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Using the Calendar

Please read carefully all sections in this Calendar which pertain to your residency at McMaster University.

The first sections describe University-wide procedures and regulations. These are Sessional Dates, Degrees, Courses and Programmes, Degrees by Programme, Glossary, Admission Requirements, Application Procedures and Academic Regulations, Senate Policy Statements and Financial Information.

The next sections begin with descriptions of the arts and Science programme, the School of Business, the Engineering, Health Sciences, Humanities, Science, Social Science Faculties and the Combined B.A. Programme in Indigenous Studies. The programme section concludes with a description of Theme Schools, Interdisciplinary Minors and Thematic Areas, Part-Time Degree Studies and Certificate and Diploma Programmes. Each programme section describes the undergraduate degree programme requirements by department. The Course Listings section completes the academic part of the Calendar.

When choosing your courses, please be careful to note all prerequisites, antirequisites, corequisites and cross-listings; they may have a significant impact on your programme. If you are not sure of the meanings of these terms, please consult the Glossary section of the Calendar.

Information about awards, scholarships, bursaries, loan funding, University services, the libraries, residences, computing facilities, and student activities and organizations are included in the latter sections of this Calendar.
The following is a list of University offices (with the appropriate postal code) and administrative staff members that are most frequently contacted. Other offices and services, with their addresses, telephone numbers, and e-mail or web addresses (where available) are described throughout the Calendar.

**Admissions Office (Undergraduate Studies)**
Associate Registrar (Admissions): Lynn Giordano
Gilmour Hall, Room 108, L8S 4L8, ext. 24796; Fax: (905) 527-1105

**Student Liaison**
Associate Registrar (Liaison): Patricia Harris
Gilmour Hall, Room 102, L8S 4L8, ext. 23650; Fax: (905) 524-3550

**Student Financial Aid and Scholarships**
Director: Elizabeth Seymour, ext. 24528
Hamilton Hall, Room 404, L8S 4L8, ext. 24319, 24789
Effective Fall 2001: Gilmour Hall, Room 120

**Transcripts and Records**
Gilmour Hall, Room 108, L8S 4L8, ext. 24796; Fax: (905) 527-1105

**Examinations, Schedules and Reservations**
Assistant Registrar (Schedules and Examinations): Ruth Toth
Gilmour Hall, Room 114, L8S 4L8, ext. 24453; Fax: (905) 527-1105

**Office of the Associate Vice-President (Student Affairs)**
Associate Vice-President (Student Affairs): Mary Keyes
Gilmour Hall, Room 207, L8S 4L8, ext. 27455

**School of Graduate Studies**
Dean of Graduate Studies: Fred L.Hall
Togo Salmon Hall, Room 111, L8S 4M2, ext. 23679

**Centre for Continuing Education**
Director: Dale C. Schenkl
Commons Building, Room 116, L8S 4K1, ext. 24321

**Alumni Association**
Director of Alumni Advancement: Scott Koblyk
Gilmour Hall, Room 110, L8S 4L8, ext. 23900
Effective Fall 2001: Location to be announced

**Housing and Conference Services**
Director of Housing and Conference Services: Cathie Miller
Commons Building, Room 001, L8S 4K1, ext. 24223

**Career Planning and Employment Centre**
Manager: Karen Johnson
Hamilton Hall, Room 302, L8S 4K1, ext. 24253
Effective Fall 2001: Gilmour Hall, Room 110

**Advice for Overseas and Exchange Students**
International Students' Advisor: Cheryl-Ann Jackson
Gilmour Hall, Room 405, L8S 4K1, ext. 24748
Effective Fall 2001: Gilmour Hall, Room 104

**Services for Students with Disabilities**
Programme Coordinator (Disability Specialist): Tim Nolan
Programme Coordinator (Disability Specialist): Marge Marriott
Programme Coordinator (Learning Specialist): Caroline Cayuga
Hamilton Hall, Room 409, L8S 4K1, ext. 24711
Effective Fall 2001: McMaster University Student Centre, Room B107

**Career Planning and Employment Centre**
Manager: Karen Johnson
Hamilton Hall, Room 302, L8S 4K1, ext. 24253
Effective Fall 2001: Gilmour Hall, Room 110

**Career Planning and Employment Centre**
Manager: Karen Johnson
Hamilton Hall, Room 302, L8S 4K1, ext. 24253
Effective Fall 2001: Gilmour Hall, Room 110

**Advice for Overseas and Exchange Students**
International Students' Advisor: Cheryl-Ann Jackson
Hamilton Hall, Room 405, L8S 4K1, ext. 24748
Effective Fall 2001: Gilmour Hall, Room 104

**Grievances**
Secretary of the Senate: Joan Morris
Gilmour Hall, Room 104, L8S 4L8, ext. 24377
Effective Fall 2001: Gilmour Hall, Third Floor

**Career Planning and Employment Centre**
Manager: Karen Johnson
Hamilton Hall, Room 302, L8S 4K1, ext. 24253
Effective Fall 2001: Gilmour Hall, Room 110

**Advice for Overseas and Exchange Students**
International Students' Advisor: Cheryl-Ann Jackson
Hamilton Hall, Room 405, L8S 4K1, ext. 24748
Effective Fall 2001: Gilmour Hall, Room 104

**Grievances**
Secretary of the Senate: Joan Morris
Gilmour Hall, Room 104, L8S 4L8, ext. 24377
Effective Fall 2001: Gilmour Hall, Third Floor

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**Off-campus Housing**
Wentworth House, Room 118, L8S 4K1, ext. 24066
Effective Fall 2001: McMaster University Student Centre, Room B112

**Hospitality Services**
Director: Albert Ng, ext. 23636
Commons Building, Room B101B, L8S 4K1
Mac Express Inquiries: ext. 27448

**Centre for Student Development**
Team Leader: Marge Marriott (until April 30, 2001)
Hamilton Hall, Room 409, L8S 4K1, ext. 24711
Effective Fall 2001: McMaster University Student Centre, Room B107

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**Other Publications for McMaster Students**
- Undergraduate Studies
  - Undergraduate Studies Calendar
  - McMaster Student Handbook
- Graduate Studies
  - Calendar of the School of Graduate Studies
  - McMaster's Open Learning Programmes
  - Graduate Studies in Mcgill and McGill PhD Programmes
- Career Development and Non-Credit Studies
  - Career Development and Non-Credit Studies

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**Ombuds Office**
Ombuds: Shelley Lancaster
Hamilton Hall, Room 212, L8S 4K1, ext. 24151; Fax: (905) 529-3208; E-mail: ombuds@mcmaster.ca
Effective Fall 2001: McMaster University Student Centre, Room 210

The Ombuds provides information and advice relating to problems, complaints and appeals involving members of the McMaster community. The Ombuds Office is a service provided by the MSU and the University.

For information and advice with respect to University regulations and services, see the Academic Facilities, Student Services and Organizations section of the Calendar.
McMaster University

McMaster University, through its continued dedication to innovative education and ground-breaking research, has earned its reputation as one of the leading post-secondary institutions in Canada. McMaster is a medium-sized, full-service university offering educational programmes through six Faculties. The extensive activity in research, supported by $103 million in grants and contracts, means there are first-class libraries and sophisticated facilities. Undergraduate teaching is conducted through the School of Business, the Faculties of Engineering, Health Sciences, Humanities, Science, and Social Sciences, and the distinctive Arts and Science programme. The Department of Kinesiology and the School of Social Work are part of the Faculty of Social Sciences.

DISCIPLINES AND DEGREES

The Arts and Science Programme offers B. Arts Sc. and Honours B. Arts Sc. degrees. It is possible to combine the programme leading to the Honours B. Arts Sc. degree with programmes that fulfill the requirements for Honours degrees in a number of different disciplines.

The Michael G. DeGroote School of Business offers the Honours B.Com. and B.Com. degrees, which include work in the following areas: accounting, business policy, finance, management science and information systems, marketing and International business, and human resources and management.

The Faculty of Engineering offers the Bachelor of Engineering programme in Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Engineering Physics, Manufacturing Engineering, Materials Engineering, Mechanical Engineering and Software Engineering.

Students may register in the Faculty of Engineering to take the five-level Engineering and Management programme, which is offered jointly by the School of Business and Faculty of Engineering, or the five-level Engineering and Society programme.

The Faculty of Engineering also offers a degree completion programme in Manufacturing Engineering Technology leading to the Bachelor of Technology Degree. It is offered in conjunction with Mohawk College.

The Faculty of Health Sciences has gained an international reputation for its innovative educational programming, and offers, through the School of Medicine, the M.D. programme, and through the School of Nursing, the B.Sc.N. degree programme. A Bachelor of Health Sciences (B.H.Sc.) degree may be earned in Midwifery and a Bachelor of Health Sciences (Honours) (B.H.Sc. Hon.) programme is also offered.

The Faculty of Humanities offers programmes in Art, Art History, Classics (Ancient History and Archaeology, Classical Languages and Literature), Communication Studies, Comparative Literature, Drama, English, French, History, Indigenous Studies, Japanese Studies, Linguistics, Modern Languages (German, Italian), Modern Languages and Linguistics, Multimedia, Music, Peace Studies, Philosophy and Women's Studies leading to B.A. degrees, as well as a Bachelor of Music degree and a Diploma in Music Performance. Students pursuing Honours degree programmes may complete and receive credit for the third level of the programme in study abroad at a university in a country approved by the Faculty.

Bachelor of Science programmes are available in the Faculty of Science at the B.Sc. and B.Sc. Honours levels. Programmes are offered in Biochemistry, Biology, Chemistry, Computer Science, Earth and Environmental Sciences, Geoscience, Kinesiology, Life Science, Mathematical Science, Mathematics, Materials Science, Medical and Health Physics, Molecular Biology, Neural Computation, Physical Science, Physics, Psychology, Science, and Statistics.

The Faculty of Social Sciences offers B.A. programmes in Anthropology, Economics, Geography, Geography and Environmental Studies, Gerontology, Health Studies, Indigenous Studies, Labour Studies, Political Science, Psychology, Religious Studies and Sociology. The School of Social Work offers the combined B.A./B.S.W. degree, and the Department of Kinesiology, the Honors B.Kin and B.Kin. degrees.

THE UNIVERSITY

Named after Senator William McMaster, who bequeathed funds to endow a Christian school of learning, the University grew out of educational work initiated by Baptists in central Canada as early as the 1830s. After its initial years in Toronto, from 1887 to 1930, the University was moved to Hamilton. It became non-denominational in 1957, although the historic Baptist connection continues through the separately incorporated McMaster Divinity College.

More than 14,000 full-time students attend McMaster University, 1,700 of whom are pursuing advanced degrees offered through the School of Graduate Studies. In addition, about 3,000 part-time students are registered in the Fall/Winter session, from September to April, and 3,500 in the Spring/Summer session, from May to August. The University also provides courses in centres located outside Hamilton, for which full credit is granted.

Most of the 900 members of the University faculty hold doctoral degrees in their areas of specialization. Faculty members are expected to teach both graduate and undergraduate courses and may be involved in the academic counselling of students.

The University's diverse academic programmes are supported by some fine, and even unique, facilities. The University Library is a member of the Association of Research Libraries and contains over 1.8 million volumes, and has subscriptions to over 23,500 periodical titles, 7,500 of which are currently subscribed. The Library has an extensive special collections section which includes the Bertrand Russell Archives, 18th Century materials and major Canadian collections.

Facilities for programmes in the Humanities include modern language laboratories, music rehearsal rooms, art studios, a museum of art and seminar rooms. The work of the Faculties of Science and Engineering is supported by sophisticated facilities, which includes a nuclear reactor. There are six undergraduate computing labs on campus, which contain Pentium computers, as well as numerous departmental computing clusters containing a mixture of PCs and NT workstations. Students in residence have convenient access to the McMaster network and the Internet from their rooms.

The recreation, fitness and intramural programmes offer more than 30 different sports in which over 6,000 students participate. The Interuniversity Athletic Programme features 33 varsity sport opportunities—18 for men and 15 for women. The department also offers a full range of instructional and outdoor education programmes throughout the calendar year. The athletic facilities include a 50-metre swimming pool, an eight-lane, 400-metre, all-weather track, eight hard surface all-weather tennis courts, and a state-of-the-art fitness and conditioning facility known as the Pulse.

McMaster's campus, which is restricted to pedestrian traffic, is adjacent to the Royal Botanical Gardens at the western end of Lake Ontario. On-campus co-educational and single-sex residences are available for approximately 2,780 students.

The University is minutes from downtown Hamilton, and the activities that a major city has to offer. Students can get there by car or by taking one of the buses from the region's public transit system, which make frequent stops on campus.
Sessional Dates

The academic year is divided into sessions, as shown on the chart below.

Most undergraduate students register for the Fall/Winter Session, which runs from September to April.

The Spring/Summer Session starts at the beginning of May and ends in early-August.

The 2001-2002 Academic Year Divided by Session and Term

The numbers on the left and right of each block are the respective start and end dates for that term.

Examination periods (where applicable) are included in this chart.

<table>
<thead>
<tr>
<th>SESSIONS</th>
<th>TERMS</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL/</td>
<td>Term 1</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td></td>
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</tr>
<tr>
<td>WINTER</td>
<td>Term 2</td>
<td>7</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>SESSION</td>
<td>Term 3</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>SPRING/</td>
<td>Term 1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>6</td>
</tr>
<tr>
<td>SUMMER</td>
<td>Term 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>SESSION</td>
<td>Term 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CONVOCATIONS

The exact time of the convocations will be determined four months prior to the specific convocation date.

Friday, July 20, 2001
◆ Last day to file a Graduation Information Card and declare a minor for Fall 2001 Convocations

Friday, November 9, 2001
◆ Fall 2001 Convocations (all Faculties)

Friday, February 1, 2002
◆ Last day to change Programmes for Spring 2002 Convocations

Release from Liability

McMaster University reserves the right to change or revise information contained in this Calendar, including the alteration of fee structures, schedules and/or courses. The University reserves the right to limit enrolment in, or admission to, any course or programme at any level.

The University will not be liable for any interruption in, or cancellation of, any academic activities as set forth in this Calendar and related information where such interruption is caused by fire, strike, lock-out, inability to procure materials or trades, restrictive laws or governmental regulations, actions taken by the faculty, staff or students of the University or by others, civil unrest or disobedience, or any other cause of any kind beyond the reasonable control of the University.

Course Enrolment Limits: Limited enrolment courses are identified in the calendar; these either require permission or are assigned on a first served basis. In addition, the University reserves the right to limit enrolment in any course which is oversubscribed, even if the course description and registration literature do not indicate an enrolment limit.

University Policies

Acceptance of the University’s policies, and changes that may be approved from time to time by the Board of Governors and the Senate, is a condition of being accepted in any capacity in any University-controlled laboratory or programme. This includes, but is not limited to, the McMaster University Intellectual Property Policy (http://www.mcmaster.ca/inelprop).
# Sessional Dates for 2001-2002

The following schedule applies to both full- and part-time students.

## Fall/Winter Session 2001-2002

<table>
<thead>
<tr>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration (All Levels)</td>
<td>To Be Announced</td>
<td>Thursday, September 6</td>
</tr>
<tr>
<td>Classes begin</td>
<td></td>
<td>Friday, September 14</td>
</tr>
<tr>
<td>Last day for registration and adding courses</td>
<td></td>
<td>Friday, January 11</td>
</tr>
<tr>
<td>Thanksgiving Day: No classes</td>
<td></td>
<td>Friday, October 8</td>
</tr>
<tr>
<td>Last day for withdrawal without failure by default</td>
<td></td>
<td>Friday, February 15</td>
</tr>
<tr>
<td>Mid-term recess</td>
<td></td>
<td>Monday, February 18</td>
</tr>
<tr>
<td>Good Friday: No classes</td>
<td>To Saturday, February 23</td>
<td>Friday, March 29</td>
</tr>
<tr>
<td>Test and Examination ban:</td>
<td></td>
<td>Thursday, April 4</td>
</tr>
<tr>
<td>No tests or examination may be held</td>
<td></td>
<td>to Thursday, April 11</td>
</tr>
<tr>
<td>Classes end</td>
<td>Wednesday, April 10</td>
<td>Wednesday, April 10</td>
</tr>
<tr>
<td>Mid-Session Tests (Level I)</td>
<td></td>
<td>Monday, May 6</td>
</tr>
<tr>
<td>Final Examinations</td>
<td></td>
<td>Monday, May 24</td>
</tr>
<tr>
<td>Last day to confirm intent to write deferred examinations</td>
<td></td>
<td>Monday, May 20</td>
</tr>
<tr>
<td>Deferred Examinations</td>
<td></td>
<td>Monday, July 15</td>
</tr>
</tbody>
</table>

## Spring/Summer Session 2002

<table>
<thead>
<tr>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes begin</td>
<td></td>
<td>December 2002 Examination period</td>
</tr>
<tr>
<td>Last day for registration and changes in registration</td>
<td></td>
<td>December 2002 Examination period</td>
</tr>
<tr>
<td>Victoria Day: No classes</td>
<td></td>
<td>December 2002 Examination period</td>
</tr>
<tr>
<td>Last day for withdrawal from a course without failure by default</td>
<td></td>
<td>December 2002 Examination period</td>
</tr>
<tr>
<td>Canada Day: No classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civic Holiday: No classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classes end</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Examinations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last day to confirm intent to write deferred examinations</td>
<td></td>
<td>Friday, October 11</td>
</tr>
<tr>
<td>Deferred Examinations</td>
<td>December 2002 Examination period</td>
<td>December 2002 Examination period</td>
</tr>
</tbody>
</table>
DEGREES, PROGRAMMES
AND COURSES

McMaster University offers the following undergraduate degrees:

<table>
<thead>
<tr>
<th>FACULTY AND DEGREE</th>
<th>DURATION IN YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS &amp; SCIENCE PROGRAMME</td>
<td></td>
</tr>
<tr>
<td>B.A. (Honours)*</td>
<td>4</td>
</tr>
<tr>
<td>B.A. (Honours)</td>
<td>4</td>
</tr>
<tr>
<td>B.Sc. (Diploma RN Stream)</td>
<td>2</td>
</tr>
<tr>
<td>B.Sc. (Nurse Practitioner Stream)</td>
<td>2</td>
</tr>
<tr>
<td>M.D. (Doctor of Medicine)</td>
<td>3</td>
</tr>
<tr>
<td>FACULTY OF ENGINEERING</td>
<td></td>
</tr>
<tr>
<td>B.Eng.</td>
<td>4</td>
</tr>
<tr>
<td>B.Eng. Mgt.</td>
<td>5</td>
</tr>
<tr>
<td>B.Eng. Society</td>
<td>5</td>
</tr>
<tr>
<td>B.Tech</td>
<td>1</td>
</tr>
<tr>
<td>FACULTY OF HEALTH SCIENCES</td>
<td></td>
</tr>
<tr>
<td>B.H.Sc. (Midwifery)</td>
<td>4</td>
</tr>
<tr>
<td>B.H.Sc. (Honours)</td>
<td>4</td>
</tr>
<tr>
<td>B.Sc.</td>
<td>4</td>
</tr>
<tr>
<td>B.Sc.N.</td>
<td>2</td>
</tr>
<tr>
<td>B.Sc.N. (Diploma RN Stream)</td>
<td>2</td>
</tr>
<tr>
<td>M.D. (Doctor of Medicine)</td>
<td>3</td>
</tr>
</tbody>
</table>

(School of Business)

B.Com. | 4 |
B.Com. (Honours) | 4 |

FACULTY OF BUSINESS

B.A. | 3 |
B.A. (Honours) | 3 |
B.Bus. | 4 |
B.A./B.S.W. | 4 |

FACULTY OF HEALTH SCIENCES

B.Sc. | 3 |
B.Sc. (Honours) | 4 |
B.Sc. (Honours) | 5 |

FACULTY OF SOCIAL SCIENCES

B.A. | 3 |
B.A. (Honours) | 4 |
B.B.Ed. | 4 |
B.Ed. (Honours) | 4 |
B.A. (B.Ed.) | 2 |

Second Undergraduate Degree

Provision exists for a university graduate to take a second bachelor’s degree. This programme is normally shortened (except for the B.H.Sc. Midwifery Education programme). An application for admission is necessary for entry to a second degree programme, and it should be submitted by the application deadlines. (See Application Procedures and General Academic Regulations sections of this Calendar.)

Combined Programmes

There is the opportunity to combine two subjects of study within one Faculty, or between two Faculties. Further information can be obtained by referring to the Faculty sections of this Calendar, or contacting the appropriate Office of the Associate Dean (Studies).

ELECTIVE COURSES AVAILABLE TO LEVEL 1 STUDENTS

The following is a list of courses available as Electives to Level 1 students, provided that the students have met any prerequisites, and subject to enrolment limitations. Normally, students may select up to six units in any particular subject (excluding Mathematics, of which up to 12 units may be taken). A brief description of each course can be found under the appropriate Department within the Course Listings section in this Calendar.

ANTHROP +1A03, 1B03, 1Z03
- ART 1A03, 1B03, 2G03
- ART HIST 1A03, 1B03
- ASTRON 1A03, 1B03
- BIOLOGY 1A03, 1A03, 1B03, 1Z03
- CANLOCK 2A03, 2A03, 2B03
- CAYUGA 1A03, 1B03
- CHEM 1A03, 1A03, 1B03
- CHINESE 1B03, 2A03, 2A03
- CLASSICS 1A03, 1B03, 1B03, 1B03, 1L03, 1L03
- CMST 1A03, 1B03
- COMP LIT 1A03, 1A03
- COMP SCI 1MC3, 1MD3, 1SA3, 1TA3
- DRAMA 1A03, 1B03
- ECON 1A03, 1B03, 1B03, 1B03, 1C06
- ENGLISH 1A03, 1A03, 1B03, 1B03, 1C06
- ENVIR SC 1A03, 1B03, 1G03
- FRENCH 1B03, 1B03, 1Z03, 1Z03
- GEO 1H03, 1H03
- GERMAN 1B03, 1B03, 1Z03, 1Z03
- GERONTOL 1A03, 1B03
- GREEK 1Z03, 1Z03
- HEALTHST 1E03, 1S03
- HISPANIC 1A03, 1A03, 1A03, 1Z03
- HISTORY 1A03, 1A03, 1B03, 1B03, 1L03, 1L03
- INGIND 1A03, 1A03
- INQUIRY 1H03, 1S03
- INQUIRY 1S03
- ITALIAN 1B03, 1B03, 1C03
- JAPANESE 1A03, 1B03, 1Z03
- KINESIO 1X06
- LABR ST 1A03, 1B03
- LATIN 1B03
- LINGUIST 1A03, 1A03
- MATH 1A03, 1A03, 1B03, 1C03, 1L03, 1Z03
- MATLS 1A03
- MMEDIA 1B03, 1B03, 1C03
- MOHAWK 1A03, 1A03
- MUSIC 1B03, 1B03, 1Z03
- OJIBWE 1B03
- PEACE ST 1A03, 1B03
- PHIL 1A03, 1B03, 1C03, 1D03, 1E03
- PHYSICS 1B03, 1B03, 1B03, 1P03
- POL 1A03, 1A03
- POL SCI 1B03, 1B03, 1B03, 1B03
- PYSCH 1A03, 1A03
- RELIG ST 1B03, 1D03, 1E03, 1H03
- RUSSIAN 1A03, 1B03
- SOC WORK 1A03, 1C03, 1L03
- SOCIOL 1A03
- WOMEN ST 1A06

Not acceptable for the six-unit complementary studies elective required in Engineering I.

Note: Engineering I students interested in entering the Engineering and Management programme must take COMMERC 1S03 and ECON 1B03 as the six-unit complementary studies elective.

- These courses may not be taken for credit by students in Science I.
### COURSE AVAILABILITY

The following are lists of upper-level courses available to students subject to enrollment limitations and the prerequisites as specified for each list. A brief description of each course can be found under the appropriate Department within the Course Listings section in this Calendar.

#### UPPER-LEVEL COURSES AVAILABLE TO ALL STUDENTS

<table>
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#### UPPER-LEVEL COURSES AVAILABLE TO STUDENTS REGISTERED IN LEVEL II OR ABOVE IN ANY PROGRAMME

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#### DEGREES, PROGRAMMES AND COURSES

### UPPER-LEVEL COURSES AVAILABLE TO STUDENTS REGISTERED IN LEVEL III OR ABOVE OF ANY PROGRAMME

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### UPPER-LEVEL COURSES AVAILABLE TO STUDENTS REGISTERED IN LEVEL IV OR ABOVE OF ANY PROGRAMME

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## DEGREES BY PROGRAMME

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<th>COMBINED HONOURS</th>
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* The University also offers Thematic Areas of Study and a large number of Minor programmes. Suggested lists of courses, which constitute non-degree Thematic Areas, have been assembled in the section Interdisciplinary Minors and Thematic Areas. Also in that section are two Interdisciplinary Minors. Other Minors are found in the programme sections of most departments.
Glossary

Academic Probation, which may be assigned to students whose CA is at least 3.0 but less than 3.5, will allow a student to continue at the University for one reviewing period.

Advanced Standing/Credit may be granted to an applicant who has completed work at another university or college or who has completed a Certificate/Diploma programme at McMaster, subject to the applicant having met the minimum requirements prescribed by the University.

Antirequisite is a course which cannot be taken for credit before, after, or at the same time as the course with which it is listed.

Bursaries are granted based upon demonstrated financial need, a minimum expectation of academic accomplishment and, in some cases, other forms of earned merit. They may vary in monetary value, based upon the level of financial need demonstrated.

Continuing Student is a university graduate who is not proceeding to an advanced degree, but wishes to take one or more undergraduate courses.

Corequisite is a course which must be taken together with another course.

Course Numbers (e.g. 1A03) can be interpreted as follows: the initial digit indicates the Level of the course; the letter(s) in the middle identifies the specific courses within the Level; and the final digit(s) defines the number of units of credit associated with the course.

Cross-listed Course is a course which is listed under two or more subjects.

Cumulative Average (CA) is a weighted average based on the grades obtained in all courses taken.

Degree is conferred when a student completes a programme of study (e.g. Bachelor of Arts, Bachelor of Kinesiology, Master of Science, Doctor of Philosophy).

Department is a subdivision of a Faculty, responsible for a particular subject or group of subjects (e.g. Department of Chemistry, Department of Modern Languages).

Elective Courses are those courses taken by a student which are not specifically designated in a student's programme, but which form part of the total number of units required to complete the programme.

Extra Courses are those courses designated as "Extra", which are not included as units toward completion of a student's programme. The grades obtained in such courses will not be included in the computation of the Cumulative Average. However, they will be included in the computation of the Sessional Average and the Full-load Average.

Faculty is a major administrative and teaching unit of the University responsible for programmes and courses relating to common fields of study or academic disciplines (e.g. Faculty of Humanities, Faculty of Engineering).

Full Load is the number of units specified in the Calendar for an individual level of a programme (e.g. Astrophysics, Level II: 31 units). If the Calendar does not specify the programme requirements by individual levels, divide the total units for all levels by the number of levels, discarding the remainder. Full-time students must carry a full load of McMaster courses to be eligible for Undergraduate In-Course Academic Awards. A full load is not required to be eligible for graduation awards.

Full-load Average (FA) is the weighted average used for Undergraduate In-Course Academic Awards. It is based on the successful completion of a full load of course units (see Full Load definition), and includes only courses taken in the Fall/Winter session. Overload units (those above Full Load) and Extra Courses taken during the Fall/Winter session are included in the FA.

Full-time Student for academic purposes is an undergraduate student who is registered in at least 24 units in the Fall/Winter session, including Extra Courses. Full-time status for students in the Faculty of Science Co-op programmes is granted to those students registered in at least 12 units in Term 1 or Term 2 of the Fall/Winter session.

Letter of Permission is a formal document which allows a McMaster student to take one or more courses at another university for credit towards a McMaster degree.

Level is used to describe a student's progression through a programme. Loans are monetary advances granted to students currently registered, based upon a demonstrated means and promise of repayment.

Mature Student is at least 21 years old prior to his or her first day of classes; has not attended secondary school for at least two years; and has not previously attended university.

Minor is an option available to students enrolled in four- or five-level programmes. A Minor consists of at least 24 units — of which normally no more than six units may be from Level I — that meet the requirements set out in the programme description of that Minor.

Part-time Student is an undergraduate student who is registered in fewer than 24 units in the Fall/Winter session, including Extra Courses.

Post-Degree Student is a university graduate or a person with professional qualifications who is not proceeding to an advanced degree, but wishes to take one or more graduate courses.

Prerequisite is a requirement to be fulfilled before registration in a course is permitted. This is usually the successful completion of another course.

Programme is a specific combination of courses that fulfils the requirements for a degree.

Programme Probation which may be assigned to students whose CA falls within the probationary band below the minimum CA required to remain in the programme in good standing, will allow a student to continue in his/her programme for at least one reviewing period. (See the General Academic Regulations section in this Calendar.)

Reinstatement See Reinstatement in the Admission Requirements section in this Calendar.

Required Courses are those courses which are specifically designated in a student's programme.

Result of Session is the statement of the academic standing of a student at the end of a reviewing period. May continue in programme, May not continue and Clear to graduate are three examples.

Review is an assessment of a student's performance to determine eligibility to continue in a programme or to graduate.

Reviewing Period is the time between two reviews for a student. Reviews will take place in May and August, provided the student has attempted 16 units of work since the last review or is a potential graduate.

Session is a period of study within the academic year. For example, the Fall/Winter session runs from September to April. Sessional Average (SA) is a weighted average based on the grades attained in a session. Overload courses and Extra courses are included in the Sessional Average.

Term is a period of study within a session. The Fall/Winter session, for example, contains three terms, Term 1 runs from September to December; Term 2 runs from January to April; Term 3 runs from September to April.

Transcript is an official document summarizing the entire academic record of a student at a particular educational institution.

Tuition is fees paid in consideration for enrolment in a programme of study and selected courses.

Undergraduate Student is an student enrolled in a programme of study leading to a bachelor's degree or to the degree Doctor of Medicine.

Units define the number of credits associated with a course. A unit is roughly equivalent to one lecture-hour per week for one term or two hours of laboratories or seminars per week for one term. Three-unit courses are usually one term in length. Six-unit courses are usually two terms, or one session.

Weighted Average is calculated by multiplying the grade points achieved in each course by the number of units in each course, totaling these results, and then dividing this result by the total number of course units. (See example under Grading System in the General Academic Regulations section in this Calendar.) Withdrawal is the formal process of discontinuing studies in a particular course or programme.
ADMISSION REQUIREMENTS

ENGLISH LANGUAGE PROFICIENCY

Each student granted admission to McMaster must be proficient in the use of the English language. Students will be expected to speak and write clearly and correctly in English.

