water supply systems, sources of raw water, development of surface water and ground water, Water quantities and requirements, design of distribution systems, Storage, pumping, water quality, Introduction to water purification practices.
Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Civil Engineering C381.

CIVIL ENGINEERING C482
Urban Sanitation
Sources, characteristics and quantities of waste waters, Public health considerations, ur-
ELECTRICAL ENGINEERING C341

Conduction in a vacuum and in material media, electric circuits, displacement current, magnetic field of a current, force on a current-carrying wire, magnetic materials in electric fields. Elements of the theory of directed and directed graphs.

Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Civil Engineering C381.

CIVIL ENGINEERING C483

Hydrology

Hydrologic principles: stream flow, floods; ground water. Practical applications.

Lectures: 2 hours per week.
Laboratory: 3 hours per week.
Prerequisite: Civil Engineering C381.

CIVIL ENGINEERING C484

Hydraulic Engineering

Engineering economy and design of water resources systems; reservoir design and operating rules; flood control; navigation; drainage; irrigation; hydro-electric developments. Other selected topics.

Lectures: 2 hours per week.
Laboratory: 3 hours per week.
Prerequisite: Civil Engineering C381.

CIVIL ENGINEERING C485

Hydraulic Structures

Selection and design of earthfill and concrete dams; spillways; outlet works and other hydraulic structures.

Lectures: 3 hours per week.
Prerequisite: Civil Engineering C381.
NOTE A/See § 200.6

CIVIL ENGINEERING C491

Construction Engineering

Study of construction methods, equipment, productivity and safety, project planning, scheduling and control.

Lectures: 3 hours per week.
Prerequisite: Completion of 20 courses in the Civil Engineering programme.

ELECTRICAL ENGINEERING

ELECTRICAL ENGINEERING C251

Fundamentals of Electrical Engineering

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 electrical circuits.

Lectures: 3 hours per week.
Tutorial: 1 hour per week.
Prerequisites: CEGEP Physics 201 or 202; Engineering C273 previously or concurrently.

ELECTRICAL ENGINEERING C311

Electronics I


Lectures: 3 hours per week.
Laboratory: 3 hours per week.
Prerequisite: Engineering C273.

ELECTRICAL ENGINEERING C312

Electronics II


Lectures: 3 hours per week.
Laboratory: 3 hours per week.
Prerequisite: Electrical Engineering C311

ELECTRICAL ENGINEERING C316

Fundamentals of Discrete Structures

Set algebra; mappings and relations. Algebraic structures: semigroups and groups. Elements of the theory of undirected and directed graphs.

Lectures: 2 hours per week.
Prerequisites: CEGEP Data Processing 901 or 911 or equivalent; Engineering Mathematics C232.

ELECTRICAL ENGINEERING C321

Electrical Properties of Solids


Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Electrical Engineering C251

ELECTRICAL ENGINEERING C331

Electromechanics

Energy in singly and doubly excited systems, principles of electromechanical energy conversion. Basic features and models of d.c. machines, 3-phase induction machines, 3-phase synchronous machines. Power transformers.

Lectures: 3 hours per week.
Laboratory: 3 hours per week.
Prerequisites: Electrical Engineering C251; Engineering C274 previously or concurrently.

ELECTRICAL ENGINEERING C333

Electric Machines

Air gap field distribution, windings, harmonic content of induced voltages in rotating machines. Magnetic core calculations. Direct current machines, single-phase and three-phase induction motors, three-phase synchronous motors, selsyns, linear motors.

Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Electrical Engineering C331.

ELECTRICAL ENGINEERING C334

Electric Machinery

Magnetic fields, circuits and forces; transformers; basic features of rotating machines; models, characteristics and applications of d.c. machines, polyphase synchronous and induction machines.

Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Engineering C274

NOTE: Students in Electrical Engineering may not take this course for credits.

ELECTRICAL ENGINEERING C341

Linear Network Analysis


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FACULTY OF ENGINEERING
71.7

ENGINEERING


ELECTRICAL ENGINEERING C351
Electromagnetic Field Theory

ELECTRICAL ENGINEERING C401
Electrical Engineering Seminar
Near the end of their programme, students in Electrical Engineering hold meetings with faculty members. These meetings are organized to provide the student with an opportunity to exercise his ability to present and to defend his thoughts on topics of his own choice. Students will be encouraged to devote some of their discussions to such topics as continuing professional education, professional societies, organization of engineering employment, and professional ethics. Seminars: 2 hours per week. Prerequisite: Completion of 17 courses.

ELECTRICAL ENGINEERING C411
Pulse Circuits
A continuation of the material of Electrical Engineering C-312; wave-shaping circuits and digital logic circuits. Lectures: 3 hours per week. Laboratory: 3 hours per week. Prerequisites: Engineering Mathematics C312, Electrical Engineering C312.

ELECTRICAL ENGINEERING C413
Design of Logic and Switching Circuits I
Boolean Algebra and its application to electrical switching circuits. Analysis, design and optimization of combinational circuits. Design of transistor gates and their practical limitations. Modern integrated-circuit logic families such as RTL, DTL, TTL, ECL, MOSL, and CMOSL. Applications of combinational circuits to electronic systems and instrumentation. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks. Prerequisite: Electrical Engineering C311.

ELECTRICAL ENGINEERING C414
Design of Logic and Switching Circuits II

ELECTRICAL ENGINEERING C415
Electronics III
Frequency response of amplifiers. Linear and non-linear operational amplifier circuits, such as stable-gain differential amplifiers, negative-impedance converters, gyrators, logarithmic amplifiers, precision rectifiers, voltage regulators, etc. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks. Prerequisite: Electrical Engineering C312.

ELECTRICAL ENGINEERING C416
Design of Digital Computers
Computer memories, registers and data-path. Register-transfer-level description of digital systems. Design of control and arithmetic units. Inter-system communication, input/output, design of interfaces. Parallelism in computer systems for increased speed of operation. Special computers such as microprocessors. Lectures: 3 hours per week. Prerequisites: Electrical Engineering C414; Engineering C411.

ELECTRICAL ENGINEERING C421
Semiconductor Physics
Electrons in periodic lattices. Intrinsic and extrinsic semiconductors, p-n junctions, diodes and transistors, materials and p-n junction fabrication technology. Measurements of bulk properties. Lectures: 3 hours per week. Laboratory: 3 hours per week. Prerequisites: Electrical Engineering C321.

ELECTRICAL ENGINEERING C422
Semiconductor Devices Design

ELECTRICAL ENGINEERING C431
Electrical Power Engineering
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: 3 hours per week. Laboratory: 3 hours per week, alternate weeks. Prerequisite: Electrical Engineering C331.

ELECTRICAL ENGINEERING C433
Thyristor Power Applications
Circuits and operating principles of phase-controlled converters; external performance characteristics, harmonic content of d.c. output voltage a.c. input current; dual converters; converters as power amplifiers. Application to variable speed drives; d.c. machine dynamics; feedback control. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks. Prerequisites: Engineering C372; Electrical Engineering C311 and C331.

ELECTRICAL ENGINEERING C441
Modern Filter Design
ELECTRICAL ENGINEERING C442

Digital Filters
Introduction to recursive and non-recursive digital filters; realization methods using the z-transform calculus; amplitude and phase characteristics and relevant approximations and transformations; comparison of digital with conventional filters; application of digital filters.
Lectures: 3 hours per week.
Prerequisite: Electrical Engineering C341

ELECTRICAL ENGINEERING C453

Microwave Engineering I
Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisites: Engineering Mathematics C312; Electrical Engineering C341 & C351.

ELECTRICAL ENGINEERING C454

Microwave Engineering II
Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Electrical Engineering C453

ELECTRICAL ENGINEERING C461

Communication Circuits and Systems
Lectures: 4 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisites: Engineering Mathematics C312; Electrical Engineering C312.

ELECTRICAL ENGINEERING C462

Statistical and Digital Communications
Transmission and filtering of random signals, analysis of modulation systems, in particular Pulse Code Modulation, Phase Shift Keying, Frequency Shift Keying, etc., and introduction to noise analysis, information theory and coding.
Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisites: Engineering Mathematics C271; Electrical Engineering C461.

ELECTRICAL ENGINEERING C481

Electrical Engineering Project
The Electrical Engineering project provides an opportunity for each student to carry out a small design project associated with one or more of the specialist elective courses, under the supervision of a faculty member. The nature of the project selected should be such as to require independent study of current technical literature. When feasible the designs will be assessed in the laboratory. Each student is to present a complete report at the end of the project.
Equivalent laboratory time: 6 hours per week.
Prerequisite: Registration in final year.

ELECTRICAL ENGINEERING C482

Topics in Electrical Engineering
This course may be offered in a given year upon the authorization of the Electrical 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: 3 hours per week.
Prerequisite: Permission of the Department.

ELECTRICAL ENGINEERING N-551

Lasers and Masers
Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Electrical Engineering C351.
NOTE: This course is no longer offered.

ELECTRICAL ENGINEERING N-552

Microwave Engineering
Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisites: Electrical Engineering C351.
NOTE: This course is no longer offered.

MECHANICAL ENGINEERING

MECHANICAL ENGINEERING C311

Mechanical Engineering Laboratory I
Fundamentals of manufacturing processes and their limitations. Topics will include machine shop practice, forming and machining processes, casting processes, plastics, non-conventional machining techniques. Laboratory includes machining simple parts in the machine shop, preparation of shop drawings; field trips to local industries.
Lectures: 2 hours per week.
Laboratory: 3 hours per week.
Prerequisite: Mechanical Engineering C312 previously or concurrently.

MECHANICAL ENGINEERING C312

Introduction to Engineering Design
Introduction to engineering design procedures through the use of open-ended design projects. Lecture topics will include engineering design process, consideration of alternatives, specifications, pencil thinking, principle of design synthesis, dimensioning for manufacture and interchangeability, quality control, presentation of engineering data and calculations, application of computer graphics in design.
Lectures: 2 hours per week.
Laboratory: 2 hours per week.
Prerequisites: Engineering C211; Computer Science C211 or equivalent.

MECHANICAL ENGINEERING C321

Strength and Failure in Metals
The service capabilities of alloys and their relationship to microstructure as produced by thermal and mechanical treatments; strengthen-
MECHANICAL ENGINEERING C342

Kinematics of Machines

Kinematic analysis of space mechanisms; static and dynamic analysis of planar mechanisms and gear trains; dynamic analysis of space mechanisms; gyroscopic forces; balancing of rotating and reciprocating machinery.

Lectures: 2 hours per week.
Laboratory: 2 hours per week, alternate weeks.
Tutorial: 2 hours per week, alternate weeks.
Prerequisite: Mechanical Engineering C341.

MECHANICAL ENGINEERING C351

Thermodynamics II

Thermodynamic functions and equations, relationships between properties; behaviour of gases and their reactive mixtures; combustion. Applications of thermodynamics to power production and utilization systems.

Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Engineering C251.

MECHANICAL ENGINEERING C352

Heat Transfer I

Steady state and transient heat conduction, numerical methods for two-dimensional steady state heat conduction. Radiation heat exchange between black bodies, between grey bodies and from gases, vapours and flames. Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Engineering Mathematics C311.

MECHANICAL ENGINEERING C373

Measurement Systems

Unified treatment of measurement of physical quantities. Principle, characteristics, and design of mechanical systems for measuring position, velocity, acceleration, force, pressure, flow rate, temperature, proximity detection, etc. Background knowledge of electronics covering signal generation and processing. Concepts of accuracy and repeatability, linearity, response criteria, bandwidth, input and output impedance, matching of measuring systems, angle and bias.

Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Engineering C274.

MECHANICAL ENGINEERING C411

Mechanical Engineering Laboratory II

Current design practices are studied by analysis and experimentation with devices and machines encountered in mechanical engineering. Laboratory: 3 hours per week.
Prerequisite: Mechanical Engineering C311.

MECHANICAL ENGINEERING C421

Deformation and Mechanical Shaping of Metals


Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisite: Engineering C221.

MECHANICAL ENGINEERING C423

Thermal Treatment and Processing of Metals


Lectures: 3 hours per week.
Laboratory: 2 hours per week.
Prerequisite: Engineering C311; Mechanical Engineering C312 and C342.

MECHANICAL ENGINEERING C433

Mechanical Vibrations


Lectures: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisites: Engineering Mathematics C311; Engineering C272; Mechanical Engineering C342.

MECHANICAL ENGINEERING C445

Machine Design

Design of springs; design of gear and hydraulic drives, design for hydrodynamic 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.

Lectures: 2 hours per week.
Laboratory: 3 hours per week.
Prerequisite: Mechanical Engineering C441.

MECHANICAL ENGINEERING C452

Heat Transfer II

Review of momentum transfer, free and forced convection heat transfer, dimensional...
MECHANICAL ENGINEERING C453
Environmental Control
The effect of air temperature and humidity on physiological comfort, overall heat-transmission coefficients across building sections, heating load calculations, the effect of solar radiation on air-conditioning load, cooling load calculations, heating, air-conditioning and ventilating systems, design of piping and duct arrangement.
Lectures: 3 hours per week.
Prerequisites: Mechanical Engineering C352.

MECHANICAL ENGINEERING C455
Introduction to Nuclear Engineering
Nuclear engineering principles. Nuclear reactions and reactors; control, heat removal and safety. Processing and properties of reactor fuels, moderators and coolants. Types of power reactors; radiation safety and protection.
Lectures: 3 hours per week.
Prerequisites: Mechanical Engineering C351 and C352.

MECHANICAL ENGINEERING C461
Gas Dynamics
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: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks. 
Prerequisites: Engineering C362; Mechanical Engineering C351.

MECHANICAL ENGINEERING C462
Fluid Machinery
Lectures: 3 hours per week.
Prerequisites: Engineering C362; Mechanical Engineering C351.

MECHANICAL ENGINEERING C463
Fluid Power Control
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: 3 hours per week.
Laboratory: 3 hours per week, alternate weeks.
Prerequisites: Engineering C362 and C372.

MECHANICAL ENGINEERING C471
Process Dynamics and Control
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: 3 hours per week.
71.8 Department of Computer Science

Professor of Computer Science, and Chairman of the Department
H. S. HEAPS

Professor
K. V. LEUNG

Associate Professors
J. WILLIAM ATWOOD
WOJCIECH M. JAWORSKI
S. L. KLASA
GRAHAM MARTIN
J. MCKAY
C. Y. SUEN

Assistant Professors
V. S. ALAGAR
T. D. BUI
TERRILL FANCOTT
J. JUERGENS
C. W. H. LAM
T. RADHAKRISHNAN

Visiting Assistant Professor
R. YORKE
Lecturer
W. G. PROBST
Post-Doctoral Fellow
J. FISCHER

71.8.1 BACHELOR OF COMPUTER SCIENCE PROGRAMME
The programme leading to the Bachelor of Computer Science degree is offered at the Sir George Williams campus.

Admission Requirements
Applications for admission to the BCompSc programme are submitted to the Admissions Office at the Sir George Williams campus.

General Admission requirements are listed in § 13.
Specific requirements are the CEGEP level courses listed below, or their equivalents.

Mathematics
CEGEP
101
103
105
203

In addition, the following specific requirements exist for the various Options, and applicants are required to indicate their choice of Option in their application.

(1) The General Science and the Electronics/Systems Options:

Biology .......................................................
Chemistry ....................................................
Physics ....................................................... 101 or 202
............................................................. 201 or 202
............................................................. 301 or 302

(2) The General Business Option:

Mathematics ............................................... 205

NOTE: It is highly desirable that students have credit for Data Processing 901, or its equivalent, before undertaking study in any of the three Options. However, applicants not having this credit will be considered, but are strongly advised to obtain it before entering the undergraduate programme, possibly during the summer in which their application is under consideration.

Curriculum for the Degree of Bachelor of Computer Science
The University offers a programme leading to the degree of Bachelor of Computer Science with three Options, namely General Science, Electronics/Systems and General Business. To be recommended for the degree of Bachelor of Computer Science, students must satisfactorily complete an approved programme of 90 credits. In assessing this total, each course of the student's programme offered by the Faculty of Engineering is assigned 3 credits, except Computer Science S491 which is assigned 6 credits. Forty-two of the credits required must be obtained from the core requirements specified below while the remainder must be obtained from courses specified for one of the three Options.

Programmes of Study
Programmes of study are available in both the Day and Evening Divisions as described below.

(1) Day Division
The courses of all Options are offered in the Day Division and students can complete the degree requirements in three years of study by taking the normal load of 30 credits per year.

(2) Evening Division
The courses of the General Science and General Business Options are all offered in the Evening Division, allowing the completion of the degree requirements in that Division.
However, as the Electronics/Systems Option includes courses offered only in the Day Division in the Bachelor of Engineering programme, students must transfer to the Day Division to complete their last two years of study in that Option. Courses offered in the Evening Division are marked † in the following lists.

**Academic Regulations**

Students should refer to the sections presenting the Academic Regulations of the University, § 16.

**Course Requirements**

To be recommended for the degree of Bachelor of Computer Science, students must satisfactorily complete the following core courses as well as those specified below for their chosen Option.

**COMP S221†** Introduction to Assembly Language Programming

**COMP S231†** Introduction to Discrete Structures

**COMP S241†** Computer Languages and Programming

**COMP S251†** Introduction to Business Programming

**COMP S322†** Computer Organization

**COMP S352†** Data and File Structures I

**COMP S433†** Computer Operating Systems

**COMP S453†** Data and File Structures II

**COMP S491†** Computer Science Project

Three credits in Numerical Calculus, such as Computer Science S261†, Mathematics N-261†, or Engineering Mathematics C291. An additional nine credits in Computer Science at or above the 300 level†.

(1) **General Science Option**

In addition to the core courses shown above, the following courses must be completed satisfactorily.

**Mathematics N-241†** Introductory Mathematical & Applied Statistics

**Mathematics N-261†** Advanced Calculus

**Mathematics N-281†** Linear Algebra I

Electives: An additional three credits in Computer Science at or above the 300 level†.

Twenty-seven credits from the Natural or Social Sciences, Commerce and Administration, or Engineering.

(2) **Electronics/Systems Option**

In addition to the core courses shown above, the following courses must be completed satisfactorily.

**ENGR C212†** Calculus and Differential Equations

**ENGR C232†** Matrices and Advanced Calculus

**ENGR C252†** Complex Variables

**ENGR C271†** Applied Probability and Statistics

**ENGR C312** Laplace Transforms and Advanced Differential Equations

**ENGR C273†** Basic Circuit Analysis

**ENGR C274†** Physical Systems and Measurements

**ENGR C372** Fundamentals of Control Systems

**ELEC C311** Electronics I

**ELEC C312** Electronics II

**ELEC C341** Linear Network Analysis

**ELEC C411** Pulse Circuits

**COMP S325†** Logical Design and Switching Theory

Electives: Three courses chosen from the following. (NOTE: Students who completed Electrical Engineering N-351 prior to September 1976 need only complete two electives.)

**ENGR C471** Time Domain Analysis and Design

**ENGR C472** Studies in System Optimization

**ENGR C474** Digital Computers in Systems

**ELEC C441** Modern Filter Design

**ELEC C442** Digital Filters

**ELEC C461** Communication Circuits and Systems

**ELEC C462** Statistical and Digital Communications

**COMP S323†** Special Purpose Computer Systems

(3) **General Business Option**

In addition to the core courses shown above, the following courses must be completed satisfactorily.

**ACCO C213†** Financial I

**ACCO C218†** Managerial I

**ACCO C414†** Information Systems and Control

**ECON 209†** Introduction to Microeconomics

**ECON 210†** Introduction to Macroeconomics

**FINA C314†** Introduction to Finance I

**FINA C315†** Introduction to Finance II

**MANA C213†** Foundations of Behaviour

**MANA C340†** Organizational Behaviour

**MARK C213†** The Marketing Process (Introductory)

**MARK C350†** Marketing Management

**QUAN C243†** Introductory Business Statistics I

**QUAN C244†** Introductory Business Statistics II

**QUAN C313†** Managerial Operations Research

**QUAN C314†** Operations Research and Production Management

**Honours Programme**

An Honours degree indicates specialization within a field and high academic standing. In order to qualify for an Honours degree a student must meet all the academic qualifications and comply with the regulations set forth below.

**NOTE:** These regulations are currently under review.

1. A candidate for an honours degree should indicate such intention at registration, and consult the honours representative of the department as soon as possible. His honours standing will be reviewed annually. However, a student who has followed the courses prescribed for the honours programme, and
has met all the requirements, may enter the programme with the approval of the Computer Science Honours Committee at any time before beginning the final 30 credits. No retroactive approval of entry may be granted.

2. An honours student must meet the general degree requirements as well as the specific requirements for an honours degree, and must obtain at least a 'C' average over the total degree programme. Failure in any course will mean suspension from the honours programme. Reinstatement is possible only by recommendation by the honours representative.

3. An honours student must obtain a "B" average with no grade lower than "C-" in all courses in the basic honours programme.

4. A student who enters with advanced standing may apply-pro tanto credits, which are applicable to the honours degree requirements, upon approval by the department.

5. A student shall be allowed to qualify for only one honours degree.

6. Honours standing in any programme is granted upon graduation only with the approval of the Senate.

7. Students in the honours programme in Computer Science are required to confirm their standing with the Department by November 15 of each year.

Computer Science Honours Committee

J. W. ATWOOD, Associate Professor

P. H. BIRD, Associate Professor

S. L. KLASA, Associate Professor

Requirements for Honours

The following courses constitute an Honours programme in Computer Science provided the student maintains the required academic standing:

First Year:

- COMP S221, S231, S241, S251; MATH N-241, N-261, N-281

Second Year:

- COMP S322, S342, S352, S443, S455; MATH N-351, N-372; COMP S361 or MATH N-311

Third Year:

- COMP S323, S453, S491; COMP S325 or S433; 3 credits from COMP S445, S456, S471, S475; 6 credits from MATH N-331, N-341, N-342, N-343, N-352, N-434

71.8.2 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.6.

COMPUTER SCIENCE S211
Introduction to Computers and Computing

An introduction to the essential features of computers and computing systems. Problem solving, algorithms, and flowcharts. Detailed specifications of Fortran with numerical applications.

Lectures: 3 hours per week, 1 term.
Laboratory: 1½ hours per week, 1 term.

NOTE A/See § 200.6

COMPUTER SCIENCE S216
Intermediate Scientific Programming

The course will treat some advanced concepts in FORTRAN, introduce a block structured language, and discuss structured programming and scientific applications. There will be discussion of both numerical and non-numerical types of problems such as computation of zeros of functions, systems of equations and curve fitting, the generation of random numbers and their use in operations research, matrix manipulation, determination of maxima and minima, optimization, sort and search, scan and merge.

Lectures: 3 hours per week, 1 term.
Laboratory: 1½ hours per week, 1 term.

NOTE: This course is no longer offered. See Computer Science S241.

COMPUTER SCIENCE N-223
Computer Languages

Achievement of proficiency in programming techniques using high-level languages. Definition of various programming languages including procedure-oriented, list processing, and simulation languages. Specification of syntax and semantics. Basic properties of programming language. The goal of precision programming and its attainment through structured programming techniques.

Lectures: 3 hours per week, 1 term.
Laboratory: 1½ hours per week, 1 term.
Prerequisites: CEGEP Data Processing 901 or 911, or equivalent.

COMPUTER SCIENCE S231
Introduction to Discrete Structures

Introduction to a high level programming language and fundamental algebraic, logical and combinatoric concepts such as: Set algebra; mappings and relations. Algebraic structures; semi-groups and groups. Elements of the theory of directed and undirected graphs. Boolean algebra and propositional logic. Applications of these structures to various areas of computer science.

Lectures: 3 hours per week, 1 term.
Prerequisites: CEGEP Data Processing 901 or 911, or equivalent previously or concurrently.
COMPUTER SCIENCE S241

Computer Languages and Programming

Precision programming by use of structured programming techniques. Definitions and specifications of syntax and semantics of programming languages. Use of high-level languages with examples chosen from discrete structures.

Lecture: 3 hours per week, 1 term.
Laboratory: 1½ hours per week, 1 term.
Prerequisites: CEGEP Data Processing 901 or 911, or equivalent; CEGEP Math 203; Computer Science S231 or Electrical Engineering C316.

NOTE: Students who have credit for Computer Science N-223 may not take this course for credit.

COMPUTER SCIENCE S251

Introduction to Business Programming

Introduction to the data processing field and use of a business oriented language (e.g., COBOL). Concepts of mass storage characteristics. File organization and handling; sorting. Basic business applications.

Lectures: 3 hours per week, 1 term.
Laboratory: 1½ hours per week, 1 term.
Prerequisite: CEGEP Data Processing 901 or 911, or equivalent.

NOTE: A See § 200.6

COMPUTER SCIENCE N-310

Intermediate Scientific Programming

Achieving of proficiency in programming techniques using Fortran. Arrays, iteration, subroutines and procedures, numerical and non-numerical data types, storage allocation, character manipulation; Debugging techniques. Use of library programs. Basic applications in science, e.g., mathematics, statistics.

Lectures: 3 hours per week, 1 term.
Laboratory: 1½ hours per week, 1 term.
Prerequisites: CEGEP Data Processing 901 or 911; CEGEP Math 203, or equivalents.

NOTE: This course is no longer offered. See Computer Science S216.

COMPUTER SCIENCE S322

Computer Organization


Lectures: 3 hours per week, 1 term.
Prerequisites: Computer Science S221; S216 or S241, or equivalents.

COMPUTER SCIENCE S323

Mini-Computer Systems

Hardware and software structures relating to mini-computers. Processor architecture, input-output architecture, and operating system components. The laboratory provides hands-on access to mini-computer systems using machine and assembly language programming.

Lectures: 3 hours per week, 1 term.
Laboratory: 2 hours per week, 1 term.
Prerequisites: Computer Science S222, or permission of the Department.