If your first language is not English, you must have:

1. achieved a score of at least 220 on the computerized test (or 560) on TOEFL, or the equivalent on other recognized tests, or
2. achieved a score between 197 and 219 (530-559) on TOEFL, or the equivalent on other recognized tests and EITHER a score of at least 4.0 on the TWE (Test of Written English) OR present other evidence of English language proficiency such as English courses, ESL programs, letters of support from guidance counselors, etc., or
3. attended a Canadian educational institution for at least three years, or
4. resided in an English speaking country for at least four years.

It is your responsibility to make all arrangements regarding the writing of the TOEFL test and to have the official score report forwarded to the Admissions Office.

Admission from Ontario Secondary Schools

To be considered for admission, you must satisfy the general requirements of the university and the specific subject requirements for the program to which you applied.

If you are an applicant from an Ontario secondary school, you must meet three requirements:

1. An Ontario Secondary School Diploma with acceptable standing; and
2. An overall average in completed Ontario Academic Credits (OACs), which meets or exceeds the minimum set by the specific program to which you applied; and
3. Satisfactory completion of the subject requirements for your chosen program.

OAC Music is acceptable as a credit and the mark obtained can be included in the calculation of your admission average. Alternatively, marks supplied by an acceptable conservatory of music may be used to determine your average for admission. You may submit certificates from a recognized conservatory of music in Grade 4 Theory, or in Grade 9 practical and Grade 9 Theory.

Early Admission from Ontario Secondary Schools

Early conditional admission is granted annually beginning in mid April to qualified applicants, depending on the academic standing at that time. Early conditional admission is based on:

1. six appropriate midterm/interim OAC grades, or
2. a combination of at least three final OAC grades and grade 11/12 advanced grades PLUS enrollment in the appropriate three OAC courses.

If you do not receive an offer of admission in April, you will automatically be reassessed for admission after additional OAC grades are received from your secondary school in May.

Admission offers made in May will be based on updated OAC grades and information you have provided on a supplementary application form which will be mailed directly to you in April. If you are granted early conditional admission, you must successfully complete six OACs, including all required subjects. The University reserves the right to withdraw its offer of admission if you do not meet the minimum final average prescribed for your chosen program; if you do not receive an Ontario Secondary School Diploma; if you do not complete six OACs; or if you do not respond to the Ontario Universities Application Centre within the response period indicated on your offer letter.

Final Admission from

1. Ontario Secondary Schools

If you fulfill the requirements for your Ontario Secondary School Diploma, including the subject requirements for your chosen program by the end of February, you may be granted an offer of Final Admission prior to April.

If you do not receive an offer of admission by June 7, you may still be considered for admission; once final marks are received, depending on availability of space in your chosen program.

Deferral of Admission for

Ontario Secondary School Students

Students who receive both an offer of scholarship and an offer of admission may defer their entry for one year. Otherwise, McMaster does not normally grant a deferral of an admission offer unless special circumstances exist. All requests for deferral of both admission and scholarship should be made in writing to the Admissions Office at McMaster by September 1, 2001, outlining the reasons for the request.

Programme Transfer After Admission

If you are admitted to one program and subsequently wish to transfer to another, you may be able to do so, provided space is available and you have met the average and subject requirements for the second program. Contact the Admissions Office to request a programme transfer.

Minimum Final Average

All secondary school applicants admitted conditionally on interim grades will be required to achieve overall averages on final grades no more than 5% (or its equivalent), lower than the minimum average established for conditional offers in that program.

Applicants whose final averages fall below this level (or its equivalent) or whose final overall averages fall below 70%, will have their offers of admission and/or registrations rescinded. The required minimum final average will be stated on the offer of conditional admission.

SUBJECT REQUIREMENTS FOR SPECIFIC LEVEL I PROGRAMMES

All Level I programs have enrolment limits and admission is by selection. Possession of the minimum admission requirements does not guarantee admission.


> ARTS AND SCIENCE I

You are required to submit a completed supplementary application. The information provided enters into the selection process. Only applicants with high academic standing are selected. In recent years, successful candidates had an admission average in the upper 90s or higher.

The following are the requirements:

1. One of OAC English I, OAC English II or OAC English III
2. OAC Calculus
3. Completion of additional OACs to total six credits:

   - at least three of the additional OACs must be selected from: Algebra and Geometry, Biology, Chemistry, English, Finite Mathematics, French, Geography, History, Music, other languages, and Physics.

> BUSINESS I

You are required to submit a completed supplementary application. The information provided enters into the selection process. Only applicants with high academic standing are selected. In recent years, successful candidates had an admission average in the upper 90s or higher.

The following are the requirements:

1. One of OAC English I, OAC English II or OAC English III
2. OAC Calculus
3. One of OAC Algebra and Geometry or OAC Finite Mathematics
4. Completion of additional OACs to total six credits.

In recent years, an average in the high 70s or low 80s has been required for an offer of admission.

Completion of a Supplementary Application is recommended for those students whose average is near the cut-off.
ADMISSION REQUIREMENTS

ENGINEERING

The following are the minimum requirements:
1. One of OAC English I, OAC English II or OAC French I
2. OAC Calculus
3. OAC Algebra and Geometry
4. OAC Chemistry
5. OAC Physics
6. Completion of one additional OAC to total six credits.
   A minimum overall average in the high 70s to low 80s has been required for an offer of admission in recent years.
Completion of a Supplementary Application is recommended for those students whose average is near the cut-off.

HEALTH SCIENCES

The following are the minimum requirements:
1. One of OAC English I, OAC English II or OAC English III
2. OAC Biology
3. OAC Chemistry
4. OAC Calculus
5. One OAC from Social Sciences (Geography, History, Law, Psychology, Sociology) or Humanities (Art, Drama, English, French, Music, other languages)
6. Completion of additional OAC to total six credits.
The selection method is by academic qualifications (minimum overall average in the mid 80s) and a mandatory Supplementary Application. The Supplementary Application will be used primarily to select from among the pool of applicants with the highest grades in the OAC courses.

HUMANITIES

The following are the minimum requirements:
1. One of OAC English I, OAC English II or OAC English III
2. Completion of additional OACs to total six credits.
In recent years, an average in the mid-70s has been required for an offer of admission.
Completion of a Supplementary Application is recommended for those students whose average is near the cut-off.
The Faculty of Humanities strongly recommends that you select at least one OAC from Humanities subjects (Art, Drama, English, French, French, other languages, History and Music) in addition to Requirement 1 above.

ART 1F06: The prerequisite for ART 1F06 requires permission of the department based on a required portfolio interview. If you intend to take ART 1F06 which is required for entrance into any Honours Art programme, you must make an appointment with the department for a portfolio interview in February/March. The portfolio should contain a variety of original work in different media including work derived from both first-hand observation and the imagination. Aptitude in art and academic ability are both considered in the selection process. In exceptional circumstances where distance does not allow for an interview, portfolios may be submitted in the February/March period. Late applications will be considered subject to space availability and merit after the first allocations have been confirmed in June. Acceptance into ART 1F06 is contingent upon receiving written confirmation from the School of Art, Drama and Music. Please use the MHA OUA Code to ensure proper consideration of your application.

KINESIOLOGY

Students must apply for admission to Level I. The following are the minimum requirements:
1. One of OAC English I, OAC English II or OAC English III
2. One of OAC Calculus, OAC Algebra and Geometry or OAC Finite Mathematics
3. Completion of additional OACs to total six credits.
In recent years, an average in the low to mid 80s has been required for an offer of admission.

NOTES:
1. It is strongly recommended that one OAC in Biology, Chemistry or Physics be included in the applicant's OAC subjects.
2. Completion of a Supplementary Application is recommended for those students whose average is near the cut-off.
3. Please see Level I Science courses for specific OAC prerequisites.

MATHEMATICS AND STATISTICS

The following are the minimum requirements:
1. One of OAC English I, OAC English II or OAC English III
2. OAC Calculus
3. One of OAC Algebra and Geometry, or OAC Finite Mathematics
4. Completion of three additional OACs to total six credits
5. An average acceptable to the Faculty in the best six OAC credits (which must include the three OACs specified in points 1, 2 and 3 above)
It is strongly recommended that OAC Algebra and Geometry be completed as the second math.

MIDWIFERY

As places in the Midwifery programme are very limited, the admission process is competitive. For non-OAC applicants a Midwifery application including a personal questionnaire is required and must be received at McMaster by February 1. For OAC applicants only, application forms are due by February 1 and the Midwifery application including a personal questionnaire is due March 15. No exceptions will be made.
The following are the minimum requirements:
1. One of OAC English, OAC English II or OAC English III
2. One of OAC Biology or OAC Chemistry
3. An OAC in Social Science (History, Sociology, Psychology, Geography, Law)
4. Completion of additional OACs to total six credits
5. Students must obtain a minimum grade of 70% in each of the three required courses listed in points 1, 2 and 3 above AND an overall average of 70% on six OACs including the required courses.

MUSIC

The academic requirements are the same as for Humanities I. In addition, applicants to Music I or to the B.A. in Music must successfully complete a music audition/examination consisting of:
1. Demonstration of technique (a level equivalent to at least honours standing in Grade 8 of the Royal Conservatory of Music)
2. Performance (approximately 20 minutes duration) of two or three varied pieces of your choice (approximately Grade 8 honours level), including at least one from the 20th century
3. Ear test appropriate to the Grade 8 performance level
4. Written examination on rudiments of theory (Grade 2 level)
5. Interview
Auditions take place between February and April. You must make arrangements with the School of Art, Drama and Music for your audition.

NURSING

The following are the minimum requirements:
1. One of OAC English I, OAC English II or OAC English III
2. One of OAC Calculus, OAC Algebra and Geometry or OAC Finite Mathematics
3. Two of OAC Biology, OAC Chemistry or OAC Physics
4. Two additional OACs to total six credits
The admission average will be calculated on the best six OAC subjects, including the four required subjects. In recent years, an average in the high 70s has been required for an offer of admission.
Completion of a Supplementary Application is recommended for those students whose average is near the cut-off.

NOTE: You must apply to the programme within two years of completion of the OAC requirements.

Health requirements for admission: Before registration, you must file with the University information pertaining to your state of health and immunization. Detailed instructions will be provided upon acceptance into the programme.

SCIENCE

The following are the minimum requirements:
1. One of OAC English I, OAC English II or OAC English III
2. OAC Calculus
3. Two of OAC Algebra and Geometry, OAC Biology, OAC Chemistry or OAC Physics
4. Completion of two additional OACs to total six credits
5. An average acceptable to the Faculty in the best six OAC credits (which must include the four OACs specified in points 1, 2 and 3 above)
In recent years, an average in the low 80s has been required for an offer of admission.
Completion of a Supplementary Application is recommended for those students whose average is near the cut-off.

NOTE: OAC Finite Mathematics is recommended for students interested in the Life Sciences. OAC Algebra and Geometry is recommended for students proceeding to the Mathematical or Physical Sciences.
### OAC Course Equivalents for Students from Other Canadian Provinces

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>ENGLISH</strong></td>
<td>English 12</td>
<td>English 30</td>
<td>English 30</td>
<td>English 30</td>
<td>English 12 or 206</td>
<td>English 120 or 122</td>
<td>English 602A</td>
<td>English 441 or 541</td>
<td>English 12 or 122</td>
</tr>
<tr>
<td>Calculus <strong>+</strong></td>
<td>Calculus 12</td>
<td>Calculus 30</td>
<td>Calculus 45A and Adv Math 45A</td>
<td>Math 103 or 203</td>
<td>Math 541 or Calculus 441</td>
<td>Math 120</td>
<td>Math 611A (previously Math 621 - Locally Developed)</td>
<td>Math 4225 (AP) or 3105</td>
<td></td>
</tr>
<tr>
<td><strong>ALGEBRA AND GEOMETRY</strong></td>
<td>Math 12</td>
<td>Math 30</td>
<td>Math 30</td>
<td>Math 40S</td>
<td>Math 103</td>
<td>Math 41</td>
<td>Math 121 or 122</td>
<td>Math 61A</td>
<td>Math 3000 or 3201</td>
</tr>
<tr>
<td><strong>FINITE MATH</strong></td>
<td>Survey</td>
<td>Math 30</td>
<td>Math 40S</td>
<td>Math 103</td>
<td>Math 41</td>
<td>Math 121 or 122</td>
<td>Math 61A</td>
<td>Math 3000 or 3201</td>
<td></td>
</tr>
<tr>
<td><strong>CHEMISTRY</strong></td>
<td>Chemistry 12</td>
<td>Chemistry 30</td>
<td>Chemistry 30</td>
<td>Chemistry 40S</td>
<td>Chemistry 120, 203</td>
<td>Chemistry 121 or 122</td>
<td>Chemistry 121 or 122</td>
<td>Chemistry 621</td>
<td>Chemistry 3202</td>
</tr>
<tr>
<td><strong>PHYSICS</strong></td>
<td>Physics 12</td>
<td>Physics 30</td>
<td>Physics 30</td>
<td>Physics 101 and 201</td>
<td>Physics 40S</td>
<td>Physics 12 or 121</td>
<td>Physics 121 or 122</td>
<td>Physics 621</td>
<td>Physics 3004</td>
</tr>
<tr>
<td><strong>BIOLOGY</strong></td>
<td>Biology 12</td>
<td>Biology 30</td>
<td>Biology 30</td>
<td>Biology 40S</td>
<td>Biology 301, 401</td>
<td>Biology 121 or 122</td>
<td>Biology 621</td>
<td>Biology 3201</td>
<td></td>
</tr>
</tbody>
</table>

*Topics related to Finite Math are found in several Math courses.

+ Applicants to Engineering 1 without Calculus at the time of application will be considered conditionally, providing an appropriate Calculus course is completed prior to September registration.

**AP Mathematics or International Baccalaureate Calculus is also acceptable.

++Six Grade 12 credits numbered 60-65 may be substituted

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**SOCIAL SCIENCES**

The following are the minimum requirements:

1. One of OAC English I, OAC anglais I or OAC anglais II
2. Completion of additional OACs to total six credits

Although the stated minimum is 70%, in recent years, an average in the mid-high 70s has been required for an offer of admission.

Completion of a Supplementary Application is recommended for those students whose average is near the cut-off.

Students interested in entering any of the Psychology or Economics degree programmes should complete OAC Calculus.

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**PLANNING FOR ADMISSION AND ONTARIO SECONDARY SCHOOL REFORM**

With the implementation of secondary school reform and the phasing out of OAC courses, it was necessary for the university to re-define its admission requirements relative to the new high school courses. The following chart has been designed to assist students in grades 9 to 11, their parents, and school advisors with high school course planning to ensure proper preparation for admission to McMaster's degree programmes. This chart has been developed based on course outlines made available by the Ministry of Education so far. We plan to add to these guidelines as more details become known. For example, we are aware that some high school students, during the early stages of the transition, may present courses from both the former and the new diploma programmes. McMaster is committed to ensuring that all applicants shall be considered fairly. In this regard, we shall publish additional guidelines as soon as we have the necessary information.
## ADMISSION REQUIREMENTS

### General Requirements

<table>
<thead>
<tr>
<th>Current Curriculum</th>
<th>New Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>* completion of O.S.S.D.</td>
<td>* completion of O.S.S.D.</td>
</tr>
<tr>
<td>* six OACs</td>
<td>* six Grade 12 U or U/C courses</td>
</tr>
<tr>
<td>* English I or anglais I or II is required for all programmes</td>
<td>* English U is required for all programmes</td>
</tr>
<tr>
<td>* an overall average (including required courses) which meets or exceeds the minimum set by the specific programme of application</td>
<td>* an overall average (including required courses) which meets or exceeds the minimum set by the specific programme of application</td>
</tr>
</tbody>
</table>

The above general admission guidelines apply to all undergraduate programmes. The exceptions are noted below. However, we strongly recommend that you contact the university for up-to-date information. **Please Note:** These are minimum requirements only and are subject to change. Admission is not guaranteed.

### Additional Prerequisites for Specific Faculties or Programmes

<table>
<thead>
<tr>
<th>Faculty/Programme</th>
<th>Current Curriculum</th>
<th>New Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business</strong></td>
<td>* Calculus</td>
<td>* Advanced Functions and Introductory Calculus U.</td>
</tr>
<tr>
<td></td>
<td>* One of: Algebra and Geometry or Finite Mathematics</td>
<td>* One of: Geometry and Discrete Mathematics U or Mathematics of Data Management U</td>
</tr>
<tr>
<td><strong>Engineering</strong></td>
<td>* Calculus</td>
<td>* Advanced Functions and Introductory Calculus U</td>
</tr>
<tr>
<td></td>
<td>* Algebra and Geometry</td>
<td>* Geometry and Discrete Mathematics U</td>
</tr>
<tr>
<td></td>
<td>* Chemistry</td>
<td>* Chemistry U</td>
</tr>
<tr>
<td></td>
<td>* Physics</td>
<td>* Physics U</td>
</tr>
<tr>
<td><strong>Health Sciences</strong></td>
<td>* Calculus</td>
<td>* Advanced Functions and Introductory Calculus U</td>
</tr>
<tr>
<td></td>
<td>* Chemistry</td>
<td>* Chemistry U</td>
</tr>
<tr>
<td></td>
<td>* Biology</td>
<td>* Biology U</td>
</tr>
<tr>
<td></td>
<td>* One Humanities or Social Sciences credit</td>
<td>* One U or U/C credit (excluding Math or Science)</td>
</tr>
<tr>
<td><strong>Humanities</strong></td>
<td>* see General Requirements</td>
<td>* see General Requirements</td>
</tr>
<tr>
<td><strong>Kinesiology</strong></td>
<td>* One of: Algebra and Geometry, Calculus or Finite Mathematics</td>
<td>* One of: Advanced Functions and Introductory Calculus U, Geometry and Discrete Mathematics U or Mathematics of Data Management U. <strong>Note:</strong> It is strongly recommended that one of Biology U, Chemistry U or Physics U be completed.</td>
</tr>
<tr>
<td><strong>Mathematics and Statistics</strong></td>
<td>* Calculus</td>
<td>* Advanced Functions &amp; Introductory Calculus U</td>
</tr>
<tr>
<td></td>
<td>* One of: Algebra and Geometry or Finite Mathematics</td>
<td>* One of: Geometry and Discrete Mathematics U or Mathematics of Data Management U. <strong>Note:</strong> It is strongly recommended that Geometry and Discrete Mathematics U be completed as the second mathematics.</td>
</tr>
<tr>
<td><strong>Midwifery</strong></td>
<td>* One Science credit (Biology or Chemistry highly recommended)</td>
<td>* One Science U (Biology or Chemistry highly recommended)</td>
</tr>
<tr>
<td></td>
<td>* One Social Science credit</td>
<td>* One Social Science U or U/C credit</td>
</tr>
<tr>
<td><strong>Music</strong></td>
<td>* see General Requirements</td>
<td>* see General Requirements</td>
</tr>
<tr>
<td><strong>Nursing</strong></td>
<td>* One of: Algebra and Geometry, Calculus or Finite Mathematics</td>
<td>* One of: Geometry and Discrete Mathematics U, Advanced Functions and Introductory Calculus U, or Mathematics of Data Management U</td>
</tr>
<tr>
<td></td>
<td>* Two of: Biology, Chemistry or Physics</td>
<td>* Two of: Biology U, Chemistry U or Physics U</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td>* Calculus</td>
<td>* Advanced Functions and Introductory Calculus U</td>
</tr>
<tr>
<td></td>
<td>* Two of: Biology, Chemistry, Physics or Algebra and Geometry</td>
<td>* Two of: Biology U, Chemistry U, Physics U or Geometry and Discrete Mathematics U</td>
</tr>
<tr>
<td><strong>Social Sciences</strong></td>
<td>* see General Requirements</td>
<td>* see General Requirements. <strong>Note:</strong> A Grade 12 U credit in mathematics (preferably Calculus) is recommended for students planning to enter a programme in Economics or Psychology.</td>
</tr>
<tr>
<td><strong>Arts &amp; Science</strong></td>
<td>* Calculus</td>
<td>* Advanced Functions and Introductory Calculus U</td>
</tr>
<tr>
<td></td>
<td>* Three of the four additional credits must come from a specified list</td>
<td>* Two of the four additional courses must be at the U level</td>
</tr>
</tbody>
</table>

For further information on these guidelines, contact McMaster University - www.mcmaster.ca
ADMISSION REQUIREMENTS

ADMISSION WITH OTHER QUALIFICATIONS

A. Admission from Other Canadian Provinces

McMaster welcomes applications from other provinces and territories. Applicants are required to meet the following minimum requirements:

- Quebec - CEGEP (minimum one year)
- All other Canadian provinces - Grade 12 Diploma

Satisfactory completion of the specified subject requirements for the programme to which you applied is also required. Please refer to the OAC Course Equivalents Chart in this section for more details.

B. Admission from Other Countries

McMaster welcomes applications from international students. See the admission requirements for applicants from selected countries below. Applicants should contact the Admissions Office for information on how to obtain an application form.

Applicants must arrange for official matriculation certificates to be sent well in advance of the session to which they are applying. The equivalent of first-class standing may be required for some limited enrolment programmes. Clear notarized photocopies of certificates in a language other than English should be accompanied by notarized English translations. Clear photocopies of English language certificates must be notarized.

You are considered for admission on an individual basis. You are strongly advised not to come to the University until you have been informed of your acceptance.

Applicants from the General Certificate of Education system require:

1. five GCE subjects at least two of which must be at the Advanced Level;
2. Advanced Level subjects appropriate for your chosen programme, (refer to Subject Requirements for Specific Level Programmes in this section). For Science and Engineering programmes, Mathematics and one of Physics or Chemistry must be offered at the Advanced Level;
3. Grades of at least C (B for Science and Engineering programmes) must be presented in each of the Advanced Level subjects.

Applicants from Hong Kong must meet the Hong Kong Advanced Level Examinations and the Hong Kong Certificate of Education or the GCE requirements as listed above.

Applicants who have a complete International Baccalaureate Diploma will be considered for admission to Level I, provided the completed diploma includes the subject requirements of the programme desired. An overall score of 28 and not less than 4 in any given subject must be achieved in order to be eligible for admission. Advanced credit of up to 30 units may be granted at the discretion of the Faculty.

Applicants who have completed Advanced Placement Courses will be considered for admission to a Level I programme.

Applicants from the United States of America must satisfactorily complete a secondary school diploma with an overall average of 80% in the Grade 12 programme of an accredited American high school. Alternatively, applicants may qualify for admission by completing one year of college-level work with standing acceptable to the University.

S.A.T. scores are reviewed on a selective basis only and are generally not required.

C. General Policy on the Transfer of Course Credits

To facilitate programme completion by undergraduate students seeking to transfer course credit from an accredited university to McMaster, the University has implemented the following principles:

1. Acceptance of transfer credits from accredited universities shall be based on the recognition that, while learning experiences may differ in a variety of ways, their substance may be essentially equivalent in terms of their content and rigour. Insofar as possible, acceptance of transfer credit shall allow for the maximum recognition of previous learning experience in university-level courses;
2. Subject to degree, grade and programme requirements, any course offered for credit by an accredited university shall be accepted for credit by McMaster when there is an essential equivalency in course content. However, no course for which a grade of less than C- (60%) has been achieved will be considered.

Electronic Credit Transfer information for Ontario Universities is available on the web at http://step.uoac.on.ca

D. Advanced Credit

As noted in sections (E), (F), (G), (L), (M) and (N) below, advanced credit may be granted if you have completed work at another university or college, and you have met the minimum requirements prescribed. Advanced credit may shorten your degree programme at McMaster.

E. Credit in Courses by Special Assessment (Challenge Examinations)

If you have acquired knowledge at different type of institution or in a manner that makes assessment of your qualifications difficult, you may be permitted to seek degree credit through special assessment (Challenge for Credit).

Challenge for credit is not intended to give credit for skills or knowledge gained through high school, college or previous university instruction. The special assessment may include one or more of the following: written examinations, papers, essays, submissions of a substantial body of work, or portfolios, or laboratory tests. Credit can be granted only for those courses listed in the current McMaster calendar. Not all courses in all disciplines are available for challenge. Faculties and departments are free to determine which, if any, of their courses are open for special assessment. Challenges are assessed on a pass/fail basis. The fees for taking a course by special assessment are the same as regular course fees unless otherwise specified. The passing grade for a challenge appears on the transcript as COM (Complete) and is not used in computing averages or evaluating honours or scholarship standing, but is counted as a course attempt. Unsuccessful attempts will be noted on the transcript. Special Assessment is not available for a course taken previously and a course may be attempted only once by special assessment. Once you have registered for a course by such means (known as challenge exams) the registration may not be cancelled and you may not withdraw from the course.

Waivers of prerequisites only (i.e. no degree credit) will be at the discretion of the department.

F. Transfers from Other Universities

When you transfer to McMaster University, you will normally receive credit for courses in which you have obtained at least a C (third-class honours) standing. Assessment of courses for transfer credit is subject to the guidelines of the individual Faculties. As a transfer student, you must also satisfy the Residence Requirements set out in the General Academic Regulations section of this Calendar. The University will not accord to you privileges which would not be granted by your own university.

Grades obtained in courses taken at another university will not be included in McMaster's Cumulative Average, and, therefore, cannot be used to raise your standing.

If you have been required to withdraw from another university and have fulfilled your period of suspension, you may apply for admission. However, you must present a letter of explanation and clarification concerning your past academic performance. You may also be asked to provide academic documentation for proof of further academic achievement which is both current and relevant.

Applicants presenting a strong academic record may be considered for an early conditional offer of admission.
G. Graduates Applying for a Second Bachelor’s Degree

Admission is by selection. If you have a first degree, you may apply to take an Honours second degree in the same subject area or a second degree in another discipline. The requirements are set out in the General Academic Regulations section of this Calendar.

If you wish to enter a Second Bachelor’s Degree in a subject area from the Faculty of Science, please note the additional regulations for such a programme in the Faculty of Science section. Second Bachelor’s Degree Programmes. If you are a McMaster graduate or potential graduate, you may be able to use the McMaster University Returning Student application. (See Application Procedures section of this Calendar.)

H. Continuing Students

If you are a graduate of a McMaster degree programme and wish to become a continuing student, you do not need to apply through Admissions, but need to submit a Registration form.

As a continuing student with a non-McMaster degree, you need only apply formally through Admissions in the first instance. In subsequent sessions, only submission of a Registration form is necessary.

You will be expected to have at least a C (third-class standing) average in your final year’s work (or the equivalent, in the case of a degree taken in part-time studies), and academic records which are satisfactory to the Department and the Office of the Associate Dean (Studies) of the appropriate Faculty.

Acceptance as a Continuing Student carries no implications with respect to acceptance in the School of Graduate Studies. If you plan to proceed to a graduate degree you should apply directly to the specific department of your programme of interest.

I. Post-Degree Students

If you are a university graduate or a person with professional qualifications who wishes to take one more graduate courses but not proceed to an advanced degree, you may apply to McMaster as a post-degree student. To enrol as a post-degree student, you must apply to the appropriate departments and have your admission and registration approved by the School of Graduate Studies for each session in which you wish to take courses. You will register and pay fees as an undergraduate.

Acceptance as a post-degree student carries no implications with respect to admission to advanced degrees, and even if such admission is granted subsequently, credit toward the advanced degree will not normally be granted for the work previously taken.

J. Readmission

If you are a former McMaster student who voluntarily withdrew from an undergraduate programme more than five years ago and you wish to return to your studies, you must apply for Readmission through Admissions Office. Students from the School of Nursing must apply for Readmission regardless of time elapsed following voluntary withdrawal.

If you were registered within the last five years and you left the university in good academic standing, it is not necessary for you to apply for Readmission. Normally, you will be permitted to register in your previous programme or another programme for which you qualify. If you were formerly registered in the Faculty of Science you should see the heading Former Science Students in the Faculty of Science section of the Calendar.

K. Reinstatement

If you are ineligible to continue at the university (i.e.,the result of your last grade report was May Not Continue at University) and you wish to apply for Reinstatement, please contact the Admissions Office. You will be required to submit the following information along with your application:

1. A summary of the relevant circumstances surrounding your academic situation during the last session attended.
2. Reasons for re-istatement at this time.
3. Options for selection of courses/programme indicated.
4. Activities since last registered at the University, including all academic work.

Some Faculties may require a supplementary application form or letters of reference. Consult the appropriate Faculty section in this Calendar.

L. Admission from Ontario Colleges of Applied Arts and Technology

If you apply from an Ontario College of Applied Arts and Technology and have completed at least one year of work in a diploma programme and you have a GPA of 3.2 or better, you are invited to apply for admission to Social Sciences I or Humanities I. You may be admitted with a lower GPA if you have completed two or more years of a diploma programme.

To be eligible to apply to Business I, you must have completed a two or three year diploma with a GPA of 3.0 or better. All candidates must have successfully completed a Grade 12 Advanced Mathematics course.

If you are applying to Engineering and have achieved a first-class honours standing in the last two years of a three-year technology programme in an Ontario College of Applied Arts and Technology, you will be considered for admission to the second level of a relevant Engineering programme. Applicants who lack adequate preparation in Calculus may be required to complete one full-course in first year university Calculus prior to admission.

To be eligible to apply to Science I, you must have completed a technologist programme with a GPA of 3.2 or better. Technician programmes are not recognized for credit toward admission in either Engineering I or Science I.

To be eligible to apply to Kinesiology I:
1. A two year diploma programme must be completed with a GPA of 3.6 or better (OAC grades will be reviewed); OR
2. A three year diploma programme must be completed with a GPA of 3.5 or better.

To be eligible to apply to Nursing, you must have an Ontario diploma in Nursing or the equivalent with an overall GPA of 2.7 or better. Selection will be based on academic qualifications and a rating obtained on a questionnaire completed by the applicant. An interview may also be required.

Generally speaking, advanced credit could be up to 30 units if you are a well-qualified graduate of a three-year programme, and at least six units if you have completed two years and performed well, provided the college work is appropriate to your chosen university programme.

Credit beyond this may be given on an individual basis where the college and university programmes are in similar areas, and where your academic record warrants special consideration.

In the granting of credit, attention will be given to:
1. your performance in the college programme;
2. the duration of the college programme;
3. the programme taken at the college and the programme to which entry is sought;
4. your secondary school record.

Each case will be considered individually on its own merits for the programme desired.

Applicants presenting a strong academic record may be considered for an early conditional offer of admission.

M. Admission from Six Nations Polytechnic

McMaster University, along with four other universities, has entered into a partnership with Six Nations Polytechnic to offer university courses in the community of Six Nations. The courses offered are eligible for transfer credit at any of the universities within the consortium.

N. Graduates of McMaster Certificate Programmes

If you have completed certificate programmes, you may be granted advanced credit up to maxima specified by Undergraduate Council. Faculties will take into account the subject matter of both the certificate and degree programmes. The credit will normally be applied against your elective courses. For more information concerning the amount of advanced credit granted, please refer to the Certificate and Diploma Programmes section of this Calendar.
O. Mature Students (Part-time Admission)

If you do not qualify for consideration under one of the above categories, McMaster will assess your eligibility as a mature student. You may be considered for limited admission to part-time study, provided all of the following conditions are satisfied:

1. You are at least 21 years old, or will be, prior to the first day of classes for the session to which you apply.
2. You have not attended secondary school for at least two years.
3. You have not been enrolled in a college diploma programme within the last five years or have completed less than one year of college work.
4. You have never attended university.

The Faculty of Engineering does not admit under the category of mature students. The Faculty of Science requires satisfactory standing in the three area OAC Mathematics and Science requirements, as described in the Admission from Ontario Secondary Schools in this section. The Faculty of Business requires Grade 12 Advanced Mathematics or its equivalent.

If admitted, you may register as a mature student to take Level I courses, one course at a time. If after the first six units, you have achieved a grade of B- or better, you may petition your Faculty to be allowed to take two courses at a time.

After taking at least 12 units, your performance will be reviewed as follows:

i) If you have a Cumulative Average (CA) of at least 3.5 with no failures, you will be allowed to register for full-time study.
ii) If you have a CA of at least 3.0 with no more than six units of failure, you will be allowed to register in another six units of study and will be reviewed again after completion of these six units (see Second Review below).
iii) If you have failed more than six units, you may not continue at the University.
iv) If your CA is less than 3.0, you may not continue at the University.

Second Review:

a) If you have a CA of at least 3.5, you will be allowed to register for full-time study.
b) If you have a CA of less than 3.5, you may not continue at the University.

P. Nursing Occasional Category

If you are applying to McMaster University to take degree course work in order to become academically eligible to apply to the B.Sc.N. programme, you may apply to enrol in a maximum of 12 units of academic work per calendar year. You may take courses in any Faculty, subject to prerequisites and enrolment limits.

Once you have achieved academic eligibility for the B.Sc.N. programme, you must apply to that programme and participate in the regular admission process.

Q. Enrichment Programme for Secondary School Students

If you are an outstanding secondary school student and wish to complete university level work while in your OAC year, you may apply for the Enrichment Programme. For more information contact the Admissions Office.

R. Letter of Permission - For Credit At Another University

If you are a student attending another university, you may apply to take McMaster courses for credit at your own institution. Please note, not all courses are available for credit outside McMaster and some are subject to enrolment limits.

Students must initially apply through the OUAC and send their Letter of Permission directly to McMaster. Subsequent requests to take courses on a Letter of Permission do not require an application. An updated Letter of Permission from their home institution is required for each new session.

S. Listener

If you are still uncertain about degree courses, you may register as a listener in a degree course at a reduced rate, but not for credit. You attend all classes, but do not complete any of the essays, tests and other formal requirements. You do not receive a grade for courses that you attend. Some students have eased their way into degree study with this option, subsequently enrolling in further courses for credit. Please note not all courses are available for listeners.

For more information, please contact the Centre for Continuing Education, Commons Building, Room 116, McMaster University, Hamilton Ontario, L8S 4K1 (905) 525-9140, ext. 24321.

Written permission to attend must be obtained from the instructor delivering the course. An I.D. card cannot be issued until permission has been obtained.

T. Seniors

If you are 65 years of age or over, subject to meeting admissions and prerequisite requirements, you may register without payment of tuition and supplementary fees. The required full-time or part-time application fee must be paid and must accompany the appropriate application to the OUAC.
APPLICATION PROCEDURES

1. Determine the appropriate application form to use when applying for admission. (See charts below.)
2. Determine application deadline. (See Deadlines on following page.)
3. Refer to the Admission Requirements and specific Faculty sections of this Calendar for further information.

Use the OUAC 101 Application if:
- You are now taking one or more Ontario Academic Courses (OACs) in day school and wish to enter a Level I degree program as a full-time student.
- Please obtain the OUAC 101 form from your secondary school guidance office and follow the instructions therein. You will receive an acknowledgement mailing from McMaster's Admissions Office once your application has been received.

Use the OUAC 105D Application if:
- You are not currently taking one or more Ontario Academic Courses (OACs) in day school, have not previously attended McMaster and wish to enter Level I or above of an undergraduate degree program as a full-time student.
- You are currently registered at another university or college and wish to transfer to McMaster for full-time studies.
- You have previously attended McMaster, but have not previously attended McMaster and wish to enter an undergraduate degree program as a full-time student.
- You have completed a degree at a university other than McMaster and wish to attend McMaster full-time to take courses as a Continuing student.
- You have completed a degree at a university other than McMaster and wish to pursue a second undergraduate degree on a full-time basis.
- You are currently registered at a university other than McMaster and wish to continue your studies at McMaster full-time.
- Please obtain the OUAC 105D form from the Admissions Office of any Ontario university or from the Ontario Universities' Application Centre, 170 Research Lane, Guelph, Ontario, Canada, N1G 5E2, and follow the instructions therein.

Note: You must provide McMaster with official transcripts of marks and/or certificates from all secondary and post-secondary institutions you have attended.

If you are currently attending secondary school, please see your guidance counsellor to obtain a transcript. If you have previously attended secondary school in another province, you may have to obtain the transcript of secondary school marks from the Ministry or Department of Education in that province.

+ If you are a graduate of a McMaster degree program and wish to become a Continuing student, you do not need to apply through Admissions, but need to submit a registration form.

Use the McMaster University Returning Student Application for the following categories:
- Re-admission: You are a former McMaster student who voluntarily withdrew from an undergraduate program more than 5 years ago. Former Nursing students must apply for readmission regardless of the amount of time that has elapsed.
- Reinstatement: You are a former McMaster student who was previously ineligible to continue studies at McMaster University.
- You are a McMaster graduate or potential graduate and wish to pursue a second undergraduate degree.
- Providing you have not attended another university nor received a college diploma since last registered at McMaster.
- Please obtain the Returning Student Application form from the Office of the Registrar, Gilmour Hall, Room 108, McMaster University, Hamilton, Ontario, L8S 4L8. You will be provided with more information on application procedures at that time. See application deadlines as listed in this section of the Calendar. The nursing deadline is February 15 for September entry.

Use the McMaster University Part-time Degree Application if:
- You are currently registered at another university or college and wish to transfer to McMaster for part-time studies.
- You have not been previously registered at McMaster and wish to pursue an undergraduate degree on a part-time basis.
- You have completed a degree at a university other than McMaster and wish to attend McMaster on a part-time basis to take courses as a Continuing student.
- You are currently registered at a university other than McMaster and wish to attend McMaster on a part-time basis to take courses on Letter of Permission for Credit at Another University.
- Please obtain the Part-time Degree Application from the Office of the Registrar, Gilmour Hall, Room 108, McMaster University, Hamilton, Ontario, L8S 4L8. You will be provided with more information on application procedures at that time.

Use the McMaster University Post-Degree Studies Application If:
- You wish to register as a post-degree student.
- Please obtain the Post-Degree Application from the Graduate Studies Office, Togo Salmon Hall, Room 111, McMaster University, Hamilton, Ontario, L8S 4M2 and use it to apply to the appropriate academic department(s).

Note: Your admission and registration must be approved by the School of Graduate Studies for each session in which you wish to take courses. If you are a graduate from a university other than McMaster, you must provide McMaster with official transcripts of marks from all post-secondary institutions you have attended.
DEADLINES

A complete application includes: an application form, relevant transcripts, and all other documentation stipulated in the Admission Requirements and specific Faculty sections of this Calendar, in letters from the appropriate Faculty and/or in letters from the Office of the Registrar.

Since the language of instruction at McMaster is English, we would prefer all documentation to be in the English Language. However, documentation in Canada’s other official language, French, will be accepted.

All Level I programmes have enrolment limits and may become full prior to published deadlines. The University reserves the right not to accept applications submitted after a programme is filled. You are advised to submit your application well in advance of the deadlines given below.

FALL/WINTER SESSION (SEPTEMBER 2001 ENTRY)

Undergraduate programmes which are not specified below: July 15

- Limited Enrolment Programmes
  - Above Level I ............................................. February 1
  - International Applications .............................. May 1
  - International Documentation ............................. June 1
  - Domestic Applications .................................. July 15
  - Domestic Documentation ................................ July 15
  - CEGEP Applications ..................................... March 1

- Optional Supplementary Application Deadline
  for Level I Programmes .................................. April 30
  - Arts & Science Applications ............................ February 14
    Supplementary Applications ............................. February 14
  - Biochemistry (Co-op) ................................... February 1
  - Biology and Pharmacology (Co-op) ...................... February 1
  - Gerontology Applications ............................... March 31
  - Supplementary Applications* ........................... May 15
  - Health Sciences (Honours) Applications .............. February 14
    Supplementary Applications ............................. February 14
  - Kinesiology .............................................. May 15
  - Labour Studies ........................................... March 31
  - Medicine ................................................... October 15
  - Midwifery Applications ................................. February 1
    Official Transcripts ..................................... February 1
    Supplementary Applications for non-OAC applicants †February 1
    Supplementary Applications for OAC applicants* .... March 15
  - Nursing OAC .............................................. May 1
    Nurse Practitioner ..................................... February 1
    NP Supplementary Applications † ........................ February 1
    Transfers from other university Nursing Programmes June 30
    All Other ................................................. February 15
    Supplementary Applications* ........................... February 15
  - Social Work
    McMaster Applicants ..................................... March 1
    All Others ................................................ December 1
    Supplementary Applications** .......................... March 1
  - Women’s Studies .......................................... April 15

- Only university transfer and Second Degree applicants need to complete the supplementary application forms.

† Please contact the Ontario Universities' Application Centre for a supplementary application.

* Only non-OAC students need to complete the mandatory supplementary applications. Please contact the Ontario Universities' Application Centre for a supplementary application.

** The Admissions Office will forward supplementary packages once applications are received from the OUAC.

*** Please contact the School of Social Work for supplementary applications.

FALL/WINTER SESSION (JANUARY ENTRY)

- All Eligible Programmes .................................... November 15
  Documentation Deadline ................................... December 1

SPRING/SUMMER SESSION (MAY or JUNE ENTRY)

- May Entry (Term 1 or 3) .................................. April 1
  Documentation Deadline ................................... April 1
- June Entry (Term 2) ....................................... May 15
  Documentation Deadline ................................... May 15

Deadlines for Reinstatement or Readmission

The application deadline for September entry for all programmes, except Nursing is June 30. The Nursing deadline is February 15. Application deadlines for January or May or June entry are as indicated above.

Retention of Documents

All documentation submitted in support of your application for admission becomes the property of the University and is not returnable.

If you are not accepted, or you fail to enroll following acceptance, your documentation will be destroyed at the end of the admissions cycle. If you reapply, you must submit any new academic information in addition to the documentation submitted previously.

Academic Counselling for Those Offered Admission

If you are offered full-time admission to Level I, you will be asked to confirm that you have accepted the offer of admission and will attend the University.

Your admission package will include a Registration Kit with information about the University, academic counselling and registration procedures.

Your Faculty may also arrange a visit to the University so you may meet with a Faculty advisor to set up your programme. Although attendance at the summer counselling and registration sessions is not compulsory, you are strongly advised to participate. If you cannot attend one of these sessions, counselling will be provided at September registration.

If you are offered admission above Level I, you may arrange for academic counselling with the Office of the Associate Dean (Studies) of the Faculty offering the programme, or the Office of the Director of the programme.

Enquiries

Please direct your enquiries about Application Procedures to:

OFFICE OF THE REGISTRAR
Gilmour Hall, Room 108
McMaster University
Hamilton, Ontario, L8S 4L8
Telephone: (905) 525-4600
E-mail: macadmit@mcmaster.ca
GENERAL ACADEMIC REGULATIONS

The regulations which follow are the general regulations of the University. You should read both these general regulations and your Faculty regulations which may be more specific. They appear in the Faculty sections of this Calendar. Since the Academic Regulations are continually reviewed, we reserve the right to change the regulations in this section of the Calendar. This University also reserves the right to cancel the academic privileges of a student at any time should the student's scholastic record or conduct warrant so doing.

In the event there is a conflict between the programme regulations and the general regulations in this chapter, the programme regulations take precedence.

Faculties are authorized to use discretion in special situations by taking into account past practice, the spirit of the regulations, and extraordinary circumstances. Students who believe their situations warrant special consideration should consult the appropriate Office of the Associate Dean (Studies).

The Academic Regulations listed below are effective as of September 1993. These regulations apply to all undergraduate students admitted or readmitted to the University from September 1993 onward.

1. UNIVERSITY REGULATIONS

Residence Requirements

While most students will complete all their undergraduate work at McMaster University, the minimum requirements set out below apply to students who take part of their work at other institutions. In order to obtain any four- or five-level, first undergraduate degree, you must complete at least two of the levels (approximately 60 units of work) beyond Level I, including the final level, at McMaster.

To obtain a three-level, first undergraduate degree, you may satisfy the residence requirements either:

1. by completing the final level and at least one other level (a minimum of approximately 60 units of work) at McMaster University;

2. by completing the final level (approximately 30 units of work) at McMaster University, including at least 18 units of programme-specific courses.

The work used to satisfy the residence requirements must be completed at McMaster University; work taken at another university on a Letter of Permission will not count towards the minimum residence requirements.

All the work for a second bachelor's degree must be completed at McMaster University.

Registration

The purpose of registration is to record officially your selection of programme and courses. This is done before each session, and information on how to register will be sent to eligible students. Counselling is available to assist you in course selections.

Approval of Programmes: You are responsible to ensure that your registration documents are complete and accurate. Your programme and course selections — and deletions — must be approved by the Office of the Associate Dean (Studies) of your Faculty. If you try to register in a programme or courses from which you are restricted, your registration will not be approved.

Selection of Courses: Before you select the courses you wish to take, please read the requirements for your programme in the appropriate Faculty sections of this Calendar. If you fail to meet the programme requirements, you will not be eligible to graduate.

Select the courses required for your programme; then select your electives. Ensure that you have completed the courses which are listed as prerequisites and have completed or chosen courses that are listed as corequisites. If you have not passed the prerequisite courses, you will not be able to take the course selected.

Limit on Level I Courses: In most Faculties, credit may be obtained in no more than 42 units of Level I courses in a three-level programme, and in no more than 48 units in a four-level programme.

Eligibility for Awards: (See Section 5 in this section and Undergraduate Academic Awards section for more information.)

Overload Work: If you wish to take more than the normal number of units prescribed for a Level, you may do so only with the permission of the Office of the Associate Dean (Studies) of your Faculty. Normally, a Sessional Average of at least 7.0 in the immediately preceding review period will be required if an overload is to be permitted. Additional academic fees will be assessed for overload work. (See Financial Information section.)

Repetition of Courses: To repeat a course for which credit has been obtained, you need approval of the Office of the Associate Dean (Studies). There is no limit on the number of repetitions of a failed course. The grades for all attempts appear on the transcript and enter into the computation of the Cumulative Average. However, only one successful attempt will enter into the computation of credit earned towards your degree.

Auditing Courses: If you do not wish to have credit for a course, you may, with the approval of the Chair of the Department and the Office of the Associate Dean (Studies), audit the course. You must satisfy the prerequisite for the course, but will not complete assignments nor write the final examinations. You will not be permitted to register for credit in the course after the registration deadline for the session has passed.

Letters of Permission: If you are in good academic standing at McMaster and you wish to attend another university to take courses which will carry credit towards a McMaster degree, you must obtain permission in advance of time to do so. To do this you must seek a Letter of Permission from the Office of the Associate Dean (Studies). Please take note of any conditions that might apply, including the requirement of a grade of at least C- for transfer credit. You should note that the grades obtained in courses taken at another university will not be included in the Cumulative Average. Full-time students taking courses on a Letter of Permission must continue to carry a full load at McMaster during the Fall/Winter session if they wish to be considered for Undergraduate In-course Academic Awards; i.e. courses taken on a Letter of Permission do not count toward your load for purposes of academic awards.

Changes to Registration: The last day for changing registration and adding courses for each term is approximately one week after classes begin for the term. (Please see the tables in the Sessional Dates section for the relevant dates for this academic year.) You may add new courses, or drop courses which you originally selected. After the above-mentioned period, you may drop a class until the last day to withdraw without failure by default. Any course dropped will be shown on your transcript with the notation CAN (Cancelled). After this date, you will remain registered in the course whether or not you attend. Your transcript will show a grade of F for any course not successfully completed.

Withdrawal from the University: If you wish to withdraw from the University, you must consult the appropriate Office of the Associate Dean (Studies). Your student identity card must be surrendered to the Office of the Associate Dean (Studies). Your record in the courses being taken will be handled as outlined above in Changes to Registration.

Transfer of Credit between Faculties: Transfer of credit between Faculties is handled by the Office of the Associate Deans (Studies) to which you wish to transfer. It is possible that full credit may not be given at the time of transfer between Faculties and additional courses may need to be taken.

Calculation of Cumulative Average Following Reinstatement After Poor Academic Performance: Effective September 1987, if you are reinstated at the University, your Cumulative Average will be reset to 0.0 on zero units, although you may (at Faculty discretion) retain credit for prior work. If you are reinstated, you will be on academic probation. You must complete a minimum of 60 units of work after reinstatement to be eligible for Graduation With Distinction or other recognition based on the Cumulative Average.
2. ACADEMIC STANDING AND PROGRAMME REQUIREMENTS

Academic Standing

Academic standing is reviewed in May and August each year for students who
1. have attempted at least 18 units of work since the last review; or
2. may be eligible to graduate at the next Convocation; or
3. were admitted under the part-time mature student provision and have attempted the first 12 units of work.

In the review of academic standing, three sets of decisions are made:
1. whether a student may graduate;
2. whether a student may continue at the University; and
3. whether a student may continue in a programme.

Minimum Requirements to Continue at the University

All students must maintain a CA of at least 3.5 at each review to continue at the University. Under certain circumstances, as described below, students may be allowed to continue on academic probation for one reviewing period with a CA of 3.0 to 3.4. If your CA is less than 3.0, you may not continue at the University.

Level I Registration and Academic Standing Requirements

When you are admitted to McMaster University for a first degree, you will register in one of the following Level I programmes: Arts and Science I, Business I, Engineering I, Health Sciences I, Humanities I, Kinesiology I, Mathematics and Statistics I, Midwifery I, Music I, Science I, Nursing I, or Social Sciences I. If you enter the University without Advanced Standing being granted, you must normally attempt a full load of Level I work before proceeding to the work of higher levels.

If you are studying part-time, the Office of the Associate Dean (Studies) has the discretion to permit you to take some of the work in the higher levels prior to having attempted the full load of Level I. Decisions will be made on an individual basis, according to the special circumstances that apply in the particular case.

At any review during Level I before you complete the Level I work, as in the case of a part-time student, you must attain a CA of at least 3.5 to continue at the University in good standing. If you attain a CA of 3.0 to 3.4 you may continue at the University for one additional reviewing period on academic probation. You may be on academic probation only once during your University career. If your CA is less than 3.0 you may not continue at the University.

At the review when you complete the Level I work, if you attain a CA of at least 3.0 and have not previously been on academic probation, but fail to meet the admission requirements of any programme, you may continue at the University for one additional reviewing period on academic probation. You will be registered in your original Faculty, and will be classified as a Level I Irregular student if your work may only qualify you to be considered for admission to a programme in another Faculty. If, at the end of the next reviewing period, you again do not qualify for admission to a programme, you may not continue at the University. If your CA is less than 3.0 you may not continue at the University.

Students in Arts & Science I should refer to the Arts & Science Programme regulations listed below.

Health Sciences I, Nursing I and Midwifery I students should refer to the programme regulations listed in the Faculty of Health Sciences section in this Calendar.

Minimum Requirements for Entering and Continuing in a Programme Beyond Level I

Admission to the programmes beyond Level I is based on performance in Level I. You must meet both the minimum requirements to continue at the University, as described above, and programme-specific requirements of each Faculty, as described in this Calendar.

> ARTS & SCIENCE PROGRAMME

I B. Arts Sc. (Honours) and B. Arts Sc. Programmes: You must have a CA of at least 6.0 to continue in the programme. If your CA is from 5.5 to 5.9, you may remain in the programme, but will be placed on programme probation for one reviewing period. You may be on programme probation only once. If your CA is 3.5 to 5.4, you must transfer to another programme for which you qualify, or register in the Art & Science programme as an irregular student for one reviewing period. During that period you cannot take Arts & Science programme courses. At the end of that period you may apply for readmission to the Arts & Science programme.

If your CA is 3.0 to 3.4, you will be placed on academic probation. You may continue in the programme for one reviewing period as an irregular student but cannot take Arts & Science programme courses. The purpose of this period is to prepare yourself for a programme outside the Arts & Science programme. You may be on academic probation only once. (Potential graduates may not continue at the University.)

If your CA is less than 3.0 you may not continue at the University.
**SCHOOL OF BUSINESS**

- **Business I**: For specific admission requirements to Commerce II see Programme Notes under the heading Programmes in the *School of Business* section of this Calendar. If you are not admitted to Commerce II at the end of Business I, you have the following options available to you.
  - If your CA is 3.5 or greater, although you may not continue into a Commerce programme either now or in the future, you are still in good standing at the University. You may continue at the University in a programme outside the School of Business or as an irregular student in Business. To continue in a programme outside the School of Business you must apply for admission to that programme through the Office of the Associate Dean (Studies) appropriate for that programme. You should consult that office for more details.
  - If you are not admitted to another Faculty you may register in the School of Business as an irregular student for one reviewing period. During that period you cannot take Commerce courses and you will not be eligible for consideration for admittance to Commerce II or readmittance to Business I. The purpose of your registration as an irregular student is to make yourself eligible for admission to a programme outside the School of Business.

If you have a CA of 3.0 to 3.4, you will be on academic probation and may continue at the University for one reviewing period as an irregular student in the School of Business but will not be permitted to take any Commerce courses. At the end of your probation period you will not be eligible for consideration for Commerce II or readmittance to Business I. The purpose of the probation period is to make yourself eligible for a programme outside the School of Business.

If you have a CA of less than 3.0 at the end of Business I you may not continue at the University either on a full-time or part-time basis.

- **Commerce II**: Upon satisfactory completion of Commerce II, qualified students may continue in one of the following programmes:

  - **Honours B.Com. Programme**: You must have a CA of at least 6.0 to enter the Honours B.Com. programme in Level III or IV or to continue in the Honours B.Com. programme. If your CA is 5.5 to 5.9, you may continue in the Honours B.Com. programme, but will be placed on programme probation. You may be on programme probation for only one reviewing period (as specified in the Glossary section of this Calendar). If your CA is 3.5 to 5.4, you may transfer to the B.Com. programme. If your CA is less than 3.5, you may not continue at the University. Regardless of your CA, if you receive more than six units of failure (in required or elective course work) after entry to Level II Commerce, you will not be permitted to continue in a programme in the School of Business.

  - **B.Com. Programme**: You must have a CA of at least 4.0 to continue in the B.Com. programme. If your CA is 3.5 to 3.9, you are permitted to continue in the B.Com. programme on programme probation for one reviewing period (as specified in the Glossary section of this Calendar). If your CA is less than 3.5, you may not continue at the University. Regardless of your CA, if you receive more than six units of failure (in required or elective course work) after entry to Level II Commerce, you will not be permitted to continue in a programme in the School of Business.

**FACULTY OF ENGINEERING**

- **B.Eng. Programmes**: To be admitted to a Level II Engineering programme, you must have completed all Engineering I programme requirements and have obtained a minimum CA of 4.0.

  In Level II and above, you must maintain a CA of at least 4.0, with no failures, to continue in an Engineering programme. If your CA is at least 4.0 and includes one failure since your last review, and you were not placed on probation at the last review, you will be placed on programme probation. If your CA is at least 5.0 and includes two failures since your last review, and you were not placed on probation at the last review, you will be placed on programme probation. Your probation will be lifted if you complete the year with a Sessional Average of 4.0 with no failures. You may only be on probation twice. If you have a CA of 4.0 to 4.9 with two failures, you may not continue in the Faculty. If you have more than two failures since the last review, you may not continue in the Faculty. If you have a CA of 3.0 to 3.9, you may not continue in the Faculty. If your CA is less than 3.0, you may not continue at the University.

**FACULTY OF HEALTH SCIENCES**

- For specific minimum requirements, please see the descriptions for the individual programmes within the *Faculty of Health Sciences* section in this Calendar.

**FACULTIES OF HUMANITIES AND SOCIAL SCIENCES**

- **Honours B.A. Programmes**: B. Mus. Programme; Honours B.Kin. Programme; B.A./B.S.W.; B.S.W.: You must have a CA of at least 6.0 to continue in an Honours programme. If your CA is 5.5 to 5.9, you may remain in the Honours programme, but will be placed on programme probation for one reviewing period. You may be on programme probation only once. If your CA is 3.0 to 5.4, you must transfer to another programme for which you qualify. If your CA is less than 3.0, you may not continue at the University.

- **B.Kin. Programme**: You must have a CA of at least 4.0 to continue in the B.Kin. programme. If your CA is 3.5 to 3.9, you may remain in the programme, but will be placed on programme probation for one reviewing period. You may be on programme probation only once. If your CA is 3.0 to 3.4, you must transfer to another programme for which you qualify, and be placed on academic probation. If your CA is less than 3.0, you may not continue at the University.

- **B.A. Programmes**: You must have a CA of at least 3.5 to continue in, or graduate from, a three-level B.A. programme. If your CA is 3.0 to 3.4, you may remain in the programme, but will be placed on academic probation. You may be on academic probation only once. If your CA is less than 3.0, you may not continue at the University.

- **B.S.C. Programmes**: You must have a CA of at least 3.5 to continue in a three-level B.S.C. programme. If your CA is 3.0 to 3.4, you may continue on academic probation only once. If your CA is less than 3.0, you may not continue at the University.

**FACULTY OF SCIENCE**

- **Honours B.Sc. Programmes**: You must have a CA of at least 6.0 to continue in an Honours B.Sc. programme. If your CA is 5.5 to 5.9, you may remain in the Honours B.Sc. programme, but will be placed on programme probation. You may be on programme probation for only one reviewing period. If your CA is 3.0 to 5.4, you must transfer to another programme for which you qualify. If your CA falls below 3.0 you may not continue at the University.

- **B.Sc. Programmes**: You must have a CA of at least 3.5 to continue in a three-level B.S.C. programme. If your CA is 3.0 to 3.4, you may continue on academic probation for one reviewing period. You may be on academic probation only once. If your CA is less than 3.0, you may not continue at the University.

**Transfer Between Programmes**

If you wish to transfer from one programme to another, you should discuss the possibility with the appropriate Office of the Associate Dean (Studies) to which you wish to transfer. It is possible that full credit may not be given at the time of transfer between Faculties and additional courses may need to be taken.

**Minors**

If you are enrolled in a four- or five-level programme, you are eligible to obtain a Minor in another subject area, provided that the subject area is not integral to the requirements of your degree programme. You should check the calendar requirements statement for your programme in the case of Science programmes, or check with your Faculty in the case of other programmes, for subject areas that are excluded from consideration as a Minor in your programme.

If you wish to receive a Minor, you should check the information under the heading Minor in the appropriate department's listing. McMaster also offers Interdisciplinary Minors in Archaeology and Jewish Studies. (See *Interdisciplinary Minors and Thematic Areas section*.) The University also has two Theme Schools — Globalization, Social Change and the Human Experience, and Science, Technology, and Public Policy — which give you, upon successful completion of one of the programmes, a Minor in that area of study.
22  GENERAL ACADEMIC REGULATIONS

(Please note that the last intake to these Theme Schools was in September, 1999 - see Theme Schools section.) You will be responsible for ensuring that you register in the required Minor courses. Normally, you must complete a minimum of 24 units in the Minor subject. No more than six of these units can be at Level I, unless otherwise stated in the specific requirements of the minor. At least 18 units must be completed at McMaster.

In the final year of your programme, when you file your Graduation Information Card, you must indicate your desire to receive a Minor in the chosen subject. The Faculty Reviewing Committee will verify that the requirements have been met. If you are successful, your transcript will contain a designation for Minor in that area. See Sessional Dates section for deadlines.

You may apply for only one Minor. Minors cannot be revoked once approved. (See Note 4 under Second Bachelor’s Degree Programmes.)

Second Bachelor's Degree Programmes

For admission to a second undergraduate degree programme you must hold a first undergraduate degree whether it be a three-level, four-level, or a five-level degree. The minimum admission requirements and programme of study for the second degree depend on the subject areas of the two degrees.

- Honours Degree following a Three-Level Degree in the Same Subject: For entry, a Cumulative Average of at least 6.0 in the first degree programme is required. If you meet the admission requirements for the programme, you must complete at least 30 units beyond the first degree, including all Honours requirements specified for the programme. In some Faculties, this includes a minimum of units of work in the discipline.

- B.A. or B.Sc. in Another Subject: For entry, you must meet the admission requirements for the programme. If admitted, you must complete at least 30 units beyond the first degree, including all Honours requirements specified for the programme. In some Faculties, this includes a minimum number of units of work in the discipline.

- B.Mus: Honours B.A. or B.Sc. in Another Subject: For entry, you must meet the admission requirements for the programme and have a Cumulative Average of at least 6.0. If admitted, you must complete at least 60 units beyond the first degree, including all Honours requirements specified for the programme.

- B.Eng.: For entry, you must meet the admission requirements for the programme. If admitted, you must complete at least 60 units beyond the first degree including all programme requirements. (Admission to a second B.Eng. degree is not possible if your first degree is in Engineering.)

- B.H.Sc. (Honours): A Cumulative Average of at least 7.0 (minimum overall average of B+) will be required for admission. In addition, students will be admitted to Degree studies only if their studies involve a significant additional component of work in the subjects of concentration in the B.H.Sc. (Honours) Programme and certain subject combinations may not be permitted.

- B.Kin.: For entry, you must meet the admission requirements for the programme and have a Cumulative Average of at least 7.0. If admitted, you must complete at least 60 units beyond the first degree including all programme requirements. Eligibility to transfer to the Honours B.Kin. Programme or the Honours Kinesiology (B.Sc.) programme as a Second Degree is determined upon completion of 30 units of work.