NOTE: Students who have credit for Computer Science N-340 may not take this course for credit.

COMPUTER SCIENCE S325

Logical Design and Switching Theory


Lectures: 3 hours per week, 1 term.
Laboratory: 2 hours per week, 1 term.
Prerequisites: CEGEP Data Processing 901 or 911, or equivalent, and Computer Science S231, or permission of the Department.

NOTE: A See § 200.6

COMPUTER SCIENCE N-340

Special Purpose Computer Systems

Structure and system organization of special purpose computers. Symbolic coding and assembly language, instruction repertoire, addressing modes, programming techniques, systems and utility programming, peripheral devices and interfacing. A small computer system will be used for demonstration and laboratory purposes.

Lectures: 3 hours per week, 1 term.
Laboratory: 1½ hours per week, 1 term.
Prerequisite: Computer Science N-301, or permission of the Department.

NOTE: This course is no longer offered. See Computer Science S323.

COMPUTER SCIENCE S342

Programming Languages and Compiler Theory


Lectures: 3 hours per week, 1 term.
Prerequisites: Computer Science S221 and S241.

COMPUTER SCIENCE S352

Data and File Structures I


Lectures: 3 hours per week, 1 term.
Prerequisites: Computer Science S221, S241, and S251, or permission of the Department.

COMPUTER SCIENCE S361

Elementary Numerical Methods

Introduction to numerical algorithms fundamental to scientific computer applications. Errors; interpolation; quadrature; linear systems of equations; roots of polynomials and non-linear equations; linear programming and simplex method; transportation problems and network flow. Emphasis on the algorithmic approach; efficiency.

Lectures: 3 hours per week, 1 term.
Laboratory: 1½ hours per week, 1 term.
Prerequisites: CEGEP Math 205 or Mathematics N-281 or Engineering Mathematics C232, or equivalent; Computer Science S216 or S241.

COMPUTER SCIENCE S426

Digital System Design


Lectures: 3 hours per week, 1 term.
Laboratory: 2 hours per week, 1 term.
Prerequisites: Computer Science S322 and S325, or permission of the Department.
COMPUTER SCIENCE S435
Formal Languages and Syntactic Analysis
Lectures: 3 hours per week, 1 term.
Prerequisites: Computer Science S352

COMPUTER SCIENCE S436
Introduction to the Theory of Automata
Lectures: 3 hours per week, 1 term.
Prerequisites: Computer Science S231 and S241

COMPUTER SCIENCE S443
Computer Operating Systems
Software organization. Batch processing systems; translation, loading and execution. Communication between programme units. Parallel input-output processing, buffers, overlapped channels, interrupt facilities; memory protection. Spooling, Multiprogramming, and multiprocess systems. Time-sharing and real-time applications. Addressing techniques, paging, core management; file system design and accounting procedures.
Lectures: 3 hours per week, 1 term.
Prerequisites: Computer Science S241 and S322 or equivalents.

COMPUTER SCIENCE S445
Heuristic Programming
The definition of heuristic vs. algorithmic methods; rational heuristic approach, non-numeric symbolic programming; self-organizing systems; heuristic pre-techniques including a list of the uses of list processing languages; survey of examples from representative application areas including artificial intelligence, and other advanced computer application areas.
Lectures: 3 hours per week, 1 term.
Prerequisite: Computer Science S342

COMPUTER SCIENCE S453
Data and File Structures II
Lectures: 3 hours per week, 1 term.
Prerequisite: Computer Science S352 or permission of the Department.

COMPUTER SCIENCE S455
Principles of Data Processing
Lectures: 3 hours per week, 1 term.
Prerequisite: Computer Science S251

COMPUTER SCIENCE S456
Information Retrieval
Lectures: 3 hours per week, 1 term.
Prerequisite: Computer Science S352 or equivalent.

COMPUTER SCIENCE S465
Analysis of Algorithms
Lecture: 3 hours per week, 1 term.
Prerequisites: Computer Science S352 and S361, or permission of the Department.

COMPUTER SCIENCE S471
Computer Graphics
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: 3 hours per week, 1 term.
Laboratory: 1½ hours per week, 1 term.
Prerequisites: Computer Science S352 and S443

COMPUTER SCIENCE S475
Discrete System Simulation
Lectures: 3 hours per week, 1 term.
Prerequisite: Computer Science S241; Mathematics N-241 or Quantitative Methods C244 or Engineering Mathematics C271.

COMPUTER SCIENCE S481
Computer Science Project
A series of seminars presented by students and faculty members, concerning their particular interest. Students will work on a project in conjunction with a faculty member.
Seminar: 1 hour per week, 2 terms.
Project: 2 hours per week. 2 terms.
Prerequisite: Registration in final year of the Bachelor of Computer Science programme, or permission of the Department.
71.9 Certificate Programme in Quality Control

The programme leading to the Certificate in Quality Control is offered at the Loyola campus, in the Evening Division only.

Admission Requirements
Applications for admission to the certificate programme in Quality Control are submitted to the Evening Division Office at the Loyola campus.

General Admission requirements are listed in § 13.

Special requirements are a Diploma of Collegial Studies, or its equivalent, including the CEGEP courses Math 101, 103, 105 and 203, or their equivalents.

Curriculum for the Certificate in Quality Control
To be recommended for the award of the Certificate in Quality Control, students must satisfactorily complete the programme of 48 credits specified below. Of the total credits required, 36 pertain directly to quality control, while the remainder are from computer science, mathematics and other allied areas.

The courses offered in the programme will provide the student with an in-depth understanding and working knowledge of the principles and practices used in the rapidly expanding field of quality control.

The programme is fully endorsed by the Montreal Section of the American Society for Quality Control (ASQC). It has been designed in keeping with the requirements stipulated by the Education Institute of the ASQC headquarters and, as such, does much to prepare candidates for the ASQC Quality Engineer Certificate examinations.

Academic Regulations
Students are subject to the academic regulations of the Evening Division at the Loyola campus.

Course Requirements
To be recommended for the award of the Certificate, students must satisfactorily complete the following courses:

- QUAL C C200 Elementary Metrology
- QUAL C C201 Advanced Metrology
- QUAL C C202 Statistical Quality Control
- QUAL C C203 Statistical Sampling
- QUAL C C204 Basic Concepts of Reliability
- QUAL C C205 Reliability Engineering
- QUAL C C206 Quality Management
- QUAL C C207 Design of Experiments
- QUAL C C208 Quality Assurance Technology
- COMPS Cl 221 Introduction to Business Programming
- COMPS Cl 241 Elementary Fortran Programming
- COMPS Cl 424 Computer Applications of Statistics

Course descriptions for courses offered in the Faculty of Engineering, designated C above, are given below. The Computer Science courses, designated L, are described under the Loyola Faculty of Arts and Science, § 51.

COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.5.

QUALITY CONTROL C200
Elementary Metrology
An introductory course dealing with general measurement concepts, methods for estimating accuracy and precision, and systematic and constant errors.

Included are: mathematical concepts in metrology, statistical analysis of measurement data, the role of standards, legal bases, systems of measurement, master standards, principles involved in the use of projectors, pneumatic comparators, and direct reading measuring machines. (3 credits)

QUALITY CONTROL C201
Advanced Metrology
This course applies the principles presented in Elementary Metrology, and explores the value of these principles through everyday applications to modern technology.

Special consideration is given to the "Systeme Internationale" (Modernized Metric System) and its influence on the immediate future of industry, including the use of conversion tables and formulae.

The course expands on non-destructive testing techniques, including, in some depth, radiographic, ultrasonic and nucleonic gauging and measurement applications. (3 credits)

Prerequisite: Quality Control C200.

QUALITY CONTROL C202
Statistical Quality Control
Effective theory and practice for maintaining process control of manufactured products. A workshop course with full student participation in solving a variety of practical quality control problems.

Discussed are the concept of variation, frequency distributions, functions of a distribu-
FACULTY OF ENGINEERING
71.9
CERTIFICATE PROGRAMME IN QUALITY CONTROL:
COURSE DESCRIPTIONS

QUALITY CONTROL C203
Statistical Sampling

The principles of sampling the manufactured product, and the risks involved for both producer and consumer, are presented in lecture/workshop sessions. Discussed are probability theory, the binomial, Poisson and hyper-geometric distributions; their development and application to sampling theory. Also included are three classifications of sampling plans, AQL, AOQL, and LTPD, and the various types of sampling plans within each classification, such as single, double, multiple, unit sequential, and continuous plans and their associated operating characteristic curves. Mil-Std-105D and Mil-Std-414 are discussed in detail and the Dodge and Romig tables are highlighted. (3 credits)

Prerequisite: Quality Control C202

QUALITY CONTROL C204
Basic Concepts of Reliability

A mixed format of lectures, workshops, problems and discussions designed to familiarize the student with the basic principles of reliability. Building gradually from historical review, definitions and concepts, the course discusses probability theory, Poisson and exponential distributions, reliability equation, MTBF and failure rate concepts, Weibull analysis, mean and median ranks, confidence statements, life characteristic curves, system reliabilities, standby systems, associated problems and other related topics. (3 credits)

Prerequisite: Quality Control C202

QUALITY CONTROL C205
Reliability Engineering

Statistical methods in life testing. Introduction, reliability, concepts and definitions, historical review and development. Life characteristic curve, Poisson and exponential distributions, exponential reliability equation, MTBF and failure rate concepts. Chi square confidence statements and intervals, Weibull analysis, mean and median ranks, associated problems. Probability theory, system reliabilities, standby systems, and other related topics. (3 credits)

Prerequisite: Quality Control C201

QUALITY CONTROL C206
Quality Management

Emphasis is on general principles of planning and managing rather than quality control methodology. The concept of total quality control, from design, development and manufacture to purchase and customer use, is developed. The economics of quality, the planning and implementation of a quality cost programme, organization for quality, procurement quality control, in-process control, motivation for quality, inspection and test planning as well as the planning of the product, system quality audit and customer feedback are topics treated in detail. (3 credits)

QUALITY CONTROL C207
Design of Experiments

An introductory course, providing a more scientific approach to experimentation with emphasis on the use of statistical designs for data interpretation and high confidence in the results and overall costs.
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  81.3.3 BFA Honours Programme Requirements
  81.3.4 Honours Committee
  81.3.5 Diploma in Art Education

DIVISION OF VISUAL ARTS

81.4 PROGRAMMES IN STUDIO ARTS

81.5 STUDIO ART I

81.6 STUDIO ART II

81.7 ART EDUCATION

81.8 ART HISTORY

81.9 CINEMA

DIVISION OF PERFORMING ARTS

81.10 THEATRE ARTS

81.11 MUSIC
81.1 Faculty of Fine Arts

Dean
ALFRED PINSKY
Associate Dean
EDWY F. COOKE

81.2 Admission Requirements

General admission requirements are listed in §13. Specific requirements for admission to the major programmes in Studio Art are as follows:

- Art History and Studio Art
- Art Education
- Graphic Design

Two full studio courses, one full Art History course and one additional full course selected from Art History, Cinema, Music or Theatre.

A student without the necessary studio courses must take Art C200 as a prerequisite to other studio courses in the Visual Arts.

NOTE: Quebec universities have agreed to admit to the appropriate undergraduate programmes any collegial student successfully completing the above programme provided, of course, that resources are sufficient. When all such qualified students have been admitted, the University reserves the right to admit students who may not have all the specific prerequisites according to its own criteria.

The number of students accepted into the BFA programmes will depend upon the space available. Applicants for all Studio Art Programmes, who have a limited background, will be required to submit a portfolio and/or slides of work to the Portfolio Committee, Division of Visual Arts, for placement recommendation. Concordia students wishing to transfer into the Fine Arts Faculty should fill out the necessary faculty transfer forms available from the Admissions Office on the Sir George Williams Campus or should complete a Faculty of Fine Arts Student Request form on the Loyola Campus.

81.3 Degree Requirements

Students preparing for the degree of Bachelor of Fine Arts will take a minimum of 90 credits. Each credit represents, for the average student, a minimum of 45 hours of work spread across lectures, conferences, laboratories, studio or practice-periods, tests, examinations and personal work.

81.3.1 BFA Degree Requirements

Graduation with the degree of Bachelor of Fine Arts requires:

1. Successful completion of a Specialization, Major programme or Double Minor.

Students must successfully complete at least 24 of the 90 credits outside their area of concentration. These 24 credits shall be
selected according to the following requirements:

a) 18 credits shall be outside the Faculty of Fine Arts.

b) 6 credits shall be outside their area of concentration, but may be within the Faculty of Fine Arts.

**Concentration Requirement**

The Concentration Requirement can be satisfied either by a Major programme (60 credits) or by a Double Minor (2 x 30 credits). The selection is to be made upon entry, prior to registration.

The requirement of selecting a Major programme upon entry should not be thought of as being necessarily a final commitment. The Fine Arts programme is designed to be flexible enough to allow for changes of orientation, subject, of course, to limitations in the case of certain programmes in great demand.

A "Minor" is made up of an approved sequence of 30 credits. The term "Double Minor" states that the student has followed, within the requirements for the BFA degree, a planned programme of study in two specialized fields, with a lower degree of concentration in either than is afforded by a Major Programme. A student may select any two of the Minors to form a "Double Minor".

**81.3.2 RESIDENCY REQUIREMENTS**

To fulfill the residency requirements for a BFA degree with a Major in Art Education, Graphic Design or Studio Art, at least 30 of the credits in Studio Art and 6 of the credits in Art History must be taken at Concordia. Ordinarily this, combined with the other Degree Requirements § 81.3, will imply that the full-time student must enrol for two years of study at Concordia University.

**Programme Advisers**

**Student Programme Adviser**

A. ADAMS, Asst. to the Dean

Art Education

F. BARRY

H. SHUMWAY

Art History

D. ANDRUS

S. PAIKOWSKY, Honours Adviser

Art History and Studio Art

M. DEWES, Studio Art

E. JAMES, Art History

Cinema

A. HERMAN

T. WAUGH

Drama

W. REZNICEK

Drama in Education

B. MACKAY

Fine Arts

See Art History, Cinema, Drama, Music and Studio Art.

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**FACULTY OF FINE ARTS**

**81.3.5 DIPLOMA IN ART EDUCATION**

The Faculty of Fine Arts offers a one-year course leading to the Diploma in Art Education.

This course is integrated with the Bachelor of Fine Arts, (Art Education Major) to provide a continuous pattern of studies preparing art specialists for teaching in elementary and secondary schools.

In order to qualify for admission students must have completed the Concordia University Bachelor of Fine Arts, (Art Education Major) or the equivalent. Graduates of other institutions will be considered if they have had the equivalent of an undergraduate major in studio work and can present an acceptable portfolio. They will be expected to make up the Education and Art Education courses included in the Bachelor of Fine Arts, (Art Education Major).

The Diploma Course is offered in the Day Division only. Graduates who have been awarded the Diploma in Art Education meet the requirements for a Specialists Certificate in Art, awarded by the Quebec Board of Education. Detailed course description will be found in the Graduate Studies Calendar.
S1.4 Programmes in Studio Arts

Director of the Division of Visual Arts
J. KELLY

Students are responsible for fulfilling their particular degree requirements, hence the following sequence must be read in conjunction with § 81.3.

The superscript indicates credit value.

60 BFA Major in Art History and Studio Art

30* Chosen from Art History C240, C338, C339, C342, C343, C345, C441, C442, C443, C444, C446, C480, C490

30 Studio Art Elective credits (6 credits may be from Scenography C200, C201, C202, Cinema C311 or 6 credits in Music chosen in consultation with the adviser.)

* Art C460 or Art C461 may be substituted for 6 credits in Art History.

60 BFA Major in Fine Arts *

0-24 Music Section: Music Elective credits chosen in consultation with the programme adviser, Music.

0-24 Studio Art Section: Studio Elective credits which may include Art C460.


0-24 Cinema Section: chosen from Cinema C211, C212, C311, C312, C321, C322, C426, C427.

0-24 Theatre Arts Section: chosen from Theatre Performance C201, C202, C203, C204, Scenography C200, C201, C202, C300, C320, Drama in Education C200, Theatre C201, C300, C301, C401.

* Credits must be taken in a minimum of 3 fields with a maximum of 24 credits in any single field.

60 BFA Major in Graphic Design

12 Art History Elective credits *

30 Drawing C200, Graphic Design C200, C250, C300, C301, Photography C201

6 chosen from Graphic Design C400, C450

12 Studio Art Elective credits

* Students with exemption for Art History C240 may substitute 6 credits in Studio Art for 6 credits in Art History.

60 BFA Major in Studio Art

6 Art History Elective credits

6 Lecture/seminar Elective credits in Art or Art History

48 Visual Arts Studio Elective credits (6 credits may be taken in studio courses in Cinema, Music or Theatre Arts selected in consultation with an adviser from Cinema, Music or Theatre Arts)

30 Minor in Art History and Studio Art

12-18 Studio Art Elective credits

12-18 chosen from Art History C240, C338, C339, C342, C343, C345, C441, C443, C444, C445, C446.
81.5 Studio Art I

(Design, Graphic Design, Photography, Printmaking)

| Associate Professor and Assistant Director | F. MULVEY
| Visual Arts, Studio I | B. WAINWRIGHT
| C. GABRIEL-LACKI |
| Associate Professors | Assistant Professors |
| J. GOGUEN | T. GIBSON |
| D. JONES | I. WHITTOME |
| J. KELLY |

### 81.5.1 COURSE DESCRIPTIONS

**PORTFOLIOS:** Any student without a CEGEP Diploma in 051.00 Programme who wishes to register for a course in Studio Art must submit a portfolio of their work to the Portfolio Committee of the Division of Visual Arts at least one week prior to their registration date.

#### DESIGN

**DESIGN C200**

Introduction to Design
- Prerequisites: CEGEP Programme 051.00 or Art C200 or the equivalent. The dynamics and structures of two and three dimensional design. (6 credits) NOTE A/See § 200.3 NOTE: This course combines Design 201 and Design 301 given 1975-77.

**GRAPHIC DESIGN**

**GRAPHIC DESIGN C200**

Graphic Design I
- Prerequisite: Graphic Design C-250 previously or concurrently. The application of visual ideas to communication processes. (6 credits) NOTE A/See § 200.3

**GRAPHIC DESIGN C250**

Design and Typography
- Prerequisite: CEGEP Programme 051.00 or Art C200 or the equivalent. Graphic Design C200 should be taken concurrently by Graphic Design majors. The dynamics and structures of two-dimensional design; a basic study of letter form and typography and their application in graphic communication. (6 credits) NOTE A/See § 200.3

**GRAPHIC DESIGN C300**

Graphic Design II
- Prerequisite: Graphic Design C200. An intermediate design course which deals with various aspects of graphic communication. (3 credits) NOTE A/See § 200.3

**GRAPHIC DESIGN C301**

Graphic Communication
- Prerequisite: Graphic Design C200, C250. An intermediate design course which deals with various aspects of graphic communication. (3 credits) NOTE A/See § 200.3

**GRAPHIC DESIGN C400**

Graphic Design III
- Prerequisite: Graphic Design C300. Students will experiment with a variety of media and be individually directed in planning and completing their design projects. (6 credits) NOTE A/See § 200.3

**GRAPHIC DESIGN C450**

Advanced Graphic Communication
- Prerequisite: Graphic Design C250, C300, C301. A continuation of Graphic Design C301. (6 credits) NOTE A/See § 200.3

**PHOTOGRAPHY**

**PHOTOGRAPHY C201**

Photography I
- Prerequisite: CEGEP Programme 051.00 or Art C200 or equivalent. The use of photography and light as a source of image and ideas. (3 credits) NOTE A/See § 200.3

**PHOTOGRAPHY C301**

Photography II
- Prerequisite: Photography C201. A continuation of Photography C201. (3 credits) NOTE A/See § 200.3

**PRINTMAKING**

**PRINTMAKING C200**

Printmaking I
- Prerequisite: Drawing C200 previously or concurrently. A study of the basic principles of printmaking through experience with various approaches both traditional and contemporary. A student may specialize in lithography, serigraphy, or intaglio. (6 credits) NOTE A/See § 200.3

**PRINTMAKING C300**

Printmaking II
- Prerequisite: Printmaking C200. Continuation of Printmaking C200. (6 credits) NOTE A/See § 200.3

**PRINTMAKING C400**

Printmaking III
- Prerequisite: Printmaking C300. Continuation of Printmaking C300. (6 credits) NOTE A/See § 200.3
81.6 Studio Art II

(Drawing, Painting, Sculpture)

Associate Professor and Assistant Director
Visual Arts, Studio II
J. I. SMITH

Professors
G. MOLINARI
A. PINSKY

Associate Professors
U. COMTOIS
Y. GAUCHER

J. KRAUSE
J. MILLER

Associate Professors
M. DEWES
R. GORDON
H. W. JONES
P. LANDSLEY

Lecturer
W. KROL

81.6.1 COURSE DESCRIPTIONS

PORTFOLIOS: Any student without a CEGEP Diploma in 051.00 Programme who wishes to register for a course in Studio Art must submit a portfolio of their work to the Portfolio Committee of the Division of Visual Arts at least one week prior to their registration date.

ART

ART C200
Studio Art I
An introduction to studio art including drawing, painting, design, sculpture and related media. (6 credits) NOTE A/See § 200.3

ART C434
Materials and Methods of the Artist
Prerequisite: Permission of the Division. Through a series of special projects this course will familiarize the student with some of the various materials, techniques and other aspects of the artist's craft. Since special emphasis will be given to historical techniques, this course is particularly recommended to all students in art history. Lectures and studio periods. (6 credits)

ART C436
Studio Workshop: Special Studies
Prerequisite: 3rd year standing * and permission of the Section. This course will provide the opportunity for a limited number of students to pursue advanced studies in the studio area. (6 credits) * less than 36 credits remaining in degree programme

ART C460
Analysis of Great Works of Art
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. (6 credits) NOTE A/See § 200.3

ART C461
Aesthetic Inquiry in Visual Arts
A course in the application of aesthetic theories to the objects and events of visual arts.

Topics will include the artistic process as expression, intuition and imagination. Further consideration will be given to the products of painting, sculpture and graphics emphasizing various contemporary critical and theoretical stances. (6 credits) NOTE A/See § 200.3

DRAWING

DRAWING C200
Drawing I
Prerequisite: CEGEP Programme 051.00 or Art C200 or equivalent. An exploration of drawing as a means of expression. Various media are employed to examine and express form, space, figurative and other graphic images. (6 credits) NOTE A/See § 200.3

DRAWING C300
Drawing II
Prerequisite: Drawing C200. A drawing course in which various media and forms of expression will be explored at the more advanced level. Lectures and studio periods. (6 credits)

DRAWING C400
Drawing III
Prerequisite: Drawing C300. Continuation of Drawing C300. (6 credits)

PAINTING

PAINTING C200
Painting I
Prerequisite: CEGEP Programme 051.00 or Art C200 or equivalent. An exploration of painting, colour, style, image, visual skills and the technology of painting materials. (6 credits) NOTE A/See § 200.3

PAINTING C300
Painting II
Prerequisite: Painting C200. A course in which various media and forms of expressions will be explored at the more advanced level. (6 credits) NOTE A/See § 200.3
STUDIO ART C400
Industrial Design
A course integrating applied design of various media in areas of display, exhibits, product design and industrial design. Emphasis placed on designing and communicating to the client and public. The student is involved in space planning, use of materials, human engineering and professional presentation techniques. (3 credits)

STUDIO ART C480
Anatomy and Drawing
Prerequisites: Art C200, Drawing C200, Design C200. Basic anatomy in drawing the human figure will be taught. Both static and action poses will be dealt with. Special emphasis will be placed on portraiture. Anatomical analysis, including proportion, will be investigated. (3 credits)
81.7.1 PROGRAMMES

Students are responsible for fulfilling their particular degree requirements, hence the following sequence must be read in conjunction with § 81.3.

The superscript indicates credit value.

60 BFA Major in Art Education

Pattern A
21* Studio Art Elective credits (3 credits to may be substituted from Music, Cinema or Theatre Arts.)
12 Art History Elective credits (6 credits to may be chosen from Art C460*, C461*).
15 Art C430*, Art C432*, Art Education C400* (Third year).

NOTE: Pattern A is recommended for teaching Studio and/or Art History at the secondary level. Students applying for the Diploma in Art Education and Quebec Teacher Certification must, in addition, take Education S-201*.
* The remainder of 60 credits.

81.7.2 COURSE DESCRIPTIONS

ART EDUCATION C200
Art for Classroom Use
A practical and theoretical course of particular use to teachers. Concepts of art education, the use of materials and techniques are considered in relation to classroom situations. Students are introduced to various art media including painting, collage construction, printing and modelling. The course includes the use of slides, films and selected readings. (6 credits) NOTE A/See § 200.3

ART C430
Multi-Media
Prerequisites: Eighteen credits in studio courses. The technology of video, film, slides, sound, etc. as media for the artist and art educator. (3 credits) NOTE A/See § 200.3

ART C432
Crafts
Prerequisites: Eighteen credits in studio courses. The basis of crafts such as ceramics, textiles, metal work, leathercraft, etc. as potential media for the artist and art educator. (6 credits) NOTE A/See § 200.3
ART EDUCATION C400
Seminar in Art Education
Prerequisite: Art education majors or permission of the Section. The development of a philosophy of art education on the basis of studio experiences, readings, the observation of and participation in teaching situations, etc. (6 credits) NOTE A/See § 200.3

CERAMICS
CERAMICS C200
Ceramics I
Prerequisite: Art Education major or permission of the Section. An introduction to clay as an art medium. The student will investigate the various techniques for forming, shaping and decorating clay for firing and glazing. (6 credits)
81.8 Art History

Assistant Professor and Assistant Director
Visual Arts, Art History
R. GREENBERG
Professor
E. F. COOKE
Associate Professors
D. ANDRUS

81.8.1 PROGRAMMES
Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 81.3.

The superscript indicates credit value.