Notes

1. All work for the second degree must be completed at McMaster University.
2. Some additional regulations are applied by the Faculty of Science involving cognate disciplines, e.g. Mathematics and Statistics. These are described in the Faculty of Science section of this Calendar.
3. A second degree is not available in all subject areas. See individual Faculty regulations for further information.
4. Minors will not be revoked to permit later registration in a three-level second degree in the same subject. Students may return for a second degree in a subject in which they have obtained a Minor, but only at the Honours level. (See Minors above.)
5. Extra courses taken while you are registered in a first degree programme, or courses completed as a Continuing Student, may, with the approval of the Faculty, be applied to the second degree programme.
6. You must meet the same standards for continuation and graduation as are applied to students registered in a first degree programme.
7. Credit from the first two degrees cannot be applied to a third undergraduate degree. To obtain a third undergraduate degree you must take the complete programme, i.e. approximately 90 units for a three-level degree and approximately 120 units for a four-level degree.

Deans’ Honour List

Each year outstanding students with a minimum average of 9.5 on at least 30 units (usually their Sessional Average) are named to the Deans’ Honour List. Students will be assessed at the time of admission and using the same average calculation as applied to the Deans’ Honour List assessment. (See Deans’ Honour List section above.)

Provost’s List of Academic Excellence

Each year outstanding students with an average of 12.0 on at least 30 units (usually their Sessional Average) are named to the Provost’s List of Academic Excellence. Students will always be assessed at the time of admission and using the same average calculation as applied to the Deans’ Honour List assessment. (See Deans’ Honour List section above.)

3. EXAMINATIONS

The Office of the Registrar schedules and conducts most final examinations and December mid-year examinations for full-year Level I courses. See the Sessional Dates section in this Calendar. Examinations organized by the Office of the Registrar during these dates may be scheduled in the morning, afternoon, or evening, Monday through Saturday.

Other instructor-scheduled tests and examinations may be held throughout each session but may not be scheduled during the last five days of the term of the Fall/Winter session, or between the last day of classes for the term and the first day of the examination schedule, except as approved by the Undergraduate Council. Assignments worth more than ten percent of a final course grade cannot be assigned during this ban period, and take-home examinations worth more than ten percent of a final course grade cannot be due during the ban period. Tests that are exempt from the ban must:

a) be a part of a process of continuous or periodic assessment through the term;

b) be held in the normally scheduled class or lab slot; and

c) be worth no more than ten percent of the final course grade.

See the Sessional Dates section of this Calendar.

Examinations Conducted by the Office of the Registrar

- McMaster student photo identification cards are required at all examinations. If you arrive at an examination without a proper I.D. card you will be required to have a substitute card made before being seated. There is a fee for this service. No additional time is given to compensate for examination time missed.

- You may only use books, papers or instruments during an examination if they are specifically prescribed on the examination paper.

- You may leave an examination only after the first 45 minutes have elapsed.

- If you become ill during an examination, you may be excused by a presider.

- If you miss or leave an examination for medical reasons you must submit a Petition for Special Consideration form with supporting documentation of illness, personal or family reasons, to the Office of the Associate Dean (Studies) of your Faculty normally within five working days of the missed examination.
If you are late for an examination, report immediately to the presider in your examination location or to the Examinations Section of the Office of the Registrar.

If you miss or leave an examination for any other reason, report immediately to the Examinations Section of the Office of the Registrar. You will be advised whether you can write your examination before the end of the examination schedule, or whether you must apply for special consideration by submitting documentation to the Office of the Associate Dean (Studies) of your Faculty.

Special examination arrangements may be made upon application to the Examinations Section of the Office of the Registrar in some circumstances, such as:
- a conflict with religious obligations
- a conflict between two Registrar-scheduled examinations
- a schedule with three examinations in one calendar day or three consecutive examinations

Application must be made at least 10 working days before the scheduled examination date and acceptable documentation must be supplied. Failure to meet the stated deadline may result in the denial of special arrangements.

Students with disabilities are required to inform the Centre for Student Development of accommodation needs for examinations or before the last date for withdrawal from a course without failure by default. (See the Sessional Dates section of this Calendar.) This allows sufficient time to verify and arrange appropriate accommodation. Failure to meet the stated deadline may result in the denial of special accommodation. See Academic Facilities, Student Services and Organizations--Centre for Student Development section of this Calendar.

Examinations are not rescheduled for purposes of travel. You must arrange to be available for the entire range of examination dates as listed in the Sessional Dates section.

Deferred Examinations

A deferred examination may be granted by your Faculty Reviewing Committee if you fail to write a final examination for certifiable medical or compassionate reasons. Documentation must be submitted to the Associate Dean (Studies) of your Faculty before the end of the examination schedule.

Deferred examinations must be written in the examination session which follows the one for which the privilege is granted (e.g. in the April session for an examination missed in December). The decision to grant you a deferred examination will be reported on your grade report. You must confirm your intent to write by submitting an application to the Examinations Section of the Office of the Registrar.

In the case of examinations written at an off-campus location, any fees incurred are the responsibility of the student. This includes the fee to courier the written examinations back to the Examinations Section of the Office of the Registrar.

Examination and confirmation deadline dates appear in the Sessional Dates section of this Calendar.

4. GRADING SYSTEM

The method for determining your final grade will be given in the course outline. Unless otherwise specified in a course outline, course results determined on a percentage scale will be converted to an official letter grade, as indicated in the equivalent percentage scale which follows. The results of all courses attempted will appear on your transcript as letter grades.

Before submitting a failing grade, your instructor reassesses whether examples of your work are available.

To satisfy prerequisite requirements, a grade of at least D- is required, unless otherwise stated.

You retain credit for all courses with grades of D- or better, except in those programmes for which a higher grade is specified in the programme regulations.

Since September 1982, the grading scale has been:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Equivalent</th>
<th>Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>12</td>
<td>90-100</td>
</tr>
<tr>
<td>A</td>
<td>11</td>
<td>85-89</td>
</tr>
<tr>
<td>A-</td>
<td>10</td>
<td>80-84</td>
</tr>
<tr>
<td>B+</td>
<td>9</td>
<td>77-79</td>
</tr>
<tr>
<td>B</td>
<td>8</td>
<td>75-72</td>
</tr>
<tr>
<td>B-</td>
<td>7</td>
<td>70-62</td>
</tr>
<tr>
<td>C+</td>
<td>6</td>
<td>62-55</td>
</tr>
<tr>
<td>C</td>
<td>5</td>
<td>55-48</td>
</tr>
<tr>
<td>C-</td>
<td>4</td>
<td>47-40</td>
</tr>
<tr>
<td>D+</td>
<td>3</td>
<td>39-32</td>
</tr>
<tr>
<td>D</td>
<td>2</td>
<td>31-24</td>
</tr>
<tr>
<td>D-</td>
<td>1</td>
<td>23-16</td>
</tr>
</tbody>
</table>

Example of a Weighted Average Calculation, using the grade points and units for courses completed:

<table>
<thead>
<tr>
<th>Course Grade</th>
<th>Grade Points</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>C+</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>B</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>B+</td>
<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 18 / 153 = 8.5

5. UNDERGRADUATE ACADEMIC AWARDS

To retain Entrance Scholarships and to qualify for major In-Course Awards, full-time students must complete, during the Fall/Winter session, a full load of course units, as defined by the programme and level. A Full-load Average will be computed to determine your eligibility for these awards.

Terms and conditions of awards for full-time and part-time studies are defined in the section Undergraduate Academic Awards section.

6. GRADUATION

Graduation With Distinction standing may be awarded if a minimum CA of 9.5 is achieved.

The following Cumulative Averages are required to graduate:
- B.A. — 3.5
- B.A. (Honours) — 5.0
- B.A./B.S.W. and B.S.W. — 6.0
- B.Arts Sc. and B.Arts Sc. (Honours) — 5.0
- B.Com. — 4.0
- B.Com. (Honours) — 5.0
- B.H.Sc. (Honours) — 5.0
- B.Kin. — 4.0
- B.Kin. (Honours) — 5.0
- B.Mus. (Honours) — 5.0
- B.Sc. — 3.5
- B.Sc. (Honours) — 5.0
- B.Tech. — 3.5
Please see the graduation regulations for individual Health Sciences programmes in the Faculty of Health Sciences section. If, at the time of graduation, you fail to meet the requirements for an Honours degree, you may seek to transfer to another programme.

If you are registered in Level III of an Honours programme and wish to transfer to a three-level degree programme to be eligible for graduation at the next Convocation, you must apply to the appropriate Office of the Associate Dean (Studies) by March 1 for Spring Convocation, and by September 1 for Fall Convocation. If permission is granted, you must go to the Office of the Registrar and complete a Graduation Information Card. During the session in which you expect to complete your graduation requirements, you must file a Graduation Information Card in the Office of the Registrar by mid-February for Spring Convocation and by mid-July for Fall Convocation. Deadline dates appear in the Sessional Dates section of this Calendar.

If you wish to apply to receive a Minor in addition to your major programme of studies, you must indicate this on your Graduation Information Card. You must take the degree at the Convocation immediately following the completion of the appropriate degree work.

7. RECORDS POLICY

Transcripts

Transcripts, which summarize your academic career at McMaster University, are available from the Office of the Registrar.

Transcripts
Office of the Registrar
Room 108, Gilmour Hall
McMaster University
L8S 4L8
Phone: (905) 525-4600
FAX: (905) 527-1105

NOTE: Academic sessions do not appear on transcripts until a registration has been academically and financially approved and the first day of classes in the session has passed.

Requests for transcripts may be made in person, by mail, or by fax. To protect the confidentiality of student records, all requests must be signed by the student whose transcript is being requested.

Effective September 1, 2000 there is no charge for transcripts, but an additional charge of $5.00 applies to transcripts which are faxed from McMaster ($10.00 outside Canada). Fees are due at the time that transcripts are ordered. All mail or fax requests must include either a cheque, money order, or credit card number with the expiry date and name of card owner (Visa and MasterCard only). Requests are filled promptly on receipt of payment. Official transcripts are usually delivered to other Ontario universities by courier and elsewhere by Canada Post. To avoid disappointment, please allow at least five business days for processing and delivery time. Transcripts will not be issued if you have outstanding accounts at the University.

Retention Policy

When you apply for admission to McMaster University and register in programmes at the University, you accept the University's right to collect pertinent personal information. The information is needed to assess your qualifications for entry, establish records of performance in programmes and courses, provide the bases for awards and governmental funding, and to assist the University in the academic and financial administration of its affairs.

All documentation that you submit to the University in support of applications for admission, residence accommodation or financial awards, or any appeals or petitions, becomes the property of the University. You are notified of your academic performance in courses by grade reports provided by the Office of the Registrar. All information needed to produce official transcripts is maintained permanently.

If you are not accepted, or if you fail to enrol following acceptance, your documentation is normally destroyed at the end of each admissions cycle. If you reapply, you must resubmit any previous documentation and any additional academic information.

Supporting documentation relevant to your admission to, and performance at, the University will normally be eliminated seven years after the end of your enrolment at the University (regardless of whether you graduate).
SENATE POLICY STATEMENTS

The University has defined its expectations of students in both the academic and non-academic life of the University community, and developed procedures to ensure that all members of the community receive equitable treatment. An electronic version of the following policies is available at the following address: http://www.mcmaster.ca/policy

• Statement on Academic Ethics
• The University's Statement on Human Rights
• Sexual Harassment Policy
• Anti-Discrimination Policy
• Code of Conduct
• Welcome Week Regulations
• Alcohol Policy and Residence Community Alcohol Policy
• General Regulations for McMaster University Library
• Policy Statement on Applicants and Students with Disabilities
• Senate Resolution on Course Outlines
• Policy on Undergraduate Student Access to Final Examinations
• Guidelines on Access to Information and Protection of Privacy (Including Security of Student Data)
• Student Appeal Procedures

The following is a summary of the major policies which pertain to students. Complete versions of the policies may be obtained from the Senate Secretariat, Room 104, Gilmour Hall, (Location Effective Fall 2001; 3rd Floor, Gilmour Hall)

Academic Ethics

The Senate Statement on Academic Ethics explains the expectations the University has of its scholars. Some Departments and instructors have also developed more specific rules and regulations designed to maintain scholarly integrity. It is the responsibility of each instructor to make students aware of these expectations.

The academic integrity of each student is a condition of the Senate Statement on Academic Ethics. Students are responsible for their own scholarly achievements and are accountable for their actions. The University has developed operating procedures which are designed to protect the University from serious infractions of academic integrity.

The purpose of academic integrity is to prevent academic misrepresentation and to ensure that the academic record is accurate. The intent of the Academic Integrity procedures is to provide a mechanism for the University to deal with violations of academic integrity in a fair and orderly manner.

Breach of academic integrity is defined as academic dishonesty. For the purposes of this policy, academic integrity means the maintenance of honesty and scholarship in all areas of academic endeavor. Academic integrity involves a commitment to principles of honesty, trustworthiness, and fairness in the conduct of research, teaching, and learning. It involves the respect for intellectual property and cooperation with the rules and regulations of the university.

Applications for admission who do not gain admission have access to their files. Documents received by the University may be disclosed to: judicial and law enforcement agencies, the Ontario Human Rights Code, the Code of Conduct, the Policy on Undergraduate Student Access to Final Examinations, the Policy Statement on Access to Information and Protection of Privacy, the Policy Statement on Applicants and Students with Disabilities, the Senate Resolution on Course Outlines, the Policy on Undergraduate Student Access to Final Examinations, the Guidelines on Access to Information and Protection of Privacy, and the Policy Statement on Applicants and Students with Disabilities.

The Senate has approved Policies on Sexual Harassment and on Anti-Discrimination which outline the procedures to be followed in the event that a student has a complaint regarding an alleged violation of human rights.

The Senate has approved Policies on Sexual Harassment and on Anti-Discrimination which outline the procedures to be followed in the event that a student has a complaint regarding an alleged violation of human rights.

Student Code of Conduct

McMaster University is a community dedicated to furthering learning, intellectual inquiry, and professional development. Membership in the community implies acceptance of the principles of mutual respect for the rights of others and a readiness to support actively an environment conducive to intellectual growth, both for individuals and for the whole University.

The Student Code of Conduct contains regulations which outline the limits of conduct considered to be consonant with the goals and the well-being of the University community, and defines the procedures to be followed in cases of violation of the accepted standards.

Alcohol Policy

The University wishes to ensure the full and fair implementation of the principles of the Ontario Human Rights Code which states: "Every person has the right to equal treatment with respect to services, goods and facilities, without discrimination because of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, age, marital status, family status or handicap."

The University Senate has approved Policies on Sexual Harassment and on Anti-Discrimination which outline the procedures to be followed in the event that a student has a complaint regarding an alleged violation of human rights.

Sexual Harassment Policy

The University recognizes its legal and moral responsibility to protect all of its members from sexual harassment and to take action if such harassment does occur. To these ends it has developed a policy on, and procedures for, dealing with complaints of sexual harassment, including a range of disciplinary measures up to and including dismissal.

Anti-Discrimination Policy

The University has developed policies and procedures which are designed to protect the confidentiality of undergraduate student records.

The following have been defined as public information: student name, sex, degrees earned and when, undergraduate awards earned and when, and whether a student is full-time or part-time. Additional information may be used by the various offices and officials of the University where a need to know has been established.

Information about applicants for admission who do not gain admission will be kept for a limited period only. A separate admission file is maintained for those admitted to the MD, Midwifery, Nursing, Occupational Therapy and Physiotherapy programmes.

While a student may have access to his or her file, documents received from third parties in confidence will not be disclosed. The operating procedures also define the circumstances under which information may be disclosed to: judicial and law enforcement agencies, the Ontario Universities' Application Centre, Statistics Canada, agencies charged with the recovery of funds provided under OSAP or CSL, and secondary schools.

The operating procedures also define the circumstances under which information may be disclosed to: judicial and law enforcement agencies, the Ontario Universities' Application Centre, Statistics Canada, agencies charged with the recovery of funds provided under OSAP or CSL, and secondary schools.

Transcripts are issued only with the consent of the student. Addresses will not be released except under provisions noted above.
FINANCIAL INFORMATION

Upon receiving official acceptance from the Registrar's Office and upon submission of registration, you are responsible for the payment of all fees as defined in this Calendar.

Payment of academic fees does not imply your acceptance to the University. You must have approval of your registration. Academic requirements have to be fulfilled before your registration is complete.

If you are a new student, you may not forward academic fees to Financial Services until you have received your Letter of Acceptance. You should not send residence fees unless you have received notification of acceptance.

You are responsible for the fees for each academic session. No fee credit can be transferred from one academic session to another.

It is the policy of the University not to accept registrations until fees and regulations were in effect at the time of issue.

The base fees and regulations in effect at the time of publication of this Calendar. The University reserves the right to amend the fees and regulations at any time.

UNDERGRADUATE FEES

If you are a full-time student, fees cover your portion of the tuition cost, registration, library, diplomas, campus health services, student organizations, and athletics, and are payable by all students.

No caution deposits are required, but students will be assessed for any unwarranted loss or breakage.

The University reserves the right to assess other supplementary fees or charges in some courses or programs to recover — in part or in full — the cost of providing course materials, accommodation and transportation for field trips, and the costs of breakages.

Fees charged by the University are approved annually by the Board of Governors for the academic year beginning September 1.

Fees shown below are for 2000-2001. The fee schedules for 2001-2002 are enclosed in the Registration Handbook sent to each student during the summer preceding registration and are available on the web at http://www.mcmaster.ca/bms/finance/ in the spring of 2001.

Tuition fees include a base per unit fee plus mandatory non-tuition related supplementary fees.

### Base Per Unit Tuition Per Faculty

<table>
<thead>
<tr>
<th>Faculty/Programme</th>
<th>Canadian/Permanent Resident Fee</th>
<th>Visa Status per unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts &amp; Science</td>
<td>127.69 per unit</td>
<td>415.00 per unit</td>
</tr>
<tr>
<td>Business and</td>
<td>139.84</td>
<td>415.00</td>
</tr>
<tr>
<td>Commerce</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td>138.06</td>
<td>380.00</td>
</tr>
<tr>
<td>Eng. Mgt. II, IV</td>
<td>139.84</td>
<td>415.00</td>
</tr>
<tr>
<td>Eng. Mgt. III, V</td>
<td>138.06</td>
<td>380.00</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>127.69</td>
<td>415.00</td>
</tr>
<tr>
<td>Humanities</td>
<td>127.69</td>
<td>365.00</td>
</tr>
<tr>
<td>Kinesiology and Social Sciences</td>
<td>127.69</td>
<td>365.00</td>
</tr>
<tr>
<td>Nursing</td>
<td>127.69</td>
<td>415.00</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>142.23</td>
<td></td>
</tr>
<tr>
<td>Physiotherapy</td>
<td>142.23</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>127.69</td>
<td>415.00</td>
</tr>
</tbody>
</table>

### Supplementary Fees

#### STUDENTS TAKING 1 TO 17 UNITS (PER UNIT):

- Athletics and Recreation Activity Fee $4.20
- Administrative Services Fee $0.87
- McMaster Association of Part-Time Students Fees:
  - Organization Fee $4.00
  - University Centre Capital Fee 2.00
- Total Charge per unit $11.07

#### Nursing Students Add:

- One-Time Immunization Fee $20.00
- Learning Resource Fee 6.50

#### STUDENTS TAKING 18 UNITS OR MORE PAY:

Students registered in 18 or more units at ANY time during the session will be responsible for the following fees.

- Athletics & Recreation Activity Fee $75.60
- Student Health Service 36.00
- Student Organization Fee 5.74

NOTE: If you do not wish to support the work of McMaster OPIRG you can claim a full refund by bringing your student card to the OPIRG Office within three weeks after the completion of the drop and add period.

#### McMaster Student Union Fees:

- Student Organization Fee $90.52
- Health Plan Premium 42.00
- H.S.R. Bus Pass 58.00
- WUSC Student Refugee Fee 1.14
- Ancillary Fee for CMU-FM 13.29
- Ancillary Fee for MARMOR Yearbook 6.92

- Sub Total $329.21

Plus:

- McMaster Student Union's University Student Centre Capital fee ($2.45 per unit), to a maximum of $73.50
- Student Services Fee ($2.66 per unit), to a maximum of $79.80.
- Administrative Services Fee ($0.87 per unit), to a maximum of $26.10.

#### And Faculty Specific Society/Support Fees as follows:

- Arts & Science 26.00
- Bachelor of Health Sciences 26.00
- Commerce 116.00
- Engineering 132.00
- Humanities 15.00
- Nursing 167.50
- Occupational Therapy 124.00
- Physiotherapy 63.00
- Science 35.00
- Social Sciences/Kinesiology 50.00

#### Canadian Citizens and Landed Immigrant Students

(Examples of fees for full academic load.)

<table>
<thead>
<tr>
<th>Faculty/Programme</th>
<th>Tuition Fee *</th>
<th>Fees</th>
<th>Total Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts &amp; Science</td>
<td>3,830.70</td>
<td>534.61</td>
<td>4,365.31</td>
</tr>
<tr>
<td>Business and</td>
<td>4,195.20</td>
<td>624.61</td>
<td>4,819.81</td>
</tr>
<tr>
<td>Commerce</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td>4,555.98</td>
<td>640.61</td>
<td>5,196.59</td>
</tr>
<tr>
<td>Eng. Mgt. II, IV</td>
<td>4,195.20</td>
<td>640.61</td>
<td>4,835.81</td>
</tr>
<tr>
<td>Eng. Mgt. III, V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Sciences</td>
<td>3,830.70</td>
<td>508.61</td>
<td>4,339.31</td>
</tr>
<tr>
<td>Humanities</td>
<td>3,830.70</td>
<td>523.61</td>
<td>4,354.31</td>
</tr>
<tr>
<td>Kinesiology and Social Sciences</td>
<td>3,830.70</td>
<td>558.61</td>
<td>4,389.31</td>
</tr>
<tr>
<td>Nursing</td>
<td>3,830.70</td>
<td>523.61</td>
<td>4,354.31</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>3,830.70</td>
<td>656.11</td>
<td>4,486.81</td>
</tr>
<tr>
<td>Physiotherapy</td>
<td>3,830.70</td>
<td>656.11</td>
<td>4,486.81</td>
</tr>
<tr>
<td>Science</td>
<td>3,830.70</td>
<td>571.61</td>
<td>4,402.31</td>
</tr>
</tbody>
</table>

*You will be assessed extra fees for units taken over your programme maximum load.
Visa Students

(Examples of fees for full academic (ie.,)

Tuition Fee * Supplementary Fees Total Fees

- Arts & Science 12,450.00 534.61 12,984.61
- Business and 12,450.00 624.61 13,074.61
- Commerce
- Engineering and 12,540.00 640.61 13,180.61
  Eng. Mgt. II, IV
- Engineering and 12,450.00 640.61 13,090.61
  Eng. & Mgmt. III, V
- Health Sciences 12,450.00 508.61 12,958.61
  (Honours)
- Humanities 10,950.00 523.61 11,473.61
- Kinesiology and 10,950.00 558.61 11,508.61
- Social Sciences
- Nursing I 12,450.00 676.11 13,126.11
- Nursing 12,450.00 656.11 13,106.11
- Science 12,450.00 543.61 12,993.61

*You will be assessed extra fees for units taken over your pro-

gramme maximum load.

Student Health Services Fees

The supplementary student health services fee of $36.00 sup-
ports the on-campus clinic facilities, which provide the services
of doctors and nurses. The McMaster Students Union Health Plan
Premium fee of $42.00 includes reimbursement of expenses re-
sulting from an accident incurred during the academic year, where
such expenses are not recoverable under the Ontario Health In-
surance Plan. These expenses may include X-ray, ambulance,
dental treatment, prescribed drugs, wheelchairs or similar appli-
cances. Reimbursement is not made for accident expenses to dental
plates, crowns, fillings, glass frames, lenses or similar items.
Accidents should be reported to Student Health Service within 10
days.
Prescribed drugs, excluding contraceptives, may be claimed
through this plan. For details concerning dollar amounts allow-
able, contact the McMaster Students Union Office.

Co-op Fees

Co-op students attending the full academic term (September-
April) should add an $850.00 Co-op Fee to the regular 30 unit
Science fee. Co-op students attending one academic term should
pay half the 30 unit Science fee plus a $425.00 Co-op Fee.

Listeners

You are classified as a Listener if you wish to attend classes,
but are not seeking academic credit. You may be admitted at one-
half of the standard fee upon application to the Centre for Con-

tinuing Education.

Listeners withdrawing from a course may do so without penalty
up to five working days after the first meeting. After that and
before the second class, an administrative fee of $30.00 will be
withheld. There is no refund after the second class.

Students may register as Listeners in some degree or certifi-
cate courses. A Listener is not seeking credit and may be admis-
ted at one-half of the standard fee upon application to the Centre
for Continuing Education.

This category excludes currently registered students, who may
audit a course. See General Academic Regulations section in this
Calendar for details.

Persons Aged 65+

Subject to meeting admission and prerequisite requirements, if
you are aged 65 or over, you may register without payment of
tuition and supplementary fees.

FINANCIAL INFORMATION

Regular Session

If you live on campus, your residence fees cover the period,
from Labour Day to 5 p.m. on the day following your final April
examination, and excludes the December holiday break.
The fees below are those for 2000-2001.

Traditional Residences

<table>
<thead>
<tr>
<th>Full Payment</th>
<th>Minimum Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>1,825.00</td>
</tr>
<tr>
<td>Double/Triple</td>
<td>1,720.00</td>
</tr>
<tr>
<td>Quad</td>
<td>1,670.00</td>
</tr>
</tbody>
</table>

Bates Residence

| Unfurnished | 1,910.00 |
| Furnished   | 2,010.00 |

Meal Plans

If living in a traditional residence you must select one of the
following meal plans:

Full Payment Minimum Payment

| Light       | 2,225.00 | 1,113.00 |
| Small       | 2,450.00 | 1,225.00 |
| Regular     | 2,650.00 | 1,325.00 |
| Large       | 2,850.00 | 1,425.00 |
| X-Large     | 3,050.00 | 1,525.00 |

Payment of Fees

Tuition fees and residence/meal plan fees are payable in full
during the registration period in August/September. Prepayment
of fees will significantly simplify the registration process (see Pre-
payment of Fees). If you are unable to make full payment at the

time of registration, you may be registered by paying the mini-
mum first payment at the time of registration. Interest is added
monthly to the unpaid balance. (Current rate is 1.2% per
month compounded/15.32% annually.) The balance plus inter-
est must be paid no later than January 15. Failure to make pay-
ment by January 15 will result in a late payment fee.

Cheques can be made payable to McMaster University. Any
cheque not accepted and returned by the bank will be subject to
an additional administrative charge of $30.00 for the first occur-
rence and an additional $10.00 for each subsequent occurrence.

In addition, if you refuse to pay fees, or any part of the fees, you
may be refused admission to the University or you may be re-
quired to withdraw with all privileges suspended. Fees to the
date of withdrawal will be assessed. If you wish to re-register
within the same academic session, you will also be assessed a $100.00
reinstatement fee.

You are not considered to be registered at McMaster University
unless all fees are paid or acceptable arrangements have been
made with the Financial Services Office by November 1 of each
year. The names of students who are not registered by that date
will be removed from all official class lists.
You will not be eligible for any examination results, transcripts, diplomas or the payment of awards of any kind, until fees and any other accounts owed to the University are paid, or until acceptable arrangements are made.

NOTE: Graduands who have outstanding accounts with the University will be permitted to attend convocation, but will not receive their diplomas until their accounts have been cleared in full.

Prepayment of Fees
All tuition, supplementary, residence and meal plan fees and any debts from prior sessions should be received by Financial Services prior to registration.

For payment deadlines, please refer to the registration handbook. You must complete the Payment Arrangement Form and send it with a cheque, which may be post-dated to September 1. Your student identification number should be written on the back of your cheque. By following this procedure you will significantly reduce the time needed to complete registration.

If you expect to receive financial assistance under the Ontario Student Assistance Programme, or will receive scholarships, bursaries or other awards, you may select the appropriate option on the Payment Arrangement Form. All fees are payable upon receipt of financial assistance. Any difference between the amount of the award, and minimum first payment should accompany the Payment Arrangement Form.

If you are unable to pay your fees at the time of registration, please contact Financial Services, Room 208, Gilmour Hall, Ext. 24478, prior to registration.

Refunds
If you are forced, by illness or other personal reasons, to withdraw from courses, you will be charged a partial fee for courses that are cancelled. The charge is determined by the date on which notices of withdrawal in writing are received at the Office of the Dean of the appropriate Faculty. A full refund will be given for courses dropped until the end of the drop and add period.

MISCELLANEOUS FEES
The following fees were in effect for the 2000-2001 academic year, and are over and above assessed academic fees, supplementary fees, and residence fees and meal plan fees.

Academic User Fees
- Applications for re-admission ........................................... 50.00
- Applications to Part-Time Studies ................................. 35.00
- Certification of Enrolment Fee .................................. No fee
- Contribution to Psycho-Educational Assessment ........ 200.00
- Deferred Examination on campus ................................ No fee
- Deferred Examination at Another Centre ............... 50.00
- Examination Rereread (Refunded if grade is changed) .... 50.00
- Letter of Permission ......................................................... No fee
- Notarizing Fee for Academic Documents ................. No fee
- Photocopying of Examination Script ........................ 10.00
- Replacement of Diploma ................................................ 30.00
- Replacement of Student I.D. Card .................. 30.00
- Supervision of Examinations at Other Universities .... 50.00
- Transcript (per copy) ......................................................... No fee
- Transcript Assessment Fee ....................................... 50.00

Financial/Administrative User Fees
- Replacement Fee
  - Income Tax Receipt/Education Credit Certificate .......... No fee
  - Certification of Fee Payment ................................ No fee
  - Meal Plan Withdrawal Fee ................................ 50.00
  - Fine for Meal Card Misuse ....................................... 25.00
  - Returned Cheque Charge (NSF, Stopped Payment)
    - First Occurrence ......................................................... 30.00
    - Each Subsequent Occurrence (Additional) ........ 10.00
  - Late Document Fee ...................................................... 50.00
  - Late Registration Fee
    - Full-time Students .................................................. 50.00
    - Part-time Students .................................................. 50.00
  - Late Payment Fee ..................................................... 32.00
  - Deferral Fee ............................................................ 32.00
  - Reinstatement Fee ..................................................... 100.00
  - Locker Rentals ......................................................... 12.00
- Library Charges
  - Overdue Recalled Books (per day) .................. 2.00
  - Overdue Reserve Material (per hour) .................. 2.00
  - Replacement Cost, plus Fine: up to ........... 100.00
  - Returned Books After Billing ......................... 10.00

EXPENSES

Costs Other Than Fees
For Students in Clinical Courses
You must buy uniforms, shoes and uniform accessories, for clinical practice.
If you are a Nursing student, your uniform and accessories are ordered under the direction of the School of Nursing. The approximate cost is $80.00.

Registration Examinations
Graduates of the B.Sc.N. programme can expect to pay fees ($215.00 in 2001) to write the comprehensive registration examinations administered by the College of Nurses of Ontario.

Insurance of Personal Property on University Premises
The University cannot assume any responsibility for the personal property of any employees, faculty members, or students, nor does the University carry any insurance that would cover their personal property.
In most cases, personal fire insurance policies provide an automatic 10% extension covering property away from home. You should inspect your insurance policies to be certain that this is the case.

Death and Dismemberment Insurance
The University considers that the purchase of insurance coverage for death and dismemberment is the individual responsibility of its students.
There are various insurance plans available, and although the University does not specifically endorse any one of these plans, it has no objection to explanatory brochures and literature being posted on bulletin boards or distributed in appropriate places.
If you are involved in laboratory or field work, you are particularly encouraged to investigate such coverage.

For information on student awards and financial aid, please refer to Undergraduate Academic Awards and Student Financial Aid sections of this Calendar.
The Arts & Science Programme has been designed for students who wish to use their university years to further their intellectual growth through study of significant achievements in both arts and sciences and in practice of methods of inquiry. The programme also allows for substantial specialization in a discipline or area through the use of electives. The philosophy of the Arts & Science Programme can be expressed by quoting A.N. Whitehead: 

"What education has to impart is an intimate sense for the power of ideas, for the beauty of ideas, and for the structure of ideas, together with a particular body of knowledge which has peculiar reference to the life of the being possessing it."

— The Aims of Education and Other Essays, 1929

The core curriculum consists of courses offered by the Council of Instructors of the Arts & Science Programme, together with other courses offered by Departments. The core curriculum is designed to meet three major objectives:

1. to increase understanding of achievements and methods used in selected arts and science disciplines;
2. to increase skills in writing, speaking, and in critical and quantitative reasoning; and
3. to increase skills in the art of scholarly inquiry into issues of public concern.

Meeting the last of these objectives is the aim of inquiry seminars which begin in Level I and continue in upper levels. To investigate with skill and insight a complex public issue, demands the construction of a complex public issue, requiring an understanding of the methods and findings of many disciplines; it calls on a liberal education. Moreover, acquiring skill in such investigations requires practice in formulating questions, searching out evidence, and bringing the insights of academic disciplines to bear on the interpretation of evidence.

The Programme offers preparation for advanced study in many professional schools, including those of business, health administration, journalism, law, medicine and teaching; and for research in many disciplines and interdisciplinary areas.

Students in this programme who wish to prepare for graduate study in an academic discipline should consult with the appropriate department concerning requirements. In general, preparation for graduate study may be accomplished by combining the core Honours Arts & Science curriculum with a concentration of electives in the intended area of graduate study. Combined Honours programmes, which are available in many subjects (see below), combine the core curriculum of the Arts & Science Programme with a prescribed set of courses in a subject and can be expected to satisfy course requirements for admission to graduate study in the particular subject.

ACADEMIC REGULATIONS

The Arts & Science Programme is governed by the General Academic Regulations of the University, (see the General Academic Regulations section in this Calendar) and the regulations described below. The Programme begins in Level I and leads to the degree, Bachelor of Arts & Science (Honours) on completion of Level IV. The four-level programme provides an opportunity for specialization through electives and through an individual study or thesis course. Students who decide to conclude their studies in the programme on completion of Level III may qualify to graduate with the degree, Bachelor of Arts & Science (B.Arts Sc.). Students must have a CA of at least 6.0 to continue in the programme. In the case of some Combined Honours programmes, the average must include specified courses.

Registration in Level I of the Arts & Science Programme is limited to approximately 60 students.

INQUIRY SEMINAR REQUIREMENTS

Inquiry seminars are comprised of ARTS&SCI 1C06 and a set of upper-level inquiry seminars on a variety of topics that change from time to time. The upper-level inquiry seminars are designated as 3C at the beginning of the course code (3CA3, 3CB6, etc.) and are described in the programme listing as upper-level Inquiry. See the course listing for topic designations. ARTS&SCI 1C06 must be completed in Level I. One upper-level inquiry seminar is required and is normally taken in Level II or III.

COMBINED HONOURS

Students in the Arts & Science Programme may undertake Combined Honours programmes in many disciplines within the Faculties of Humanities, Science and Social Sciences. The combined programmes with Biology, Chemistry and Physics need five years for completion. Combined programmes that are already established are listed below. Students should consult the Director of the Arts & Science Programme for consideration of other possible combinations. Application for Admission to Level II (mid March) is required for all Combined Honours Programmes.

Individual Study/Thesis: Students in the B.Arts Sc. (Honours) programme are required to complete either Individual Study or Thesis (ARTS&SCI 4A06, or 4C06). For students in some Combined Honours programmes, this requirement must be met by a Departmental course.

For further information, please see Academic Standing and Programme Requirements in the General Academic Regulations section in this Calendar.

INTERNATIONAL/CANADIAN EXCHANGE PROGRAMMES

One calendar year before study abroad: Interested students should consult the Director, Arts & Science Programme.

Calendar year of planned travel: No later than the end of December, students must propose a programme of study for approval by the Director. Credit will be confirmed only after transcripts are received and academic achievements are reviewed on the student's return.

To be eligible for study abroad students must have completed 60 units with a CA of at least 7.0. The B.Arts Sc. (three-year) degree is not granted on the basis of international study; the 30 final units of work must be done at McMaster.

The International Students' Advisor (Hamilton Hall, room 405) has information on formal exchange programmes as well as independent study abroad. For further information please see International Study in the General Academic Regulations section in this Calendar. Information concerning the Canadian Scholars Exchange Programme (CANEX) (formerly known as GOTSEP), can be found in the Academic Facilities, Student Services and Organizations section of this Calendar under the heading Student Exchanges.
ARTS & SCIENCE PROGRAMME

B.Arts Sc. (Honours) {2027}

Notes
1. Six units of upper-level inquiry beyond Level I are required.
2. An additional six units of upper-level Inquiry may be included as an Elective with permission of the Director.

REQUIREMENTS

LEVEL I: 30 UNITS
24 units ARTS & SCI 1A06, 1B06, 1C06, 1D06
6 units BIOLOGY 1A03, 1AA3 (BIOLOGY requirement must be completed by the end of Level II)
1 course SCIENCE 1A00

LEVEL II: 30 UNITS
18 units ARTS & SCI 2A06, 2D06, 2R06
6 units Electives or Upper-level Inquiry (Inquiry may be taken in Level III)
6 units Electives or BIOLOGY 1A03, 1AA3 (if not completed in Level I)

LEVEL III: 30 UNITS
6 units ARTS & SCI 3B03, 3BB3
6 units from ARTS & SCI 3A06, 3L03, 3S03
6 units Electives, or Upper-level Inquiry (if not already completed)
12 units Electives

LEVEL IV: 30 UNITS
6 units from ARTS & SCI 3A06, 3L03, 3S03 (whichever not completed in Level III)
6-12 units from ARTS & SCI 4A06, 4A12, 4C06, 4C12
12-18 units Electives

ARTS & SCIENCE AND ANOTHER SUBJECT

Established Combined Honours programmes are listed below. Students are encouraged to consult the Director of the Arts & Science Programme by September of Level II for consideration of other possible combinations. Application for Admission to Level II (mid-March) is required for all Combined Honours Programmes. Combined Honours Programme descriptions are available on the web (http://www.mcmaster.ca/artsci) or from the Programme Office.

Combined Honours Programmes, Arts & Science and:

- Anthropology {2027010}
- Biochemistry {2027040}
- Biology {2027050}
- Chemistry {2027070}
- Comparative Literature {2027142}
- Computer Science {2027145}
- Drama {2027148}
- Economics-Option A {2027151}
- Economics-Option B {2027152}
- English {2027200}
- Environmental Science {2027211}
- French {2027230}
- Geography {2027240}
- History {2027290}
- Mathematics {2027320}
- Multimedia {2027294}
- Philosophy {2027420}
- Physics {2027440}
- Political Science {2027450}
- Psychology {2027460}
- Religious Studies {2027475}
- Sociology {2027520}
SCHOOL OF BUSINESS

MICHAEL G. DEGROOTE

SCHOOL OF BUSINESS

(FACULTY OF BUSINESS)

WEB ADDRESS: http://www.business.mcmaster.ca
E-MAIL ADDRESS: buscom@mcmaster.ca

M.G. DeGroote Building, Room 104
Ext. 23941

Dean of Business
V. Baba/B. Eng., M.B.A., Ph.D.
Associate Dean of Business (Academic)
J.W. Medcof/B.A., M.A., Ph.D.
Director, Undergraduate Programmes
T.W. Chamberlain/B.Sc., M.B.A., Ph.D.
Director, Academic Programmes Office
E.A. Csoirdas/B.Sc., M.B.A., C.M.A.
Coordinator, Undergraduate Recruiting and Admissions
M. Dizdarevic/B.A., D.D.
Administrator, Undergraduate Programmes
D. Ellis

Undergraduate Student Advisor
B. Peggi/B.A.

THE COMMERCE PROGRAMMES

In Level I, a student who wishes to pursue either of the Commerce programmes establishes a foundation in business, computer science, economics, and mathematics, and also undertakes elective work. While this course of study is prescribed in Business I, a student who establishes a similar background in the Level I programme of another Faculty may be considered for admission to Level II Commerce. Such a student should consult with the Academic Programmes Office in the School of Business.

A student must gain admission to Commerce II in order to proceed towards the Honours B.Com. or B.Com. degree. In Level II a wide range of business subjects including accounting, finance, marketing, human resources/labour relations, management information systems and communications are introduced and further course work in economics is required. Elective work is taken from non-Commerce courses.

While the same core of required Commerce courses is completed in Level II, the Commerce programmes diverge at Level III. In the Honours Commerce programme, about three-quarters of the work is in Commerce courses, with the remainder of the load coming from electives outside the Faculty. In the Commerce programme the work is approximately evenly divided between Commerce and non-Commerce courses.

INTERNATIONAL/CROSS-CULTURAL/LANGUAGE MENU

In its revised programmes, the School of Business is stressing the importance of breadth of knowledge. Students are required to take courses in a variety of business disciplines, thus giving them a sound understanding of business functions and their relationships. They also obtain exposure to international and cross-cultural issues. This will provide them with the knowledge needed for the world of global organizations. Prior to graduation, students are required to complete successfully two courses from an International/Cross-Cultural/Language menu.

Programmes

All programmes in the Faculty of Humanities, except all English courses and MMEDIA 1A03

All Indigenous Studies courses

All Political Science courses, except POL SCI 1G06, 3C03, 3D03, 3F03, 3F03, 3JJ3, 3S03, 4006, 4506

All Religious Studies courses

ECON 2C03 Asian-Pacific Economies
ECON 2F03 The Political Economy of Development
ECON 2L03 Peace, Human Security and Economic Development
ECON 3H03 International Monetary Economics
ECON 3HH3 International Trade
ECON 3I03 Economic History of the United States
ECON 3LL3 History of Economic Theory
ECON 3T03 Topics in Economic Development

GEO 1HS3 Social Geography: The Human Environment

GEO 1H3 Urban/ Economic Geography

GEO 3HJ3 Geography of Japan

GEO 3HR3 Geography of a Selected World Region: New Zealand and Australia

GEO 3HZ3 Urban Social Geography

SOCIO 2E06 Racial and Ethnic Group Relations
SOCIO 3203 Ethnic Relations

STPP 3B03 Technology, Ethics and Society

STPP 3C03 Policy and Regulation of Discovery

All courses included under the Peace Studies minor (see Interdisciplinary Minor and Thematic areas section of the Calendar)

FULL-TIME/PART-TIME STUDIES

Students can take Business I and the Commerce programmes on a full-time or part-time basis. Progression to the next level is at the end of the successful completion of the 30 units of work that pertain to the lower level. It should be noted that only a few Commerce courses are offered in the evenings or in the summer sessions.

CONTINUING STUDENTS

Graduates of McMaster's Commerce programmes or one of the Engineering and Management programmes may take, as part-time students, Level III and IV Commerce courses (not previously taken, to a maximum of 18 units), excluding COMMERCE 4AG3*, 4AH3*, 4A13*, with the permission of the Academic Programmes Office. Such permission will be given only if normal prerequisites are satisfied and if space permits after meeting the requirements of in-course students. Registrations will be approved after classes start. (See the Admission Requirements section of this Calendar under the heading Continuing Students.)

*These courses are available as ACC 500, ACC 501, ACC 502, through the School of Business, subject to sufficient enrolments and availability of qualified instructors. For details concerning these courses, please see the McMaster University Spring/Summer Calendar.

Other than those graduates specified above, Commerce courses are not open to Continuing Students.
SECOND UNDERGRADUATE DEGREE

A student with an undergraduate degree will not be admitted or re-admitted to either of the Commerce programmes. Such a student may wish to apply for admission to the M.B.A. programme.

CREDIT TOWARDS PROFESSIONAL DESIGNATIONS

Educational requirements toward a variety of professional designations can be met in varying degrees within the Commerce programmes and the Engineering and Management programmes. The professional accounting designations C.A., C.M.A. and C.G.A. are awarded by the Institute of Chartered Accountants of Ontario, the Society of Management Accountants of Ontario and the Certified General Accountants Association of Ontario, respectively, while the designation C.H.R.P. is awarded by the Human Resources Professionals Association of Ontario.

Further opportunities for meeting educational requirements for professional designations are available to students in all Commerce and Engineering and Management programmes. Additional course work may be taken as Extras (see Extra Courses below) while in the programme. Further units of credit may also be taken after graduation (see Continuing Students above). Information concerning credit towards these professional designations can be obtained from the Academic Programmes Office in the School of Business.

MINOR

A minor is an option available to a student enrolled in a four- or five-level programme. A minor normally consists of at least 18 units of Level II, III or IV courses beyond the designated Level I course(s) that meet the requirements set out in the programme description of that minor. A student is responsible for ensuring that the courses taken fulfill these requirements. Those who have completed the necessary courses may apply for recognition of that minor when they graduate. If recognition is granted for a minor, a notation to that effect will be recorded on the student’s transcript. For further information, please refer to Minors in the General Academic Regulations section of this Calendar.

ACADEMIC REGULATIONS

A student enrolled in either of the Commerce programmes, in addition to meeting the General Academic Regulations of the University, shall be subject to the following School of Business Regulations:

QUALIFYING FOR HONOURS COMMERCE

To be considered for Level III of the Honours Commerce programme, students must have attempted at least 24 units of course work for Level II Commerce (as described in the School of Business Programmes section of the Calendar) with a C.A. of at least 6.0 and no more than six units of failures (in required and/or elective course work) after entry to Level II Commerce.

If a student did not qualify for the Honours Commerce programme upon entry to Level III, there is one final opportunity for consideration. To be considered for Level IV of the Honours Commerce programme, students must have attempted at least 24 units of course work for Level III Commerce (as described in the School of Business Programmes section of the Calendar) with a C.A. of at least 6.0 and no more than six units of failures (in required and/or elective course work) after entry to Level II Commerce.

CHANGE OF PROGRAMME

A student may transfer between Commerce programmes prior to entering Level IV, provided that, after consultation with the Academic Programmes Office of the School of Business, it has been determined that the academic requirements of the new programme have been met, and an acceptable revised programme of study can be established. This revised programme of study must be approved by the Academic Programmes Office.

Students in good standing in the Engineering and Management programme may transfer to a Commerce programme with the permission of the Academic Programmes Office. The conditions for eligibility for entrance to the Commerce programmes are the same as for students registered in the School of Business.

WORKLOAD

In Business I, a full-time student must complete a 30-unit load in each Fall/Winter session. Advance credit and credit earned during the Spring/Summer session may not be used to reduce this load requirement. Such reductions will be applied as late as possible in a student’s programme. A part-time student in Business I is permitted to take a maximum of 18 units in any Fall/Winter session.

In any Fall/Winter session, a student may not register for more than 30 units (including Extra courses) without the approval of the Academic Programmes Office. Such approval will not be given to a student with a Cumulative Average (CA) below 7.0. In any Spring/Summer session, a student may not register for more than 12 units.

EXTRA COURSES

Courses in addition to those which constitute a student’s programme must be designated Extra at registration. Extra courses may be scheduled in a manner which would delay completion of a student’s programme. Commerce courses previously taken cannot be repeated if it is not required. The grades for both the failed course and its repetition or replacement, as appropriate, will be included in the calculation of a student’s CA. Voluntary repetitions of non-Commerce courses in which passing grades have been previously attained are designated as Extra courses. (See Extra Courses below and in the Glossary section of this Calendar.)

EXTRA COURSES

Courses in addition to those which constitute the student’s programme must be designated Extra at registration. Extra courses may be taken only upon successful completion of Level III of any of the Commerce programmes. No Extra courses may be scheduled in a manner which would delay completion of a student’s programme. Commerce courses previously taken cannot be repeated as Extras. The designation of Extra can be neither added nor removed retroactively.

The last day to change the Extra designation is the last day for withdrawal without failure by default of the term to which it pertains.

LEVEL I COURSES

Students are not permitted to take more than 48 units of Level I courses in their programme.

LEVEL OF REGISTRATION

A student is required to register in the lowest level for which more than six units of work is incomplete. Work of the next higher level may be undertaken only when necessary to fill a programme load. Courses must be taken in the sequence specified by the School of Business.

READMISSION

A student in Level II, III or IV of a Commerce programme, who becomes ineligible to continue in the School of Business, may apply for readmission to the Commerce programme in a subsequent calendar year up to a maximum of five years following the year in which the student becomes ineligible to continue. Readmission is not guaranteed.
Application for readmission must be made in writing to the Associate Dean (Academic) by June 30 for entry in September. This application should explain why the applicant would expect to succeed in the program if readmitted. Forms for this purpose may be obtained from the Academic Programmes Office in the M.G. DeGroote Building, Room 104.

A student who is readmitted after having become ineligible to continue in a Commerce program must repeat all the courses of the level at which he/she became ineligible to continue unless specific course exemptions or credits are granted. The earliest possible session for readmission is in September of the year following the year in which the student became ineligible to continue.

A student who is readmitted after becoming ineligible to continue in a Commerce program within the past five years, including those who were in good standing at the time of their most recent registration, must apply for readmission through the Office of the Registrar.

REINSTATEMENT
A student who May Not Continue at the University may apply for reinstatement. There are two categories of students who may apply for reinstatement to Business I:

1. Applicants who have been registered in Business I within the past five years, and have not been registered in another McMaster programme or at another University during that time, OR
2. Applicants from other Faculties.

Students seeking reinstatement must complete the Returning Student Application form available at the Office of the Registrar. The completed application and the $50 application fee must be submitted to the Office of the Registrar by June 30 for entry in September. Applications must clearly demonstrate extraordinary circumstances which caused inadequate performance and indicate whether the circumstances surrounding their academic situation have changed. Students must be eligible to continue for periods of eight, twelve or sixteen months. Upon completion of the Internship, students return to campus to complete their degree programme. Students securing positions will be required to register in COMMERCE 3IN0, Commerce Internship Programme, successfully complete a minimum of an eight-month Internship, obtain a satisfactory employer evaluation, and submit a work term report upon return to campus. Meeting these requirements will result in a transcript notation indicating the successful completion of COMMERCE 3IN0, the name of the Internship employer and dates of employment. Students are also required to attend a series of six preparatory career development sessions prior to competing for Internship opportunities. For more information, please contact the Manager, Commerce Career Resource Centre, Michael G. DeGroote School of Business, Room 112.

EXCHANGE PROGRAMMES
There are a number of official exchange programs offered to undergraduate students registered in the School of Business. The countries involved are: Denmark, England, Norway, Mexico, France and Singapore. Official exchange programs offer students the most inexpensive means of studying abroad as students participating in these exchanges avoid the foreign student fees by paying fees to McMaster. All students must be in good standing to be eligible to participate in an exchange. In most cases, students who participate in exchange programs go abroad for Level III of their program. Information is available from Prof. M. Adams, Exchange Programmes Coordinator, M.G. DeGroote Building, Room 320. Additional information can be found under International Study in the General Academic Regulations section of this Calendar.

Information concerning the Canadian Scholars Exchange Programme (CANEX) (formerly known as GOTOSP), can be found in the Academic Facilities, Student Services and Organizations section of this Calendar under the heading Student Exchanges. Acceptance to the Ontario and University-wide Exchange Programmes is by recommendation. Application forms can be obtained from:

STUDENT EXCHANGES
HAMILTON HALL, ROOM 405
TELEPHONE: (905) 525-9140, EXTENSION 24748

PROGRAMMES

1. Students in Business I are not eligible to take upper Level Commerce course work.
2. Students have only one opportunity to be reviewed for entry to Commerce II. Other options may be pursued through the Academic Programmes Office.
3. To be considered for entry into Commerce II a Business I student must have met all of the following:
   a) achieved a CA of at least 5.0 on the 30 units of course work for Business I (on first attempts only);
   b) successfully completed on first attempts only all Business I required courses (ECON 1A06, COMMERCE 1S03, COMPSCI 1B03, STAT 1A03, MATH 1A03 and MATH 1A03). For students without OAC Calculus or whose credit in same is older than five years, MATH 1K03 must be taken before MATH 1M03 or MATH 1A03; students without OAC Finite or whose credit in same is older than five years, must take STAT 1L03;
   c) have no more than six units of failure in the elective component of Business I courses;
   d) have successfully completed ECON 2X03 (if registered in this course in Business I) (ECON 2X03 is not required for admission to Commerce II. Students who elect to register in ECON 2X03 in Business I and who do not successfully complete this course, will not be permitted to enter Commerce II.)
4. Refer to Workload under the Academic Regulations section in the School of Business for Information on full-time and part-time Business I course loads.
5. Students seeking admission in Mathematics and Statistics must take MATH 1A03 and should refer to the Faculty of Science section of this Calendar for the requirements for a minor in Mathematics and Statistics. Students neither seeking this minor nor planning on a transfer to the Faculty of Science, are advised to take MATH 1M03.
6. Transfer students may be admitted to Commerce II from other universities or from other Faculties within McMaster University. A maximum of 30 spaces in Commerce II may be given to
transfer students. Academic requirements for admission of
transfer students will be more demanding than those for Business
I students. The deadline for transfer applications is June
30 for entry in September. Contact the Academic Programmes
Office in M.G. DeGroote Building, Room 104, for information.
7. Admission to either of the Commerce programmes beyond
Commerce Level II is not possible.

Business I

REQUIREMENTS

LEVEL I: 30 UNITS

Students admitted to Business I must complete 30 units as follows:
3 units
3 units
6 units
3 units
0-3 units
9-15 units
COMMERC 1503
COMP SCI 1BA3
ECON 1A06
MATH 1M03 or 1A03 (See Note 4 above.)
MATH 1K03 (for those without OAC Calculus or whose
credit in same is older than five years)
Electives to total 30 units. See also the International/
Cross-Cultural/Language Menu in this section of the Calendar.

Commercial II

REQUIREMENTS

LEVEL II: 30 UNITS

24 units
3 units
3 units
COMMERC 2AA3, 2AB3, 2BA3, 2FA3, 2MA3, 2QA3,
2QB3, 2SO3
ECON 2X03
Electives from non-Commerce courses. See also the
International/Cross-Cultural/Language Menu in this section of the Calendar.

Honours Commerce (Honours B.Com.)

REQUIREMENTS

LEVEL III: 30 UNITS

15 units
6 units
9 units
COMMERC 3BC3, 3FA3, 3MC3, 3QA3, 3QC3
Level III or IV Commerce
Electives from non-Commerce courses. See also the
International/Cross-Cultural/Language Menu in this section of the Calendar.

Commercial (B.Com.)

Requirements for continuation in the B.Com. programme are
specified in the General Academic Regulations section of this Calendar.

REQUIREMENTS

LEVEL III: 30 UNITS

15 units
15 units
Commercial 3BC3, 3FA3, 3MC3, 3QA3, 3QC3
Electives from non-Commerce courses. See also the
International/Cross-Cultural/Language Menu in this section of the Calendar.

LEVEL IV: 30 UNITS

6 units
6 units
COMMERCE 4PA3, 4SA3
Level III or IV Commerce courses or electives from
non-Commerce courses
Electives from non-Commerce courses. See also the
International/Cross-Cultural/Language Menu in this section of the Calendar.

Minor in Business

NOTES:
1. Enrollment in each of the Commerce courses comprising the
Business minor, (excluding students registered in Engineering
and Management, Commerce and Labour Studies students
enrolled in COMMERCE 2BA3 and 3BC3) is limited to 40 stu-
dents who are registered in a four- or five-level McMaster de-
gree programme. Places in these courses will be allocated on
a first-come, first-served basis.
2. Effective September 1999, COMMERCE 2AA3, 2FA3 and
2MA3 also require completion of ECON 1A06 or 1B03 with a
minimum grade of B- as a prerequisite.
3. For purposes of the Business Minor, KINESIOL 3L03 will be
accepted as a substitute for COMMERCE 2BA3; ECON 2B03,
STATS 1C03 will be accepted as a substitute for COMMERCE
2QA3.

REQUIREMENTS

6 units
18 units
ECON 1A06 or 1B03 and 1BB3
COMMERCE 2AA3, 2AB3, 2BA3, 2FA3, 2MA3, 2QA3,
2QB3, 3BC3, 3FA3, 3MC3
McMaster baccalaureate degree programmes in Engineering are accredited by the Canadian Engineering Accreditation Board (CEAB) of the Canadian Council of Professional Engineers, except the programmes in Software Engineering which will be examined for the first time at the next accreditation. Provincial Engineering Associations accept the accreditation as a major requirement for the admission to the Professional Engineer. The B.Eng., B.Eng.Mgt. and B.Eng.Society programmes are honours degree programmes.

At McMaster, B.Eng. students take a common Level I programme comprising Mathematics, Physics, Chemistry, Engineering Design, Computation and a complementary studies elective. The specialized programmes are entered at Level II. Students interested in one of the Engineering and Management programmes must take COM- MERCE 1A03 and ECON 1A03 as their electives in Level I. Students interested in one of the Engineering and Society programmes are advised to choose the six units complementary studies in Level I to be consistent with their chosen focus of the programme.

Programmes offered by the Faculty of Engineering include four types of elective courses, which are governed by regulations, as follows:

1. Complementary Studies Electives are broadening courses which are not in subjects that are an integral part of B.Eng. programmes.
2. In addition to ENGINEER 4A03 or equivalent and 2B03 or 4B03, complementary studies electives are required in all B.Eng. programmes. Of these, three units must be selected from courses that are designated as being above Level I (http://www.eng.mcmaster.ca/electives/electvs2.htm).
3. Technical Electives are Engineering or Applied Science courses in subjects relevant to the particular B.Eng. programme.
4. Commerce Electives are required in Level V of Engineering and Management programmes.

The Faculty of Engineering offers a 12 to 16-month full-time paid work placements in industry to provide B.Eng. students with the technical work experience based on their course work. Students who qualify complete ENGINEER 3I00 which includes career planning, technical and interviewing process with participating companies. Students must be in their second or third level of a four-level programme, or third or fourth level of a five-level programme and be eligible to return to complete their undergraduate engineering degree in order to accept an Internship Placement. Students must have a minimum of 24 units to complete upon returning to studies at McMaster after the work term. An administrative fee is assessed following the start of the Placement. Industrial Internships are open to all disciplines and B.Eng. programmes within the Faculty of Engineering.
EXCHANGE PROGRAMMES

Formal exchange programmes with a number of universities in other countries are available for B.Eng. students wishing to attend a foreign university and receive credit at McMaster. For further information please see International Study in the General Academic Regulations section in this Calendar. For information on the Canadian Scholars Exchange Programme (CANE International) (formerly known as GOTESEP), please refer to the Academic Facilities, Student Services and Organizations section of this Calendar under the heading Student Exchanges.

ACADEMIC REGULATIONS
FOR B.ENG. PROGRAMMES

Students enrolled in Engineering programmes, in addition to meeting the General Academic Regulations of the University, shall be subject to the following Faculty Regulations:

ENGINEERING

To be eligible for Level II a student must successfully complete all Level I courses with an overall Cumulative Average (CA) of 4.0 or greater. To help students who may have had academic difficulty during the year, the Faculty of Engineering has a remedial studies plan (called the M-Opportunity) that provides the opportunity to repeat failed courses in second term and/or in the summer. The results of these M-Opportunity courses are used to calculate the student's CA. Failed courses are still counted in the CA.

A student in Engineering whose Cumulative Average (CA) is less than 4.0 can no longer continue in Engineering.

SEQUENCE OF COURSES

Courses must be taken in the sequence specified in the Calendar for the programme. Students must register for all outstanding work of one level before attempting work for a higher level.

REPEATED COURSES

All failed courses must be repeated if they are required courses for the Engineering programme or may be replaced if the courses are not explicitly required. Courses must be repeated following failure or if required by the Faculty.

LEVEL OF REGISTRATION

A student is required to register in the lowest level for which more than six units of work is incomplete. Work of a higher level may be undertaken only with the permission of the Associate Dean of Engineering.

FALL/WINTER SESSION WORKLOAD

The Faculty of Engineering has set a minimum Fall/Winter session workload of 36 units for Engineering I students. The work load for other students must be approved by the appropriate Department Chair and the Associate Dean of Engineering. In order to qualify for most scholarships and be eligible for Dean's Honour List, students must register in the full load of work prescribed by programme and level. No more than 21 units in one term will be approved.

REINSTATEMENT TO ENGINEERING

A student who is ineligible to continue in the Faculty of Engineering or who, May not continue at the university may normally not apply for reinstatement for one full academic year. Exceptions may be made when there are extenuating circumstances which are supported by documentation.

Students seeking reinstatement must complete the Returning Student Application available at the Office of the Registrar or the Office of the Associate Dean of Engineering. The completed application must be submitted to the Office of the Registrar by June 30. Applications must be accompanied by a written explanation of the reason for the student's previous unsatisfactory academic performance, reasons for reinstatement at this time (including documentation of what has been done to correct previous problems), reasons why the student would expect to succeed in the desired programme if reinstated (i.e. what was the previous problem and what has been done to correct it), activities since last registered at McMaster including all academic work. Reinstatement is not guaranteed.

A student who is reinstated after being ineligible to continue at a given level must repeat all the courses of that level, unless specific course exemptions are granted explicitly in the letter of reinstatement. Students who are reinstated will be placed on programme probation.

PROGRAMME CHANGES

All programme changes must be made through the Office of the Associate Dean of Engineering and will be subject to the deadline dates established by the University (see Sessional Dates section of this Calendar).