60 BFA Honours in Art History
24-30 Art History C240", C339", C342", C343", C345"

60 BFA Major in Art History
36-42 Art History C240", C339", C342", C343", C443", C444", C480"

* Up to 12 credits may be substituted for Art History courses. These credits may be selected from any faculty in consultation with the Assistant Director, Art History.

60 BFA Major in Art History and Studio Art
30 Studio Art Elective credits (6 credits may be from Scenography C200", C201", C202", Cinema C311", or 6 credits in Music chosen in consultation with the adviser.)

* Art C460" or Art C461" may be substituted for 6 credits in Art History.

60 BFA Major in Fine Arts *
0-24 Music Section: Music Elective credits chosen in consultation with the programme adviser, Music.
0-24 Studio Art Section: Studio Elective credits which may include Art C460"
0-24 Art History Section: Chosen from Art History C240", C339", C342", C343", C345", C443", C445"

* Credits must be taken in a minimum of 3 fields with a maximum of 24 credits in any single field.

30 Minor in Art History
18-24 Art History C240", C342", C343", C444"
6-12 Chosen from Art History C338", C339", C345", C439", C441", C442", C443", C445", C446", C471", C472", C480", C490"

30 Minor in Art History and Studio Art
12-18 Studio Art Elective credits
ART HISTORY C232
Introduction to Architecture and Sculpture
To enable the student to understand and appreciate great works in architecture, sculpture, and to develop a discriminating understanding of three-dimensional form in design and in his architectural environment. The main types, styles and techniques of these arts are explained and illustrated. To understand their significance, the student is encouraged to become familiar with great examples of these arts through pictorial reproductions, slides, models, museum visits, and field trips. (6 credits) NOTE A/See § 200.3

ART HISTORY C240
Introduction to Art History
A study of selected works which represent outstanding and significant achievements in the visual arts. (6 credits)

ART HISTORY C249
Canadian Sculpture and Architecture
A study of the more important developments of Canadian architecture and sculpture from indigenous forms to contemporary works. (6 credits) NOTE A/See § 200.3

ART HISTORY C338
Art in the Ancient Near East
An introduction to the art, architecture and minor arts in the ancient Near East and Aegean placing special emphasis upon Egypt, Mesopotamia, Crete and the Cycladic Islands. (6 credits) NOTE A/See § 200.3

ART HISTORY C339
Art and Architecture in Ancient Greece and Rome
An introduction to the art and architecture of the Mycenaean, Greek, Etruscan and Roman civilizations. (6 credits) NOTE A/See § 200.3

ART HISTORY C342
The Renaissance in Italy
A survey of painting, sculpture and architecture in Italy during the fifteenth and sixteenth centuries. (6 credits) NOTE A/See § 200.3

ART HISTORY C343
The History of Nineteenth Century Art
Starting with the French Revolution and Neo-Classicism, this course will examine Romanticism, Realism, Naturalism, Impressionism, Post-Impressionism and other nineteenth century European movements leading to the emergence of Fauvism in the twentieth century. (6 credits) NOTE A/See § 200.3

ART HISTORY C441
The History of Medieval Art
Prerequisite: Art History C240. This course will consider the growth of European art and architecture from Early Christian times through the fourteenth century. (6 credits) NOTE A/See § 200.3

ART HISTORY C442
The Renaissance in Northern Europe
Prerequisite: Art History C240 or C342. This course will investigate the development of art in France, Flanders, Germany and Austria in the fifteenth and sixteenth centuries. (6 credits) NOTE A/See § 200.3

ART HISTORY C443
History of Baroque and Rococo Art
Prerequisite: Art History C240. This course will examine the major achievements in Dutch, Flemish, English, French, Italian, Spanish, German and Austrian art and architecture in the seventeenth and eighteenth centuries. (6 credits) NOTE A/See § 200.3

ART HISTORY C444
The Arts in Canada
Prerequisite: Art History C240 or enrollment in the Canadian Studies Major. A history of the arts in Canada from the 17th century to the present day. Where relevant, special attention will be given to those European and American influences which have shaped its growth. (6 credits) NOTE A/See § 200.3

ART HISTORY C445
American Art and the European Background
Prerequisite: Art History C240. A survey of American Art from earliest colonial times into the early 20th century, viewed against the background of those European developments which have significantly affected it. (6 credits) NOTE A/See § 200.3

ART HISTORY C446
History of Modern Architecture
Prerequisite: Art History C240 or permission of the Section. Examination of the major building styles from the Georgian era through the 20th century with emphasis on the contributions of individual architects from Louis Sullivan to Mies van der Rohe. (6 credits) NOTE A/See § 200.3

ART HISTORY C447
Special Topics in Art History
Prerequisite: Twelve credits in Art History or permission of the Section. A seminar for advanced students which will provide an opportunity for the study of limited and more specialized aspects of Art History. (3 credits) NOTE A, C/See § 200.3

ART HISTORY C471
Special Topics in Art History
Prerequisite: Permission of the Section. A student repeating Art History C471 registers under Art History C472 for credit. (3 credits) NOTE A, C/See § 200.3

ART HISTORY C472
Special Topics in Art History
Prerequisite: Permission of the Section. A student repeating Art History C471 registers under Art History C472 for credit. (3 credits) NOTE A, C/See § 200.3
ART HISTORY C473
Special Topics in Art History
Prerequisite: Permission of the Section. A student repeating Art History C472 registers under Art History C473 for credit. (3 credits)
NOTE C/See § 200.3

ART HISTORY C474
Special Topics in Art History
Prerequisite: Permission of the Section. A student repeating Art History C473 registers under Art History C474 for credit. (3 credits)
NOTE C/See § 200.3

ART HISTORY C480
Special Studies in the History of Art
Prerequisite: Twelve credits in Art History. Students in this course will examine and discuss selected aspects of Art History. The areas chosen for consideration will vary from year to year according to the instructor’s field of specialization. All students will be required to undertake research projects and to submit papers based on their investigation. (6 credits)
NOTE A, C/See § 200.3

ART HISTORY C481
Special Studies in the History of Art
Prerequisite: Twelve credits in Art History. A student repeating Art History C480 registers under Art History C481 for credit. (6 credits)
NOTE C/See § 200.3

ART HISTORY C490
Advanced studies in Art History
Prerequisite: Eighteen credits in Art History and permission of the Section. A course for advanced students which will provide for the study of limited and more specialized areas of Art History. The areas chosen for study will vary from year to year according to the instructor’s field of specialization. All students will be required to conduct research on selected aspects of the course topic. (6 credits)
NOTE A/See § 200.3

ART HISTORY C491
Advanced Studies in · Art History
Prerequisite: Permission of the Section. A student repeating Art History C490 registers under Art History C491 for credit. (6 credits)
NOTE C/See § 200.3
81.9 Cinema

Assistant Professor and Assistant Director
Visual Arts, Cinema
J. LOCKE

81.9.1 PROGRAMMES

Students are responsible for fulfilling their particular degree requirements, hence the following sequences must be read in conjunction with § 81.3.

The superscript indicates credit value.

48 BFA Major in Cinema

24 Cinema C211\(^\text{I}\), C212\(^\text{I}\), C311\(^\text{I}\), and either C312\(^\text{I}\) or C411\(^\text{I}\).
24* Cinema Elective credits
* A student may substitute 3 to 12 credits chosen from French S461\(^\text{I}\), Photography C201\(^\text{I}\) and Photography C301\(^\text{I}\).

NOTE: Students who received credit for Cinema 211 or Cinema 212 before September 1971 must consider these courses as equivalent to Cinema C311 and Cinema C312, respectively, for the purpose of fulfilling degree requirements.

60 BFA Major in Fine Arts *

0-24 Music Section: Music Elective credits chosen in consultation with the programme adviser, Music.
0-24 Studio Art Section: Studio Elective credits which may include Art C460\(^\text{I}\).
0-24 Art History Section: Chosen from Art History C240\(^\text{I}\), C339\(^\text{I}\), C342\(^\text{I}\), C343\(^\text{I}\), C345\(^\text{I}\), C443\(^\text{I}\), C445\(^\text{I}\).
0-24 Cinema Section: Chosen from Cinema C211\(^\text{I}\), C212\(^\text{I}\), C311\(^\text{I}\), C312\(^\text{I}\), C321\(^\text{I}\), C322\(^\text{I}\), C426\(^\text{I}\), C427\(^\text{I}\).
0-24 Theatre Arts Section: Chosen from Theatre Performance C201\(^\text{I}\), C202\(^\text{I}\), C203\(^\text{I}\), C204\(^\text{I}\), Scenography C200\(^\text{I}\), C201\(^\text{I}\), C202\(^\text{I}\), C300\(^\text{I}\), C301\(^\text{I}\), C40\(^\text{I}\).
* Credits must be taken in a minimum of 3 fields with a maximum of 24 credits in any single field.
819.2 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.3

CINEMA C211
History of Film
A study of the history of film from its beginning to the 1950's. Changes in the forms, functions, aesthetics and technology of film will be dealt with through the examination of individual works seen in a chronological sequence. Weekly screenings. (6 credits) NOTE A/See § 200.3

CINEMA C311
An Introduction to Filmmaking I
Prerequisite: Cinema C211 or C212, previously or concurrently. An introductory course in the theory and practice of filmmaking. This course will stress the individual student's creative efforts in producing films in Super 8 or 16mm. Lectures and laboratory periods. (6 credits), NOTE A/See § 200.3

CINEMA C312
Film Aesthetics
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 will be discussed. Weekly screenings. (6 credits). NOTE A/See § 200.3

CINEMA C334
Problems and Methods of Film Production and Distribution
Prerequisite: Cinema C311. Topics include organizing a film project, financial aspects of film production and distribution, legal problems, film laboratory procedures and postproduction operations. (3 credits)

CINEMA C333
Script Writing I
Prerequisite: Written permission of the Cinema Section and Cinema C311. 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. (3 credits)

CINEMA C411
Filmmaking II
Prerequisite: Written permission of the Cinema Section and Cinema C311. An intermediate course in the theory and practice of filmmaking. Lip sync 16mm production is introduced in all its aspects: cinematography, sound recording, editing, lectures and laboratory periods. (6 credits). NOTE A/See § 200.3 NOTE: Students are required to bear the cost of film stock, processing, printing and other materials.

CINEMA C412
Filmmaking III
Prerequisite: Written permission of the Cinema Section and Cinema C311. An advanced course in the theory and practice of filmmaking. The completion of an advanced 16mm film project including its writing, design, production and editing. (6 credits) NOTE A/See § 200.3 NOTE: Students are required to bear the cost of film stock, processing, printing and other materials.

CINEMA C413
Filmmaking IV
Prerequisite: Written permission of the Cinema Section and Cinema C412. A student repeating Cinema C412 is not allowed to repeat Cinema C413. Only students who were granted an exemption from Cinema C411 or C412 may repeat Cinema C412. (6 credits) NOTE A/See § 200.3 NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

CINEMA C420
Special Topics in Cinema
Prerequisite: Written permission of the Cinema Section. A course for advanced students which will provide an opportunity for the study of limited and more specialized aspects of cinema. (3 credits) NOTE A/ See § 200.3
CINEMA C421
Special Topics in Cinema
Prerequisite: Written permission of the Cinema Section. A student repeating Cinema C420 registers under Cinema C421 for Credit. (3 credits) NOTE A: C/See § 200.3

CINEMA C426
English Canadian Film
A survey of English Canadian film from the earliest surviving works to the present. Topics include fictional, documentary, animation and experimental film. The role of the National Film Board will be discussed. Weekly Screenings. (3 credits)

CINEMA C427
Le cinéma québécois
Revue des films québécois mettant principalement l'accent sur les œuvres contemporaines. Les aspects culturels et politiques particuliers de ces films seront examinés. La structure de l'industrie cinématographique du Québec et le rôle de l'Office National du Film y seront traités particulièrement. Visionnements hebdomadaires. (3 credits)

CINEMA C428
Independent Study I
Prerequisite: Written permission of the Cinema Section. A course of independent study in which the student may explore a specific area of Film Production or Cinema Studies. (3 credits)
NOTE: With the written permission of the Cinema Section, a student may take this course twice for credits. The student registers the second time under Cinema C429.

CINEMA C429
Independent Study II
Prerequisite: Written permission of the Cinema Section. A student repeating Cinema C428 a second time registers for credits under Cinema C429. (3 credits)

CINEMA C436
Professional Internship
Prerequisite: Second year standing* and enrolment as a Cinema Major. A Film Production student who has been employed within the film industry for not less than 500 hours within the same calendar year or similarly, a Cinema Studies student who has been employed for the same amount of time in film research, archival work, editing a film publication or in writing film criticism, may apply for 6 credits on the understanding that the Cinema Section must be satisfied that the work was done under the joint supervision of a qualified professional and a full-time Cinema Faculty member. (6 credits)

* less than 66 credits remaining in degree programme.

CINEMA C437
Technical Aspects of Filmmaking
Prerequisite: Cinema C311. Cinema Majors only. Creative and experimental exercises in cinematography, sound and other components of filmmaking. The complex technology of filmmaking will be emphasized as forming a basis for the creative use of the medium. (6 credits) NOTE A/See § 200.3

CONSERVATOIRE D'ART CINEMATOGRAPHIQUE
Les sections des cours suivants seront offertes sous la direction du Conservatoire d'Art Cinématographique:

CINEMA C211
L'histoire du cinéma
Historique du cinéma, de ses débuts aux années 50. Les changements dans les formes, les fonctions, l'esthétique et les aspects techniques du cinéma y seront traités par l'examen des œuvres individuelles vues dans un ordre chronologique. Visionnements hebdomadaires. (6 credits) NOTE A/See § 200.3

CINEMA C427
Le cinéma québécois
Revue des films québécois mettant principalement l'accent sur les œuvres contemporaines. Les aspects culturels et politiques particuliers de ces films seront examinés. La structure de l'industrie cinématographique du Québec et le rôle de l'Office National du Film y seront traités particulièrement. Visionnements hebdomadaires. (3 crédits)
81.10 Theatre Arts

Director of the Division of Performing Arts
J. CAZALET

Associate Professor and Assistant Director Performing Arts, Theatre Arts
P. SPENSLEY

Professor
N. SPRINGFORD

Assistant Professors
R. ALLISON
D. HOFFMAN
W. REZNICEK
K. SLOAN

Lecturers
P. ABRAMS
B. MACKAY

81.10.1 PROGRAMMES

Students are responsible for fulfilling their particular degree requirements, hence the following sequence must be read in conjunction with § 81.3.

The superscript indicates credit value.

60 BFA Specialization in Theatre Performance

9 Theatre C201, C300
36 Theatre Performance C201, C202, C203, C204, C301, C303, C304, C306, C401, C402, C403, C404
15 Production C201, C301, C302, C401, C402

60 BFA Specialization in Theatre Scenography

36 Chosen from Scenography C200, C201, Production C201, C301, C302, C401, C402, Theatre C201, C300
6 Chosen from Scenography C300, C320
12 Chosen from Scenography C300, C301, C302, C320, C321, C400, C401, C420
6 Theatre Arts Elective credits

54 BFA Major in Drama

12 Theatre C201, C300, Theatre Performance C201
6 Chosen from Production C201, C301, C303, C304, C305
9 Chosen from Scenography C200, C201, C202, C302, C321, Theatre Performance C202, C203, Production C201, C301, C302
21 Theatre Arts Elective credits selected in consultation with the Theatre Arts Section
6 Dramatic Literature*
* Students will select 6 credits in Dramatic Literature in consultation with the Theatre Arts Section.

60 BFA Major in Fine Arts

0-24 Music Section: Music Elective credits chosen in consultation with the programme adviser, Music.
0-24 Studio Art Section: Studio Art Elective credits which may include Art C460.
0-24 Cinema Section: Chosen from Cinema
THEATRE C402
Playwriting Workshop
Prerequisite: Permission of the Section.
Study of existing methods of playwriting in relation to stage production. Emphasis is on the
creative work of the student guided by the
principles and creative process. Promising scripts
will receive workshop production. (3 credits)
NOTE A/See § 200.3

THEATRE C403
Advanced Practicum
Prerequisite: Permission of the Section. Special
studies in acting, directing, playwriting, design, technical production, or other related
areas. (3 credits) NOTE A/See § 200.3

THEATRE C404
Seminar in Theatre
Prerequisite: Permission of the Section. Research
in one phase of theatre. A specific topic will be
chosen each year from such areas as the
history of acting, directing, or design aspects of
theatre practice or theatre history. (3 credits)
NOTE A/See § 200.3

THEATRE C413
Advanced Practicum
Prerequisite: Written permission of the Sec-
tion. Continuation of Theatre C403. A student
who has completed Theatre C403 registers
under Theatre C413 for further credit. (3 credits)

THEATRE C414
Seminar in Theatre
Prerequisite: Written permission of the Sec-
tion. Continuation of Theatre C404. A student
who has completed Theatre C404 registers
under Theatre C414 for further credit. (3 credits)

DRAMA IN EDUCATION

DRAMA IN EDUCATION C200
Creative Drama I
Introduction to the principles and practice of
creative drama. Improvisation in movement and
oral expression. Development of the individual's
expressive capacities. Relating creative drama
to learning processes in schools. (6 credits)
NOTE A/See § 200.3

DRAMA IN EDUCATION C300
Creative Drama II
Prerequisite: Drama in Education C200. Creative
drama activities, integrating music, art, and
drama forms. Exploration of innovative uses of audio and visual materials. (6 credits)
NOTE A/See § 200.3

DRAMA IN EDUCATION C400
Creative Drama III
Prerequisites: Drama in Education C300 and
permission of the Section. Advanced individual
and group development through improvisation,
Collective creation. Pedagogy and the drama
curriculum. (6 credits)

DRAMA IN EDUCATION C410
Children's Theatre
Prerequisite: Written permission of the Sec-
tion. Theories of stage presentation for the child
audience. Study of scripts. performance tech-
niques, special conditions and responsibilities.
(6 credits)

PRODUCTION

PRODUCTION C201
Theatre Production I
Prerequisite: Written permission of the Sec-
tion. Practical experience in theatre production
in the areas of acting, playwriting, management,
design and/or technical practice. The nature of
the student's participation will be determined in
consultation with faculty. Attendance at rehears-
als and/or workshops outside of class time will
be required. (3 credits)

PRODUCTION C301
Theatre Production II
Prerequisites: Production C201 and written
permission of the Section. Continuation of Pro-
duction I. The nature of the student's participa-
tion will be determined in consultation with
faculty. Attendance at rehearsals and/or work-
shops outside of class time will be required. (3 credits)

PRODUCTION C302
Theatre Production III
Prerequisites: Production C301 and written
permission of the Section. Continuation of Pro-
duction II. The nature of the student's participa-
tion will be determined in consultation with
faculty. Attendance at rehearsals and/or work-
shops outside of class time will be required. (3 credits)

PRODUCTION C303*
Art Dramatique
Prerequisites: Written permission of the Sec-
tion. Note: Theatre Arts and Drama Majors may
substitute this course for Production C403.

PRODUCTION C304
Independent Study I
Prerequisite: Permission of the Section and
six credits in Performance or Scenography.
Credit granted to individual students under the
supervision of a Faculty member for practical
drama production activity outside the academic
Theatre programme. Each completed project
will include planning, participation and a written
evaluation of the practical experience. (3 credits)
NOTE A/See § 200.3

PRODUCTION C305
Independent Study II
Prerequisite: Production C304 and permis-
sion of the Section. Continuation of Production
C304. (3 credits) NOTE A/See § 200.3

PRODUCTION C401
Theatre Production IV
Prerequisites: Production C302 and written
permission of the Section. Continuation of Pro-
duction III. The nature of the student's par-
ticipation will be determined in consultation with
faculty. Attendance at rehearsals and/or work-
shops outside of class time will be required. (3 credits)
NOTE A/See § 200.3

PRODUCTION C402
Theatre Production V
Prerequisites: Production C401 and written
permission of the Section. Continuation of Pro-
duction IV. The nature of the student's partici-
pation will be determined in consultation with
faculty. Attendance at rehearsals and/or work-
shops outside of class time will be required. (3 credits)
THEATRE PERFORMANCE

THEATRE PERFORMANCE C201
Acting I
Emphasis on developing imagination and physical expression, including basics of improvisation. Preparation of scenes and play excerpts for class study. (3 credits) NOTE A/See § 200.3

THEATRE PERFORMANCE C202
Acting II
Prerequisite: Theatre Performance C201. Preparation for the role, including scene and character analysis and the continued development of imagination and expression. Focus will be on the presentation of scenes from plays. (3 credits) NOTE A/See § 200.3

THEATRE PERFORMANCE C203
Voice, Movement and Speech I
An introduction to the use of the body as an acting tool, with emphasis on movement, comprising exercises for vocal and physical flexibility, relief from tension, expressiveness of gesture and body composition, spatial awareness, vocal support, vocal quality, and speech mechanics. (3 credits) NOTE A/See § 200.3

THEATRE PERFORMANCE C204
Voice, Movement and Speech II
Prerequisite: Theatre Performance C203. Integration of body and voice with increased focus on the speech processes. (3 credits) NOTE A/See § 200.3

THEATRE PERFORMANCE C301
Performance Techniques I
Prerequisites: Enrollment in Specialization in Theatre Performance, or written permission of the Section. Fundamentals of special stage techniques for the theatre performer such as stage combat, dance and singing. (3 credits)

THEATRE PERFORMANCE C303
Voice, Movement and Speech III
Prerequisite: Theatre Performance C204. Continued integration and development of physical and vocal expression with emphasis on performance analysis. (3 credits)

THEATRE PERFORMANCE C304
Voice, Movement and Speech IV
Prerequisite: Theatre Performance C303. Continued tonics of physical and vocal expression, with emphasis on the study of dialects. (3 credits)

THEATRE PERFORMANCE C305
Directing I
Prerequisites: 12 credits from Theatre Performance and Scenography and written permission of the Section. Examination of and experimentation in staging and production organization. Exercises in visual, structural and conceptual analysis. (3 credits) NOTE A/See § 200.3

THEATRE PERFORMANCE C306
Acting III
Prerequisites: Theatre Performance C202 and C204 and written permission of the Section. A continuation of Acting II focusing on an in-depth study of the development of character in relation to the dramatic text beginning with the realistic genre. Presentation of scenes. (3 credits)

THEATRE PERFORMANCE C401
Acting IV
Prerequisites: 24 credits in Theatre Performance (excluding Theatre Performance C305) and written permission of the Section. A studio course in acting styles with detailed analysis of plays of various periods. (3 credits)

THEATRE PERFORMANCE C402
Acting V
Prerequisites: 24 credits in Theatre Performance (excluding Theatre Performance C305) and written permission of the Section. Exploration and experimentation in contemporary approaches to performance style and form. (3 credits)

THEATRE PERFORMANCE C403
Voice, Speech and Movement V
Prerequisites: Theatre Performance C304 and written permission of the Section. Advanced study of Voice, Speech and Movement including scripting of original material for such forms of performance as reader’s theatre and mime. Individual and group performance. (3 credits)

THEATRE PERFORMANCE C404
Performance Techniques II
Prerequisites: Theatre Performance C301 and written permission of the Section. Continued study of special techniques for the theatre performer. (3 credits)

THEATRE PERFORMANCE C405
Directing II
Prerequisites: Theatre Performance C305 and written permission of the Section. Students will direct short plays for studio presentation, lectures and independent research. (3 credits)

SCENOGRAPHY

SCENOGRAPHY C200
Design Studio
Prerequisite: Permission of the Section. An introduction to the basic theories and principles of visual design as applied to theatrical production. (6 credits) NOTE A/See § 200.3

SCENOGRAPHY C201
Stagecraft I
An introduction to the materials, equipment and techniques employed in scenery, properties, stage lighting instrumentation, and costumes for the theatre. (3 credits)

SCENOGRAPHY C202
Stagecraft II
Prerequisite: Scenography C201 (may be taken concurrently). A continuation of Scenography C201, including scene painting, the design and construction of stage properties, and theatre graphics. (3 credits) NOTE A/See § 200.3

SCENOGRAPHY C300
Scenic Design I
Prerequisites: Scenography C200 and C202. Studio work in the theory and practice of designing scenery for various types of theatrical productions with emphasis on the development of design concepts from script to stage and the techniques of presentation, including drafting, rendering, and model making. Consideration will be given to the history of architecture and decor and the development of various forms of theatre. (6 credits) NOTE A/See § 200.3

SCENOGRAPHY C301
Stagecraft III
Prerequisite: Scenography C202. Practice in the planning, organization, preparation and performance phases of theatrical production. Students will assume positions of responsibility in production management, stage management, technical direction and other major areas. (3 credits) NOTE A/See § 200.3
SCENOGRAPHY C302
Lighting and Sound
Prerequisite: Scenography C201. The technology and aesthetics of lighting and sound for the theatre. Students will assume positions of responsibility in theatre production. (3 credits)

SCENOGRAPHY C320
Costume Design I
Prerequisites: Scenography C200 and C201. A studio course in the theory and practice of designing costumes for various types of theatrical productions with emphasis on the development of design concepts and methods of presentation. Consideration will be given to the history of clothing and costume. (6 credits) NOTE A/See § 200.3

SCENOGRAPHY C321
Costume Construction
Prerequisite: Scenography C201. Practical work in the cutting and construction of stage costumes. Consideration will be given to the nature of fabrics and methods of handling them. Working from sketches, students will construct costumes for theatre productions. (3 credits)

SCENOGRAPHY C400
Scenic Design II
Prerequisites: Scenography C300 and C302. Practical work in the design and execution of scenery and lighting for theatrical production. (6 credits)

SCENOGRAPHY C401
Special Scenographic Techniques
Prerequisite: Scenography C202. Advanced practical work in areas such as masks, special make-up techniques, special effects, projected scenery, special properties construction techniques. (3 credits) NOTE A/See § 200.3

SCENOGRAPHY C420
Costume Design II
Prerequisites: Scenography C320 and C321 previously or concurrently. Practical work in the design and execution of costumes for theatrical production, including studio work in draping and flat pattern drafting. (6 credits)
81.11 Music

Associate Professor and Assistant Director
Performing Arts, Music
P. COHEN

Associate Professor
S. FRIEDLAND

81.11.1 PROGRAMMES
Students are responsible for fulfilling their particular degree requirements, hence the following sequences must be read in conjunction with § 81.3.