LEVEL I PROGRAMME

WEB ADDRESS: http://www.eng.mcmaster.ca/engineering1/

ENGINEERING I: 35 UNITS

| 3 units | CHEM 1E03 |
| 8 units | ENGINEER 1A00, 1C04, 1D04 |
| 12 units | MATH 1H03, 1H13, 1N03, 1NN3 |
| 6 units | PHYSICS 1D03, 1E03 |
| 6 units | approved complementary studies electives |

PROGRAMMES FOR THE B.ENG., B.ENG.MGT., AND B.ENG. SOCIETY DEGREES

Admission to Level II

Engineering Programmes

Admission to Level II Engineering programmes requires completion of Engineering I with a minimum CA of 4.0. A programme selection form must be submitted to the Office of the Associate Dean of Engineering by April 10, 2002. All programmes have limited enrolment; should there be more applicants than the limiting number in any programme, admission to that programme will be based on a full load using the Level I CA. Admission to a Level II programme for students registered in a reduced load will be by selection and/or an interview.

In addition, admission to a B.Eng.Mgt. programme requires the completion of COMMERCE 1S03 and ECON 1B03 with an average of 5.0 in these two courses; an interview may also be required.

Students admitted to a B.Eng. Society programme are required to submit a statement indicating the educational objectives for the focus electives.

Students seeking admission to the Engineering and Management programme or the Engineering and Society programme must first be admitted to the relevant department. Thereafter, they will be considered for admission to either of these two programmes.

Chemical Engineering (B.Eng.)

ADMISSION

See Admission to Level II Engineering Programmes.

LEVEL II: 37 UNITS

| 16 units | CHEM ENG 2A04, 2C02, 2D04, 2F04, 2G02 |
| 6 units | CHEM 1A03, 2A03 |
| 6 units | MATH 2M06 |
| 3 units | STATS 3N03 |
| 6 units | approved complementary studies electives |

LEVEL III: 36 UNITS

| 27 units | CHEM ENG 3D03, 3E04, 3G03, 3K04, 3L02, 3M04, 3O04, 3P03 |
| 3 units | CHEM 2E03 |
| 6 units | from BIOCHEM 2E03, CHEM ENG 3Q03, CHEM 3I03, ENGINEER 2003 |

LEVEL IV: 34 UNITS

| 13 units | CHEM ENG 4L02, 4M03, 4N04, either 4W04 or 4Y04 |
| 3 units | from ENGINEER 4A03, 4H03, ENG PHYS 4C03 |
| 9 units | from CHEM ENG 4B03, 4C03, 4E03, 4K03, 4T03, 4X03, ENGINEER 4L03 |
| 3 units | complementary studies electives (above Level I) |
| 6 units | approved Level III or IV technical electives |
Chemical Engineering and Management (B.Eng.Mgt.)  {4080325}

ADMISSION

See Admission to Level II Engineering Programmes.

LEVEL II: 37 UNITS

16 units CHEM ENG 2A04, 2C02, 2D04, 2F04, 2G02
3 units CHEM 1A03
3 units COMMERCE 2A03
6 units ECON 1B03, 2X03
6 units MATH 2M06
3 units STATS 3N03 or 3Y03

LEVEL III: 36 UNITS

24 units CHEM ENG 3D03, 3E04, 3G03, 3K04, 3L02, 3M04, 3N04
3 units CHEM 2E03
9 units COMMERCE 2A03, 2FA03, 2MA03

LEVEL IV: 37 UNITS (2001-2002 ONLY)

8 units CHEM ENG 3P03, 4L02, 4M03
9 units COMMERCE 2B03, 3FA03, 3QC03
3 units from ENGINEER 4A03, 4H03, ENG PHYS 4C03
2 units ENGN MGT 3A01, 4A01
3 units STATS 3N03 or 3Y03
3 units approved complementary studies electives (above Level I)
6 units from BIOCHEM 2EE03, CHEM ENG 3Q03, CHEM 2A03, 3I03, ENGINEER 2003
3 units approved Level III or IV technical electives

LEVEL IV: 37 UNITS (EFFECTIVE 2002-2003)

8 units CHEM ENG 3P03, 4L02, 4M03
12 units COMMERCE 2B03, 3FA03, 3MC03, 3QC03
3 units from ENGINEER 4A03, 4H03, ENG PHYS 4C03
2 units ENGN MGT 3A01, 4A01
3 units approved complementary studies electives (above Level I)
6 units from BIOCHEM 2EE03, CHEM ENG 3Q03, CHEM 2A03, 3I03, ENGINEER 2003
3 units approved Level III or IV technical electives

LEVEL V: 35 UNITS

8 units CHEM ENG 4N04; one of CHEM ENG 4W04 or 4Y04
5 units ENGINEER 3B03, 3P03, 3QC03
3 units ENGN MGT 3B03
9 units from CHEM ENG 4B03, 4C03, 4E03, 4K03, 4T03, 4X03, ENGINEER 4U03
6 units Commerce electives selected from Level III or IV Commerce or COMMERCE 2QB3
3 units approved Level III or IV technical electives

LEVEL VI: 33-35 UNITS

15 units CHEM ENG 3E04, 3G03, 3P03, 4L02, 4M03
6 units ENGSOCTY 3X03, 3Z03
6 units from BIOCHEM 2EE03, CHEM ENG 3Q03, CHEM 3I03, ENGINEER 2003
3-6 units Engineering and Society focus electives
3 units approved Level III or IV technical electives

LEVEL VI: 32 UNITS

8 units CHEM ENG 4N04; one of CHEM ENG 4W04 or 4Y04
9 units from CHEM ENG 4B03, 4C03, 4E03, 4K03, 4T03, 4X03, ENGINEER 4U03
6 units ENGSOCTY 4X03, 4Z03
3 units approved Level III or IV technical electives
6 units Engineering and Society focus electives

Civil Engineering (B.Eng.)  {4120}

ADMISSION

See Admission to Level II Engineering Programmes.

NOTE

Level IV Civil Engineering courses must be selected in accordance with regulations which require a minimum content of 10 units of engineering design and synthesis. Before the end of Level III, students must complete a Civil Engineering electives form, and ensure that it has been approved by the Department before completing a Level IV Registration Form.

LEVEL II: 37 UNITS

20 units CIV ENG 2A02, 2C04, 2E03, 2I03, 2J04, 2K04
11 units ENGINEER 2C03, 2P04, 2Q04 (Term I)
6 units MATH 2M06

LEVEL III: 35 UNITS

26 units CIV ENG 3A03, 3B03, 3C03, 3G03, 3J04, 3K03, 3L04, 3M04, 3N03
3 units ENGINEER 3P03
4 units MATH 3J04
3 units approved complementary studies electives

LEVEL IV: 34-36 UNITS

6 units ENGINEER 4B03; and one of ENGINEER 4A03, 4H03 or ENG PHYS 4C03
25-27 units from Level IV Civil Engineering technical electives or ENGINEER 4U03
3 units approved complementary studies electives (above Level I)

Civil Engineering and Management (B.Eng. Society)  {4120325}

ADMISSION

See Admission to Level II Engineering Programmes.

NOTE

Level V Civil Engineering courses must be selected in accordance with regulations which require a minimum content of 10 units of engineering design and synthesis. Before the end of Level IV, students must complete a Civil Engineering electives form, and ensure that it has been approved by the Department before completing a Level V Registration Form.

LEVEL II: 39 UNITS

17 units CIV ENG 2A02, 2C04, 2I03, 2J04, 2K04
6 units COMMERCE 2A03, 2FA03
6 units ECON 1B03, 2X03
4 units ENGINEER 2C03
6 units MATH 2M06

LEVEL III: 39 UNITS

13 units CIV ENG 2E03, 3G03, 3M04, 3S03
9 units COMMERCE 2A03, 2B03, 2FA03
7 units ENGINEER 2C03, 2Q04 (Term I)
4 units MATH 3J04
3 units STATS 3Y03
3 units approved complementary studies electives (above Level I)
LEVEL IV: 35 UNITS
16 units CIV ENG 3A03, 3B03, 3C03, 3J04, 3K03
12 units COMMERCE 3B03, 3F03, 3M03, 3Q03
3 units Commerce electives selected from Level III and IV
3 units ENGINEER 3P03
1 unit ENGN MGT 3A1A
LEVEL V: 37-38 UNITS
24-25 units from Level IV Civil Engineering technical electives or
ENGINEER 4U03
3 units COMMERCE 4P03
4 units ENGN MGT 4A01, 5B03
3 units Commerce electives selected from Level III and IV
Commerce or COMMERCE 2QB3
3 units from ENGINEER 4A03, 4H03, ENG PHYS 4C03

Civil Engineering and Society (B.Eng. Society) {4120535}

ADMISSION
See Admission to Level II Engineering Programmes.

NOTES
1. Level V Civil Engineering courses must be selected in accordance with regulations which require a minimum content of 10 units of engineering design and synthesis. Before the end of Level IV, students must complete a Civil Engineering electives form, and ensure that it has been approved by the Department before completing a Level V Registration Form.
2. A minimum of 18 units of focus elective courses is required for the programme.

LEVEL II: 36-39 UNITS
17 units CIV ENG 2A02, 2C04, 2I03, 2J04, 2Q04
4 units ENGINEER 2P04
6 units MATH 2M06
6 units ENGSOCTY 2X03, 2Y03
3-6 units Engineering and Society focus electives
LEVEL III: 33-36 UNITS
13 units CIV ENG 2E03, 3G03, 3M04, 3S03
7 units ENGINEER 2C03, 2Q04 (Term I)
4 units MATH 3J04
3 units ENGSOCTY 3Y03
6-9 units Engineering and Society focus electives

LEVEL IV: 31-34 UNITS
16 units CIV ENG 3A03, 3B03, 3C03, 3J04, 3K03
3 units ENGINEER 3P03
6 units ENGSOCTY 3X03, 3Z03
6-9 units Engineering and Society focus electives
LEVEL V: 36-40 UNITS (2001-2002 ONLY)
3 units ENGINEER 4B03
6 units ENGSOCTY 4X03, 4Z03
3-6 units Engineering and Society focus electives
24-25 units from Level IV Civil Engineering technical electives or
ENGINEER 4U03

LEVEL V: 36-37 UNITS (EFFECTIVE 2002-2003)
3 units ENGINEER 4B03
6 units ENGSOCTY 4X03, 4Z03
3 units Engineering and Society focus electives
24-25 units from Level IV Civil Engineering technical electives or
ENGINEER 4U03

Computer Engineering (B.Eng.) {4114}

ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 37 UNITS
8 units COMP ENG 2D14, 2S14
12 units ELEC ENG 2C14, 2CJ4, 2E14
6 units ENGINEER 2B03, 2E03
8 units MATH 2P04, 2Q04
3 units approved complementary studies electives (above Level I)

LEVEL III: 39 UNITS
8 units COMP ENG 3DJ4, 3SK4
20 units ELEC ENG 3EJ4, 3F14, 3TP4, 3TQ4, 3TR4
3 units MATH 3K03
8 units SFWR ENG 3K04, 3L04
LEVEL IV: 35-37 UNITS
4 units ELEC ENG 4H13, 4HJ1
16 units COMP ENG 4DK4, 4DL4, 4DM4, 4OI4
3-4 units technical electives from Electrical Engineering or Computer Engineering Level III or IV
3-4 units approved Level III or IV technical electives
3 units ENGINEER 2H03
3 units from ENGINEER 4A03, 4H03, ENG PHYS 4C03
3 units COMP SCI 4SH3

Computer Engineering and Management (B.Eng.Mgt.) {41144325}

ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 38 UNITS
3 units COMMERCE 2A03
8 units COMP ENG 2D14, 2S14
6 units ECON 1B03, 2X03
8 units ELEC ENG 2C14, 2CJ4
2 units ENGN MGT 2A02
8 units MATH 2P04, 2Q04
3 units ENGINEER 2H03
LEVEL III: 38 UNITS
12 units COMMERCE 2B03, 2A03, 2F03, 2MA3
12 units ELEC ENG 2E14, 3F14, 3TP4
3 units ENGINEER 2D03
1 unit ENGN MGT 3A01
3 units MATH 3K03
4 units SFWR ENG 3K04
3 units approved complementary studies electives (above Level I)
LEVEL IV: 39 UNITS (2001-2002 ONLY)
13 units ELEC ENG 3EJ4, 3F14, 3TP4, 4H11
4 units COMP ENG 3D14
9 units COMMERCE 3B03, 3F03, 3M03
4 units SFWR ENG 3L04
3 units STATS 3Y03
3 units Commerce electives selected from Level III and IV
Commerce or COMMERCE 2QB3
3 units from ENGINEER 4A03, 4H03, ENG PHYS 4C03
LEVEL IV: 39 UNITS (EFFECTIVE 2002-2003)
13 units ELEC ENG 3EJ4, 3TQ4, 3TR4, 4HJ1
4 units COMP ENG 3D14
9 units COMMERCE 3C03, 3F03, 3M03
4 units SFWR ENG 3L04
3 units STATS 3Y03
3 units Commerce electives selected from Level III and IV
Commerce or COMMERCE 2QB3
3 units from ENGINEER 4A03, 4H03, ENG PHYS 4C03
LEVEL V: 39 UNITS
8 units COMP ENG 3C03, 3P03
20 units COMP ENG 3SK4, 4DL4, 4DM4, 4OI4
4 units ENGN MGT 4A01, 5B03
3 units COMP SCI 4SH3
3 units Commerce electives selected from Level III and IV
Commerce or COMMERCE 2QB3
3 units approved complementary studies electives (above Level I) if not completed

Computer Engineering and Society (B.Eng. Society) {4114535}

ADMISSION
See Admission to Level II Engineering Programmes.

NOTE
A minimum of 18 units of focus elective courses is required for the programme.
FACULTY OF ENGINEERING

LEVEL II: 36-39 UNITS

8 units COMP ENG 2D14, 2SI4
8 units ELEC ENG 2C14, 2CJ4
3 units ENGINEER 2E03
6 units ENGSOCTY 2X03, 2Y03
8 units MATH 2P04, 2Q04
3-6 units Engineering and Society focus electives

LEVEL III: 32-35 UNITS

3 units ENGINEER 2B03
12 units ELEC ENG 2E14, 2F14, 3TP4
3 units ENGSOCTY 3X03, 3Z03
4 units COMP ENG 3SK4
3 units MATH 3K03
4 units SFWR ENG 3K04
3-5 units Engineering and Society focus electives

LEVEL IV: 33-35 UNITS

3 units ENGINEER 2H03
12 units ELEC ENG 3EJ4, 3TQ4, 3TR4, 4HJ1
4 units COMP ENG 3DJ4
6 units ENGSOCTY 3X03, 3Z03
3-5 units Engineering and Society focus electives

LEVEL V: 31-35 UNITS

8 units COMP ENG 4DK4, 4DL4, 4014
6 units ELEC ENG 4CL4, 4PK4, 4PL4, MECH ENG 4H03
3 units MATH 4FJ4, 4TK4
3 units COMP SCI 4SH3

Electrical Engineering (B.Eng.)

ADMISSION

See Admission to Level II Engineering Programmes.

NOTE

Students in the Electrical Engineering programme will follow a course structure leading to two options in the final level: Telecommunications and Systems.

PROGRAMME OPTION COMPULSORY COURSES:

- Systems: ELEC ENG 4CL4, 4PK4, 4PL4; MECH ENG 4H03
- Telecommunications: COMP ENG 4DK4, 4DL4; ELEC ENG 4FJ4, 4TK4

LEVEL II: 37 UNITS

8 units COMP ENG 2D14, 2SI4
12 units ELEC ENG 2C14, 2CJ4, 2E14
6 units ENGINEER 2B03, 2E03
8 units MATH 2P04, 2Q04
3 units approved complementary studies electives (above Level I)

LEVEL III: 39 UNITS

8 units COMP ENG 3DJ4, 3SK4
24 units ELEC ENG 3EJ4, 3F14, 3P14, 3TP4, 3TQ4, 3TR4
3 units MATH 3K03
4 units SFWR ENG 3M04

LEVEL IV: 35-38 UNITS

8 units ELEC ENG 4H13, 4HJ1, 4014
15-16 units Compulsory Courses for One Programme Option (see above)
3-4 units technical electives from an approved list of Electrical Engineering or Computer Engineering Level III or IV (not ELEC ENG 4H13)
3 units approved complementary studies electives (above Level I)

LEVEL V: 39-40 UNITS

6 units COMP ENG 3DK4, 3DJ4
9 units ELEC ENG 4CL4, 4PK4, 4PL4; MECH ENG 4H03
4 units MATH 4K04, 4TJ4
3 units approved complementary studies electives (above Level I)

Electrical Engineering and Management (B.Eng-Mgt.)

ADMISSION

See Admission to Level II Engineering Programmes.

PROGRAMME OPTION COMPULSORY COURSES:

- Systems: ELEC ENG 4CL4, 4PK4, 4PL4; MECH ENG 4H03
- Telecommunications: COMP ENG 4DK4, 4TL4; ELEC ENG 4FJ4, 4TK4

LEVEL II: 38 UNITS

3 units ENGINEER 2E03
8 units ELEC ENG 2C14, 2CJ4
6 units ECON 1BB3, 1BD3
8 units ELEC ENG 2C14, 2CJ4
2 units ENG MGT 2A02
8 units MATH 2P04, 2Q04
3 units ENGINEER 2H03

LEVEL III: 38 UNITS

12 units ENGINEER 2A03, 2B03, 2FA3, 2MA3
12 units ELEC ENG 2E14, 2F14, 3TP4
3 units ENGINEER 2E03
1 unit ENG MGT 3AA1
3 units MATH 3K03
4 units SFWR ENG 3M04
3 units approved complementary studies electives (above Level I)

LEVEL IV: 39 UNITS

17 units ELEC ENG 3EJ4, 3F14, 3P14, 3TP4, 4HJ1
4 units COMP ENG 3DJ4
9 units COMP ENG 3DK4, 3SK4
3 units MATH 3K03
3 units approved complementary studies electives (above Level I)

LEVEL IV: 39 UNITS

17 units ELEC ENG 3EJ4, 3F14, 3TQ4, 3TR4, 4HJ1
4 units COMP ENG 3DJ4
9 units COMP ENG 3DK4, 3SK4
3 units STATS 3Y03
3 units approved complementary studies electives (above Level I)

LEVEL V: 39-40 UNITS

6 units COMP ENG 3DK4, 3DJ4
9 units ELEC ENG 4CL4, 4PK4, 4PL4; MECH ENG 4H03
4 units MATH 4FJ4, 4TK4
3 units approved complementary studies electives (above Level I)

Electrical Engineering and Society (B.Eng. Society)

ADMISSION

See Admission to Level II Engineering Programmes.

NOTE

A minimum of 18 units of focus elective courses is required for the programme.

PROGRAMME OPTION COMPULSORY COURSES:

- Systems: ELEC ENG 4CL4, 4PK4, 4PL4; MECH ENG 4H03
- Telecommunications: COMP ENG 4DK4, 4TL4; ELEC ENG 4FJ4, 4TK4

LEVEL II: 36-39 UNITS

8 units COMP ENG 2D14, 2SI4
8 units ELEC ENG 2C14, 2CJ4
3 units ENGINEER 2E03
6 units ENGSOCTY 2X03, 2Y03
8 units MATH 2P04, 2Q04
3-6 units Engineering and Society focus electives

LEVEL III: 37-40 UNITS

8 units COMP ENG 3DJ4, 3SK4
24 units ELEC ENG 3EJ4, 3F14, 3P14, 3TP4, 3TQ4, 3TR4
3 units MATH 3K03
4 units SFWR ENG 3M04

LEVEL IV: 35-38 UNITS

8 units ELEC ENG 4H13, 4HJ1, 4014
15-16 units Compulsory Courses for One Programme Option (see above)
3-4 units technical electives from an approved list of Electrical Engineering or Computer Engineering Level III or IV (not ELEC ENG 4H13)
3 units approved complementary studies electives (above Level I)

3 units from ENGINEER 4A03, 4H03, ENG PHYS 4C03
LEVEL III: 32-35 UNITS
3 units ENGINEER 2B03
12 units ELEC ENG 2E14, 3F14, 3TP4
3 units ENGSOCTY 3Y03
4 units COMP ENG 3SK4
3 units MATH 3K03
4 units SFWR ENG 3M04
3-6 units Engineering and Society focus electives

LEVEL IV: 36-39 UNITS (2001-2002 ONLY)
13 units ELEC ENG 3EJ4, 3F14, 3PI4, 4HJ1
8 units COMP ENG 3D14, 3SK4
6 units ENGSOCTY 3X03, 3Z03
6-9 units Engineering and Society focus electives
3 units ENGINEER 2H03

17 units ELEC ENG 3EJ4, 3PI4, 3TQ4, 3TR4, 4HJ1
4 units COMP ENG 3D14
6 units ENGSOCTY 3X03, 3Z03
6-9 units Engineering and Society focus electives
3 units ENGINEER 2H03

LEVEL V: 34-39 UNITS
4 units ELEC ENG 4014
6 units ENGSOCTY 4X03, 4Z03
15-16 units Compulsory Courses for one Programme Option (see above)
6-9 units Engineering and Society focus electives
3-4 units technical electives from an approved list of Electrical Engineering or Computer Engineering Level III or IV (not ELEC ENG 4H13)

Engineering Physics (B.Eng.) (4190)

ADMISSION
See Admission to Level II Engineering Programmes.

NOTE
The following areas and courses are suggested as technical electives for Level IV:
• Computer Systems PHYSICS 4D06
• Lasers and Optical ENG PHYS 4G03, 4K03, 4S04
• Communications
• Nuclear Engineering ENG PHYS 4D03, 4L03, 4N03
• Microelectronic Devices ENG PHYS 4E03, 4F03

LEVEL II: 39 UNITS
4 units COMP ENG 2D14
7 units ENGINEER 2003, 2P04
11 units ENG PHYS 2A03, 2E04, 2H04
8 units MATH 2P04, 2Q04
3 units PHYSICS 2D03
6 units approved complementary studies electives (three units must be above Level I)

LEVEL III: 37 UNITS
19 units ENG PHYS 3C03, 3D03, 3E03, 3F03, 3M03, 3W04
9 units MATH 3C03, 3D03, 4Q03
9 units PHYSICS 3B03, 3M03

LEVEL IV: 36-38 UNITS
3 units ENGINEER 4B03
11 units ENG PHYS 4A04, 4C03, 4J04
22-24 units approved Level III or IV technical electives, of which
10 units must be selected from the following courses:
PHYSICS 4D03, 4E03, 4F03, 4G03, 4M03, 4N03, 4S04, 4X03

Engineering Physics and Management (B.Eng.Mgt.) (4190325)

ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 38 UNITS
6 units COMMERC 2A03, 2MA3
4 units COMP ENG 2D14
2 units ENGN MGT 2AA2
7 units ENGINEER 2003, 2P04
11 units ENG PHYS 2A03, 2E04, 2H04
8 units MATH 2P04, 2Q04

LEVEL III: 40 UNITS
9 units COMMERC 2AB3, 2A03, 2MA3
6 units ECON 1B03, 2X03
10 units ENG PHYS 3E03, 3F03, 3W04
6 units MATH 3C03, 3D03
9 units PHYSICS 2D03, 3B06

LEVEL IV: 39-39 UNITS
12 units COMMERC 3B03, 3F03, 3M03, 3C03
1 unit ENGN MGT 3A1
13 units ENG PHYS 3D03, 3E03, 4C03, 4U04
3 units MATH 4Q03
3 units PHYSICS 3M03
3 units approved complementary studies electives (above Level I)
3-4 units approved Level III or IV technical electives

LEVEL V: 35-37 UNITS
3 units COMMERC 4P03
4 units ENGN MGT 4A01, 5B03
4 units ENG PHYS 4A04
18-20 units approved Level III or IV technical electives, of which
10 units must be selected from the following courses:
ENG PHYS 4D03, 4E03, 4F03, 4G03, 4M03, 4S04, 4XQ3, 4Y03
6 units Commerce electives selected from Level III and IV Commerce or COMMERC 2QB3

Engineering Physics and Society (B.Eng. Society) (4190535)

ADMISSION
See Admission to Level II Engineering Programmes.

NOTE
A minimum of 18 units of focus elective courses is required for the programme.

LEVEL II: 35-38 UNITS
7 units ENGINEER 2003, 2P04
11 units ENG PHYS 2A03, 2E04, 2H04
6 units ENGSOCTY 2X03, 2Y03
8 units MATH 2P04, 2Q04
3-6 units Engineering and Society focus electives

LEVEL III: 35-38 UNITS
4 units COMP ENG 2D14
10 units ENG PHYS 3E03, 3F03, 3W04
3 units ENGSOCTY 3Y03
6 units MATH 3C03, 3D03
9 units PHYSICS 2D03, 3B06
3-6 units Engineering and Society focus electives

LEVEL IV: 31-35 UNITS
13 units ENG PHYS 3D03, 3E03, 4C03, 4U04
6 units ENGSOCTY 4X03, 3Z03
3 units MATH 4Q03
3 units PHYSICS 3M03
3-4 units approved Level III or IV technical electives
3-6 units Engineering and Society focus electives

LEVEL V: 34-39 UNITS
3 units ENGINEER 4B03
4 units ENG PHYS 4A04
6 units ENGSOCTY 4X03, 4Z03
18-20 units approved Level III or IV technical electives, of which
10 units must be selected from the following courses:
ENG PHYS 4D03, 4E03, 4F03, 4G03, 4M03, 4S04, 4XQ3
3-6 units Engineering and Society focus electives

Manufacturing Engineering (B.Eng.) (4314)

ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 38 UNITS
11 units ENGINEER 2MM3 (Term 1), 2P04, 2Q04 (Term 2)
3 units MANUFACT 2C03
3 units MATHS 2003
6 units MATH 2M06
10 units MECH ENG 2A03, 2W04, 3C03
3 units approved English literature (Term I)
LEVEL III: 35 UNITS
3 units ENGINEER 3N03
2 units MANUFACT 3M02
3 units MATLS 3N03
21 units MECH ENG 3A03, 3E04, 3F04, 3O04, 3R03, 4D03
3 units STATS 3N03 or 3Y03
3 units approved technical electives (above Level I)

LEVEL IV: 39 UNITS
3 units COMMERCE 3C03
3 units one of ENGINEER 4A03, 4H03, ENG PHYS 4C03
6 units ENGINEER 4B03, 4J03
6 units MANUFACT 4A03, 4M04, 4P02
15 units MECH ENG 4H03, 4K03, 4Q03, 4R03, 4Z03
3 units approved technical electives (See Level IV Mechanical Engineering.)

Manufacturing Engineering and Management (B.Eng.Mgt.)

ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 37 UNITS
9 units COMMERCE 2AA3, 2BA3, 2MA3
6 units ECON 1B03, 2X03
4 units ENGINEER 2P04
2 units ENGN MGT 2A02
3 units MANUFACT 2C03
6 units MATH 2M06
7 units MECH ENG 2A03, 2W04

LEVEL III: 38 UNITS
6 units COMMERCE 2AB3, 2FA3
10 units ENGINEER 2MM3 (Term 1), 2Q04 (Term 2), 3N03
2 units MANUFACT 3M02
3 units MATLS 2003
14 units MECH ENG 3C03, 3F04, 3O04, 3R03
3 units STATS 3N03 or 3Y03

LEVEL IV: 35 UNITS
9 units COMMERCE 3C03, 3FA3, 3MC3
2 units ENGN MGT 3A01, 4A01
5 units MANUFACT 4A03, 4P02
3 units MATLS 3N03
13 units MECH ENG 3A03, 3E04, 4D03, 4Z03
3 units complementary studies electives (above Level I)

LEVEL V: 37 UNITS
6 units COMMERCE 3C03, 4PA3
3 units one of ENGINEER 4A03, 4H03, ENG PHYS 4C03
3 units ENGINEER 4J03
3 units ENGN MGT 5B03
4 units MANUFACT 4M04
12 units MECH ENG 4H03, 4K03, 4Q03, 4R03
6 units Commerce electives selected from Level III and IV Commerce or COMMERCE 2Q03

Manufacturing Engineering and Society (B.Eng. Society)

ADMISSION
See Admission to Level II Engineering Programmes.

NOTE
A minimum of 18 units focus elective courses is required for the programme.

LEVEL II: 32-35 UNITS
4 units ENGINEER 2P04
6 units ENGSOCTY 2X03, 2Y03
3 units MANUFACT 2C03
3 units MATLS 2003
6 units MATH 2M06
7 units MECH ENG 2A03, 2W04
3-6 units Engineering and Society focus electives

LEVEL III: 34-37 UNITS
10 units ENGINEER 2MM3 (Term 1), 2Q04 (Term 2), 3N03
3 units ENGSOCTY 3Y03
2 units MANUFACT 3M02
13 units MECH ENG 3A03, 3C03, 3E04, 3R03
3 units STATS 3N03 or 3Y03
3-6 units Engineering and Society focus electives

LEVEL IV: 34-37 UNITS
3 units ENGINEER 4J03
6 units ENGSOCTY 3X03, 3Z03
2 units MANUFACT 4P02
3 units MATLS 3M03
17 units MECH ENG 3F04, 3O04, 4D03, 4H03, 4R03
3-6 units Engineering and Society focus electives

LEVEL V: 34-37 UNITS
3 units COMMERCE 3C03
3 units ENGINEER 4B03
6 units ENGSOCTY 4X03, 4Z03
7 units MANUFACT 4A03, 4M04
9 units MECH ENG 4K03, 4Q03, 4Z03
3-6 units Engineering and Society focus electives
3 units approved Level III or Level IV technical electives (See Level IV Mechanical Engineering.)

Materials Engineering (B.Eng.)

ADMISSION
See Admission to Level II Engineering Programmes.

NOTE
Students entering Level III can choose between the Materials Engineering stream and the Ceramic Engineering stream. In addition, the Materials Engineering stream is designed to permit choices of elective courses in Levels III and IV which will allow in-depth study of various types of modern engineering materials, i.e., electronic, metallurgical and polymeric materials. The following combinations of electives are suggested for specific areas of specialization.

- Metallurgical: MATLS 4C03, 4D03
- Polymer: CHEM ENG 3Q03, MATLS 4P03
- Electronic Materials: ENG PHYS 3F03, 4E03

LEVEL II: 38 UNITS
5 units CHEM 1A03, 2W02
10 units ENGINEER 2MM3, 2O03, 2P04
11 units MATLS 2B03, 2H03, 2X02
6 units MATH 2M06
6 units approved complementary studies electives

LEVEL III: (MATERIALS ENGINEERING STREAM)

36-38 UNITS
4 units CHEM ENG 2A04
20 units MATLS 3B03, 3C03, 3D03, 3E04, 3M03, 3T04
3 units MATH 3J03
3 units STATS 3Y03
6-8 units from CHEM 2E03, CHEM ENG 3C04, 3Q03, ENG PHYS 3F03, MATLS 3Q03, 4D03, 4P03, MECH ENG 3C04

LEVEL IV: (MATERIALS ENGINEERING STREAM) 36-37 UNITS
9 units from ENGINEER 4A03 or 4H03 or ENG PHYS 4C03; and ENGINEER 4B03, 4J03
12 units MATLS 4A02, 4B04, 4L02; and one of MATLS 4K04 or 4Z04
3 units approved complementary studies electives (above Level I)
12-13 units approved Level III or IV technical electives, which must include either CHEM ENG 3C04 or MECH ENG 3C04, if not completed

LEVEL III: (CERAMIC ENGINEERING STREAM)

36 UNITS
4 units CHEM ENG 2A04
23 units MATLS 3B03, 3C03, 3D03, 3E04, 3M03, 3Q03, 3T04
3 units MATH 3I03
3 units STATS 3Y03
3 units approved Level III or IV technical elective

FACULTY OF ENGINEERING
LEVEL IV: (CERAMIC ENGINEERING STREAM) 34 UNITS
4 units from CHEM ENG 3004 or MECH ENG 3004
9 units from ENGINEER 4A03 or 4H03 or ENG PHYS 4C03; and ENGINEER 4G03, 4J03
18 units MATLS 4A02, 4B04, 4L02, 4R03, 4S03; one of MATLS 4K04 or 4Z04; three units of approved technical electives if MATLS 4R03 or 4S03 has been completed
3 units approved complementary studies electives (above Level I)

Materials Engineering and Management (B.Eng.Mgt.){4315325}

ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 36 UNITS
2 units CHEM 2WW2
6 units ECON 1BB3, 2X03
2 units ENGN MGT 2AA2
6 units ENGINEER 2MM3, 2003
6 units MATH 2M06
11 units MATLS 2B03, 2D03, 2H03, 2X02

LEVEL III: 36 UNITS (2001-2002 ONLY)
4 units CHEM ENG 2A04
9 units ENGINEER 2AA3, 2BA3, 2FA3
1 unit ENGN MGT 3AA1
4 units ENGINEER 2P04
12 units MATLS 2X02, 3C03, 3D03, 3T04
3 units MATH 3I03
3 units STATS 3Y03

LEVEL III: 37 UNITS (EFFECTIVE 2002-2003)
4 units CHEM ENG 2A04
3 units CHEM 1AA3
9 units ENGINEER 2AA3, 2BA3, 2FA3
1 unit ENGN MGT 3AA1
4 units ENGINEER 2P04
10 units MATLS 3C03, 3D03, 3T04
3 units MATH 3I03
3 units STATS 3Y03

LEVEL IV: (MATERIALS ENGINEERING STREAM) {4315325} 36 UNITS
4 units from CHEM ENG 3004 or MECH ENG 3004
12 units ENGINEER 2AA3, 3BC3, 3FA3, 3MC3
1 unit ENGN MGT 4AA1
10 units MATLS 3B03, 3E04 (or 3T04 if not completed), 3M03
3 units approved complementary studies electives (above Level I)
6 units approved technical electives

LEVEL V: (CERAMIC ENGINEERING STREAM) 36 UNITS
6 units COMMERCE 3QC3, 4PA3
6 units from ENGINEER 4A03 or 4H03 or ENG PHYS 4C03; ENGINEER 4J03
3 units ENGN MGT 5B03
15 units MATLS 4A02, 4B04, 4L02; MATLS 4K04 or 4Z04; MATLS 4R03 or 4S03
6 units Commerce selected from Level III and IV Commerce or COMMERCE 2QB3

Materials Engineering and Society (B.Eng.Society){4315535}

ADMISSION
See Admission to Level II Engineering Programmes.

NOTE
A minimum of 18 units of focus elective courses is required for the programme.

LEVEL II: 34-37 UNITS
2 units CHEM 2WW2
6 units ENGINEER 2MM3, 2003
6 units ENGSOCTY 2X03, 2Y03
11 units MATLS 2B03, 2D03, 2H03, 2X02
6 units MATH 2M06
3-6 units Engineering and Society focus electives

4 units CHEM ENG 2A04
4 units ENGINEER 2P04
3 units ENGSOCTY 3Y03
12 units MATLS 2X02, 3C03, 3D03, 3T04
3 units MATH 3I03
3 units STATS 3Y03
3-6 units Engineering and Society focus electives

4 units CHEM ENG 2A04
3 units CHEM 1AA3
4 units ENGINEER 2P04
3 units ENGSOCTY 3Y03
10 units MATLS 3C03, 3D03, 3T04
3 units MATH 3I03
3 units STATS 3Y03
3-6 units Engineering and Society focus electives

LEVEL IV: (MATERIALS ENGINEERING STREAM) {4315535} 32-36 UNITS
4 units from CHEM ENG 3004 or MECH ENG 3004
6 units ENGSOCTY 3X03, 3Z03
10 units MATLS 3B03, 3E04 (or 3T04 if not completed), 3M03
9-10 units approved technical electives

LEVEL V: (MATERIALS ENGINEERING STREAM) 30-34 UNITS
6 units ENGINEER 4B03, 4J03
6 units ENGSOCTY 4X03, 4Z03
12 units MATLS 4A02, 4B04, 4L02; MATLS 4K04 or 4Z04
3-4 units approved technical electives
3-6 units Engineering and Society focus electives

LEVEL IV: (CERAMIC ENGINEERING STREAM) {4316535} 32-35 UNITS
4 units from CHEM ENG 3004 or MECH ENG 3004
6 units ENGSOCTY 3X03, 3Z03
16 units MATLS 3B03, 3E04 (or 3T04 if not completed), 3M03, 3Q03; MATLS 4R03 or 4S03
3-6 units Engineering and Society focus electives
3 units approved technical electives

LEVEL V: (CERAMIC ENGINEERING STREAM) 30-33 UNITS
6 units ENGINEER 4B03, 4J03
6 units ENGSOCTY 4X03, 4Z03
15 units MATLS 4A02, 4B04, 4L02; MATLS 4K04 or 4Z04; MATLS 4R03 or 4S03
3-6 units Engineering and Society focus electives
ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 36 UNITS
8 units ENGINEER 2P04, 2Q04 (Term 2)
3 units MATLS 2003
6 units MATH 2M06
16 units MECH ENG 2A03, 2B03, 2C03, 2W04, 3C03
3 units approved English literature (Term I)

LEVEL III: 35 UNITS
6 units ENGINEER 2MM3 (Term 1), 3N03
3 units MATH 3I03
23 units MECH ENG 3A03, 3D03, 3E04, 3F04, 3M02, 3O04, 3R03
3 units STATS 3Y03

LEVEL IV: 33 UNITS
3 units MATH 3M03
15 units MECH ENG 4M04, 4P02, 4Q03, 4R03, 4S03
6 units from ENGINEER 4A03 or 4H03 or ENG PHYS 4C03
6 units from approved electives (above Level I)
6 units from CHEM ENG 4T03, CIV ENG 4K03, COMMERCE 4Q03, ELEC ENG 3P14, ENGINEER 4J03, 4X03, ENG PHYS 3F03, 3X03, 4D03, 4L03, MECH ENG 4D03, 4H03, 4I03, 4J03, 4K03, 4L03, 4T03, 4U03, 4V03, 4X03, 4Z03, MANUFACT 4A03

Mechanical Engineering and Management (B.Eng.Mgt.)

ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 37 UNITS
9 units COMMERCE 2AA3, 2BA3, 2MA3
6 units ECON 1BB3, 2X03
7 units ENGINEER 2MM3 (Term 2), 2P04
6 units MATH 2M06
7 units MECH ENG 2A03, 2W04
2 units ENGN MGT 2AA2

LEVEL III: 36 UNITS
3 units COMMERCE 2FA3
4 units ENGINEER 2Q04 (Term 2)
1 unit ENGN MGT 3A01
3 units MATLS 2003
3 units MATH 3I03
19 units MECH ENG 2C03, 3A03, 3C03, 3F04, 3M02, 3O04
3 units STATS 3Y03

LEVEL IV: 34 UNITS
12 units COMMERCE 2AB3, 2BC3, 2FA3, 2MC3
1 unit ENGN MGT 4A01
18 units MECH ENG 3D03, 3E04, 3F03, 4P02, 4R03, 4S03
3 units Level III or IV approved technical electives

LEVEL V: 34 UNITS
6 units COMMERCE 3QC3, 4PA3
3 units ENGN MGT 5B03
7 units MECH ENG 4M04, 4Q03
3 units from ENGINEER 4A03 or 4H03 or ENG PHYS 4C03
6 units from approved electives selected from Level III and IV

Software Engineering and Management (B.Eng.Mgt.)

ADMISSION
See Admission to Level II Engineering Programmes.
LEVEL III: 37 UNITS
6 units COMMERCIAL 2BA3, 2FA3
3 units ECON 2X03
25 units SFWR ENG 3B04, 3C03, 3E03, 3F03, 3G03, 3H03, 3I03, 3K03, 3L03
3 units STATS 3Y03

LEVEL IV: 38 UNITS
12 units COMMERCIAL 2AB3, 3BC3, 3FA3, 3MC3
9 units ENGINEER 2003, 3K03, 3L03
2 units ENGN MGT 3AA1, 4A01
12 units SFWR ENG 3J03, 4E03, 4I03, 4J03
3 units approved complementary studies electives (above Level I)

LEVEL V: 39 UNITS
6 units COMMERCIAL 3QC3, 3PA3
3 units ENGN MGT 5B03
18 units SFWR ENG 4A03, 4C03, 4D03, 4F03, 4G03, 4H03
6 units Commerce electives selected from Level III and IV
6 units approved technical electives

Software Engineering and
\[4517535\] Society (B.Eng, Society)

ADMISSION
See Admission to Level II Engineering Programmes.

NOTE
A minimum of 18 units of focus elective courses is required for the programme.

LEVEL II: 39 UNITS
6 units ENGSOCTY 2X03, 2Y03
8 units MATH 2P04, 2Q04
22 units SFWR ENG 2A04, 2B03, 2C04, 2D04, 2E03, 2F04
3 units Engineering and Society focus electives

LEVEL III: 34-37 UNITS
3 units ENGSOCTY 3Y03
25 units SFWR ENG 3B04, 3C03, 3E03, 3F03, 3G03, 3H03, 3I03, 3K03, 3L03
3 units STATS 3X03
3-6 units Engineering and Society focus electives

LEVEL IV: 33-36 UNITS
12 units ENGINEER 2003, 3K03, 3L03, 4B03
6 units ENGSOCTY 3X03, 3Z03
12 units SFWR ENG 3J03, 4E03, 4I03, 4J03
3-6 units Engineering and Society focus electives

LEVEL V: 33-36 UNITS
6 units ENGSOCTY 4X03, 4Z03
18 units SFWR ENG 4A03, 4C03, 4D03, 4F03, 4G03, 4H03
3 units approved technical electives
3-6 units Engineering and Society focus electives

PROGRAMME FOR THE B.TECH. DEGREE

The Bachelor of Technology Degree Programme in Manufacturing Engineering Technology is offered jointly by Mohawk College of Applied Arts and Technology and McMaster University. The objectives are to upgrade the knowledge and skills of existing technologists/technical specialists and to allow them to perform with a broad technical and academic background, along with solid hands-on experience. The programme is designed to complement and enhance the student's background in basic engineering sciences, mathematics, and advanced manufacturing technologies. An attempt has been made to structure the curriculum in concert with examinations typically assigned by Canadian professional engineering licensing bodies. Individuals seeking licensure in Mechanical Engineering may apply directly to the respective provincial (or territorial) professional engineering association. The number of examinations required for professional engineering licensing may be reduced.

ACADEMIC REGULATIONS
Students enrolled in a programme for the B.Tech. degree, in addition to meeting the General Academic Regulations of the University, shall be subject to the following regulations.

MINIMUM REQUIREMENTS TO CONTINUE IN THE PROGRAMME
All students must maintain a CA of at least 3.5 at each academic review to continue at the University. Students may be allowed to continue on academic probation for one reviewing period with a CA of 3.0 to 3.4. If your CA is less than 3.0, you may not continue at the University.

REINSTATEMENT
A student who is ineligible to continue may apply for reinstatement to the programme. Application for reinstatement must be made in writing to the Committee of Instruction and should include a recommendation from the current employer. Reinstatement is not guaranteed.

A student who is reinstated after being ineligible to continue at a given level must repeat all the courses of that level, unless specific course exemptions are granted explicitly in the letter of reinstatement. Students who are reinstated will be placed on academic probation.

Manufacturing Engineering Technology (B.Tech.)

ADMISSION
Enrolment in this programme is limited. Admission requires satisfactory completion of a three-year Mechanical Engineering Technology Diploma (or equivalent). Applicants who meet the academic requirements may be interviewed, and some applicants may be required to write specific entrance examinations.

NOTE
Advance credit can be considered at the time of admission. However, a minimum of 33 units of work must be completed at McMaster in order to obtain the degree.

LEVEL 1: 18 UNITS
3 units ENG TECH 1MA3
3 units ENG TECH 1ML3
3 units ENG TECH 1PG3
3 units MAN TECH 1CD3
3 units MAN TECH 1ID3
3 units MAN TECH 1TF3

LEVEL 2: 18 UNITS
3 units ENG TECH 2CT3
3 units ENG TECH 2FE3
3 units ENG TECH 2MN3
3 units MAN TECH 2MD3
3 units MAN TECH 2MT3
3 units MAN TECH 2TF3

LEVEL 3: 15 UNITS
3 units MAN TECH 3FB3
3 units MAN TECH 3FM3
3 units MAN TECH 3FT3
3 units MAN TECH 3MT3
3 units MAN TECH 3ST3
The Health Sciences Centre at McMaster provides educational and research facilities for medicine, nursing and other health professions. It includes a teaching hospital (the McMaster Division of the Hamilton Health Sciences Corporation) with extensive ambulatory clinics for primary and specialized aspects of patient care. The building has been designed to bring into direct proximity the programmes for various health professions and to integrate the facilities for education, research and patient care in the Faculty of Health Sciences.

In addition to the Health Sciences Centre, education, research and clinical programmes are based at other Hamilton Health Sciences Corporation sites (Chedoke, General, Henderson, Hamilton Psychiatric Hospital, St. Joseph's Hospital, St. Peter's Hospital, Hamilton Regional Cancer Centre, and the Health Sciences Education Centre, Mohawk College). Extensive use is made of a variety of community agencies. A satellite programme has been developed with institutions in Northwestern Ontario. In accordance with the plan to coordinate the development of specialized health services among the Hamilton and District hospitals, the Postgraduate Education programmes in medicine have been developed on a regional basis.

UNDERGRADUATE HEALTH PROFESSIONAL EDUCATION PROGRAMMES

ADMISSION AND REGISTRATION

Application to any programme in the Faculty of Health Sciences implies acceptance on the part of the applicant of the admission policies and procedures, and the methods by which applicants are chosen for the Health Sciences programmes.

Registration in any programme in the Faculty of Health Sciences implies acceptance on the part of the student of the objectives of that programme and the methods by which progress toward the achievement of those objectives is evaluated.

The following describes the regulations governing admission and registration in the Health Sciences programmes, and should be considered in conjunction with specific admission requirements described on the following pages for the Bachelor of Health Sciences (Honours) programme (B.H.Sc. Honours), School of Medicine (MD), the Midwifery programme (B.H.Sc.), the School of Nursing (B.Sc.N.).

The following application deadlines are strictly enforced. Deadline dates are for consideration of admission to a programme in the following September.

<table>
<thead>
<tr>
<th>Programme</th>
<th>Deadline</th>
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<tbody>
<tr>
<td>Bachelor of Health Sciences (Honours)</td>
<td>February 14</td>
</tr>
<tr>
<td>Medicine (MD)</td>
<td>October 15</td>
</tr>
<tr>
<td>Midwifery (B.H.Sc.)</td>
<td>February 1</td>
</tr>
<tr>
<td>Nursing (B.Sc.N.)</td>
<td>March 1</td>
</tr>
<tr>
<td>Applicants directly from Ontario Secondary Schools</td>
<td>May 1</td>
</tr>
<tr>
<td>Diploma Registered Nurse</td>
<td>February 15</td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>March 1</td>
</tr>
<tr>
<td>Applicants with Other Qualifications</td>
<td>February 15</td>
</tr>
<tr>
<td>Transfers from other degree Nursing programmes</td>
<td>June 30</td>
</tr>
<tr>
<td>The University reserves the right to change the admission requirements at any time without notice.</td>
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</tr>
</tbody>
</table>

As places in the degree programmes of the Faculty of Health Sciences are limited, admission is by selection of applicants, and possession of published minimum requirements does not guarantee admission. The building has been designed to bring into direct proximity the programmes for various health professions and to integrate the facilities for education, research and patient care in the Faculty of Health Sciences.

The Faculty of Health Sciences collaborates with the Division of Health Sciences at Mohawk College in educational programmes for other health professions based at the College.

Research programmes encompassing the broad spectrum of health have been established, including basic and applied research and various aspects of health care delivery. The graduate programmes in medical sciences are related to the various areas of health research.
FALSIFICATION OF ADMISSION INFORMATION
An applicant supplying documentation or evidence which, at the time, or subsequently, is found to be falsified will be withdrawn from consideration. Any student admitted to the programme having submitted false evidence will be withdrawn.

HEALTH REGULATIONS FOR ADMISSION
Before registration, students must file with the University evidence of a recent health examination, immunization screening and chest X-ray. More detailed medical information will be required upon acceptance into the programme.

CLINICAL COURSE REQUIREMENTS
Where the performance of the student in clinical practice may jeopardize or endanger the welfare of the patient or the patient's family, the student may be removed from clinical experience any time during the academic year, until continuation in the course is reviewed.

INFORMATION AND ACADEMIC COUNSELLING
In certain programmes, a faculty member is selected for each student in the September of entry to a degree programme and provides each student with advice on evaluations, electives and other educational needs throughout the programme. In the MD programme, the advisor is also responsible for the collection of all evaluations and completion of the final transcript. Changes in advisors may be entertained as each student becomes acquainted with the faculty who is well enough to choose his or her own advisor. The academic advisory role for B.Sc.N. students is fulfilled by the Coordinator of Studies (Nursing). Students are also encouraged to consult individual faculty members regarding career planning.

TRANSPORTATION
Students are responsible for expenses involved in transporting themselves to community agencies, making home visits, or in connection with clinical study.

LICENSE TO PRACTICE
All graduates who wish to engage in clinical practice in any of the recognized fields: midwifery, nursing, occupational therapy and physiotherapy are subject to any qualifying examinations and other requirements by the licensing bodies for each of these professions. In addition students should be aware that a licence may be denied if they have been convicted of a criminal offence for which a pardon has not been granted. A student in such a position should consult the respective licensing body about such a situation.

POST-PROFESSIONAL HEALTH SCIENCES EDUCATION PROGRAMMES

CHILD LIFE STUDIES FULL-TIME DIPLOMA PROGRAMME
This is an eight-month applied professional programme in the Faculty of Health Sciences, focusing on the development of knowledge and skills for individuals working with infants, children, youth and families in a health care setting.

The learning objectives are:
1. to examine and review the growth and development of infants, children and youth, incorporating communication, play, expression of feelings, observation and mastery of the environment, behaviour management, and parent/child relationships, and
2. to examine the child life role in assessment, intervention, prevention, advocacy and documentation in situations critical to the child's development, at times of acute and chronic illness and potentially traumatic or life-changing events.

Coursework involves small group learning, case studies and self-directed learning. Two eight-week internship placements in children's hospitals and community settings are a requirement of this programme.

A related university degree or diploma is required with an overall B average. Relevant experience is strongly recommended. Admission is based on the assessed strengths of each applicant as determined by the application package and interviews. Applications must be submitted by March 1, 2002 for the study period beginning in September. Information outlining application requirements can be obtained by contacting the Child Life Studies programme office at (905) 525-9140, ext. 22795 or by email at cls@mcmaster.ca or at http://www.fhs.mcmaster.ca/childlife

PART-TIME MULTIDISCIPLINARY DISTANCE LEARNING COURSES
The Child Life Studies on-line educational programme offers a variety of research-based courses related to supporting the psychosocial needs of children, youth and families through health care experience and life changing events. For a current listing of courses, schedules and registration fees, visit the website at http://www.fhs.mcmaster.ca/childlife or call (905) 525-9140, ext. 22795.

DIPLOMA PROGRAMME IN CLINICAL BEHAVIOURAL SCIENCES
The Clinical Behavioural Sciences (CBS) Post-Baccalaureate Diploma and Selected Studies Programme is offered through Continuing Health Sciences Education. This part-time programme is designed to expand the knowledge and skills of allied health professionals by demonstrating a variety of approaches to understanding clinical problems. The aim is to enable health workers to more effectively carry out the mandate of their professional designations. Single courses vary from 10 to 20 weeks in length and a diploma should be completed within five years. A small group learning format is used.

Applications must have basic professional qualifications (degree, certificate or mandate in current job); employment (possibly in an employer to attend classes and approval to use course-related material from the work setting (with signing of University legal waiver). Courses must be applicable to job responsibilities. Applications must be submitted to the CBS Office (HSC 2E12) by April for September courses and by October for January courses. Personal interviews will be arranged. Applications can be obtained by contacting the CBS Office at (905) 525-9140 ext 22706.

DIPLOMA PROGRAMME IN ENVIRONMENTAL HEALTH
The Diploma programme is a distance education programme offered through the McMaster Institute of Environment and Health. Students are required to register on a full-time basis from September to April committing one day a week for self-directed learning, one hour per week for on-line tutorials and one day a week for completion of assigned work. The programme is designed to provide new and/or upgraded skills and knowledge in the environmental health area to individuals with a degree or certification in a recognized field. It is suitable for public health unit professionals, physicians, community health nurses, environmental industrial professionals and those in labour and non-governmental organizations dealing with environmental health issues. Participants must be sufficiently motivated to undertake self-directed learning.

Students come from a variety of disciplinary backgrounds. A relevant university degree or equivalent will normally be required. Admission is based on the number of places available and on the experience of applicants. Those without environmental health experience will also be considered.

Applications, a Transcripts or Document Fee, original transcripts and a letter of interest must be submitted by the beginning of April for the study period starting in September. Applications can be obtained by contacting the McMaster Institute of Environment and Health at (905) 525-9140, ext 27559. Applicants will be notified of admissions decisions by the beginning of June.

DIPLOMA PROGRAMME IN OCCUPATIONAL HEALTH AND SAFETY
The Programme in Occupational Health and Environmental Medicine offers two programmes each year for this Diploma. A full-time programme starts in September catering to those who wish to complete the course in three months. A part-time programme is designed so that students within commuting distance from Hamilton can continue their normal employment. This programme also starts in September and continues through the end of April, one day per week, but includes two extended periods of full-time study each lasting two weeks.

While special consideration will be given to those already in the occupational health field, interested individuals without such experience may also be considered. Physicians, nurses, hygienists and related professional and administrative personnel are also eligible. A relevant university degree or equivalent is generally required.

Applications must be submitted by February 1 each year for the course beginning in September. Applications can be obtained by contacting the Programme in Occupational Health and Environmental Medicine at (905) 525-9140, ext. 22392.
THE BACHELOR OF HEALTH SCIENCES (HONOURS) PROGRAMME

WEB ADDRESS: http://www.fhs.mcmaster.ca/bhs

Health Sciences Centre, Room 1J11
Ext. 22815

Assistant Dean, Bachelor of Health Sciences (Honours)
D.G. Hammel/B.Sc., M.Sc. Ph.D., 3M Teaching Fellow
Programme Administrator
T. M. Boyd

Programme Overview

This programme, first offered in September 2000, is an innovative interdisciplinary programme in which students take responsibility for their learning and in which there is recognition that both the knowledge and skill sets developed by students are integral parts of preparing for either further study or entry into the workforce. The principles of independent learning and an emphasis on both content and process are central to the provision of education within the Faculty of Health Sciences, and are reflected in this programme. In addition, this programme reflects the established tradition within the Faculty of understanding health from biological, behavioural and population-based perspectives. The programme will draw on individuals from within the Faculty of Health Sciences and the larger university community to provide students with exposure to basic and applied researchers as well as health care practitioners, enabling students to learn about and experience the study of health from these various perspectives. The programme will utilize both a small group, inquiry-based format as well as traditional lecture, lab, and tutorial based teaching formats to provide students with a solid knowledge base in health related sciences as well as the skills necessary to critically evaluate and synthesize health related information.

The programme is designed to emphasize flexibility, recognizing that students may use this programme to prepare for a variety of post graduate options including graduate work in medical sciences, professional schools and entry into the workforce. Beyond the first year, students may elect to focus on one perspective of health and develop relative expertise in this area, while other students may find that their needs are better met by pursuing a broader based programme of study through their senior years.

The programme begins in Level I and leads to the degree Bachelor of Health Sciences (Honours) upon successful completion of Level IV. The four-level programme offers opportunity for specialization through electives and through individual study or thesis courses.

Registration in Level I of the programme is limited to approximately 80 students, with expansion to 100 students at Level II.

PROGRAMME GOALS

The overall goal of the programme is to educate students in such a way that upon graduation students have a firm foundation in the health sciences, and the skills necessary to learn and adapt in subsequent educational or occupational environments.

KNOWLEDGE

To acquire a broad knowledge base that reflects the Faculty’s commitment to studying health from biological, behavioural and population-based perspectives. This should include an understanding of the structure, function and behaviour of the human body, the environmental determinants of health and the ways that these factors interact to result in disease or illness.

SKILLS

To acquire and apply the following skills as a student and member of society:

1. Self directed learning skills: The ability to identify gaps in one’s own knowledge that prevent solving a problem, to formulate a plan that uses appropriate educational resources, and to obtain and synthesize the information needed to solve that problem.

2. Critical thinking skills: The ability to evaluate the merit of information obtained in various ways and to present information in a way that shows evidence of a critical, reflective approach to information and problems.

3. Synthesizing skills: The ability to understand that most problems can be analyzed from a number of perspectives, to identify these perspectives and to formulate solutions that are comprehensive and adequate reflections of various levels of analysis.

4. Communication skills: The ability to communicate an issue in both oral and written form, both effectively and concisely.

PERSONAL QUALITIES

Individuals who successfully complete this programme should be prepared to accept responsibility for a life-long process of learning and personal and professional growth. They should respect the various approaches to the study of health, and the beliefs associated with these studies, and should be open to new ways of learning and understanding. They should understand that health care is a collaborative process and be capable of working collegially with others, while being prepared to contribute to the well-being of those around them.

Admission Procedures and Requirements

The following are the requirements for admission in the academic year 2001-2002. Please note that the admission policy may be reviewed annually and the admission requirements may be changed in future years. As places in this programme are limited, the admission process is competitive. Possession of the minimum requirements does not guarantee admission to the programme.

Application to the B.H.Sc. (Honours) Programme of the Faculty of Health Sciences implies acceptance of the admission policies, procedures and methods by which applicants are chosen.

Admission Procedures

Applicants from Ontario Secondary Schools

Applicants currently completing OACs apply through the:

Ontario Universities’ Application Centre (OUAC)
170 Research Lane
Guelph, ON, N1G 5E2
http://www.ouac.on.ca

Application forms are available in secondary school guidance offices. Applications for all studies beginning in September must be received by OUAC no later than February 14. Secondary schools will forward mid-term and final transcripts directly to OUAC in support of applications.

Applicants are required to complete a mandatory Supplementary Application Form which must be received in the B.H.Sc. (Honours) Programme Office by February 14. Supplementary Applications are to be submitted electronically via the web at: http://www.fhs.mcmaster.ca/bhs/admission.htm

Applicants with Qualifications Equivalent to OAC

Applicants from other provinces should contact the Ontario Universities’ Application Centre (OUAC) for an application package for admission consideration. Please refer to the OUAC address above. Applicants must also have their official transcripts forwarded to the Admissions Office, McMaster University, Gilmour Hall, Room 108, 1280 Main Street West, Hamilton, Ontario, L8S 4L8. Applicants are also required to complete a mandatory Supplementary Application Form which must be received in the B.H.Sc. (Honours) Programme Office by February 14. Supplementary Applications are to be submitted electronically via the web at: http://www.fhs.mcmaster.ca/bhs/admission.htm

Applicants from other countries should contact the Office of International Affairs at http://www.mcmaster.ca/ola or (905) 525-9140, ext 24211 for details.

Transfer Applicants

Transfer applicants from McMaster University are required to complete a McMaster University Application for Entry to Level II and a mandatory Supplementary Application by mid February. McMaster University Application for Entry to Level II forms are available from the applicant’s Faculty office.

Applicants from other post-secondary institutions are required to apply through the Ontario Universities’ Application Centre (OUAC) (please refer to the OUAC address above) and complete a mandatory Supplementary Application by mid February. Supplementary Applications are to be submitted electronically via the web at: http://www.fhs.mcmaster.ca/bhs/admission.htm
Second Bachelor Degree Applicants
McMaster University graduates are required to complete a McMaster University Returning Student Application and a mandatory Supplementary Application by mid February. McMaster University Returning Student Application forms are available from the Office of the Registrar, Gilmour Hall, Room 108, 1250 Main St. W., Hamilton, Ontario, L8S 4L8. Graduates from other universities are required to apply through the Ontario Universities’ Application Centre (OUAC) (please refer to the OUAC address above) and complete a mandatory Supplementary Application by mid February. Supplementary Applications are to be submitted electronically via the web at: http://www.ths.mcmaster.ca/bhs/ admissi.htm

Admission Requirements
Applicants from Ontario Secondary Schools
The selection method for Ontario Secondary School applicants is by academic qualifications and a mandatory Supplementary Application. The first round of early conditional offers of admission is made in late March and will be based on the following: a) six final and/or mid-term OAC grades (including required courses), or b) at least three final OAC grades and Grade 11/12 advanced Mathematics and Science grades plus enrolment in the appropriate three additional OAC courses. Offers based on interim grades will be conditional upon maintaining satisfactory performance on final grades. Supplementary Applications are to be submitted electronically via the web at: http://www.ths.mcmaster.ca/bhs/ admissi.htm. The Supplementary Application will be used primarily to select from among the pool of students with the highest grades in the OAC courses outlined below.

Requirements
1. One of OAC English I or OAC anglais I or OAC anglais II;
2. OAC Biology;
3. OAC Chemistry;
4. OAC Calculus;
5. One OAC from the Social Sciences (Geography, History, Law, Political Science, Sociology) or Humanities (Art, Drama, English, French, Music, other languages);
6. One additional OAC to total six credits.

Applicants with Qualifications Equivalent to OAC
Applicants from other provinces and countries must achieve the equivalent to the qualifications listed above in their secondary school graduation year.