The superscript indicates credit value.

60 BFA Major in Music

0-6 Music C2211, C2221
3-6 Music C2301 or Music C2311
12 Integrative Music Studies C2006, C3106
6 Chosen from Music History C3016, C3026, C3036, C3046, C4016, C4026
30-39 Music Elective credits chosen in consultation with the Programme Adviser

30 Minor in Music

0-6 Music C2211, C2221
6 Integrative Music Studies C2006
18-24 Music Elective credits chosen in consultation with the Programme Adviser

81.11.2 COURSE DESCRIPTIONS
Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.3

MUSIC

MUSIC C221
Theory/Aural Training I
A review of the fundamentals of music theory and aural training. Workshop and laboratory. (3 credits) NOTE A/See § 200.3

MUSIC C222
Theory/Aural Training II
Prerequisite: Music C221 or equivalent. Continuation of Music C221. (3 credits) NOTE A/See § 200.3

MUSIC C223
Understanding Music
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. (3 credits) NOTE A/See § 200.3

MUSIC C230
Private Study B1
Prerequisite: Permission of the Music Section. This course offers individual or group instruction in an approved area of music with a qualified teacher of the student's choice. Students should understand that fees will vary with individual instructors. (6 credits) NOTE A/See § 200.3

MUSIC C231
Private Study A1
Prerequisite: Permission of the Music Section. This course offers individual or group...
COURSE 81.11.2 MUSIC: FINE ARTS

FACULTY OF
FINE ARTS

INSTRUCTION IN A APPROVED AREA OF MUSIC WITH A QUALIFIED TEACHER OF THE STUDENT'S CHOICE. STUDENTS SHOULD UNDERSTAND THAT FEES WILL VARY WITH INDIVIDUAL INSTRUCTORS. (3 CREDITS) NOTE A/SEE § 200.3

MUSIC C330
Private Study B II
Prerequisite: Music C230 and permission of the Music Section. Continuation of Music C230. (6 CREDITS) NOTE A/SEE § 200.3

MUSIC C331
Private Study A II
Prerequisite: Music C231 and permission of the Music Section. Continuation of Music C231. (3 CREDITS) NOTE A/SEE § 200.3

MUSIC C430
Private Study B III
Prerequisite: Music C330 and permission of the Music Section. Continuation of Music C330. (6 CREDITS) NOTE A/SEE § 200.3

MUSIC C431
Private Study A III
Prerequisite: Music C331 and permission of the Music Section. Continuation of Music C331. (3 CREDITS) NOTE A/SEE § 200.3

MUSIC C471
Independent Study
Prerequisite: Permission of the Section. An independent study intended primarily for the student who wishes to do research in an area of his own choice. He may alternatively elect to compose a large scale scale work or perform an approved programme in public recital. Staff members will be available for consultation. (3 CREDITS) NOTE C/SEE 200.3

MUSIC C472
Independent Study
Prerequisite: Permission of the Music Section. Continuation of Music 471. (3 CREDITS) NOTE C/SEE 200.3

CONTEMPORARY MUSIC STUDIES

CONTEMPORARY MUSIC STUDIES C300
Studio Music I
Prerequisite: Permission of the Music Section. A workshop programme in selected Jazz, Rock, Popular and related styles. The study will include ensemble playing, improvisation, score reading, jazz theory and arranging. Practice period/conference. (6 CREDITS) NOTE A/SEE § 200.3

CONTEMPORARY MUSIC STUDIES C401
Studio Music II
Prerequisite: Contemporary Music Studies C300 or the Music Section. An intensive study of selected problems in the development of studio musicianship. The areas covered are determined by specific class needs. Practice period/conference. (3 CREDITS) NOTE A/SEE § 200.3

CONTEMPORARY MUSIC STUDIES C402
Studio Music III
Prerequisite: Contemporary Music Studies C401 or permission of the Music Section. Continuation of Contemporary Music Studies C401. (3 CREDITS) NOTE A/SEE § 200.3

CONTEMPORARY MUSIC STUDIES C411
Seminar-Workshop in Composition I
Prerequisite: Permission of the Music Section. A Seminar-Workshop in one or more of the following: free composition; music for film; T.V., stage or mixed media; jazz, electronic, computer, aleatory, "brain" and experimental music. Whenever possible, provisions will be made for public performance of student works. (3 CREDITS) NOTE A/SEE § 200.3

CONTEMPORARY MUSIC STUDIES C412
Seminar-Workshop in Composition II
Prerequisite: Contemporary Music Studies C411. Continuation of Contemporary Music Studies C411. (3 CREDITS) NOTE A/SEE § 200.3

CONTEMPORARY MUSIC STUDIES C413
Seminar-Workshop in Composition III
Prerequisite: Contemporary Music Studies C412. Continuation of Contemporary Music Studies C412. (3 CREDITS) NOTE A/SEE § 200.3

CONTEMPORARY MUSIC STUDIES C414
Seminar-Workshop in Composition IV
Prerequisite: Contemporary Music Studies C413. Continuation of Contemporary Music Studies C413. (3 CREDITS) NOTE A/SEE § 200.3

INTEGRATIVE MUSIC STUDIES

INTEGRATIVE MUSIC STUDIES C200
Theory/Composition/Analysis I
Prerequisite: Music C222 or equivalent. A workshop in theory, composition, analysis and related areas. The course will explore one or more traditional, contemporary or experimental approaches to the organization and uses of sound materials. Classroom and laboratory. (6 CREDITS) NOTE A/SEE § 200.3

INTEGRATIVE MUSIC STUDIES C300
Theory/Composition II
Prerequisite: Integrative Music Studies C200 or equivalent. A study that coordinates exercises in part-writing and harmony with composition. Students work in a variety of traditional and contemporary forms, styles and media. Classroom and laboratory. (6 CREDITS) NOTE A/SEE § 200.3

INTEGRATIVE MUSIC STUDIES C310
Aural Perception: Analytical Hearing I
Prerequisite: Music C222 or permission of the Music Section. A self-paced workshop in ear training. Hearing skills are developed through exercises in aural concentration, recall, reproduction, imagination, analysis and transcription. The sound materials used range from traditional to electronic, natural and mechanical. Classroom and laboratory. (6 CREDITS) NOTE A/SEE § 200.3

INTEGRATIVE MUSIC STUDIES C321
Comparative Analysis I
Prerequisites: Twelve credits in Music or permission of the Music Section. A comparative study of selected works representing various forms, styles and historical periods. (3 CREDITS) NOTE A/SEE § 200.3

INTEGRATIVE MUSIC STUDIES C322
Comparative Analysis II
Prerequisite: Integrative Music Studies C321. Continuation of Integrative Music Studies C321. (3 CREDITS) NOTE A/SEE § 200.3

INTEGRATIVE MUSIC STUDIES C331
Instrumentation/Arranging I
Prerequisite: Permission of the Music Section. A study of the capabilities and uses of instruments in a variety of musical situations ranging from small ensembles to full orchestra. The areas covered are determined by class needs. Workshop and laboratory. (3 CREDITS) NOTE A/SEE § 200.3
MUSIC HISTORY C302
Music of the Baroque
Prerequisite: Integrative Music Studies C200 or equivalent. Representative works from the early 17th to the mid 18th century. The evolution of "common practice" will be traced in the forms, styles and performance practices of the great masters and schools. (3 credits)

MUSIC HISTORY C303
Classical Music
Prerequisite: Integrative Music Studies C200 or equivalent. Representative works from the age of Haydn, Mozart and Beethoven. Styles, forms and performance practices will be examined within the context of 18th century social and cultural developments. (3 credits)

MUSIC HISTORY C304
Romanticism in Music
Prerequisite: Integrative Music Studies C200 or equivalent. Representative works from the late 18th to early 20th century. Styles and performance practices will be studied as expressions of the romantic consciousness. (3 credits)

MUSIC HISTORY C305
Music in the Twentieth Century
Prerequisite: Integrative Music Studies C200 or equivalent. A selected area or movement in 20th century music. In a given semester the topic for consideration may include the work of a major composer, a national school, contemporary classicism, serialism, jazz, folk, popular, electronic, aleatory or experimental music. (3 credits)

MUSIC HISTORY C401
Special Study in Music History I
Prerequisite: 12 credits in Music and permission of the Music Section. 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 music. (3 credits) NOTE A/See § 200.3

MUSIC HISTORY C402
Special Study in Music History II
Prerequisite: Music History C401. Continuation of Music History C401. (3 credits) NOTE A/See § 200.3

MUSIC IN EDUCATION
MUSIC IN EDUCATION C300
Music for Classroom Use
Prerequisite: Permission of the Music Section. 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, Mantetten, Schafer, Dennis. While the main emphasis is on the cultivation of musicality in the pre-school and elementary school child, the implications for music education in general are also explored. Classroom work includes opportunities for demonstration and practice teaching. (6 credits) NOTE A/See § 200.3

MUSIC IN EDUCATION C431
Seminar-Workshop in Music Education I
Prerequisite: Permission of the Music Section. A study of selected problems in the musical education of the child. Among the areas to be considered are the music curriculum, music and the other arts, concepts of musicality, musical thinking, the education of the musically gifted child, and the musical environment in home and school. Discussion will
MUSIC IN EDUCATION C432
Seminar-Workshop in Music Education II
Prerequisite: Music in Education C431. Continuation of Music in Education C431. (3 credits) NOTE A/See § 200.3

MUSIC PERFORMANCE STUDIES
MUSIC PERFORMANCE STUDIES C201
Choir/Orchestra I
Prerequisite: Permission of the Music Section. Students must, on approval, receive credit for participation in the Faculty choir and/or orchestra. Credit is also available for participation in other approved choral or orchestral groups. (3 credits) NOTE A/See § 200.3

MUSIC PERFORMANCE STUDIES C201
Choir/Orchestra II
Prerequisite: Music Performance Studies C201. Continuation of Music Performance Studies C201. (3 credits) NOTE A/See § 200.3

MUSIC PERFORMANCE STUDIES C202
Choir/Orchestra III
Prerequisite: Music Performance Studies C301. Continuation of Music Performance Studies C301. (3 credits) NOTE A/See § 200.3

MUSIC PERFORMANCE STUDIES C311
Early Music Ensemble I
Prerequisite: Permission of the Music Section. A study, through performance, of representative vocal and instrumental works from the middle ages to the early baroque. (3 credits) NOTE A/See § 200.3

MUSIC PERFORMANCE STUDIES C312
Early Music Ensemble II
Prerequisite: Music Performance Studies C311. Continuation of Music Performance Studies C311. (3 credits) NOTE A/See § 200.3

MUSIC PERFORMANCE STUDIES C321
Traditional/Contemporary Ensemble I
Prerequisite: Permission of the Music Section. A study, through performance, of selected works from the traditional and contemporary repertoires. The works studied are determined by class needs and the particular skills of each student. (3 credits) NOTE A/See § 200.3

MUSIC PERFORMANCE STUDIES C322
Traditional/Contemporary Ensemble II
Prerequisite: Permission of the Music Section. Continuation of Music Performance Studies C321. (3 credits) NOTE A/See § 200.3

MUSIC PERFORMANCE STUDIES C411
Early Music Ensemble III
Prerequisite: Music Performance Studies C412. Continuation of Music Performance Studies C412. (3 credits) NOTE A/See § 200.3

MUSIC PERFORMANCE STUDIES C412
Early Music Ensemble IV
Prerequisite: Music Performance Studies C411. Continuation of Music Performance Studies C411. (3 credits) NOTE A/See § 200.3

MUSIC PERFORMANCE STUDIES C421
Advanced Repertoire I
Prerequisite: Permission of the Music Section. An intensive study of selected works from the repertoire. Particular consideration will be given to acquiring proficiency in conducting, balance, style, interpretation and related dimensions of higher technique. (3 credits) NOTE A/See § 200.3

MUSIC PERFORMANCE STUDIES C422
Advanced Repertoire II
Prerequisite: Permission of the Music Section. Continuation of Music Performance Studies C421. (3 credits) NOTE A/See § 200.3

MUSIC PERFORMANCE STUDIES C431
Seminar-Workshop in Performance I
Prerequisite: Permission of the Music Section. This course examines selected problems in the development of performance skills. The areas covered are, whenever possible, determined by the specific interests of students. Topics, in any given year, may include: technique, practice, style, interpretation, accompaniment, ensemble, teaching children, the adult student. (3 credits) NOTE A/See § 200.3

MUSIC PERFORMANCE STUDIES C432
Seminar Workshop in Performance II
Prerequisite: Music Performance Studies C431 previously or concurrently. Topics will vary between sections and also from year to year. Continuation of Music Performance Studies C431. (3 credits) NOTE A/See § 200.3

MUSIC PERFORMANCE STUDIES C433
Seminar Workshop in Performance III
Prerequisite: Music Performance Studies C432 previously or concurrently. Topics will vary between sections and also from year to year. Continuation of Music Performance Studies C432. (3 credits) NOTE A/See § 200.3

MUSIC PERFORMANCE STUDIES C434
Seminar-Workshop in Performance IV
Prerequisite: Music Performance Studies C433 previously or concurrently. Topics will vary between sections and also from year to year. Continuation of Music Performance Studies C433. (3 credits) NOTE A/See § 200.3

WORLD MUSIC
WORLD MUSIC C300
Folk Music of the Americas
Prerequisite: Permission of the Music Section. A survey of the roots and development of traditional music in the New World. The study examines aboriginal as well as transplanted and hybrid styles; urban and rural musics with special attention to European and African antecedents; the relationship of folk musics to popular and cultivated styles; transcription and arrangement, ethnomusicological method. (6 credits) NOTE A/See § 200.3

WORLD MUSIC C310
Music in the Non-Western World
Prerequisite: Permission of the Music Section. A survey of the art, religious and folk music of non-European cultures. The study includes an examination of cross-cultural parallels and influences, instruments, notations, textures, techniques of performance and problems of interpretation. Illustrated with recordings and slides (6 credits) NOTE A/See § 200.3

WORLD MUSIC C320
Folk and Traditional Music I
Prerequisite: Permission of the Music Section. The music of a selected culture or community. While in a given year the study may consider the music of any world culture, particular attention will be given to the musical heritage of ethnic minorities residing in Canada. (6 credits) NOTE A/See § 200.3
WORLD MUSIC C330
Folk and Traditional Music II
Prerequisite: Permission of the Music Section. Continuation of World Music C320. (6 credits) NOTE A/See § 200.3

WORLD MUSIC C340
Folk and Traditional Music III
Prerequisite: Permission of the Music Section. Continuation of World Music C330. (6 credits) NOTE A/See § 200.3
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91.5 FACULTY ADVISERS  
91.6 DEPARTMENT OF BIOLOGICAL SCIENCES  
91.7 DEPARTMENT OF CHEMISTRY  
91.8 COMPUTER SCIENCE  
91.9 ECONOMICS  
91.10 DEPARTMENT OF GEOGRAPHY  
91.11 DEPARTMENT OF GEOLOGY  
91.12 DEPARTMENT OF MATHEMATICS  
91.13 DEPARTMENT OF PHYSICS  
91.14 PSYCHOLOGY (BSc)  
91.15 TEACHING OF SCIENCE
91.2 Admission Requirements

General Admission requirements are listed in § 13. Specific requirements are those contained in the CEGEP pre-science profiles. They are outlined in the following tables:

<table>
<thead>
<tr>
<th>Department</th>
<th>Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Sciences</td>
<td>2.2 or 1.4</td>
</tr>
<tr>
<td>Chemistry</td>
<td>2.2 or 1.4</td>
</tr>
<tr>
<td>Geography</td>
<td>2.24</td>
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<tr>
<td>Geology</td>
<td>2.24</td>
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<tr>
<td>Mathematics</td>
<td>2.3</td>
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<tr>
<td>Mathematics (BA)</td>
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<td>Physics</td>
<td>2.3</td>
</tr>
<tr>
<td>Psychology (BSc)</td>
<td>3.9</td>
</tr>
</tbody>
</table>

91.3 Degree Requirements

Students preparing for the degree of Bachelor of Science will take the minimum of 90 credits. Each credit represents a minimum of 45 hours spread across the total student activity including lectures, conferences, laboratories, studio or practice periods, examinations and personal work. Sixty (60) of these must be taken from the courses listed as courses offered in the Faculty of Science in the university calendar except where otherwise noted.

91.4 Programmes of Study

Students may choose to follow in their degree requirements various programmes of study. These programmes are classified as Honours degrees, degrees with a Specialization, degrees with a Major, degrees with a Minor, and Certificates.

An Honours degree consists of a minimum of 60 specified credits and indicates an in depth specialization within a field of study and high academic standing. In order to qualify for an Honours degree a student must meet all the academic qualifications and comply with the regulations set forth in § 16.2.4.

A Specialization will consist of a minimum of 60 credits of an approved sequence of courses in a specific field. The term Specialization, BSc, implies that a student has followed, within the requirements for the degree, a planned programme of concentration in a given field of study.

A Major programme consists of a minimum of 36 credits of an approved sequence of courses in a specific or related field. Note: This programme differs from the old major which had a minimum of 42 credits and a maximum of 60 credits.

A Minor programme consists of a minimum of 24 credits and indicates a lower degree of concentration.

Students may choose to follow various combinations of these programmes within their degree requirements and are required...
to indicate on their application forms the choice of Honours, Specialization or Major and any Minor.

Certificate programmes are available for practising teachers: Certificates in Mathematics for Teachers (Elementary School level) (Junior Secondary School level) and a Certificate in the Teaching of Science (Elementary School level).

There are also three Certificates in Scientific Measurement: Biology, Chemistry and Physics Options.

The content of these programmes for each department can be found with the departmental listings on the following pages.

91.5 Faculty Advisers

Biological Sciences
E. J. MALY (Honours)
S. S. ASHTAKALA
M. HERRINGTON
C. F. MACLEOD

Chemistry
T. ADLEY
M. J. KORNBLATT (Biochemistry)

Geography (BSc)
M. MARSDEN

Geology
A. DELAND
H. deROMER
S. KUMARAPELI

Mathematics
M. A. MALIK (Honours and Specialization)
J. SENEZ (Major)

Applied Mathematics
M. A. MALIK (Honours and Specialization)
J. SENEZ (Major)

Statistics
M. A. MALIK (Honours and Specialization)
J. SENEZ (Major)

Mathematics Certificates
M. A. BOSWALL (Elementary)
MARY A. BRIAN (Junior Secondary)

All Minor Programmes in Mathematics
H. W. PROPPE

Physics
A. L. KIPLING
S. K. MISRA

Psychology (BSc)
P. SHIZGAL

SIR GEORGE WILLIAMS
FACULTY OF SCIENCE
91.5 DEPARTMENT OF BIOLOGICAL SCIENCES: FACULTY ADVISERS
91.6 Department of Biological Sciences

Associate Professor and Chairman of the Department
HILDEGARD E. ENESCO

Professor
DONALD L. PEETS

Associate Professors
P. D. ANDERSON
S. S. ASHTAKALA
R. K. IBRAHIM
GERARD LEDUC
RUTH L. LOWTHER
C. F. MACLEOD

Professor
DONALD
L.
PEETS

12 Credits from the Department of Biological Sciences or in a related field chosen in consultation with the Department.

*Students entering university with CEGEP Biology 401 will be granted an exemption for Biology N-202 but must substitute 3 credits from the Department of Biological Sciences.

91.6.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 91.3, 91.4.

The superscript indicates credit value.

78 BSc Honours in Biological Sciences

Year I
21  * Bio N-202, N-203, N-204, N-213, N-224, Chem N-231*
Years II and III
21 Bio N-343, N-380, N-433, N-490, Chem N-371*
3 Chosen from Bio N-253, N-360, Zoo N-212*
3 Chosen from Bot N-231, Zoo N-215*
6 Bot N-320, N-360, or Zoo N-320*

24 Credits from the field of Biological Sciences or related fields chosen in consultation with the Department.

*Students entering university with CEGEP Biology 401 will be granted an exemption for Biology N-202 but must substitute 3 credits from the Department of Biological Sciences.

36 BSc Major in Biological Sciences

21 Bio N-203, N-204, N-213, N-224, N-343, Chem N-231*
3 Chosen from Bot N-231, Zoo N-215*
3 Chosen from Bio N-253, N-360, Zoo N-212*
6 Bot N-320, N-360, or Zoo N-320*
3 Chosen from Bio N-380, N-433*

36 BSc Major in Botany

21 Bio N-204, Bot N-210, N-231, N-320, N-360, Chem N-231*
15 Chosen from Bio N-213, N-254, N-343, N-373, N-380, N-461, Bot N-213, N-215, N-216, N-311, N-421, N-422*

36 BSc Major in Environmental Biology

21 Bio N-203, N-204, N-213, N-312, N-313, N-380, Int St S221*
15 Chosen from Bio N-253, N-254, N-310, N-314, N-373, N-381, N-416, Bot N-210, N-216, N-421, Chem N-231, Zoo N-212*

36 BSc Major in Cell and Molecular Biology

21 Bio N-224, N-343, N-433, Chem N-231, N-371*
15 Chosen from Bio N-253, N-360, N-380, N-434, N-435, N-445, N-446, Chem N-471, N-472*

12 Credits from the Department of Biological Sciences or in a related field chosen in consultation with the Department.

*Students entering university with CEGEP Biology 401 will be granted an exemption for Biology N-202 but must substitute 3 credits from the Department of Biological Sciences.

12 Credits from the Department of Biological Sciences or in a related field chosen in consultation with the Department.

*Students entering university with CEGEP Biology 401 will be granted an exemption for Biology N-202 but must substitute 3 credits from the Department of Biological Sciences.

12 Credits from the Department of Biological Sciences or in a related field chosen in consultation with the Department.

*Students entering university with CEGEP Biology 401 will be granted an exemption for Biology N-202 but must substitute 3 credits from the Department of Biological Sciences.
Fundamentals of Ecology
Prerequisite: CEGEP Biology 301 or equivalent. An introduction to the basic principles of ecology, dealing with the most important components of ecosystems. The course illustrates how environmental factors determine the distribution and abundance of plants and animals in various aquatic and terrestrial biomes of the world. Lectures only. (3 credits)

BIOLOGY N-204 (254)
Plant Biology
Prerequisite: CEGEP Biology 301 or equivalent. A survey of the major evolutionary trends in the plant kingdom. The integration of structure and function in relation to plant growth and evolution will be stressed. Lectures and laboratory. (3 credits)

BIOLOGY N-213 (453)
Fundamentals of Ecology
Prerequisite: CEGEP Biology 301 or equivalent. An introduction to the basic principles of ecology, dealing with the most important components of ecosystems. The course illustrates...
agricultural crops and forests, in food spoilage, as human pathogens, as industrial agents, as research tools, and as sources of food and drugs. Laboratories are mostly descriptive using Canadian collections. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

BIOLOGY N-255 (242)
Microorganisms and Man
Prerequisite: High School Biology or equivalent. A public awareness course designed to supply basic information to non-biologists. Attempts to control continuing and recent problems due to microorganisms and their beneficial activities in nature and their use in the production of drugs and foods are also considered. Lectures. (3 credits) NOTE: Science Students may not take this for Science credits.

BIOLOGY N-310
Field and Laboratory Ecology
Prerequisite: Biology N-213 and permission of the instructor. An introduction to the methods of qualitative and quantitative studies of aquatic and terrestrial ecosystems. Students gain experience in techniques of field investigation. Weekend field trips and laboratory work. (3 credits)

BIOLOGY N-312
Intermediate Ecology
Prerequisite: Biology N-213. An in-depth analysis of factors affecting distribution and abundance of plants and animals. Environmental physiology, adaptations of plants and animals to physical conditions, population structures and behaviour patterns as responses to the physical environment will be discussed. Lectures only. (3 credits) NOTE: Students who have taken Botany N-313 or Zoology N-313 for credit may not enrol in this course.

BIOLOGY N-313
Population Ecology
Prerequisite: Biology N-312. A theoretical approach to ecological problems. Evolutionary aspects of ecological problems, population dynamics, species diversity, stability of ecosystems, regulation of population size, competition, and predation. Lectures only. (3 credits)

BIOLOGY N-314 (454)
Fundamentals of Limnology
Prerequisite: Biology N-213, previously or concurrently. An introduction to the study of freshwater ecosystems with major emphasis on geographical, physical and chemical characteristics. The major topics include the origin of lake basins, lake morphology and morphometry, wave and currents, the optical and thermal properties of lakes, dissolved chemicals. Some aspects of water pollution are considered. Lectures only. (3 credits)

BIOLOGY N-343 (445)
Genetics
Prerequisite: CEGEP Biology 401 or Biology N-202. A course to illustrate the fundamental principles of inheritance in plants, animals and microorganisms. Mendelian genetics; gene linkage and mutation will be covered. The role of DNA as the hereditary material and genetic code will be studied in detail, as well as the mechanisms of DNA, RNA and protein synthesis. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

BIOLOGY N-344 (446)
Genetics of Higher Organisms
Prerequisite: Biology N-343. This course will cover various aspects of the genetics of multicellular and eukaryotic organisms, including cytogenetics, developmental, human, behavioural and population genetics, as well as somatic cell genetics. Lectures only. (3 credits) NOTE A/See § 200.4

BIOLOGY N-350
Immunology
Prerequisite: Biology N-224, N-343, and Chemistry N-231; Chemistry N-371, previously or concurrently. A course in modern immunology stressing the following areas of study: the structure and properties of antigens and antibodies; the nature of the immune response; cellular antibody synthesis; genetic aspects of antibody synthesis; theories relating antibody specificity to genetic potential. Lectures and conference. (3 credits)

BIOLOGY N-351
Nutrition
Prerequisite: Biology N-224 and Chemistry N-231, previously or concurrently. The concept of a balanced diet will be studied in relation to calorie content, and to protein, lipid, carbohydrate, vitamin and mineral requirements. The consequences of dietary deficiencies will be examined. Special topics such as dieting, organic foods and megavitamins will be discussed and evaluated. Lectures only. (3 credits)

BIOLOGY N-355
Microbial Physiology
Prerequisite: Biology N-253, Chemistry N-371, previously or concurrently, or permission of the instructor. A study of the biochemical activities underlying the life of microorganisms to survey the diverse patterns used by microorganisms in energy metabolism and biosynthesis. Applications of theoretical knowledge to industrial microbiology, including fermentation and antibiotic production will be examined. Lectures and conference. (3 credits)

BIOLOGY N-360 (480)
Developmental Biology
Prerequisite: Second year standing in Biological Sciences. A study of the molecular aspects of development in animal and plant cells in relation to the acquisition of form. Lectures only. (3 credits)

BIOLOGY N-372 (481)
History of Biology
Prerequisites: Any 12 credits from the Department of Biological Sciences. A course following the growth of Biological Sciences. Lectures only. (3 credits) NOTE A/See § 200.4

BIOLOGY N-373 (484)
Evolution
Prerequisites: Any 12 credits from the Department of Biological Sciences. A course to examine the concepts leading from Darwin's Theory to a modern synthesis of evolution. Lectures only. (3 credits) NOTE A/See § 200.4

BIOLOGY N-380 (482)
Biostatistics I
Prerequisites: Any 12 credits from the Department of Biological Sciences. Application of statistical methods to biological data. Descriptive statistics, binomial, Poisson and Normal distributions. Confidence limits, Tests of significance, Introduction to analysis of variance, correlation and regression. Analysis of frequencies. Lectures and laboratory. (3 credits)
BIOLGY N-381 (483)
Biostatistics II
Prerequisite: Biology N-380. Sampling methods. Analysis of variance and experimental design. Regression and correlation techniques. Biostatistical method field biology genetics and microbiology. Lectures and laboratory. (3 credits)

BIOLGY N-416 (456)
Aquatic Ecology and Water Pollution
Prerequisite: Biology N-314. An inquiry into factors governing the distribution and abundance of aquatic organisms in lakes and streams, with emphasis on the nature and significance of the responses of aquatic organisms and communities through changes in water quality with pollution, sources and types of pollutants and on methods of evaluating pollution and treating wastes. Lectures only. (3 credits)

BIOLGY N-421
Advanced Cell Physiology
Prerequisite: Biology N-224, Chemistry N-371 previously or concurrently. Lectures and seminars dealing with selected topics in cell physiology, emphasizing a molecular and experimental approach. Lectures only. (3 credits)

NOTE: Students who have taken Zoology N-422 for credit may not take Biology N-421 for credit.

BIOLGY N-433 (443)
Cytology
Prerequisite: CEGEP Biology 401 or Biology N-202 and Chemistry N-231. Cell structure of both plants and animals, with special reference to genetics. Emphasis is on experimental, molecular and ultrastructure analysis, to achieve a correlation between cell structure and function. Lectures and laboratory. (3 credits)

BIOLGY N-434 (434)
Radiation Biology and Radiotracer Methodology I
Prerequisite: Biology N-224, previously or concurrently, second or third year standing. A survey of the elements of radiation physics with emphasis on the properties of ionizing radiation and its interaction with matter including dosimetry and methods of radiation counting. The effects of radiation at the macromolecular, cellular and organismal level will be considered from both the somatic and genetic points of view. Lectures and laboratory. (3 credits)

BIOLGY N-435 (435)
Radiation Biology and Radiotracer Methodology II
Prerequisite: Biology N-434. A detailed study of selected topics in chemical and solid state dosimetry, liquid scintillation counting, neuron irradiation techniques, cell kinetics, target theory, radiation botany and mammalian radiobiology. Laboratory will emphasize the use of a wide range of radiotopes and radiation sources. A visit to a major radiation lab or reactor will be arranged. Lectures and laboratory. (3 credits)

BIOLGY N-445 (447)
Biological Regulatory Mechanisms
Prerequisite: Biology N-343, Chemistry N-371 previously or concurrently, or permission of the instructor. Metabolic pathways with an emphasis on their control and coordination; intercellular messengers in developmental and adult systems. Lectures and conference. (3 credits)

BIOLGY N-446 (448)
Molecular Genetics
Prerequisite: Biology N-343, Chemistry N-371, previously or concurrently, or permission of the instructor. Basic microbial and molecular genetics including mechanisms in protein synthesis, bacteriophage recombination. Use of genetics in the study of regulation of gene expression, the code and mechanisms in protein synthesis; bacteriophage genetics; epistasis. Lectures and conference. (3 credits)

BIOLGY N-461
Horticultural Science
Prerequisite: Biology N-204 and permission of the instructor. The scientific concepts of horticulture are emphasized. The subject material is organized in three main categories: Biology of Horticulture, Technology of Horticulture, and Industry of Horticulture; and includes topics of current interest such as: breeding crops for adaptation to any climate; chemical regulation of plant processes and effect on crop yield; environmental factors in crop production; pollutant impact on horticulture; bulk storage and processing and marketing of perishables. The role of horticultural science in meeting world food requirements as well as its impact on sociosphere are discussed. Lectures only. (3 credits)

BIOLGY N-490 (491)
Special Study
Prerequisite: Third year standing and permission from the Chairman of the Department or his representative. In this course, the student undertakes a special research project to develop his knowledge of scientific procedures as used by biologists. The project may include only library research or both library and experimental research. (6 credits)
NOTE: This course is required of Honours students in their final year. Other students may take this course with special permission of the department. All students planning to take this course must consult with the Department of Biological Sciences in their U-2 year to obtain permission to enrol.

BOTANY

BOTANY N-210 (430)
Eastern North American Flora
Prerequisite: Biology N-204. Previously or concurrently. A study of higher plant life occurring in eastern North America, including the recognition, collection, identification, classification and distribution. Field work for practical experience with the regional flora in various habitats. Lectures and laboratory. (3 credits)

BOTANY N-213 (421)
Economic Botany
Prerequisite: CEGEP Biology 301 or equivalent. Origin, development and use of selected economic plants including microorganisms. Their historical impact, prospects for future use and importance to Canadian economy are stressed as well as world-wide problems of food and alimentation. Lectures only. (3 credits)

BOTANY N-215 (434)
Biology of Mosses and Lichens
Prerequisite: Biology N-204 previously or concurrently. A survey of these organisms including distribution, classification, morphology and anatomy — information on nutrient cycling, use as indicators of air pollution and use as a research tool. Lectures and laboratory. (3 credits)
BOTANY N-216 (435)
Biology of Fresh Water and Marine Algae
Prerequisite: CEGEP Biology 301 or equivalent. A study of selected species from representative freshwater and marine groups including their occurrence, life-cycles and growth requirements. Topics include their involvement in polluted and non-polluted water systems, as special research subjects as well as their increasing economic importance in industry and as food supplements. Laboratories are mostly descriptive, using Canadian collections. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

BOTANY N-231 (410)
Plant Anatomy
Prerequisite: Biology N-204. A study of the internal structure of the plant as related to the processes of growth and metabolism. An experimental approach is presented to the study of the relationship between structure and function of various parts of the plant. Includes pathological, ecological and economic aspects of anatomy with emphasis on developmental anatomy. Laboratory work includes preparation of permanent slides using plant microtechnique. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

BOTANY N-311
Plant Bioecology
Prerequisite: Biology N-204. A study of modern systematics concerned with the application of experimental techniques in genetics, cytology, chemistry and statistics to the solution of questions relating to the classification of plants and their evolutionary sequences. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

BOTANY N-320 (431)
Plant Metabolism
Prerequisite: Chemistry N-231. A study of the physiological processes of higher plants related to nutrition and metabolism. Topics include: absorption and transport of water and mineral salts, general nutrition, photosynthesis, carbohydrate and nitrogen metabolism. Metabolic processes are discussed in relation to structure and environmental factors and some aspects of energy transformations and energy flow are included. Interrelations among the various metabolic processes are discussed. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

BOTANY N-360 (432)
Physiology of Plant Growth
Prerequisite: Botany N-320 previously or concurrently. A physiological and biochemical study of growth regulators, their mechanism of action and their role in plant growth and metabolism. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

BOTANY N-421
Physiology of Stress in Plants
Prerequisite: Botany N-320 or permission of the department. The physiological and molecular basis of plant response to various environmental stresses such as freezing, drought, soil toxicants, environmental pollutants and radiation effects are discussed. The study of the control of such stresses and of the injuries they produce, resistance, tolerance and avoidance mechanisms that exist are discussed. Response of crop plants and effects on crop quality and crop yields are stressed. Lectures only. (3 credits)

BOTANY N-422 (418)
Plant Biochemistry
Prerequisite: Chemistry N-371 previously or concurrently, or permission of the instructor. Biochemical study of natural constituents and secondary metabolites unique to plants; their biosynthesis and role in plant biology. Topics include, among others, plant cell wall components; unusual amino acids; plant pigments, terpenoids, steroids and alkaloids; phenolic compounds and flavonoid pigments; growth hormones and inhibitors. Lectures only. (6 credits)

ZOOLOGY

ZOOLOGY N-212
Invertebrate Zoology
Prerequisite: Biology N-203 previously or concurrently. An introductory course to the structure and function of the invertebrate phyla. Emphasis will be placed on evolutionary aspects. Laboratory work will include physiological experiments with living organisms. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

ZOOLOGY N-213 (422)
Parasitology
Prerequisite: Biology N-203 previously or concurrently. A survey of the parasitic groups of invertebrates with special reference to the parasites of man. Lectures and laboratory. (3 credits)

ZOOLOGY N-214 (425)
Entomology
Prerequisite: Biology N-203 previously or concurrently. An introduction to the study of insects, their morphology, taxonomy, physiology and ecology. Lectures and laboratory. (3 credits)

ZOOLOGY N-215 (422)
Chordate Anatomy
Prerequisite: Biology N-203. A study of the anatomy and evolutionary development of the major organ systems of the chordates. In the laboratory the lamprey, the mudpuppy, the turtle and the cat will be dissected. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

ZOOLOGY N-317
Biology of Fishes
Prerequisites: Biology N-213 and Zoology N-215. This introduction to fish biology will include a study of anatomy, physiology and classification of the major groups of fishes as well as their ecology and zoogeography. Emphasis will be placed on freshwater fishes. Lectures and laboratory. (3 credits)

ZOOLOGY N-320 (431)
Animal Physiology
Prerequisites: Biology N-203 and Chemistry N-231. A study of comparative animal physiology at the system level. Lectures and laboratory. (6 credits)

ZOOLOGY N-331 (473)
Fundamentals of Histology
Prerequisite: Biology N-203. A comparative study of the microscopic characteristics of cells, tissues and organs of the vertebrates. Lectures and laboratory. (3 credits) NOTE A/See § 200.4
ZOOL OGY N-332 (474)
Comparative Vertebrate Histology
Prerequisite: Zoology N-331. An advanced comparative study of the vertebrate organ systems at the ultrastructural and histological level. Those registered will be expected to participate in a seminar. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

ZOOL OGY N-361 (462)
Vertebrate Embryology
Prerequisite: Zoology N-215 previously or concurrently. The fundamental processes of growth and development in the vertebrates. A comparative study is made of selected vertebrate species with emphasis on the experimental and molecular aspects. Lectures and laboratory. (3 credits)

ZOOL OGY N-422 (432)
Advanced Animal Physiology
This course is no longer offered. It has been replaced by Zoo N-423.

ZOOL OGY N-423
Advanced Animal Physiology
Prerequisite: Zoology N-320. Lectures and seminars dealing with selected topics in mammalian, comparative and environmental physiology. Lectures and seminars only. (3 credits)

This course was given in the summer of 1976.

BIOLOGY N-459
Endocrinology
(3 CREDITS)
### 91.7 Department of Chemistry

#### 91.7.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 91.3, 91.4. The superscript indicates credit value.

**NOTE:** The Order of Chemists of Quebec has fully accredited the curricula of i) Honours in Chemistry ii) Specialized Degree in Analytical Chemistry iii) Specialized Degree in Biochemistry iv) Specialized Degree in Chemistry. Upon satisfactory completion of any of the above programmes a graduate is eligible for membership in the Order. A working knowledge of French is required.

**90 BSc Honours in Chemistry**

<table>
<thead>
<tr>
<th>Year</th>
<th>Courses</th>
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<tbody>
<tr>
<td>I</td>
<td>Chem N-211, N-213, N-222, N-223, N-231, N-241</td>
</tr>
<tr>
<td></td>
<td>Math N-270</td>
</tr>
<tr>
<td>II</td>
<td>Chem N-311 (or N-411), N-322, N-323, N-331, N-342, N-343, N-350, N-354, N-462</td>
</tr>
<tr>
<td></td>
<td>Year III</td>
</tr>
<tr>
<td></td>
<td>Chem N-431, N-442, N-443, N-445, N-452, N-453, N-463, N-491</td>
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</table>

**60 BSc Specialization in Chemistry**

<table>
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<th>Year</th>
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</thead>
<tbody>
<tr>
<td>I</td>
<td>Chem N-211, N-213, N-222, N-223, N-231, N-241</td>
</tr>
<tr>
<td></td>
<td>Comp Sc S211, S221</td>
</tr>
<tr>
<td>II</td>
<td>Chem N-311, N-323, N-331, N-342, N-343, N-350 and N-354</td>
</tr>
<tr>
<td></td>
<td>Comp Sc S216</td>
</tr>
<tr>
<td>III</td>
<td>Chem N-411, N-419 and N-452</td>
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</table>

**76 BSc Specialization in Biochemistry**

<table>
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<th>Year</th>
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<tbody>
<tr>
<td>I</td>
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</tr>
<tr>
<td></td>
<td>Biological Sciences* credits</td>
</tr>
<tr>
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<td>Year II</td>
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<tr>
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<td>Chem N-331, N-342, N-343, N-350, N-352, N-371</td>
</tr>
<tr>
<td></td>
<td>Biological Sciences credits*</td>
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<tr>
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<td>Year III</td>
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<tr>
<td></td>
<td>Chem N-471 or N-472</td>
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<tr>
<td></td>
<td>Chem credits*</td>
</tr>
<tr>
<td></td>
<td>Biological Sciences, Biophysics or Psych Elective credits*</td>
</tr>
<tr>
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<td>Phys N-480</td>
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</table>

* In consultation with the Chemistry Department

**69 BSc Specialization in Analytical Chemistry**

<table>
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<tr>
<th>Year</th>
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<tbody>
<tr>
<td>I</td>
<td>Chem N-211, N-213, N-222, N-223, N-231, N-241</td>
</tr>
<tr>
<td></td>
<td>Comp Sc S211, S221</td>
</tr>
<tr>
<td>II</td>
<td>Chem N-311, N-323, N-331, N-342, N-343, N-350 and N-354</td>
</tr>
<tr>
<td></td>
<td>Comp Sc S216</td>
</tr>
<tr>
<td>III</td>
<td>Chem N-411, N-419 and N-452</td>
</tr>
</tbody>
</table>

**36 BSc Major in Chemistry**

<table>
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<tr>
<th>Year</th>
<th>Courses</th>
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<tbody>
<tr>
<td>I</td>
<td>Chem N-211, N-213, N-222, N-223, N-231, N-241</td>
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<tr>
<td></td>
<td>N-220</td>
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<tr>
<td>II</td>
<td>Chem N-311, N-323, N-331, N-342, N-343, N-350 and N-354</td>
</tr>
<tr>
<td></td>
<td>Comp Sc S216</td>
</tr>
<tr>
<td>III</td>
<td>Chem N-411, N-419 and N-452</td>
</tr>
</tbody>
</table>

* Students who have passed CEGEP Chemistry 202 may replace Chemistry N-231* with N-233.

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**Associate Professor and Chairman of the Department**

RODERICK E. TOWNSHEND

**Professor and Dean of Science**

ROGER H. C. VERSCHINGEL

**Professors**

LAWRENCE D. COLEBROOK

JAMES G. DICK

JOHN RUSSELL UFFORD

**Associate Professors**

THOMAS J. ADLEY

PETER H. BIRD

ZACHARIAS HAMLET

JACQUES LENOIR

ROBIN T. B. RYE

NICK SERPONE

OSWALD S. TEE

RONALD A. WESTBURY

**Assistant Professor**

MARY JUDITH KORNBLATT
CHEMISTRY N-201
General Chemistry I
States of matter. Atoms, elements and isotopes; atomic structures. The electronic structure of atoms. The Periodic Table and chemical bonding. Ions in solution. Lectures, tutorials and laboratories. (3 credits) NOTE A/See § 200.4. Science Students may not take this course for Science credits.

CHEMISTRY N-202
General Chemistry II
Prerequisite: Chem 201. Covalent compounds. Chemical reactions; mechanism and kinetics. Special topics: oriented either to the biological sciences, biochemistry and chemistry, or to the physical sciences, engineering and computer sciences. Lectures, tutorials and laboratories. (3 credits) NOTE A/See § 200.4. Science Students may not take this course for Science credits.

CHEMISTRY N-211 (412)
Introductory Quantitative Analysis
Prerequisites: CEGEP Chemistry 201; CEGEP Physics 301; CEGEP Mathematics 103 and 203; or equivalent courses. Chemical equilibrium as applied to volumetric and gravimetric procedures: general theory of volumetric titrations; titration curves; application of general titration theory to neutralization precipitation, complexation, oxidation-reduction and nonaqueous solvent titrations; theory of potentiometry and potentiometric titrations; theory of gravimetric analysis; methods of separation by chemical and physical means; electrogravimetry and electrolytic separations; absorptiometric theory and absorptiometric methods of analysis. Lectures and laboratory. Textbook: Dick: Analytical Chemistry (McGraw-Hill) (4 credits)

CHEMISTRY N-213 (413)
Statistical Treatment of Chemical Data
Prerequisites: CEGEP Chemistry 201; CEGEP Physics 301; CEGEP Mathematics 103 and 203; or equivalent courses. The statistical treatment of chemical data including: observations and measurements; error and accuracy; significant figures, expression of results; probability theory, normal and Poisson error distributions; precision; measures of spread; propagation of errors; rejection of observations; statistical analysis; graphical analysis; straight line law; nonlinear laws; method of least squares; accuracy of values derived from graphs; literature data, primary and secondary sources; use of chemical literature indices. Lectures only: (2 credits)

CHEMISTRY N-222
Introduction to Inorganic Chemistry
Prerequisites: CEGEP Chemistry 201; CEGEP Physics 301; CEGEP Mathematics 103 and 203; or equivalent courses. Atomic Structure, Chemical Bonding, Ionic Solids, Chemistry of Anions, Solvents, Solutions, Acids and Bases. The Periodic Table and Chemistry of the Elements (Summary). Lectures and Laboratory. Textbook: Cotton and Wilkinson: Basic Inorganic Chemistry (Wiley). (3 credits) NOTE A/See § 200.4.

CHEMISTRY N-223
Chemistry of the Main Group Elements
Prerequisites: CEGEP Chemistry 201, Physics 301, Mathematics 103 and 203; or equivalent courses. Descriptive Chemistry of: Hydrogen, Group IA Lithium to Cesium; Group IIA, Beryllium to Radium; Boron; Group IIIA, Aluminium to Thallium; Carbon: Group IVB, Silicon to Lead: Nitrogen: Group VB, Phosphorus to Bismuth; Oxygen: Group VIIB, Sulphur to Polonium; The Halogens; The Noble Gases: Group IIB, Zinc, Cadmium and Mercury. Lectures and Laboratory. Textbook: Cotton and Wilkinson: Basic Inorganic Chemistry (Wiley). (3 credits) NOTE A/See § 200.4.

CHEMISTRY N-231 (421)
Introductory Organic Chemistry
Prerequisite: CEGEP Chemistry 201 or an equivalent course. Chemistry of aliphatic and aromatic compounds; structural isomerism; stereochemistry; mechanisms; electronic theories and stereochemistry of organic reactions; applications of spectroscopy to organic chemistry. Lectures and laboratory. Textbook: To be announced. (6 credits)

CHEMISTRY N-233 (423)
Introductory Organic Chemistry
Prerequisites: One semester of organic chemistry at CEGEP level (CEGEP Chemistry 202). Reactions and syntheses of aliphatic and aromatic compounds. Mechanisms and electronic theories of organic reactions. Application of spectroscopy to organic chemistry. Lectures and laboratory. Textbook: To be announced. (3 credits) NOTE A/See § 200.4

CHEMISTRY N-241 (431)
Introductory Physical Chemistry
Prerequisites: CEGEP Chemistry 201; CEGEP Physics 301; CEGEP Mathematics 103 and 203; or equivalent courses. Real gases; kinetic molecular theory; equilibrium thermodynamics (first, second and third laws); electrochemical cells and the Nernst equation; applications of thermodynamics to one-component, two-component and three-component systems; chemical kinetics; ions in solution. Lectures only. Textbook: Daniels and Alberty: Physical Chemistry (Wiley, 4th ed) (6 credits)

CHEMISTRY N-281 (461)
Industrial Inorganic Chemistry
Prerequisite: CEGEP Chemistry 201 or an equivalent course. Study of selected industrial inorganic processes. This course is not applicable towards a major in Chemistry. Lectures only. Textbook: Shreve: Chemical Process Industries (McGraw-Hill, 3rd ed) (3 credits)
CHEMISTRY N-301 (401)  
Chemical Pedagogy  
Prerequisite: CEGEP Chemistry 201 or an equivalent course; one full laboratory course at university level. The methodology of teaching chemistry at various levels including: the objectives of chemical education; the presentation of chemical concepts; the communication skills; the mathematical skills; the editing of a course and its lectures; the philosophy of laboratory procedure; the examination; the textbook; planning and budgeting; visual aids. Lectures only. (6 credits)

CHEMISTRY N-311 (417)  
Electrochemical Methods of Analysis  
Prerequisites: Chemistry N-211, N-213, Coulometric theory; instrumentation; coulometry at controlled potential; coulometry at constant current; coulometric titrations. Review and extension of potentiometric theory covered in Chemistry N-211 (412); derivative titrations; two indicating electrode titrations; polarized titrations; automatic titrators. The theory of voltammetric and polarographic methods; the Ilkovic equations; rotating platinum electrode; instrumentation; application to qualitative and quantitative analysis; reversible and irreversible electrode reactions; kinetic and catalytic processes; amperometric titrations; chronopotentiometry and chronoanamperometry; determination of reaction characteristics such as electron transfer, coordination number, rate constant, etc. Conductance theory and measurement; instrumentation; conductometric titrations by standard and high frequency methods. Lectures and laboratory. Textbook: Dick: Analytical Chemistry (McGraw-Hill) (3 credits)

CHEMISTRY N-322 (418)  
Introduction to Symmetry and Group Theory  
Prerequisites: Chemistry N-211, N-222, N-223; Chemistry N-350 previously or concurrently. Symmetry elements and symmetry operations; point groups; character tables; applications of group theory to Valence Bond, Crystal Field, and Molecular Orbital theory of bonding; applications to electronic spectroscopy and molecular vibrations. Lectures and laboratory. Textbooks: Cotton: Chemical Applications of Group Theory (Interscience, 2nd ed) Angelici: Synthesis and Techniques in Inorganic Chemistry (Saunders) (3 credits) NOTE A/See § 200.4

CHEMISTRY N-323 (419)  
Chemistry of the Transitiomal Elements  

CHEMISTRY N-331 (427)  
Intermediate Organic Chemistry  
Prerequisites: Chemistry N-231, N-241; Chemistry N-350 previously or concurrently. Amplification of concepts presented in introductory organic chemistry; reaction mechanisms; catalysis; conformational analysis and stereochemistry. Laboratory includes qualitative analysis of compounds and mixtures by spectrophotometric techniques; small scale preparations; selected experiments in physical organic chemistry. Lectures and laboratory. Textbook: To be announced (6 credits)

CHEMISTRY N-336 (471)  
Natural Products I  
Prerequisites: Chemistry N-231. Structure determination, stereochemistry and reactions of carbohydrates; synthesis, stereochemistry and physiochemical properties of amino-acids; determination of amino-acid sequences in, and, synthetic methods for, polypeptides; conformations of polypeptides and proteins. Lectures only. Textbook: Barker: Organic Chemistry of Biological Compounds (Prentice-Hall) (3 credits)

CHEMISTRY N-337 (473)  
Natural Products II  
Prerequisites: Chemistry N-231. The chemistry (structure determination, synthesis, stereochemistry) of various natural products is presented. Topics are selected from the following areas: purine and pyrimidine bases, nucleosides and nucleotides, nuclear acids, terpenes, lipids, steroid hormones, antibiotics, etc. Lectures only. Textbook: To be announced (3 credits)

CHEMISTRY N-338 (472)  
Chemistry of High Polymers I  
Prerequisites: Chemistry N-231, N-241. Methods and mechanisms of polymer preparation; condensation polymerization; graft polymerization; ring opening reactions; vinyl and diene polymers; polyesters; polyamides; polythioethers; properties of polymers and their related monomers. Lectures only. Textbook: Lenz: Organic Chemistry of Synthetic High Polymers (Wiley) (3 credits)

CHEMISTRY N-339  
Pharmacology I - Principles of Drug Action  

CHEMISTRY N-342 (438)  
Chemical Kinetics  
Prerequisite: Chemistry N-241. Topics in chemical kinetics and thermodynamics including mechanisms of elementary processes; reactions in the gas-phase and in solution; the Rice-Ramsperger-Kassel, and Slater theoretical treatments; Rice-Ewbank mechanisms; applications of the foregoing treatments to selected systems; introduction to modern techniques for the study of very fast reactions. Lectures and laboratory. Textbooks: Laird: Chemical Kinetics (McGraw-Hill, 2nd ed) Daniels, et al: Experimental Physical Chemistry (McGraw-Hill, 7th ed) (3 credits) NOTE A/See § 200.4

CHEMISTRY N-343 (437)  
Intermediate Thermodynamics  
CHEMISTRY N-346 (474)
Chemistry of High Polymers II
Prerequisites: Chemistry N-231, N-241. Study of the physical chemistry of high polymers including: examination of the physical properties of polymers; methods for studying polymers; polymer solution theory; molecular weight distributions and fractionation; molecular weight determinations by coligative properties, light scattering and ultracentrifuge techniques; mechanisms and kinetics of condensation and addition, polymerization; free radical and ionic polymerization. Lectures only. Textbook: Billmeyer: Textbook of Polymer Science (Inter-science, 2nd ed) (3 credits)

CHEMISTRY N-350
Introductory Chemical Instrumentation
Prerequisites: Chemistry N-211, N-213, N-231 or Chemistry N-231 and Biology N-203 or Biology N-204. Basic principles and applications of UV, IR, Raman fluorescence, phosphorescence, NMR, and EPR spectroscopy and mass spectrometry to Chemistry and Biochemistry. Lectures and laboratory. Textbooks: To be announced. (3 credits) NOTE A: See § 200.4

CHEMISTRY N-352
Methods of Separation and Practice of Biochemical Techniques.
Prerequisites: Chemistry N-211, N-213; or Biology N-202 and N-203 or N-204 and Biology N-380 previously or concurrently. Separation by solvent extraction, countercurrent separation, ion exchange, etc.; principles and applications of gas chromatography, Thin Layer chromatography, gel filtration and electrophoresis. Lectures and Laboratory. (3 credits) NOTE A: See § 200.4

CHEMISTRY N-354 (499)
Introductory Instrumentation
Prerequisites: Chemistry N-211, N-213; or Biology N-202, N-203 or N-204, and Biology N-300 previously or concurrently. Basic principles of electricity and electronics; analysis of operational amplifier, servorecorder, Rheotest, polarograph, logic and data acquisition circuits. Lectures and laboratory. Textbook: Malmstadt and Enke: Digital Electronics for Scientists (Benjamin) (3 credits) NOTE A: See § 200.4

CHEMISTRY N-371 (441)
General Biochemistry
Prerequisites: Chemistry N-231 and 6 credits in Biological Sciences at the university level; Chemistry students must have, in addition, Chemistry N-211 and N-241. Biological Science students must have, in addition, 6 credits in Biological Sciences at the university level. An introduction to the Chemistry of a living cell: protein structure and function; enzymology; metabolic pathways; energy production; protein and nucleic acid synthesis. Lectures and laboratory. Textbook: Stryer: Biochemistry (Freeman) (6 credits)

CHEMISTRY N-380
General Industrial Chemistry
Prerequisites: Second year chemistry students or permission of the Department. Broad outline of major factors to be considered by the chemical industry when contemplating manufacture of a new product or product group with special emphasis on market determination; customs; tariffs; use of Statistics Canada data; existing or potential competition; inherent advantages or disadvantages; relative importance of labour versus capital; plant location; transportation considerations; by-product disposition; hazard and pollution considerations; government regulated products; government incentives; marketing channels; export considerations; foreign tariffs and non-tariff barriers. Lectures only. (3 credits)

CHEMISTRY N-382 (462)
Industrial Organic Chemistry I
Prerequisite: Chemistry N-231. Study of selected industrial organic processes. This course is not applicable towards a Specialization in Chemistry. Lectures only. Textbook: Shreve: Chemical Process Industries (McGraw-Hill, 3rd ed) (3 credits)

CHEMISTRY N-383 (463)
Industrial Organic Chemistry II
Prerequisite: Chemistry N-231. Study of additional organic processes not covered in Chemistry N-382. This course is not applicable towards a Specialization in Chemistry. Lectures only. Textbook: Shreve: Chemical Process Industries (McGraw-Hill, 3rd ed) (3 credits)

CHEMISTRY N-411
Optical Methods of Analysis
Prerequisites: Chemistry N-211, N-213. Review and extension of absorbimetric theory covered in Chemistry N-211, instrumentation, principles and applications of nephelometry; turbidimetry; fluorescence; phosphorescence; flame absorption and emission spectroscopy; atomic absorption; flame photometry. Principles; instrumentation and applications of X-ray absorption emission (fluorescence) and diffraction; X-ray microprobe analysis. Textbook: To be announced. (3 credits)

CHEMISTRY N-419
Analytical Chemistry
Research Project and Thesis. Prerequisite: The student must be enrolled in the Specialization in Analytical Chemistry Programme. The student will work on a research project involving a theoretical and/or practical aspect of analytical chemistry, and will write a thesis on the results. The research project will be approved by a committee of members of the Department. (6 credits)

CHEMISTRY N-422
Selected Topics in Inorganic Chemistry
Prerequisites: Chemistry N-322 and N-323. Selected topics in the field of Inorganic Chemistry; particular topics may include: Kinetics and Mechanisms of Inorganic Reactions; Organometallic chemistry; Electronic Spectroscopy of Transition Metal complexes; Introduction to Crystallography; Inorganic Photochemistry; other current topics from the literature. Lectures only. Textbooks: To be announced. (3 credits)

CHEMISTRY N-431 (428)
Advanced Organic Chemistry

CHEMISTRY N-442 (434)
Statistical Thermodynamics
Prerequisites: Chemistry N-342 and N-343. Elements of probability theory, microcanonical, canonical and grand canonical ensembles; the
Boltzmann distribution; quantum mechanical treatment of an ideal gas; Fermi-Dirac and Bose-Einstein statistics; Einstein and Debye models of a monoatomic crystal; conformation of polymer chains. Lectures only. Textbook: Andrews: Equilibrium Statistical Mechanics (Wiley) (3 credits) NOTE A/See § 200.4

CHEMISTRY N-443 (435)
Advanced Thermodynamics
Prerequisite: Chemistry N-342 and N-343. Advanced topics in classical thermodynamics, comprising equilibrium and non-equilibrium approaches to selected systems. Methods of determination of activities; the free-energy function and its applications; thermodynamics of solids; estimation of thermodynamic properties; de Donder's concepts; fused salts; high temperature thermodynamics. Lectures only. (3 credits) NOTE A/See § 200.4

CHEMISTRY N-445
Advanced Physical Chemistry Laboratory
Prerequisites: Chemistry N-342 and N-343. Advanced experimentation in chemical kinetics and thermodynamics with complete laboratory reports. Laboratory only. (3 credits)

CHEMISTRY N-452 (492)
Chemical Spectroscopy
Prerequisites: Chemistry N-331, N-342, N-343, N-350. Rotational and rotational-vibrational spectroscopy of linear, symmetrical top and asymmetrical molecules; vibrational spectroscopy; molecular symmetry and group theory; Raman spectroscopy; Fourier transform spectroscopy; electron spin spectroscopy. Lectures and laboratory. Textbook: Brittain, George and Wells: Introduction to Molecular Spectroscopy (Academic Press) (3 credits) NOTE A/See § 200.4

CHEMISTRY N-453 (493)
Advanced Analytical Instrumentation
Prerequisites: Chemistry N-354. Digital electronics in control equipment; integration, signal averaging A to D and D to A conversion and data acquisition. Lectures and laboratory. Textbook: Malmstadt and Enke: Digital Electronics for Scientists (Benjamin) (3 credits) NOTE A/See § 200.4

CHEMISTRY N-462
Introduction to Quantum Chemistry

CHEMISTRY N-463
Valence Theory
Prerequisites: Chemistry N-222, N-223, N-241, N-231, N-462. The diatomic molecule, the hydrogen molecule ion, simple LCAO, general LCAO, symmetry, the secular equation, homonuclear diatomic molecules, heteronuclear diatomic molecules, valence bond theory, molecular orbital theory. Polyatomic molecules. Pi electron theory, ligand field theory. Lectures only. Textbook: La Pagla: Introductory Quantum Chemistry (Harper and Row) (3 credits) NOTE A/See § 200.4

CHEMISTRY N-471 (443)
Advanced Biochemistry I
Prerequisites: Chemistry N-350, N-352, N-371. Selected topics in enzyme kinetics, enzyme mechanisms, and membrane structure and function. Laboratory: a set of experiments examining various aspects of protein synthesis. Lectures and laboratory. (6 credits)

CHEMISTRY N-472 (444)
Advanced Biochemistry II
Prerequisites: Chemistry N-350, N-352, N-371. Selected topics from the general areas of structural biochemistry; biosynthetic pathways; lipids; carbohydrates; nucleic acids. Lectures and laboratory. (6 credits)

CHEMISTRY N-481
Industrial Synthetic Chemistry
Prerequisites: Chemistry N-331, N-350 or equivalents. Selected fields of study in the industrial synthesis of fine chemicals, pharmaceutical intermediates, dyestuffs, pigments, agricultural chemicals and others. Group assignments will involve the up-scaling of laboratory synthesis to batch levels; evaluation of needs; search of patent literature, toxicology, pollution and other related industrial legislation. Lectures and laboratory. (3 credits)

CHEMISTRY N-491 (450)
Research Project and Thesis
Prerequisite: Permission of the Department. The student will work on a research project under the direction of a staff member, and will write a thesis on the results. (6 credits) NOTE: Students planning to take this course must consult with the Chemistry Department as early as possible the year before the final year. This course was given in the Summer of 1976

CHEMISTRY N-339
Pharmacology
(3 credits)
91.8 Computer Science

91.8.1 PROGRAMME
24 Minor in Computer Science
12 Comp Sc S211*, S221, S231, S322
3 Comp Sc S216**, S241
9 Comp Sc Elec.

*NOTE: If an equivalent of Comp Sc S211 has been successfully completed prior to admission to the University, then this course should be replaced with a Comp Sc elective.

91.8.2 COURSES
The courses in Computer Science listed below are acceptable as science credits in the Bachelor of Science degree. Course descriptions can be found in the Faculty of Engineering § 71.8

COMPUTER SCIENCE S211
Introduction to Computers and Computing.
(3 credits)

COMPUTER SCIENCE S216
Intermediate Scientific Programming
(3 credits)

COMPUTER SCIENCE S221
Introduction to Assembly Language Programming.
(3 credits)

COMPUTER SCIENCE S231
Introduction to Discrete Structures
(3 credits)

COMPUTER SCIENCE S241
Computer Languages and Programming.
(3 credits)

COMPUTER SCIENCE S322
Computer Organization
(3 credits)

COMPUTER SCIENCE S323
Mini-Computer Systems
(3 credits)

COMPUTER SCIENCE S325
Logical Design and Switching Theory
(3 credits)

COMPUTER SCIENCE S352
Data and File Structures
(3 credits)

COMPUTER SCIENCE S361
Elementary Numerical Methods.
(3 credits)

COMPUTER SCIENCE S426
Digital System Design
(3 credits)

**NOTE: Students are cautioned that the courses Comp Sc S216 and S241 are not completely equivalent, in that Comp Sc S216 does not satisfy the prerequisite requirements for certain courses which Comp Sc S241 does.
The courses in Economics listed below are acceptable as science credits in the Bachelor of Science degree. Course descriptions can be found in the Sir George Williams Faculty of Arts § 41.

**ECONOMICS S270**
Mathematics for Economists I
(3 credits)

**ECONOMICS S271**
Mathematics for Economists II
(3 credits)

**ECONOMICS S375**
Introduction to Statistics for Economics
(3 credits)

**ECONOMICS S412**
Mathematical Economics I
(3 credits)

**ECONOMICS S413**
Mathematical Economics II
(3 credits)

**ECONOMICS S476**
Econometrics I
(3 credits)

**ECONOMICS S477**
Econometrics II
(3 credits)
91.10 Department of Geography

91.10.1 Programmes

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 91.3, 91.4

The superscript indicates credit value.

66 BSc Specialization in Geography

6 Geog S211
6 Geog S260, S261
6 Geog S271
12 Chosen from Geog S371, S372, S373, S462, S463, S475, S476
36 all chosen from one of the following groups: Environmental Geography, Hydrology, Geoscience. Choices must be made in consultation with the departmental adviser.

Environmental Geography
Geog S362, S363, S371, S372, S373
Bio N-203, N-204, N-213, N-310, N-312, N-313, N-314, N-416
Bot N-210, N-213, N-215, N-216, N-320
Phys N-243, N-273
Geo 1 N-220, N-322
Math N-210, N-241, N-270, N-310

Hydrology
Geog S362, S363, S371, S372, S475, S476
Bio N-203, N-204, N-213, N-314, N-416
Bot N-216
Geo 1 N-215, N-246, N-352
Math N-210, N-241, N-261, N-270
Phys N-241, N-243, N-244, N-433
Chem N-241

Geoscience
Geog S362, S363, S371, S372, S475, S476
Geo 1 N-215, N-217, N-246, N-323, N-349, N-352
Math N-241, N-261, N-270
Phys N-241, N-243, N-244, N-433

42 BSc Major in Geography

6 Geog S260, S261
6 Geog S271
12 Chosen from Geog S371, S372, S373, S462, S463, S475, S476
18 all chosen from one of the three groups listed under Specialization in Geography: Environmental Geography, Hydrology, Geoscience.

30 BSc Minor in Geography

6 Geog S260, S261
6 Geog S271
12 Chosen from Geog S371, S372, S373, S462, S463, S475, S476
6 Chosen from one of the three groups listed under Specialization in Geography: Environmental Geography, Hydrology, Geoscience.

91.10.2 COURSE DESCRIPTIONS

The courses in Geography listed below are acceptable as science credits in the Bachelor of Science degree. Course descriptions can be found in the Sir George Williams Faculty of Arts § 41.17.

GEOGRAPHY S260
Introduction to Cartography I (3 credits)

GEOGRAPHY S261
Introduction to Cartography II (3 credits)

GEOGRAPHY S271
The Natural Environment (6 credits)

GEOGRAPHY S362
Quantitative Geography I (3 credits)

GEOGRAPHY S363
Quantitative Geography II (3 credits)

GEOGRAPHY S371
Biogeography (6 credits)

GEOGRAPHY S372
Analysis of the Environment (6 credits)

GEOGRAPHY S373
Climatology (6 credits)
GEOGRAPHY S462  
Advanced Cartography  
(3 credits)

GEOGRAPHY S463  
Topics in Applied Cartography  
(3 credits)

GEOGRAPHY S475  
Hydrology I  
(3 credits)

GEOGRAPHY S476  
Hydrology II  
(3 credits)
91.11 Department of Geology

91.11.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 91.3, 91.4.

The superscript indicates credit value.

63 BSc Specialization in Geology

Year I

Year II
21 Geol N-232^, N-333^, N-338^, N-349^, N-352^, N-353^, N-370^, N-211^, N-213^.

3 additional credits in Geol approved by the Department.

Year III
15 Geol N-322^, N-342^, N-455^, N-456^, N-323^, N-349^, N-352^, N-353^.

36 BSc Major in Geology

Year I
9 Geol N-215^, N-231^, N-323^.

Year II
9 Geol N-246^, N-333^.

Year III
3 Geol N-220^.

15 additional credits in Geol approved by the Department.

45 BSc Major in Geology with a Minor in Ecology

Year I

Year II
12 Geol N-246^, N-333^, Bio N-213^.

Year III
3 Geol N-220^.

15 additional credits in Ecol in consultation with the Department of Biological Sciences.

24 Minor in Geology

6 Geol N-215^, N-323^.

18 additional credits in Geol.

91.11.2 COURSE DESCRIPTIONS

GEOLOGY N-215

Introductory Geology

An elementary study of minerals and rocks, and of the internal and external processes which shape the earth's surface. Laboratory work deals with identification of minerals, rocks and fossils, as well as interpretation of topographic and geologic maps. Field trips to Mt. Royal, Eastern Townships and Laurentians. Lectures and laboratory. (3 credits)

GEOLOGY N-217

Earth Physics

Prerequisites: CEGEP Mathematics 103, 203, Geology N-215 or equivalent. This course is directed toward 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, theory of sea-floor spreading, theories of mountain formation. Lectures and laboratory. (3 credits)

GEOLOGY N-220

Paleontology

A study of the evolution of plants, invertebrates and vertebrates in time and space, the fossil record: preservation, identification and aerial photographs; interpretation of Geomorphic and Geologic Maps — and the examination of selected fossils. Field trip to local areas. (3 credits)
classification of fossils; methods and techniques. Lectures and laboratory. (3 credits).

**GEOLOGY N-231 (221)**

**Mineralogy I**

The study of the physical properties of minerals; their chemical properties; descriptive and determinative mineralogy; crystallography; various classes of symmetry. A few field trips near Montreal. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

**GEOLOGY N-232 (222)**

**Optical Mineralogy**

Prerequisite: Geography N-231. The study of minerals under the polarizing microscope. Identification of minerals in thin sections and in oil immersion. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

**GEOLOGY N-245**

**Exploration Geology**

Prerequisites: Geography N-215 and N-231 or approval of the Department. Two-week field school in May right after final exams. The student is introduced to surveying, and geological and geophysical mapping methods. (3 credits)

**GEOLOGY N-246**

**Structural Geology**

Prerequisite: Geography N-215 previously or concurrently. Folds and mesostructures and their qualitative and quantitative evaluation. Physical properties of rocks and their behaviour. Several field trips to the Appalachian area. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

**GEOLOGY N-322 (424)**

**Stratigraphy**

Prerequisite: Geography N-220. A thorough analysis of various stratigraphic principles will be made using examples from Canadian and American type stratigraphic models. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

**GEOLOGY N-323 (425)**

**Historical Geology**

Principles of historical geology and geochronology, evolution of major animal groups from Precambrian time to Recent including the evolution of man; geological evolution of North America; natural resources associated with sedimentary rocks. Lectures only. (3 credits) NOTE A/See § 200.4

**GEOLOGY N-326**

**Geochemistry**

Prerequisites: Geography N-215 and N-231. An introduction to geochemistry including the chemical make-up of the solar system and the geochemistry of the atmosphere, hydrosphere, crust, mantle and core. The chemistry of igneous, sedimentary and metamorphic rocks, with some emphasis on the trace elements which characterize each. Anomalous trace element concentrations in rocks, soils and water and the application to mineral exploration geochemistry. In the laboratory the material discussed in the lectures is illustrated by geochemical calculations, trace element distribution maps and methods of geochemical analysis. Lectures and laboratory. (3 credits)

**GEOLOGY N-328**

**Geomorphology**

Prerequisite: Geography N-215. Fluvial and slope processes, influence of climate, rock type and structure on the development of land forms, coastal features; aeolian processes, glacial and periglacial activity. Laboratory work emphasizes interpretation of aerial photographs and topographic maps and a field excursion to local area. Lectures and laboratory. (3 credits)

**GEOLOGY N-333**

**Petrology**

Prerequisite: Geography N-231. The identification and description of hand specimens of sedimentary, igneous, and metamorphic rocks. Rock associations and methods of classifying rocks. Lectures and laboratory. (6 credits)

**GEOLOGY N-335**

**Sedimentary Petrology**

Prerequisites: Geography N-333, N-232 (may be taken concurrently). The occurrence and formation of sedimentary rocks. Laboratory includes a brief survey of techniques applied to unconsolidated sediments, but particular emphasis is placed on the microscopic examination of sedimentary rocks. Lectures and laboratory. (3 credits)

**GEOLOGY N-338**

**Mineralogy II**

Prerequisite: Geography N-231. Point and translational symmetry, point groups, space groups, interpretation of Space Group tables, elements of crystal chemistry, chemistry and phase relations of important rock forming minerals. Stereo graphic projections of crystal data, the Universal Stage and powder diffractometry in identifying minerals are subjects stressed in labs. Lectures and laboratory. (3 credits)

**GEOLOGY N-342 (426)**

**Igneous and Metamorphic Petrology**

Prerequisites: Geography N-215, N-232, N-233. Principles of physical chemistry applied to minerals and rocks; study of phase diagrams; the origin, formation, association, description and classification of igneous and metamorphic rocks. Lectures and laboratory. (6 credits) NOTE A/See § 200.4

**GEOLOGY N-347**

**Structural Analysis**

Prerequisite: Geography N-246. Reading, Presentation and Interpretation of geological data. Laboratory consists of evaluation of geological maps in plan and section, stressing the structural evolution of the areas studied. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

**GEOLOGY N-349 (429)**

**Tectonics**

Prerequisites: Geography N-217, N-246. Evolution of megastructures of the earth; orogeny; tectonic patterns and hypotheses, emplacement of plutons. Lectures only. (3 credits) NOTE A/See § 200.4

**GEOLOGY N-352 (422)**

**Photogeology**

Prerequisite: Geography N-246 or permission of the Department. Scope and purpose of photointerpretation; geometry of aerial photographs and basic applied photogrammetry; geological interpretation, both qualitative and quantitative, of aerial photographs from Canada and other countries; techniques used in base map preparation with and without control points; exercises in photogeological mapping using stereoscopes and plotters. Lectures and laboratory. (3 credits)
GEOL 215 Prerequisite: Geology N-215, N-322 or N-333. The study of the origin and development of ore deposits. (3 credits)

X-RAY CRYSTALLOGRAPHY
Prerequisite: Geology N-338. The nature of X-rays, diffraction, the reciprocal lattice, powder diffractometer, powder cameras, single crystal methods. Laboratory work will stress the techniques of powder diffractometry and Precession photography. Lectures and laboratory. (3 credits)

ORE DEPOSITS
Prerequisite: Geology N-333. An introduction to the geological and mineralogical features and genesis of selected types of metallic and non-metallic ore deposits. Identification of ore minerals in hand specimen and under the microscope and an introduction to textures of ores. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

REGIONAL ECONOMIC GEOLOGY
Prerequisite: Geology N-455. A review of the distribution of ore deposits in time and space considered in the context of their geological environment and tectonic relations. Integrated hand specimen and microscopic examination of carefully located, representative samples from important mining camps. Lectures and laboratory. (3 credits) NOTE A/See § 200.4

EXPLORATION GEOPHYSICS
Prerequisite: Geology N-215, N-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 programmes; selected case histories. Lectures and laboratory. (3 credits)

EXPLORATION GEOCHEMISTRY
Prerequisite: Geology N-215 and N-231 or permission of the Department. Basic principles; primary and secondary dispersion processes and their significance in geochemical exploration; field and analytical techniques (one field excursion early in the fall term); interpretation of geochemical data; organization of exploration programmes; selected case histories. Lectures and laboratory. (3 credits)

EXPLORATION GEOLOGY
Prerequisite: Geology N-215 and N-231 or permission of the Department. Basic principles; primary and secondary dispersion processes and their significance in geochemical exploration; field and analytical techniques (one field excursion early in the fall term); interpretation of geochemical data; organization of exploration programmes; selected case histories. Lectures and laboratory. (3 credits)

EXPLORATION GEOLOGY
Prerequisite: Geology N-215 and N-231 or permission of the Department. Basic principles; primary and secondary dispersion processes and their significance in geochemical exploration; field and analytical techniques (one field excursion early in the fall term); interpretation of geochemical data; organization of exploration programmes; selected case histories. Lectures and laboratory. (3 credits)

EXPLORATION GEOLOGY
Prerequisite: Geology N-215 and N-231 or permission of the Department. Basic principles; primary and secondary dispersion processes and their significance in geochemical exploration; field and analytical techniques (one field excursion early in the fall term); interpretation of geochemical data; organization of exploration programmes; selected case histories. Lectures and laboratory. (3 credits)

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EXPLORATION GEOLOGY
Prerequisite: Geology N-215 and N-231 or permission of the Department. Basic principles; primary and secondary dispersion processes and their significance in geochemical exploration; field and analytical techniques (one field excursion early in the fall term); interpretation of geochemical data; organization of exploration programmes; selected case histories. Lectures and laboratory. (3 credits)
91.12 Department of Mathematics

Associate Professor and Chairman of the Department
MAURICE COHEN

Associate Professor and Assistant Dean
LEONDA S. ADLER

Professors
FREDERICK W. BEDFORD
VICTOR BYERS
MARTIN HARROW
NORMAN EDWARD SMITH

Visiting Professor
D. H. WHEELER

Associate Professors
KAILASH K. ANAND
MORTON M. BELINSKY
A. BOYARSKY
MARY A. BRIAN
JOSEF BRODY
W. P. BYERS
G. E. COHEN
T. DWIVEDEI
R. L. HALL
JAMES C. HAYES
N. HERSCOVICS

JOEL HILLEL
M. KANTER
Z. KHALIL
G. S. LINGAPPAIAH
M. A. MALIK
EUGEN A. POLLITZER
HAROLD W. PROPPE
R. RAPHAEL
JOHN SENEZ
MANFRED E. SZABO
J. C. TURGEON
Y. H. WANG
M. ZAKI

Assistant Professors
M. ALBERTA BOSWALL
A. G. BUCKLEY
J. FIKSEL
M. KERVIN

Visiting Assistant Professor
RONALD J. STERN

Adjunct Assistant Professors
L. S. DUBE
B. MACGIBBON-TAYLOR
A. S. RAO

91.12.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 91.3, 91.4.

The superscript indicates credit value.

Students who follow Mathematics Programmes must register with Department of Mathematics by Nov. 1 of each year.

72 BSc Honours in Mathematics

Year I
24 Math N-241, N-261, N-281, N-292
Year II
24 Math N-311, N-351, N-361, N-372, N-373
Option A: N-331
Option B: N-312, N-366
Year III
24 Math N-431, N-434
Option A: N-312, N-431, N-432, six credits approved by Department.
Option B: N-353, N-472, N-473, N-474, N-461

NOTE: Students interested in Operations Research will take Option A, while those interested in Control Theory will choose Option B.

72 BSc Honours in Statistics

Year I
24 Math N-241, N-261, N-281, N-292
Year II
21 Math N-351, N-366, N-372, N-373, N-381, N-391
Year III
15 Math N-461, N-466, N-491, N-467, N-492

Year II and III
12 Chosen from Math N-311, N-312, N-321, N-322, N-331, N-351, N-392, N-431, N-432, N-433, N-451, N-471, N-475, N-499, courses in related fields with prior Departmental approval.

72 BSc Honours in Applied Mathematics

Year I
24 Math N-241, N-261, N-281, N-292
Year II
24 Math N-311, N-351, N-361, N-372, N-373
Option A: N-331
Option B: N-312, N-366
Year III
24 Math N-431, N-434
Option A: N-312, N-431, N-432, six credits approved by Department.
Option B: N-353, N-472, N-473, N-474, N-461

NOTE: Students interested in Operations Research will take Option A, while those interested in Control Theory will choose Option B.

72 BSc Honours in Statistics

Year I
24 Math N-241, N-261, N-281, N-292
Year II
21 Math N-351, N-352, N-361, N-366, N-372, N-381
Year III
12 Math N-451, N-452, N-461
15 Elective credits in Math or related fields with prior Departmental approval.
60 BSc Specialization in Applied Mathematics
36 Math N-241, N-261, N-281, N-292, N-311, N-351, N-361.
6 Chosen from Math N-270, N-372, N-373.
18 Chosen from Math N-312, N-331, N-341, N-353, N-354, N-366, N-381, N-431, N-432, N-433, N-434, N-442, N-471, N-472, N-473 with prior Departmental approval.

NOTE: It is recommended that students choose their electives in accordance with their interests, e.g., Operations Research: N-312, N-331, N-431, and one of: N-432, N-433, N-434.
Control Theory: N-353, N-366, N-433, N-434, N-472, N-473.
Industrial Applications: N-312, N-331, N-341, N-353, N-442.

60 BSc Specialization in Mathematics
9 Elective credits in Math or related fields with prior Departmental approval.

60 BSc Specialization in Statistics
42 Math N-241, N-261, N-281, N-292, N-312, N-341, N-343, N-351, N-352, N-372, N-441.
12 Chosen from Math N-291, N-331, N-342, N-353, N-354, N-361, N-431, N-442, N-451, N-452 with prior Departmental approval.

42 BSc Major in Applied Mathematics
30 Math N-241, N-261, N-270, N-281, N-290, N-311.
12 Chosen from Math N-291, N-312, N-331, N-351, N-366, courses in related fields (with prior Departmental approval)

91.12.2 CERTIFICATE IN MATHEMATICS FOR TEACHERS
(Elementary School Level)

The Department of Mathematics offers a Certificate in Mathematics for Teachers (Elementary School Level) for the professional development of teachers interested in mathematics. This programme was designed in accordance with the programme-cadre for Elementary Mathematics issued by the General Directorate of Elementary and Secondary Education and approved for perfectionnement by the Higher Education Branch of the Department of Education on February 15, 1974.
Practising teachers are offered the opportunity to improve their knowledge of mathematics in order to help them teach mathematics more effectively. The presentation will generally be in workshop form with emphasis on assignments which develop activities for classroom use. Courses will be offered on and off campus during the Winter and Summer months subject to demand and the availability of instructors.

Programme Director
M. A. BOSWALL

Admission Requirements
Entry into the programme requires a Quebec Teacher’s Certificate.

30 Certificate in Mathematics for Teachers (Elementary School Level)
6 Math N-305.
24 Chosen from Math N-300, N-301, N-302, N-303, N-304, N-307, N-309.

NOTE: In some cases where students have completed similar mathematical courses in previous studies, the Mathematics Department may allow pro tanto credits up to a maximum of 12 credits.
91.12.3 Certificate in Mathematics for Teachers (Junior Secondary School Level)

The Department of Mathematics offers a Certificate in Mathematics for teachers who teach mathematics at the junior high school level. Some of the courses offered have been specially designed to deal with new subject matter which is being introduced into the secondary school curriculum, as well as with aspects of mathematical pedagogy necessary for the teaching of this material. This programme was approved for perfectionnement on February 14, 1974, by the Higher Education Branch of the Department of Education.

Programme Director
MARY A. BRIAN

91.12.4 Course Descriptions

Mathematics N-200 (3 credits)
Mathematics N-201 (3 credits)
Mathematics N-202 (3 credits)
Mathematics N-203 (3 credits)
Mathematics N-204 (3 credits)
Mathematics N-205 (3 credits)
Mathematics N-206 (3 credits)
Mathematics N-207 (3 credits)
Mathematics N-208 (3 credits)
Mathematics N-209 (3 credits)

Descriptions of the above courses are listed in the Sir George Williams Faculty of Arts. § 41.11.2.

NOTE: Science students may not take the above Mathematics courses for Science credits.

Mathematics N-210
Mathematics for the Biological Sciences I
Prerequisite: CEGEP Mathematics 103 or equivalent. Discrete probability, probability distributions, difference equations, differential equations, transients, steady state solutions, system concept, block diagrams, linear programming, game theory, Markov chains, applications to ecology, population models, physiology. (3 credits)

Mathematics N-220
Mathematical Methods in Chemistry
Prerequisite: CEGEP Mathematics 203 or equivalent. Partial derivatives, first order differential equations (first and second order chemical reactions). Hermite, Laguerre and Legendre equations. Solutions by power series. Eigenvalues and eigenvectors, Sturm-Liouville Theory. (3 credits)

Mathematics N-241 (440)
Introduction to Mathematical and Applied Statistics
Prerequisite: CEGEP Mathematics 203 or equivalent. The introductory mathematical theory of statistics including: the experimental approach to statistics, probability, distributions, moments and sampling theory, problems in estimation, hypothesis testing, correlation and regression. (6 credits)

Admission Requirements
Entry into the programme requires a Quebec Teacher's Certificate.

30 Certificate in Mathematics for Teachers (Junior Secondary School Level)

3 Math N-400
27 Math N-401, N-402, N-403, N-404, N-405, N-406, N-407, N-408, N-409, N-410

NOTE: In some cases where students have completed similar mathematical courses in previous studies, the Mathematics Department may modify a student's programmes to meet his professional requirements. It may grant pro tanto credits up to a maximum of 12 credits.

Mathematics N-261
Advanced Calculus

Mathematics N-270 (452)
Differential Equations
Prerequisites: CEGEP Mathematics 203 or equivalent. First order first degree equations, linear equations, operators, Laplace transforms, series solutions and special functions, numerical methods, elementary partial equations, Fourier series, application to systems. (6 credits) NOTE A/See § 200.4

Mathematics N-281
Linear Algebra I
Prerequisites: CEGEP Mathematics 101, 105 or equivalent. Vectors in Rn, matrices, linear equations, vector spaces, linear transformations, determinants, equivalence relations on matrices, characteristic values and vectors, diagonalization, metric concepts. (6 credits)

Mathematics N-290
Algebraic Systems (Introduction)
Prerequisite: Collegial pre-science mathematics profile or equivalent. Sets, functions, binary operations, examples of number systems, polynomial functions, divisibility, definitions and examples of groups and subgroups, fields. (3 credits) NOTE A/See § 200.4

Mathematics N-291
Algebraic Systems (Continuation)
Prerequisite: Permission of the Department. Groups, rings, homomorphisms, integral domains, fields, polynomial rings. (3 credits) NOTE A/See § 200.4

Mathematics N-292
Algebraic Systems I
Prerequisite: Collegial pre-science mathematics profile or equivalent. Sets, functions, binary operations, examples of number systems, polynomial functions, divisibility, groups, rings, homomorphisms, integral domains, fields, polynomial rings. (6 credits) NOTE A/See § 200.4
MATHEMATICS N-300
Number Systems
This course and the following course (N-301) are designed to cover the main mathematical topics in the programme-cadre for elementary schools. In both courses the study of the mathematical content will be linked to thorough consideration of classroom applications. A project will be included among the assignments in both courses. In both courses the mathematical language of sets, relations, functions and operations will be applied where appropriate, and various modes of graphical representation used. Counting numbers and systems of numeration, number operations, factors and multiples, numbers as measures, classification and properties of geometrical shapes. (6 credits)
NOTE: This course is available only to practising teachers.

MATHEMATICS N-301
Mapping
This course and the preceding course (N-300) are designed to cover the main mathematical topics in the programme-cadre for elementary schools. In both courses the study of the mathematical content will be linked to thorough consideration of classroom applications. A project will be included among the assignments in both courses. In both courses the mathematical language of sets, relations, functions and operations will be applied where appropriate, and various modes of graphical representation used. The extension of the number system to fractions, decimals and signed numbers. Equalities and inequalities, bases of numeration, introduction to the study of symmetry and geometric transformations. (6 credits)
NOTE: This course is available only to practising teachers.

MATHEMATICS N-302
Transformation Geometry
Prerequisite: Mathematics N-301. A more advanced study of symmetry and geometric transformations, applications in 2 and 3 dimensions, an overview of a K-6 programme of geometry. (6 credits)
NOTE: This course is available only to practising teachers.

MATHEMATICS N-303
Measurement
Prerequisite: Mathematics N-300. A more advanced study of measures and measurement, descriptive statistics and elementary notions of probability, an overview of a K-6 programme of measurement. (6 credits)
NOTE: This course is available only to practising teachers.

MATHEMATICS N-304
Advanced Topics in Elementary Mathematics
Prerequisite: Permission of the Department. Topics will be scheduled to meet the more advanced mathematical needs of students, especially in the light of potential developments in the elementary school curriculum. (6 credits)
NOTE: This course is available only to practising teachers.

MATHEMATICS N-305
Psychology of Mathematics Education
Prerequisite: Any three of Mathematics N-300, N-301, N-302, N-303, N-304, or permission of the Department. The content of the course will be selected from those areas of psychological theory and research which have implications for the teaching of mathematics. It will normally include: psychological theories of cognition, studies of mathematical learning in children, motivation, applications of research to the classroom. (6 credits)
NOTE: This course is available only to practising teachers.

MATHEMATICS N-307
Selected Topics in Mathematics I
Prerequisite: Permission of the Department. Topics will be chosen to take advantage of competencies and interests of the instructor as well as of the students. (3 credits)
NOTE: This course is available only to practising teachers.

MATHEMATICS N-309
Selected Topics in Mathematics II
Prerequisite: Permission of the Department. Topics will be chosen to take advantage of competencies and interests of the instructor as well as of the student. (3 credits)
NOTE: This course is available only to practising teachers.

MATHEMATICS N-310
Mathematics for the Biological Sciences I
Prerequisite: Mathematics N-210 or equivalent. Continuous probability, stochastic processes, population models, systems of linear difference and differential equations, Laplace transforms, signal-flow graphs, systems trajectories, stability, applications to ecology and biology. (3 credits)

MATHEMATICS N-311
Numerical Analysis I
Prerequisite: Colloquial pre-science mathematics profile or equivalent. Introduction to computers and Fortran, solutions of equations, curve fitting, numerical differentiation and integration, matrix computation, errors. Lectures and laboratory. (3 credits)

MATHEMATICS N-312
Numerical Linear Algebra
Prerequisite: Mathematics N-281 or equivalent. Linear systems, matrix inversion, relaxation methods, methods of least squares, G-inverses, canonical forms, determination of characteristic values, applications. (3 credits)

MATHEMATICS N-321
Set Theory
Prerequisites: 18 credits in post-collegial mathematics. Intuitive logic, axiomatic set theory, ordinals, axiom of choice, cardinals. (3 credits)

MATHEMATICS N-322
Mathematical Logic
Prerequisites: 18 credits in post-collegial mathematics. First-order theories, models, incompleteness, selected topics. (3 credits)

MATHEMATICS N-331
Deterministic Methods of Operations Research
Prerequisite: Mathematics N-261 or equivalent. Formulation of mathematical models in the deterministic case, methods of solution, testing the models. Application to allocation (linear and dynamic programming, duality), competition (game theory), scheduling, networks and flow. Emphasis on mathematical methods, including matrix algebra and search techniques. (6 credits)
MATHEMATICS N-341
Experimental Statistics
Prerequisite: Mathematics N-241 or equivalent. Experimental models. Regression and correlation, analysis of variance. Experimental designs. Randomized blocks, Latin squares, factorial confounding. (3 credits)

MATHEMATICS N-342
Industrial Statistics
Prerequisite: Mathematics N-241 or equivalent. Concepts of statistical control, X, R, P and C charts. Acceptance sampling, sequential probability ratio tests, sampling inspection, continuous sampling plans, reliability and life tests. (3 credits)

MATHEMATICS N-343
Data Analysis and Survey Sampling
Prerequisite: Mathematics N-241 or equivalent. Basic concepts of sampling. Simple, stratified, systematic, cluster sampling. Optimum allocation, ratio estimates. Curve fitting, goodness-of-fit tests, non-parametric tests, correlation and regression (bivariate and multivariate). Course time equally divided between theory and practical work. (3 credits)

MATHEMATICS N-351
Discrete Probability and Markov Chains

MATHEMATICS N-352
Mathematical Statistics
Prerequisite: Mathematics N-241, N-281. Introduction to multivariate distributions, sampling distributions, point and interval estimation, tests of hypotheses (parametric and non-parametric), regression models. (3 credits)

MATHEMATICS N-353
Stochastic Processes and Applications
Prerequisite: Mathematics N-351. Continuous time stochastic processes. Poisson processes, continuous time Markov processes, queuing models, birth and death processes, renewal theory and reliability of systems. (3 credits)

MATHEMATICS N-354
Information Theory
Prerequisite: Mathematics N-351 or equivalent or permission of Department. Information and sources, Shannon's theorem for Markov sources. Probability relations in a channel, mutual information, error probabilities and decision rules. (3 credits)

MATHEMATICS N-361
Real Analysis
Prerequisite: Mathematics N-261, N-281. Metric spaces, sequences and series, continuity, differentiation, Riemann integration, uniform convergence, equicontinuity, Weierstrass theorem, differential forms, simplexes and chains, Stokes' theorem. (6 credits)

MATHEMATICS N-366
Complex Analysis I
Prerequisite: Mathematics N-261. Algebra and geometry of complex numbers, analytic functions, Cauchy-Riemann equations, the Cauchy integral formula, Taylor's and Laurent's theorems, calculus of residues. (3 credits)

MATHEMATICS N-372
Differential Equations I
Prerequisites: OCEP Mathematics 105, 203; Mathematics N-281 previously or concurrently. First order differential equations, applications of first order differential equations. Second order linear equations, series solutions of second order linear equations, higher order linear equations, systems of equations. Difference equations. (3 credits) NOTE A/See § 200.4

MATHEMATICS N-373
Differential Equations II

MATHEMATICS N-381
Linear Algebra II
Prerequisites: Mathematics N-281, N-291. Matrices, linear transformations, determinants, metric concepts, inner product spaces, dual spaces, spectral theorem, bilinear and quadratic forms, canonical forms for linear transformations, matrix functions, selected topics. (3 credits)

MATHEMATICS N-391
Algebraic Systems II
Prerequisite: Mathematics N-291. Groups, permutation groups, Cayley's theorem, cyclic groups, Lagrange's theorem, normal subgroups, quotient groups, isomorphism theorems. Rings: ideal and quotient rings, isomorphism theorems, characteristic. Fields: construction of quotient fields, Polynomials: polynomial rings, division algorithm, g.c.d., unique factorization, roots of a polynomial over a field. Selected topics. (3 credits)

MATHEMATICS N-392
Elementary Number Theory
Prerequisite: 18 credits in post-collegial mathematics. Number systems, division and factorization, number-theoretic functions, congruences, algebraic congruences and primitive roots, quadratic residues, diophantine equations. (3 credits)

MATHEMATICS N-400
Seminar on the Teaching of Mathematics
Prerequisite: Permission of the Department. This course is conducted in the form of a workshop and examines alternative methods of presentation of mathematical ideas at the secondary school level. It studies relevant aspects of the psychological development of the adolescent in the context of existing mathematics curricula. (3 credits) NOTE: This course should be taken at the end of the programme. This course is available only to practising teachers.

MATHEMATICS N-401
Functions
Prerequisite: Collegial mathematics or equivalent. Sets and logic; ordered field of real numbers; relations, functions; exponential, logarithmic and trigonometric function. (6 credits) NOTE: This course is available only to practising teachers.

MATHEMATICS N-402
Algebra I
Prerequisite: Mathematics N-401 or equivalent previously or concurrently. Natural numbers, integers and their properties. Sequences and progressions. Mathematical induction. Log-
ic. Real numbers, complex numbers, Polynomi-
as. (3 credits)

NOTE: This course is available only to practis-
ing teachers.

MATHMATICS N-403
Calculus I
Prerequisite: Mathematics N-401 or equiva-
 lent. Functional Notation, Limits and Continuity.
Differntiation of Polynomials. The power, prod-
 uct, quotient and chain rules. Implicit differenti-
 ation. Higher derivatives. Mean Value Theorem.
Rolle's Theorem, Maxima and Minima.
Applications: Tangents to plane curves, related
rates. The differential, use in finding approxima-
tions. Indefinite and definite integrals, areas and
volumes. (3 credits)

NOTE: This course is available only to practis-
ing teachers.

MATHMATICS N-404
Topics in Geometry
Certain fundamentals of the methods of
Cartesian, vector and transformation geometry.
Applications of these methods to topics pre-
sented as informal geometry in grades 7 - 10.
Activity oriented. (6 credits)

NOTE: This course is available only to practis-
ing teachers.

MATHMATICS N-405
Calculus II
Prerequisite: Mathematics N-403. Differenti-
ation and integration of Trigonometric func-
tions. Derivatives of Inverse Trigonometric func-
tions, logarithmic functions and exponential
functions. Methods of integration by parts, by
substitution, by separation into partial fractions.
Improper integrals, L'Hopital's Rule. Series: Con-
ergency tests, Maclaurin and Taylor Theo-
rems. (3 credits)

NOTE: This course is available only to practis-
ing teachers.

MATHMATICS N-406
Algebra II
Prerequisite: Mathematics N-401 or equiva-
 lent. Systems of equations, determinants,
Cramer's rule. Matrices, operations on matrices,
the inverse matrix. Gauss-Jordan method: Ma-
trix transformations. Linear programming. (3
credits)

NOTE: This course is available only to practis-
ing teachers.

MATHMATICS N-407
Topics in Probability and Statistics
Prerequisite: Mathematics N-405 or equiva-
 lent or permission of the department. Introduc-
tion to, and brief historical survey of, probability
and statistics. Techniques for teaching these
topics in the junior secondary school curriculum.
Application of the techniques of probability
and statistics to the interpretation of research
results in mathematics education. (6 credits)

NOTE: This course is available only to practis-
ing teachers.

MATHMATICS N-408
Transformation Geometry
Prerequisite: Mathematics N-401 or equiva-
 lent. Distance preserving motions in the plane:
affine transformations with applications in Eu-
cclidean geometry. Projective transformations
and applications to conics. (3 credits)

NOTE: This course is available only to practis-
ing teachers.

MATHMATICS N-409
Computational Mathematics
Prerequisite: Mathematics N-401 or equiva-
 lent. Introduction to the computer, and to the
writing of simple programs in BASIC. The use of
pocket calculators as pedagogic devices. Ap-
proximately one-third of the course will be
spent on problems related to the secondary
school curriculum which can be solved by
computer or calculator (3 credits) NOTE A/See
§ 200.4

NOTE: This course is available to practising
teachers only.

MATHMATICS N-410
Curriculum Seminar
Prerequisite: Permission of the Department.
Conducted in the form of a workshop. Exam-
Ines arithmetical, algebraic and geometrical-aspects of the mathematical curricula, grades
7-11. Critical examination of various textbooks
and pedagogic approaches used in the schools.
(3 credits)

NOTE: This course is available to practising
teachers only.

MATHMATICS N-431
Probabilistic Methods of Operations
Research
Prerequisite: (a) Mathematics N-261;
N-351 previously or concurrently; (b) Mathemat-
ics 440, 452. Difference and differential-dif-
equations, z transforms, stochastic dis-
tributions. Markov chains, queueing theory,
inventory theory, reliability and renewal theory,
competition and introduction to decision theory,
dynamic programming, simulation and Monte
Carlo techniques; formulation, testing and sta-
ibility of mathematical models incorporating un-
certainty. (6 credits)

MATHMATICS N-432
Theory of Graphs and Networks
Prerequisite: Mathematics N-331. Directed
and undirected graphs. Partitions, planar and
non-planar graphs, matrix representation, ap-
plications, network theory. (3 credits)

MATHMATICS N-433
Calculus of Variations
Prerequisite: Mathematics N-373 or N-270.
Nature of problems. Weak variations, the first
variation, Euler's equation. The second vari-
tation, Jacobi's equation. Legendre's test, conju-
gate points. Relative maxima and minima,
isoperimetrical problems. Integrals with variable
end points. Applications to problems in pure
and applied mathematics; the principle of least
action. Strong variations, the Weierstrass E-
fuction. (3 credits)

MATHMATICS N-434
Optimization Theory
Prerequisite: Permission of Department. A
survey of optimization methods, search tech-
niques, non-linear programming, dynamic pro-
gramming. An introduction to optimal control
and to the maximum principle. (3 credits)

MATHMATICS N-435
Topics in Numerical Analysis
Prerequisite: Mathematics N-311, N-312 or
equivalent. Advanced problems and techniques
in numerical linear algebra, systems of non-linear
equations, roots of polynomials; spline fit-
ting, mini-max fitting, extrapolation techniques,
solution of initial value ordinary differential
equations, solution of two-point boundary value
problems in ordinary differential equations,
eliptic partial differential equations, finite differ-
ence and finite element methods for hyperbolic
and parabolic partial differential equations. (3
credits)
MATHEMATICS N-441
Seminar in Applied Statistics
Prerequisite: Permission of the Department. Formulation and solution of some real-life problems where applications of statistical methods can be exploited. Analysis, interpretation of data and inference of results. A report on a specific aspect of statistics may be required. (3 credits)

MATHEMATICS N-442
Introduction to Reliability
Prerequisite: Mathematics N-351. Statistical failure models and reliability testing; system reliability; standby redundancy with and without repair; limit distributions. (3 credits)

MATHEMATICS N-451
Topics in Probability
Prerequisites: Mathematics N-261; N-351 or permission of Department. Axioms for probability space, Random variables, Distribution functions, mathematical expectation, Law of large numbers, Limit theorems, Stochastic processes, Markov, Poisson and Gaussian Processes. (3 credits)

MATHEMATICS N-452
Linear Statistics
Prerequisites: Mathematics N-261, N-281, N-352. Multivariate normal distribution, distribution of quadratic forms, Linear models, General linear hypothesis of full rank. (3 credits)

MATHEMATICS N-461
Real Analysis II

MATHEMATICS N-466
Complex Analysis II
Prerequisite: Mathematics N-366. Analytic functions, power series, Cauchy's theorem, Morera's and Liouville's theorems, singularities, maximum modulus principle, Rouche's theorem, Conformal mappings, linear transformations, analytic continuation, Special functions. (3 credits)

MATHEMATICS N-467
Complex Analysis III
Prerequisite: Mathematics N-466. Normal families, Riemann mapping theorem, harmonic functions, elliptic functions, univalent functions, selected topics. (3 credits)

MATHEMATICS N-471
Partial Differential Equations
Prerequisite: Mathematics N-373. Classification of partial differential equations, the Cauchy-Kowalewski theorem, characteristics, boundary value and eigenvalue problems for elliptic equations, initial value and initial boundary value problems for parabolic and hyperbolic equations. (3 credits)

MATHEMATICS N-472
Linear Systems
Prerequisite: Mathematics N-281; Mathematics N-270 or N-372, N-373. State space analysis and design of continuous and discrete systems, Controllability and observability, modal control, pole displacement techniques, Luenberger observers, Lyapunov stability. (3 credits) NOTE A/See § 200.4

MATHEMATICS N-473
Non-Linear Systems
Prerequisites: Mathematics N-280, N-270 or N-373. Examples of linear and non-linear systems, phase-plane analysis; periodic solutions and limit cycles; non-linear differential equations; perturbation methods; stability in the sense of Liapunov; linearization, Liapunov's direct method; Lagrange stability and boundedness of solutions, circle and Popov's criteria. (3 credits) NOTE A/See § 200.4

MATHEMATICS N-474
Introduction to Mathematical Control Theory
Prerequisites: Mathematics N-361 and N-472. Linear control systems. Attainable sets; compactness, convexity, continuity in time, Controllability and observability, Time optimal control. Maximum principle. Examples of physical systems.Switching curves. Optimal control with quadratic cost. (3 credits)

MATHEMATICS N-475
Geometry and Topology
Prerequisite: Permission of Department. Topological spaces, separation axioms, compactness, connectedness. Introduction to combinatorial and algebraic topology: Euler characteristic; classification of surfaces; winding number of a curve, degree of a map, vector fields, applications; map colouring problems. (3 credits)

MATHEMATICS N-491
Abstract Algebra I
Prerequisite: Mathematics N-391. Groups: composition series, direct product of groups, abelian groups, Sylow's theorems, solvable groups. Rings: Euclidean rings, unique factorization domains, principal ideal domains. Maximal, prime and primary ideals; ideals in noetherian rings, modules and vector spaces. Algebras. Selected topics. (3 credits)

MATHEMATICS N-492
Abstract Algebra II
Prerequisite: Mathematics N-491. Fields: prime fields; algebraic, finite, simple, separable, inseparable, normal extensions; finite fields; perfect and imperfect fields. Group characters. Galois theory; the fundamental theorem, solvability by radicals, transcendental extensions. (3 credits)

MATHEMATICS N-498
Mathematical Thinking II
Prerequisite: Permission of the Department. A student who has already received credit for Mathematics N-499 and wishes to repeat this course for credit registers under Mathematics N-498. (3 credits)

MATHEMATICS N-499
Mathematical Thinking I
Prerequisite: Permission of Department. This course is intended to stimulate the student's mathematical creativity and to improve his ability to think systematically, analyze problems and communicate his reasoning. Students participate actively in discussing and solving problems drawn from a variety of sources (including previous Putnam competitions) and are expected to explain their thinking both orally and in writing. Discussions include the following topics: problem posing; Polya's techniques of problem solving; equivalence and similarity of problems; generalization; applications. The problems are selected from: combinatorics, geometry, group theory, number theory, real analysis, etc. (3 credits)

NOTE: A student who has already received credit for Mathematics N-499 and wishes to repeat this course for credit registers under Mathematics N-498.
## 91.13 Department of Physics

### Associate Professor and Chairman of the Department

STANLEY P. MORRIS

### Adjunct Professor

WALTER R. RAUDORF

### Associate Professors

DAVID E. CHARLTON
NELSON W. EDDY
BARRY FRANK
ARLIN L. KIPLING

### Adjunct Associate Professor

PHOTIOS A. ANNINOS

### Adjunct Assistant Professor

SILVIO G. ZENONE

### 91.13.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with 91.3, 91.4.

The superscript indicates credit value.

#### 72 BSc Honours in Physics (Experimental Option)

<table>
<thead>
<tr>
<th>Year</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Phys N-241, N-251, N-291, N-292</td>
</tr>
<tr>
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<td>Math N-261</td>
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<tr>
<td></td>
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</tbody>
</table>

#### 72 BSc Honours in Physics (Theoretical Option)

<table>
<thead>
<tr>
<th>Year</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>I</td>
<td>Phys N-241, N-251, N-291 or N-292</td>
</tr>
<tr>
<td></td>
<td>Math N-261</td>
</tr>
<tr>
<td></td>
<td>Chosen from Phys N-435, N-465, N-467</td>
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</table>

#### 60 BSc Specialization in Physics (Theoretical Option)

<table>
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<tr>
<th>Year</th>
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<tbody>
<tr>
<td>I</td>
<td>Phys N-241, N-251, N-291, N-292</td>
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<tr>
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<td>Math N-261</td>
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#### 60 BSc Specialization in Physics (Experimental Option)

<table>
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<tr>
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</tr>
<tr>
<td></td>
<td>Math N-261</td>
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</table>

#### 60 BSc Specialization in Physics (Theoretical Option)

<table>
<thead>
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<th>Year</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>I</td>
<td>Phys N-241, N-251, N-291, N-292</td>
</tr>
<tr>
<td></td>
<td>Math N-261</td>
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<tr>
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</table>

#### 90 BSc Specialization in Physics Marketing

<table>
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<tr>
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</tr>
<tr>
<td></td>
<td>Math N-261</td>
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<tr>
<td></td>
<td>Math N-261</td>
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<tr>
<td></td>
<td>OMC243, C244 or equivalent</td>
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<tr>
<td></td>
<td>Comp Sc C211</td>
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<tr>
<td></td>
<td>Acc C213, C218</td>
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<td>Man C213, C340</td>
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<td></td>
<td>Econ L or S209, L or S210 or L or S212</td>
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<tr>
<td></td>
<td>Mark C213, C350</td>
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</table>

#### 36 BSc Major in Physics

These credits are to be chosen in consultation with the Department.

NOTE: Students following the major in Physics must register by November 1 of each year with the department.

#### 24 Minor in Physics

These credits are to be chosen in consultation with the department.

NOTE: Students following the minor in Physics must register by November 1 of each year with the department.

#### 32 Certificate in Scientific Measurement (Biology Option)

<table>
<thead>
<tr>
<th>Year</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>I</td>
<td>Bio N-202, N-203, N-389, N-381</td>
</tr>
<tr>
<td></td>
<td>Chem N-352, N-354</td>
</tr>
<tr>
<td></td>
<td>Phys N-295, N-396, N-397</td>
</tr>
</tbody>
</table>
91.13.2 DEPARTMENT OF PHYSICS

Physics is the most basic and therefore the most general field of science. Physics is concerned with the behaviour of matter and energy from the basic unit of the atom to the billions of stars in the universe. Its range stretches from the theoretical possibilities of black holes in space to the practicability of a printed circuit.

A physicist can apply himself to almost any field of endeavour, for example finding the explanation for the motion of charge carriers in an integrated circuit, or the details of information exchange between a measuring apparatus and a computer. Thus a physicist has the capability of becoming both the designer and the user of modern equipment. Computers were in use (as multi-channel analysers for measuring radiation) in the 1970s. Stereo manufacturers became aware of the virtues of field-effect transistors, which are used by physicists in particle detector preamplifiers.

Because physicists have often been at the forefront of new discoveries, they tend to be the experts to whom everyone turns for advice.

The tradition of a physicist doing basic research in a very specialized field is still important. However, at the Sir George Williams Campus, in addition to teaching basic physics, we also train students in areas of applied physics. To this end, a variety of options is available, leading to direct employment at the Bachelor or Certificate level.

Science students may not take this course for Science credits. See Physics N-226 for laboratory associated with this course.

91.13.3 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented this year. For equivalent course numbers under the old system, please consult § 200.4

PHYSICS N-204
Mechanics
Prerequisite: CEGEP Mathematics 103 or equivalent, previously or concurrently. Kinematics. Newton's Laws of Motion. Statics, dynamics. Conservation of momentum and energy. Periodic motion. Lectures only. (3 credits) NOTE A/See § 200.4
Science students may not take this course for Science credits. See Physics N-224 for laboratory associated with this course.

PHYSICS N-205
Electricity and Magnetism
Prerequisite: Physics N-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. (3 credits) NOTE A/See § 200.4
Science students may not take this course for Science credits. See Physics N-225 for laboratory associated with this course.

PHYSICS N-206
Waves and Modern Physics

PHYSICS N-210
Discoveries in Physics
A non-mathematical course in physics specifically designed for students who have had little or no experience in physics. It traces the fundamental ideas from which modern physics has emerged and attempts to develop insights into the understanding of natural phenomena. Lectures only. (6 credits) NOTE A/See § 200.4
Science students may not take this course for Science credits.

PHYSICS N-224
Introductory Experimental Mechanics
Prerequisite: Physics N-204, previously or concurrently or permission of the Department. A laboratory course covering fundamental experiments in classical mechanics. Experiments will include: resolution of forces, centrifugal force and conservation of energy, pendulums. Laboratory only, 10 experiments. (1 credit) NOTE A/See § 200.4
Science students may not take this course for Science credits.

PHYSICS N-225
Introductory Experimental Electricity
Prerequisite: Physics N-205, previously or concurrently or permission of the Department. A laboratory course covering fundamental experiments in electricity. Experiments will include Kirchhoff's law, resistors in series and parallel, oscilloscope, induction, AC. Laboratory only, 10 experiments. (1 credit) NOTE A/See § 200.4
Science students may not take this course for Science credits.
PHYSICS N-226
Introductory Experimental Waves and Modern Physics
Prerequisite: Physics N-206, previously or concurrently or permission of the Department.
A laboratory course covering the fundamental experiments in waves and modern physics. The 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 man 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, bio-power. Lectures only. (3 credits)
NOTE: Science students may not take this course for Science credits.

PHYSICS N-273
Energy and Environment

PHYSICS N-241
Classical Mechanics
Prerequisite: Physics N-204 or CEGEP Physics 101, or equivalent. Mathematics N-261 previously or concurrently. Laws of classical mechanics. Statics, kinematics, dynamics of a particle, moving reference frames, central forces, dynamics of a system of particles. Dynamics of rigid bodies in a plane. Lagrange’s equations. Lectures only. (6 credits) NOTE A/See § 200.4
Science students may not take this course for Science credits.

PHYSICS N-243
Classical Mechanics of Particles
Prerequisites: Physics N-204 or equivalent, Math N-261, previously or concurrently. Physical quantities of Mechanics. Laws of Classical Mechanics, Kinematics of a Particle, Dynamics of a Particle in Straightline and General Motion Moving Reference Systems. Lectures only. (3 credits) NOTE A/See § 200.4

PHYSICS N-244
Classical Mechanics of Rigid Bodies
Prerequisite: Physics N-243. Dynamics of a System of Particles, Statics of Rigid Bodies in a Plane and in General Motion, Lagrange’s Equations. Lectures only. (3 credits) NOTE A/See § 200.4

PHYSICS N-251
Electrodynamics
Prerequisites: Physics N-205 or CEGEP Phys. 201 or equivalent, Mathematics N-261 previously or concurrently. Electric forces and electric field, electric potential, capacitance, dielectric theory and behaviour, direct currents, resistance, thermloelectricity, moving charges and magnetic fields, electromagnetic induction, the magnetic properties of matter, galvanometers, transient currents, alternating current circuits, Maxwell’s equations and electromagnetic waves. Lectures only (6 credits) NOTE A/See § 200.4
See Physics N-292 for laboratory associated with this course.

PHYSICS N-270
Introduction to Energy and Environment
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 man 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, bio-power. Lectures only. (3 credits)
NOTE: Science students may not take this course for Science credits.

PHYSICS N-271
Experimental Mechanics
Prerequisite: Physics N-241, previously or concurrently. A laboratory course in mechanics. Experiments include, the Kater pendulum, forced oscillations, damping and resonance, inelastic and elastic collisions. Laboratory only, 20 experiments. (2 credits) NOTE A/See § 200.4

PHYSICS N-292
Experimental Electrodynamics
Prerequisite: Physics N-251, previously or concurrently. A laboratory course in electrodynamics. Experiments include electrostatic focussing, motion in crossed magnetic and electric fields, resonance, Fourier analysis, feedback, transistors, oscillators. Laboratory only, 20 experiments. (2 credits) NOTE A/See § 200.4

PHYSICS N-295
Fundamental Electronics
Prerequisite: CEGEP Physics 201 or Physics N-205 or permission of the department. A practical laboratory course in electronics. Descriptive experiments to review: series and parallel circuits, meters, ohmmeter, VOM and TVM circuit loading, reference points in measurements, current measurement in circuits, capacitors and RC time constants, transistors, AC power transfer, resonance, the oscilloscope. Detailed experiments are performed on: rectification, filters, voltage dividers, amplifiers and regulators, zener diodes, transistor characteristics, biasing, the effect of temperature on transistors and temperature stabilization, amplification, feedback, input and output impedances of transistor circuits, Darlington amplifiers, multistage amplifiers; series and shunt DC regulator, field effect transistors, sine wave and LC oscillators, colpits and phase shift oscillators, operational amplifiers: application and characteristics, audio amplifiers, I-F Transformer, limiter, amplitude modulation, frequency modulation. Laboratory only. (4 credits) NOTE A/See § 200.4

PHYSICS N-296
Communication Media Electronics
Prerequisite: Physics N-295 or equivalent. Distortion, Noise, i.f. transmitters, converters, power supplies, superheterodyne circuits, video amplifiers and detectors, VHF and UHF tuning, automatic gain control, FM and FM detectors, synchronization circuits, sweep circuits, automatic frequency and phase control, color demodulation, burst gate amplifiers, chromaandpass amplifiers, static convergence, dynamic convergence, high voltage generators. Techniques of troubleshooting electronic circuits. Laboratory only (5 credits)
PHYSICS N-336
Methods of Theoretical Physics

PHYSICS N-345
Advanced Classical Mechanics and Relativity
Prerequisite: Physics N-241. Variational principles and Lagrange’s equations, kinematics of rigid body motion, Hamilton’s equations of motion. Canonical transformations, Hamilton-Jacobi theory, small oscillations, special relativity, mechanics of deformable bodies. Lectures only. (6 credits)

PHYSICS N-352
Optics

PHYSICS N-355
Electronics
Prerequisites: Physics N-205 or CEGEP Physics 201 or equivalent. Physics N-295 previously or concurrently. Semiconductor Physics: pure semiconductors, P- and N-type semiconductors, PN junction, diode, bipolar and field effect transistors. Circuit Theory: Kirchhoff’s Laws, transistor h- and y-parameter equivalent circuits, operational amplifiers, digital circuits. Laboratory only. (5 credits) NOTE A/See § 200.4 See Physics N-295 for laboratory associated with this course.

PHYSICS N-364
Atomic Physics
Prerequisites: CEGEP Physics 301 or Physics N-206 or equivalent, or permission of the Dept.; CEGEP Math. 203 or equivalent. Kinetic theory, origin of quantum theory, electrons and ions, electromagnetic radiation, the Rutherford atom, the Bohr atom, quantum mechanics, atomic structure, molecules and solids. Lectures only. (3 credits) NOTE A/See § 200.4 See Physics N-394 for laboratory associated with this course.

PHYSICS N-383
Medical Physics
Prerequisite: CEGEP Pre-Science or equivalent. This course provides a background in the physics needed to understand instrumentation used in the fields of biology and medicine. Topics are taken from the fields of mechanics, properties of materials, thermodynamics, optics, electromagnetic theory and radiation physics. Lectures only. (3 credits)

PHYSICS N-392
Experimental Optics
Prerequisite: Physics N-352, previously or concurrently. An experimental course in optics. Experiments include diffraction, optical instruments, resonance and various experiments using lasers. Laboratory only. 10 experiments. (1 credit) NOTE A/See § 200.4

PHYSICS N-394
Experimental Atomic Physics
Prerequisites: Physics N-364, previously or concurrently. Physics N-226 or CEGEP Physics 301 or equivalent or permission of the dept. 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. (1 credit) NOTE A/See § 200.4

PHYSICS N-396
Computer Electronics
Prerequisite: Physics N-295 or equivalent. Diode clipping circuits, transistor as a switch, multivibrator circuits, logic circuits. Study and troubleshooting of integrated circuit logic gates, J-K flip flops, analogue and digital to analogue converters, frequency divider circuits, digital multiplexers and demultiplexers, pulse distributor logic gates. Study and implementation of basic logic functions and Boolean expressions to program a small digital computer. Laboratory only (5 credits)

PHYSICS N-397
Experimental Medical Electronics
Prerequisite: Physics N-295 or equivalent. A laboratory course on the maintenance and use of medical instruments including ECG monitor, electro-cardiograph, cardiograph, blood pressure recorder, respiration rate recorder and clinical thermometer. The component parts of the instruments are studied first and then the instruments are constructed and operated. Laboratory only. (6 credits)

PHYSICS N-433
Thermodynamics
Prerequisites: Mathematics N-261, Physics N-241 or equivalent. Temperature, simple thermodynamic systems, work, heat and first law, ideal gases, kinetic theory, heat engines, reversible and irreversible processes, entropy, thermodynamics potentials. Lectures only. (3 credits) NOTE A/See § 200.4 See Physics N-493 for associated laboratory course.

PHYSICS N-435
Statistical Physics
Prerequisite: Physics N-433 or equivalent. Basic probability concepts, statistical description of systems of particles, thermal interaction, microscopic theory and macroscopic measurements. Canonical distribution in the classical approximation, general thermodynamic interaction, elementary kinetic theory of transport processes. Lectures only. (3 credits)

PHYSICS N-457
Advanced Electrodynamics
Prerequisite: Physics N-251. Fundamentals of electromagnetics, multiple fields, the equations of Laplace and Poisson, the electromagnetic field equations, electromagnetic waves, reflection and refraction, the Lienard-Weichert potentials and radiation, radiating systems, classical electron theory, relativistic electrodynamics. Lectures only. (6 credits)
PHYSICS N-465
Nuclear Physics
Prerequisite: Physics N-364 or equivalent. Discussion of nuclear properties, deuteron scattering, nuclear models, nuclear disintegrations, nuclear reactions, elementary particles and cosmic rays. Relationships between fundamental quantities and radiation dosage, shielding requirements and environmental concerns. Lectures only. (3 credits) NOTE A/See § 200.4

PHYSICS N-467
Solid State Physics
Prerequisite: Physics N-364 or equivalent or Physics N-477. Crystal structure, crystal binding, phonons and lattice vibrations, free electron Fermi gas, energy bands, semi-conductor crystals, superconductivity, dielectric properties, survey of magnetic properties, magnetic resonance, optical phenomena in insulators. Lectures only. (3 credits)

PHYSICS N-477
Quantum Mechanics I
Prerequisite: Mathematics N-270 or Phys. N-241 or N-336, N-364 previously or concurrently. State functions and their interpretation, linear momentum, motion of a free particle, Schrodinger's equation. Lectures only. (3 credits) NOTE A/See § 200.4

PHYSICS N-478
Quantum Mechanics II
Prerequisites: Physics N-477 and N-241 or equivalent. States of a particle in one dimension, approximation methods, systems of particles in one dimension, motion in three dimensions, angular momentum and spin. Lectures only. (3 credits) NOTE A/See § 200.4

PHYSICS N-480
Biophysics I
Prerequisite: University II standing in biology, physics or biochemistry or permission of the Department. A course on the interface between the biological and physical sciences. Emphasis will be on biomechanics, physiological fluid flows, and bioenergetic principles. Lectures and laboratory. (4 credits) NOTE A/See § 200.4

PHYSICS N-482
Biophysics II
Prerequisite: Physics N-480 or permission of the Department. Biological oscillations on a biochemical, cellular, organ level will be treated and mathematical models will be explained. Cybernetics will be introduced and simple applications to physiological control systems given. Mechanics will be applied to the problems of form and locomotion. Irreversible thermodynamics will be applied to the problem of growth. Cancer from a biophysical viewpoint will be studied. Lectures and laboratory. (4 credits)

PHYSICS N-493
Experimental Thermodynamics I
Prerequisite: Physics N-433 previously or concurrently. A laboratory course in thermodynamics. Experiments include Clement and Desormes experiment, vaporisation, specific heats, liquid nitrogen boiling. Laboratory only. 10 experiments. (1 credit) NOTE A/See § 200.4

PHYSICS N-495
Experimental Nuclear Physics I
Prerequisites: Physics N-394 and N-465 previously or concurrently. A laboratory course in nuclear physics. Experiments include gamma and beta ray spectroscopy, nuclear magnetic resonance, absolute counting, half-life determination, nuclear activities. Laboratory only. 10 experiments. (1 credit) NOTE A/See § 200.4

PHYSICS N-496
Methods of Experimental Physics
Prerequisites: Physics N-295 or equivalent and N-394 or equivalent or permission of the Department. Experiments include fundamentals of digital logic and applications of operational amplifiers, solid state and nuclear physics. Students are encouraged to propose new experiments and will have the opportunity to design and build equipment. Laboratory only. (4 credits)

This course was given in the Summer 1976.

PHYSICS N-273
Energy and Environment (3 credits)
91.14 Psychology (BSc)

91.14.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements, hence the following sequence must be read in conjunction with § 91.3, 91.4.

The superscript indicates credit value.

The following courses in Psychology plus the courses outlined in either the Biology option or the Mathematics option constitute an Honours program in Psychology, provided the student maintains the required academic standing.

75 BSc Honours in Psychology

Year I
12 Psych S271* or S273*, S412*

Year I or II
6 Psych S241* or S242* or Math N-241* (in consultation with the BSc Honours adviser.)

Year II or III
6 Psych S461*


Year III
12 Psych S413*, S472*

Biology Option

Year I
12 Bio N-203*, Zoo N-215*, Chem N-231*

Year II
3 Bio N-224*

Year III
6 Zoo N-320*

or Mathematics Option

6 Math N-281*


60 BSc Specialization in Psychology

Year I
12 Psych S271* or S273*, S412*

Year I or II
6 Psych S241* or S242* or Math N-241* (in consultation with the BSc adviser.)

Year II or III
6 Psych S461*


Year III
24 Psych S471* or equivalent, and six additional credits in Psych in consultation with the Department. In addition, either Zoo N-215*, Bio N-203* and Chem N-231* or twelve credits from Math N-261*, N-270*, N-281*, N-341*, N-343*, Comp Sc S211*, S221*.

36 BSc Major in Psychology

Year I
12 Psych S271* or S273*, S412*

Year II and III
6 Psych S461*


6 Psych Elective credits

24 Minor in Psychology

Year I
6 Psych S271*

Year II and III
6 Psych S461*


91.14.2 COURSES

The courses in Psychology listed below are acceptable as Science credits in the Bachelor of Science degree. Course descriptions can be found in the Sir George Williams Faculty of Arts § 41.20.

PSYCHOLOGY S241
Statistical Methods in Psychology A (6 credits)

PSYCHOLOGY S242
Statistical Methods in Psychology B (6 credits)

PSYCHOLOGY S271
Experimental Psychology 1A (6 credits)

PSYCHOLOGY S273
Experimental Psychology 1B (6 credits)

PSYCHOLOGY S375
Directed Study and Research on a Selected Topic (3 credits)

PSYCHOLOGY S421
Learning (6 credits)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit(s)</th>
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<tbody>
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<td>S422</td>
<td>PSYCHOLOGY S422 Motivation</td>
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<tr>
<td>S428</td>
<td>PSYCHOLOGY S428 Measurement</td>
<td>6</td>
</tr>
<tr>
<td>S432</td>
<td>PSYCHOLOGY S432 Perception</td>
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<tr>
<td>S434</td>
<td>PSYCHOLOGY S434 Cognitive Processes</td>
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<td>S438</td>
<td>PSYCHOLOGY S438 Developmental Psychology</td>
<td>6</td>
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<tr>
<td>S442</td>
<td>PSYCHOLOGY S442 Social Psychology</td>
<td>6</td>
</tr>
<tr>
<td>S452</td>
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<td>S454</td>
<td>PSYCHOLOGY S454 Behaviour Disorders</td>
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<td>S461</td>
<td>PSYCHOLOGY S461 Physiological Psychology</td>
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<td>PSYCHOLOGY S462 Comparative Psychology</td>
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<td>PSYCHOLOGY S471 Experimental Psychology II</td>
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<td>S472</td>
<td>PSYCHOLOGY S472 Advanced Experimental Problems</td>
<td>6</td>
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<tr>
<td>S491 (492)</td>
<td>PSYCHOLOGY S491 (492) Special Seminar on a Selected Topic</td>
<td>3 (3)</td>
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91.15 Teaching of Science

91.15.1 PROGRAMME

Certificate in the Teaching of Science (Elementary School Level)

The Faculty of Science offers a Certificate in Teaching of Science (Elementary School Level) for the professional development of teachers interested in science. Practising teachers are offered the opportunity to improve their knowledge of science in order to help them teach modern science more effectively. The presentation will generally be in workshop form with emphasis on assignments which develop activities for classroom use. Courses will be offered on and off campus during the Winter and Summer months, subject to sufficient demand and the availability of suitable instructors.

91.15.2 COURSE DESCRIPTIONS

SCIENCE N-310
Matter and Energy
States and properties of matter, change of state, force, common machines, mass, volume, expansion, gravitation, heat, light, sound, electricity, magnetism, other sources of energy, conservation of energy. (6 credits)
NOTE: This course is available only to practising teachers.

SCIENCE N-311
Man and his Environment
Temperature, soil, water, air, atmosphere, reproduction, heredity, erosion, weather, nitrogen cycles, pollution, ecology and ecosystems. (6 credits)
NOTE: This course is available only to practising teachers.

SCIENCE N-312
Our Earth and the Universe
Time cycles, volume, density, constitution and properties of solar system, gravity, seasons, water and carbon cycles. (6 credits)
NOTE: This course is available only to practising teachers.

SCIENCE N-313
Living Things and Their Activities
The cellular structure of living things, food chains, plants, animals, germination, growth, soil, water, respiration, nutrition, life cycles. Classification into families, communities and populations. (6 credits)
NOTE: This course is available only to practising teachers.

SCIENCE N-314
Philosophy and Methodology of Teaching Science, Elementary Level
A study of the role, impact, and responsibility of science at the elementary school level, a study of science programme design, teaching processes and classroom activities at the elementary level. (6 credits)
NOTE: This course is available only to practising teachers.

Admission Requirements

Entry into the programme requires a teaching licence valid in the province of Quebec and a DCS or equivalent.

30 Certificate in the Teaching of Science (Elementary School Level)
30 Science N-310, N-311, N-312, N-313, N-314.

NOTE: In some cases where students have completed similar courses in previous studies, the Faculty may also allow pro-tanto credits up to a maximum of 12 credits.
NOTE A The use of this note after certain course descriptions indicates, that there exists an equivalent course and that students who have the 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 B The use of this note after certain language course descriptions indicates, that students for whom this is their mother tongue or whose schooling has been conducted in this language will not be admitted to this course.

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NOTE C The use of this note after certain course descriptions 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.
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## 200.2 Faculty of Commerce and Administration

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### NOTE A
The use of this note after certain course descriptions indicates that there exists an equivalent course and that students who have the equivalent course may not take the listed course for credit. To find out the equivalents to the listed course refer to the index below.

### NOTE C
The use of this note after certain course descriptions indicates that with the permission of the Section a student may take the listed course twice for credit, provided that a different content is dealt with the second time.
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NOTE A The use of this note after certain course descriptions indicates that there exists an equivalent course and that students who have the equivalent course may not take the listed course for credit. To find out the equivalents to the listed course refer to the index below.

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**Communication Studies**

**English**

**Economics**

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*NOTE: Content for these courses are similar, although credit weight differs. Students may not receive credits for both courses.

**Interdisciplinary Studies**

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| L278        | 378Z                       |
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| L281        | 381A                       |
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*NOTE: The content of these courses are similar, although credit weight differs. Students may not receive credits for both courses.

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521
NOTE A The use of this note after certain course descriptions indicates, that there exists an equivalent course and that students who have the equivalent course may not take the listed course for credits. To find out the equivalents to the listed course refer to the index below.

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History
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Mathematics
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