Transfer Applicants
It is anticipated that 20-30 transfer and second degree applicants will be admitted to the B.H.Sc. (Honours) Programme from other programmes at McMaster and from other post-secondary institutions effective September 2001. The process will be competitive and will be based on the student’s academic qualifications and a Supplementary Application. Students interested in being considered for admission to Level II of the B.H.Sc. (Honours) Programme must have completed the equivalent of six units of Level I Biology and six units of Level I Chemistry. Students who are accepted into Level II of the programme may be required to complete a Level I Inquiry Course offered within the B.H.Sc. (Honours) Programme, after admission to the programme.

Second Bachelor’s Degree Applicants
It is anticipated that 20-30 transfer and second degree applicants will be admitted to the B.H.Sc. (Honours) Programme from other programmes at McMaster and from other post-secondary institutions effective September 2001. The process will be competitive and will be based on the student’s academic qualifications and a Supplementary Application. A Cumulative Average of at least 7.0 (minimum overall average of B-) will be required for admission. In addition, students will be admitted to Second Degree studies only if the student’s second degree involves a significant additional component of work in the subjects of concentration in the B.H.Sc. (Honours) Programme and certain subject combinations may not be permitted.

Curriculum
NOTE
While registration in HTH SCI 4X03 will occur in Level IV, students will begin studies in Level I. Detailed course information is available at http://www.ths.mcmaster.ca/bhscc

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I: 30 UNITS
6 units BIOLOGY 1A03, 1A3
6 units CHEM 1A03, 1A3
6 units HTH SCI 1E03, 1EE3
3 units HTH SCI 1G03
3 units HTH SCI 1G93
1 course SCIENCE 1A00
6 units Electives

LEVEL II: 30 UNITS
3 units HTH SCI 2E03
3 units HTH SCI 2F03
3 units HTH SCI 2F93
3 units HTH SCI 2G03
3 units HTH SCI 2J03
3 units HTH SCI 2K03
12 units Electives

LEVEL III: 30 UNITS
3 units HTH SCI 3E03
3 units HTH SCI 3F03
3 units HTH SCI 3F93
3 units HTH SCI 3G03
3 units HTH SCI 3H03
15 units Electives

LEVEL IV: 30 UNITS
6-9 units HTH SCI 4A09 or 4B06
3 units HTH SCI 4C03
3 units HTH SCI 4C93
3 units HTH SCI 4C03
3 units HTH SCI 4X03 (See Note above.)
12-15 units Electives

Bursaries
B.H.Sc. (Honours) students are eligible to apply for one of the following bursaries provided they are Canadian citizens and demonstrate financial need. Bursary Application forms are available in the Fall from our website at http://www.ths.mcmaster.ca/bhscc/ bursary1.htm. Bursaries are intended to offset provincial financial assistance. The following bursaries have been generously donated to assist Bachelor of Health Sciences (Honours) students in financial need:
• Ruth Murray Memorial B.H.Sc. Bursary
• Loucke Family and Friends B.H.Sc. Bursary

There are many other bursaries provided through the central campus bursary programme, which will be disbursed to students in the Fall each year. For further information about bursaries, please contact Teresa Boyd, (905)525-9140 ext. 22786.

Academic Regulations
In addition to the regulations in the General Academic Regulations section of this Calendar, the following Programme regulations apply.

MINOR
A minor is an option available to a student enrolled in a four- or five-level programme. A minor consists of at least 18 units of Level II, III, or IV courses beyond the designated Level I course(s), using elective units only, that meet the requirements set out in the programme description of that minor. A student is responsible for registering for courses to be applied towards a minor. In the case of cross-listed courses, students must ensure that they register in the appropriate subject for the minor designation. Those who have the necessary requirements may apply for recognition of that minor when they graduate. Recognition will be recorded on the student’s transcript. Minors cannot be revoked once approved. Students may return for a second degree in the subject in which they have obtained a minor, but only at the Honours level. For further information please refer to Minors in the General Academic Regulations section of this Calendar.

CONTINUATION IN THE PROGRAMME
Students must have a CA of 6.0 to continue in the programme. If a CA of 5.5 to 5.9 is obtained, a student may remain in the programme but will be placed on programme probation for one reviewing period. A student may be on programme probation only once.
FACULTY OF HEALTH SCIENCES

If a CA of 3.5 to 5.4 is obtained, a student must transfer to another programme for which he/she qualifies, or register in the B.H.Sc. (Honours) Programme as an irregular student for one reviewing period. During that period a student cannot take B.H.Sc. (Honours) Programme courses. At the end of that period a student may apply for readmission to the B.H.Sc. (Honours) Programme.

If a CA of 3.0 to 3.4 is obtained, a student will be placed on academic probation. A student may continue in the programme for one reviewing period as an irregular student but cannot take B.H.Sc. (Honours) Programme courses. The purpose of this period is to prepare a student for a programme outside the B.H.Sc. (Honours) Programme. A student may be on academic probation only once.

If a CA of less than 3.0 is obtained, a student may not continue at the University.

WORKLOAD
Students who wish to take more courses than recommended for a single level of their programme may do so if their CA on completion of the previous session is at least 7.0. Students registered in the final level of the programme are permitted to overload by up to six additional units in order to become eligible to graduate.

LETTERS OF PERMISSION
Students enrolled in the B.H.Sc. (Honours) Programme may apply to the Office of the Assistant Dean to take courses at another university on a Letter of Permission. Students must achieve a grade of at least C- to receive credit.

Courses taken at another university cannot be used to satisfy the university's minimum residence requirements, will not be included in the calculation of the Cumulative or Sessional Averages, and therefore cannot be used to raise standing. Students may take up to six units of courses towards a Minor on a Letter of Permission.

Students must be in good standing to be eligible to take courses on a Letter of Permission.

LEVEL OF REGISTRATION
A student with six or more units incomplete at any level may proceed to the next level of the programme only with the permission of the B.H.Sc. (Honours) Programme Office.

REINSTATEMENT TO THE B.H.SC. (HONOURS) PROGRAMME
A student who may Not Continue at the University may apply for reinstatement. Students seeking reinstatement should complete the Returning Student Application form available at the Office of the Registrar (Gilmour Hall, Room 108) and the B.H.Sc. (Honours) Programme Office. The completed application and the $50.00 fee must be submitted by the end of the Registration period by July 15 for September entry and November 30 for January entry.

Applicants should explain the reasons for the student's inadequate performance, corroborated by two letters of support, and should also include relevant documentary evidence such as, for example, a physician's letter documenting an illness that may have impacted upon the students' prior academic performance. Reinstatement cases will be carefully screened and the evidence considered will include the students' academic performance before and following admission to McMaster, as well as the nature of the reasons cited in the letter, the letters of support and the accompanying documentation. Reinstatement is not guaranteed.

If students are reinstated to the University, their Cumulative Average will be re-set to 0.0 on zero units, although students may, at the discretion of the Faculty, retain credit for prior work. Following reinstatement, students will be on academic probation and must complete a minimum of 60 units of work after reinstatement to be eligible for graduation with Distinction or other recognition based on the Cumulative Average.

REGISTRATION AND COURSE CHANGES
It is the responsibility of the student to ensure that the programme of work undertaken meets the requirements for the degree. When registering or making changes to course selection, students must seek approval from B.H.Sc. (Honours) Programme Office. Dates for final registration and course changes appear in the Sessional Dates section of this Calendar and are enforced.

SPRING COUNSELLING
Academic counselling is available throughout the year for the B.H.Sc. (Honours) Programme Office. It is recommended that the students make an appointment with an advisor from this office during the March counselling period. Level I students must indicate their intention to continue in the B.H.Sc. (Honours) Programme at that time.

GRADUATION
A CA of 5.0 is required for graduation.

Students who successfully complete Level III of the programme may request permission from the B.H.Sc. (Honours) Programme Office to graduate with a three-level B.H.Sc. degree.

THE SCHOOL OF MEDICINE

WEB ADDRESS: http://www.fhs.mcmaster.ca/mdprog/

Health Sciences Centre, Room 2E18
Ext. 22141

Assistant Dean

Programme Administrator
D. Martin

The School of Medicine, established in 1965, offers major programmes in undergraduate, postgraduate and graduate medical education. The clinical programmes use not only the teaching hospital and ambulatory care and research facilities at the McMaster University Medical Centre division of the Hamilton Health Sciences Corporation, but also the clinical teaching units at several of the major Hamilton hospitals and community health-care centres.

The Undergraduate Medical Programme for the MD degree was initiated in 1969, graduating its first students in May 1972. At present, 100-110 students are admitted to the programmes each year through the Regular Admission Pool, and up to 10 additional students through the International Admission Pool.

The academic programme operates on an 11 months-a-year basis and students qualify for the MD degree at the end of the third academic year. The curriculum has been designed to involve medical students in a broad range of human health problems throughout their education and to prepare them for effective working relationships with patients, colleagues and society.

Postgraduate training programmes currently include: Anesthesia, Community Medicine, Critical Care, Emergency Medicine, Family Medicine, Internal Medicine (and subspecialties), Laboratory Medicine, Obstetrics and Gynecology, Pediatrics (and subspecialties), Psychiatry, Radiology, and Surgery (and subspecialties).

More details on these postgraduate programmes are available from the Postgraduate Medical Education Office.

The Northwestern Ontario Medical Programme (NOMP) has been developed in cooperation with the Thunder Bay Medical Society and physicians in towns in Northwestern Ontario. Clinical training opportunities exist in community hospitals adjacent to Hamilton. Excellent clinical experience in these settings is part of both the undergraduate and postgraduate medical programmes.

Graduate programmes leading to the M.Sc. and Ph.D. degrees are offered in Biochemistry and in Medical Sciences. An M.H.Sc. (Health Care Practice) programme is interprofessional in nature and is for experienced health professionals who wish advanced preparation as clinicians.

The Undergraduate Medical Programme (7880)

The three-year programme in Medicine uses a problem-based approach to learning that should apply throughout the physician's career. The components have been organized in sequential units with early exposure to patients and case management.

GENERAL OBJECTIVES
The goal of the Undergraduate Medical Programme is to provide students with a general professional education as physicians. The programme enables students to build on previous education and experience, using available learning resources and opportunities. The competencies achieved by graduates will qualify them...
Students admitted to the Undergraduate Medical Programme have the responsibility and privilege of taking an active role in the planning and evaluation of the education programme. Through representation on most policy-making and implementing committees, students can influence decisions in such areas as education, philosophy, faculty recruitment and curriculum design. It is expected that all students will participate in the continuing reappraisal and improvement of the programme. Such participation is a hallmark of the Programme.

**STUDENT EVALUATION METHODS**

The evaluation format has been designed to complement learning in the Undergraduate Medical Programme. Evaluation methods have been developed to measure how well the student achieves the stated educational objectives in the various units of the programme. Continual evaluation of the student occurs within the tutorial setting with input from their peers, faculty preceptors and the tutor.

One evaluation exercise is required in each unit. At the completion of the unit, the tutor is responsible for the final summary statement of student learning progress. The tutor prepares a written summary of the student's performance in the tutorials and all associated activities during that unit. A copy of the evaluation summary is given to the student and to the student advisor while the original is kept in the student's evaluation file.

In addition to the tutorial-based evaluation, the accumulation of medical knowledge is assessed at regular intervals by means of the Personal Progress Index. This is a multiple-choice format. Results are given to the students for self-evaluation and, in summary form, to the student advisor. Progress testing is in addition to, and does not replace, tutorial- and performance-based evaluation. The Programme monitors student progress, and responds to students showing persistently low progress.

The acquisition of clinical and professional skills is evaluated by clinical skills preceptors in each unit, including the clerkship, and additionally by Objective Structured Clinical Evaluations (OSCE's) which are run on an annual basis.

The Evaluation Committee, a subcommittee of the Medical Education Committee, has the responsibility of working with the Medical Programme to assist with the development and implementation of evaluation methods to provide timely and helpful information to assist students and faculty in assessing progress and performance.

### Curriculum Plan

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**UNIT 1 (12 weeks)**

**UNIT 2 (4 weeks)**

**UNIT 3 (14 weeks)**

**ELECTIVE (8 weeks)**

**UNIT 4 (13 weeks)**

**UNIT 5 (CLERKSHIP) (24 weeks)**

**ELECTIVE (7 weeks)**

**UNIT 6 (10 weeks)**

**GRADUATION**

**Orientation Week**

**Vacation**

The curriculum of the Undergraduate Medical Programme comprises six units and an elective programme.

There is less of a division between the pre-clinical components and the clinical components of the MD Programme than in more traditional schools. Patient contact and clinical skills development start in Unit 1 and increase throughout the programme. The scientific background for understanding patients' problems, while more intensively studied in earlier units, continues to be applied as it is relevant to the care of patients in clinical situations.
PROGRAMME OUTLINE FOR UNIT 1
The 12-week Unit 1 provides an opportunity for students to become familiar with working and learning in a small-group, problem-based learning environment. The Unit is organized into three subunits. The first addresses initial reproductive events and the fundamental mechanisms of early development. The second subunit will examine the processes by which we become biologically, socially, and emotionally independent. Students will examine these concepts from at least three perspectives: population, behavioural and biological. The third subunit examines the behavioural perspective in detail. Basic issues of critical thinking, information management skills, clinical skills and communication skills are introduced and further developed in the subsequent units.

PROGRAMME OUTLINE FOR UNITS 2-4
These units are concerned with the systematic study of human structure, function and behaviour throughout the Life Cycle, and are organized around systems of the body, as follows:

- Unit 2 Cardiovascular, Respiratory and Renal Systems
- Unit 3 Hematologic, Gastroenterologic and Endocrine Systems
- Unit 4 Neurologic, Locomotor and Behavioural Systems

Throughout these body-systems oriented units, students are expected to become self-directed learners capable of critically evaluating newly acquired information.

PROGRAMME OUTLINE FOR UNIT 5 - THE CLERKSHIP
In this component of the programme students participate in the direct care of patients as they learn about the management of health and illness. All prior objectives apply, but the health-care problems are now real patients or populations. Students become self-sufficient in contemporary medicine, but are able to sense when today's medicine becomes out-of-date by adopting good habits of learning and assessment.

The Clerkship programme consists of rotations in Medicine, Surgery, Family Medicine, Psychiatry, Pediatrics, Obstetrics and Gynecology, and in elective time of which one-half must be spent in clinical medicine. The compulsory components of the clerkship are carried out in teaching practices and in all the teaching hospitals in the Hamilton region; in teaching hospitals in St. Catharines, Guelph, Brantford, Burlington, Niagara Falls and in association with the Northwestern Ontario Medical Programme. It is anticipated that further rotations will be developed in rural, under-serviced and remote areas. The elective experience can be spent in various activities utilizing local, regional or distant resources.

PROGRAMME OUTLINE FOR UNIT 6
This programme provides students the opportunity to integrate, consolidate and reflect on their learning to date and to prepare for their future roles as resident and practicing physician. The unit will focus on professionalism; stressing autonomy with accountability, critical thinking and self direction. Content will include complex issues such as population health, ethics and technological assessment of standard and novel diagnostic, therapeutic and evaluative procedures. Learning opportunities will be provided through case and problem-based seminars, access to multi-disciplinary resources and personal learning plans developed with mentors. Evaluation will include formative and summative measures such as learning contracts, reflective papers and observation. Students will be given the opportunity to focus on a portion of their learning objectives according to individual career objectives.

ELECTIVES
Elective studies form an integral part of the Curriculum Plan. They may be considered the epitome of self-directed learning, since students must define goals for electives which are appropriate for their own learning objectives. These objectives represent specific areas of educational need or interest. The responsibility for planning such electives rests with each student in collaboration with the student advisor.

The three types of electives in the Undergraduate Medical Programme are:

1. Block Electives: These are blocks of curriculum time dedicated to full-time elective activities. Their satisfactory completion is a mandatory component of the Undergraduate Medical Programme. Block Electives occur after Unit 3 (eight weeks), after Unit 4 (four weeks), during the Clerkship (eight weeks) and immediately following the Clerkship (seven weeks).

2. Horizontal Electives: These are undertaken concurrently with other parts of the curriculum. Horizontal electives are entirely voluntary, not being required, but used to explore or review a specific area of knowledge or practice in more detail. It is particularly important that the student's advisor be involved in all decisions concerning the selection and carrying out of horizontal electives.

3. Enrichment Electives: There are arrangements in place for a small number of students from each class to devote longer periods of time (from six to 12 months) to the pursuit of special academic experiences. The intent is to encourage students to explore special frontier areas of medicine and health care. Examples include: research training and experience; community health projects; international health opportunities. These experiences are often undertaken following Unit 4 or during the first half of Unit 5. Some experiences may potentially have partial funding (e.g. by student research fellowships).

REGULATIONS FOR LICENCE TO PRACTISE
A degree in medicine does not in itself confer the right to practise medicine in any part of Canada. To acquire this right, university graduates in medicine must hold a certificate of the College of Physicians and Surgeons of the province in which they elect to engage in practice. Students in Ontario must register with the College of Physicians and Surgeons of Ontario. Students intending to practise outside Ontario are urged to consult the licensing body of that province regarding registration.

Licensing requirements vary somewhat among the provinces. The current Ontario requirements for issuance of a Certificate of Registration Authorizing Independent Practice are:

1. Certification by the Royal College of Physicians and Surgeons of Canada or the College of Family Physicians of Canada.
2. Pass Part I and II of the Medical Council of Canada Qualifying Examination;
3. Canadian Citizenship or Landed Immigrant Status.

In general, students are expected to obtain a certificate from either the College of Family Physicians of Canada or from the Royal College of Physicians and Surgeons of Canada in order to be licensed in the province of Ontario.

CANADIAN RESIDENT MATCHING SERVICE (CARMS)
The Matching Service is a clearing-house designed to help final year Canadian medical students obtain the post-MD programme of their choice, and to help programme directors obtain the students of their choice. It provides an orderly method for students to decide where to train and for programme directors to decide which applicants they wish to enrol. For both students and directors, it removes the factors that generate unfair pressures and premature decisions.

Further information is available from Deborah Martin, MD Programme Administrator, (905) 525-9140, ext. 22141.

BASIC CARDIAC LIFE SUPPORT TRAINING
All students are required to have obtained a current certificate in Basic Cardiac Life Support (Adult and Child CPR) prior to registration in the medical programme. Courses are readily available in most communities. Information will be sent to successful applicants prior to registration.

Specific questions can be directed to Deborah Martin, MD Programme Administrator, (905) 525-9140, ext. 22141.

IMMUNIZATION
The Ontario Public Hospitals Act requires that all persons working in a hospital setting meet certain criteria regarding surveillance for infectious diseases. In order for the requirement of the legislation to be met, once students have been enrolled in the MD Programme, they must complete the Clinical Infectious Disease Screening through the Student Health Services. More information will be sent to successful applicants prior to registration. Specific questions can be directed to Deborah Martin, MD Programme Administrator, (905) 525-9140, ext. 22141.

Admission Policy for the Medical Programme
The official admission policy and deadlines for the Undergraduate Medical Programme for late August 2002 shall be as published in the 2002 Ontario Medical School Application Booklet.
FACULTY OF HEALTH SCIENCES

This booklet is available through:
Ontario Medical School Application Service (OMSAS)
170 Research Lane,
Guelph, Ontario, N1G 5E2
(519) 823-1940
http://www.onuac.on.ca
Email: omsas@netserv.onuac.on.ca

Please note that the admission policy is reviewed annually, and the admission requirements from the previous year may not apply. Because of the nature of the selection procedures, deadlines are enforced strictly. All relevant documentation must be provided by the specified deadlines. Applicants must follow the instructions precisely.

SELECTION PROCEDURE

The intention of the McMaster Undergraduate Medical Programme is to prepare students to become physicians who have the capacity and flexibility to select any area in the broad field of medicine. The applicant is selected with this goal in mind. Faculty, medical students and members of the community are normally involved in the admissions process.

Application to the medical programme implies acceptance by the applicant of the admission policies and procedures, and the methods by which candidates are chosen for the programme. Applications received in the fall of 2001 are for the academic year commencing in the fall of 2002. Applicants who will not be ready or able to begin studies in the fall may withdraw their applications without prejudice. Application fees cannot be refunded.

Applications must be submitted by October 15, 2001, 4:30 pm EDT. Approximately 400 applicants will be invited for interviews in Hamilton in March or April. Invitations for interview are determined on the basis of applicants' academic performance, and an assessment of their preparedness for a career in medicine and suitability for the McMaster Undergraduate Medical Programme. From this group a class of 100-110 is selected.

ACADEMIC ELIGIBILITY

Applicants must report on the Academic Record Form all grades received in the degree credit courses in which they have ever registered. Failure to report courses, programmes or grades on the Academic Record Form will result in the disqualification of the application. All grades are converted by the applicant on the Academic Record Form to a 4.0 scale according to the OMSAS Undergraduate System Conversion Table. (The Conversion Table is provided with the OMSAS Application.)

All applicants must fulfill the requirements described below in both (a) and (b).

a) By August 26, 2002, applicants must have completed a minimum of three years of undergraduate work. Only degree credit courses taken at an accredited university will be considered.

Two of the three years must be above Level/Year 1. A year is the full block of work specified for a year or level of the programme as indicated on the university transcript and in the appropriate university calendar. If requested, applicants must provide evidence that this requirement has been met.

An applicant who has completed a diploma at a CEGEP must have completed by August 26, 2002, at least two additional years of degree credit work at an accredited university. One of those years must be a full programme of courses above Level/Year 1.

Applicants who have completed the requirements for a baccalaureate degree in less than three years by October 15, 2001 are also eligible.

b) By October 15, 2001, applicants must have achieved an overall average of at least second-class B standing in their academic work to date. A B average is considered to be an OMSAS over-converted average of at least 3.0 on the 4.0 scale. Work on supplementary courses will be included in the grade point average calculation. If an applicant has not achieved the overall B standing in the OMSAS converted average, but has completed a graduate degree, the graduate degree will be taken into account to assess eligibility.

Academic Assessment will be as outlined in the Ontario Medical School Application Instruction Booklet.

TRANSCRIPT REQUIREMENTS

It is expected that applicants will request all transcript materials in a timely fashion, to allow adequate time for processing requests and for receipt at OMSAS by the prescribed deadline. For this reason, applicants are strongly urged to request two sets of transcripts. One must be sent by the institution directly to, and received at OMSAS by October 15, 2001; the second copy should be sent to the applicant to ensure that the request has been fulfilled. Applicants should retain all receipts and correspondence related to their transcript request. Evidence to show that applicants have requested transcripts in a timely fashion may be requested by McMaster University.

It is not normally possible to notify applicants of any outstanding transcripts before October 15, 2001. Therefore, it is totally the applicant's responsibility to ensure that all transcripts and Registrar statements are received at OMSAS by October 15, 2001. Failure to meet this requirement will result in the disqualification of the application.

All transcripts must be submitted directly to OMSAS by the post-secondary institutions attended. McMaster requires that applicants provide transcripts of all courses programmes attended at any post-secondary institution. This includes community colleges, CEGEPs, junior colleges, pre-university programmes, etc.

Failure by the applicant to comply with the instructions or to meet the deadlines will result in disqualification of the application.

AUTOBIOGRAPHICAL SUBMISSION

Applicants must provide an Autobiographical Submission which is a description about their preparedness for medicine and suitability for the McMaster Undergraduate Medical Programme. The Autobiographical Submission Booklet is included in the application package provided by OMSAS.

The Autobiographical Submission Booklet includes detailed instructions with regard to the length and format of responses. Those instructions are considered to be part of the Admission Policy and Procedures for the McMaster Undergraduate Medical Programme.

Failure to comply with the instructions for the Autobiographical Submission Package will result in disqualification of the application.

GEOGRAPHICAL CONSIDERATION

The geographical status is determined from the Autobiographical Sketch. Applicants may be asked to provide evidence of geographical status. In selecting applicants for interview, the bona fide place of residence will be used in the following order of priority:
1. the province of Ontario;
2. the rest of Canada; and
3. other countries.

To qualify for 1. above, an applicant must:

a) be a Canadian citizen or permanent resident by October 15, 2001;

b) have resided for at least three years in the province of Ontario since the age of 14. Attendance at a university in Ontario for at least three years by the date of possible entry to the programme satisfies the second requirement.

Any other applicant who is a Canadian citizen or permanent resident qualifies for 2.

All other applicants qualify for 3. While all applicants from this Geographic Category are considered, they may be selected for interview only if they are judged on each criterion to be clearly superior to other applicants.

INTERVIEWS

Approximately 400 applicants will be invited to Hamilton for an interview. The selection of these applicants is based on the composite score which weights equally the grade point average from the Academic Assessment and the scores from the Autobiographical Submission. Geographical consideration is applied to determine the composition of the pool of applicants that are selected for interview.

Because the interviews involve many other people, applicants must attend on the date and time specified. Applicants are responsible for their own travel expenses.

Each applicant is assessed in the following activities: the Simulated Tutorial and the Personal Interview. In the Simulated Tutorial, a group of applicants discuss a health-related problem or situation. The applicant's group skills and problem-exploration skills are assessed.
In the Personal Interview, the applicant is interviewed by a team which is not involved in the assessment of the Simulated Tutorial. Before an applicant meets the Interview team, the interviewers are provided with the candidate's Autobiographical Sketch. This Autobiographic Sketch is not assessed but serves as background for the interviewers. In making the overall assessment of the applicant, the Personal Interview team considers the following areas: depth and breadth of experience, personal characteristics and preparation for medical school.

**SELECTION**

All the information resulting from the process described above, as well as the Confidential Assessments from referees, is reviewed and used in the final selection.

Applicants will be notified the last working day in May 2002.

**APPLICATION FOR DEFERRED REGISTRATION**

Deferred registration may be granted only under exceptional circumstances. Deferred registration applications may be requested only by those candidates offered a place in the class on the last working day in May and who have accepted that offer. The request for deferral must be submitted within two weeks of the offer of admission.

**SPECIAL APPLICANTS**

Candidates who wish to determine if they qualify as Special Applicants, must contact, in writing, the Chair of the MD Admissions Committee, McMaster Undergraduate Medical Programme, HSC Room 187, before making a formal application. All relevant information and documentation, including transcripts, must be provided by September 14 to be considered for eligibility for that year's selection and admission cycle.

This category is designed to provide opportunities only to those who meet all of the following. They must:

1. not have attended any post-secondary institution, including those offering diploma or certificate programmes, as a full-time student;
2. have completed, at the time of application, the equivalent of at least four but not more than ten full degree credit courses as a part-time student, obtaining an overall OMSAS converted average of at least 3.0. A current university transcript must accompany the request for consideration;
3. have been employed or active in the community for at least seven years since leaving high school;
4. must be a resident of Ontario at the time of application, and
5. must be assessed as having made an exceptional contribution to society. In this, candidates must have shown creativity, initiative and leadership. A letter from the candidate, outlining any activities and contributions to society must accompany the request for assessment. Only those who meet the above criteria will be eligible to apply to the programme.

First Nation applicants who do not meet the criteria for application through the regular stream must meet all of the above requirements except 1.

**INTERNATIONAL APPLICANT POOL**

The Undergraduate Medical Programme will be offering up to 10 positions in the MD Programme each year to applicants with international status (those who are neither Canadian citizens, landed immigrants of Canada, nor dual citizens with Canada and any other country). These positions will be in addition to the current class of 100-110 admitted each year. Graduates from the International Admission Pool will not be considered eligible for postgraduate training in Canada.

International applicants may apply to either the Regular Applicant Pool or to the International Applicant Pool, but not to both. As McMaster University gives preference in the Regular Applicant Pool according to geographic status, international applicants should note that non-Canadian citizens have very infrequently been offered a position in the regular stream. The deadline for applications is October 15 each year, and information packages can be obtained through email at admint@mcmaster.ca or by calling (905) 525-5140, ext. 22712.

**ADVANCED STANDING/TRANSFER**

The structure of the McMaster Programme requires that all students begin in Unit 1. There is no provision for advanced standing or transfer into the programme.

**UNSUCCESSFUL APPLICANTS**

Applications from one year will not be held over to another year. If an unsuccessful applicant wishes to reapply, a new application package, including supporting documentation must be submitted, using the OMSAS Application, the OMSAS Instruction Booklet, and the McMaster Autobiographical Submission for the new admission selection cycle.

Unsuccessful applicants may enquire about their application for the current year. Their percentile ranking on the application instruments is the only feedback that is available. The applicant must make the request in writing to the Chair of the Admissions Committee, McMaster Undergraduate Medical Programme, HSC Room 187, by June 30 of the year of application, after which time feedback will be provided.

**FINANCIAL INFORMATION**

Financial difficulties are among the most frequent problems experienced by students in undergraduate medical schools. At McMaster, these are intensified by the lack of opportunity for summer employment.

In this situation, it is incumbent on students admitted to the MD Programme to clarify immediately their personal financial situation and to secure or identify sufficient support to meet their financial obligations over the three years of the undergraduate MD Programme. The McMaster University cannot assume this responsibility.

In 2000-2001, the academic fees (tuition and student supplementary fees) for a student in the McMaster Undergraduate Medical Programme were:

**CANADIAN CITIZENS AND LANDED IMMIGRANTS**

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In addition, the cost of books and diagnostic equipment for a Year I student was approximately $1,900. It is strongly recommended that students purchase the full complement of medical equipment necessary for their clinical skills. Equipment lists and special prices will be offered to medical students within the first few months of medical school. Students are also responsible for their transportation costs related to clinical study.

Financial assistance is available to Ontario residents from the federal and provincial governments through the Ontario Student Assistance Programme (OSAP). To be eligible a student must be a Canadian Citizen or permanent resident of Canada and fulfil certain requirements for residency in Ontario. Students who are legal residents of other provinces need to check with their respective provincial financial aid programmes about eligibility for support prior to acceptance. In addition, the following sources of funding are available to undergraduate medical students:

**BURSARIES**

There is an extensive bursary program which has been developed by the Faculty of Health Sciences and the central University Campus. Bursaries are awarded to students who are Canadian citizens and demonstrate financial need. All bursaries are distributed during the fall of each year. Bursaries are intended to offset provincial financial assistance and cannot supplement the full cost of medical education.

The following list of bursaries is available to Undergraduate Medical Students who are Canadian citizens. The following burvarsies have been generously donated to assist medical students in financial need:

- Adrachis (Archie) Yian Moughlanal Memorial Bursary
- Burlington Medical Society Bursary
- Daniel Giannini Bursary
- Dr. Gail Henning Memorial Bursary
- J.W. Harry Butcher Estate Bursaries
- Daniel and Natalie Strub Bursary
- McMaster Student Community Trust Bursary
- Ontario Medical Student Bursary Fund
- Ragonetti Family Bursary
- Ripley Estate Bursaries
- Ruth Tomlinson Memorial Bursaries
- ScotiaBank McMaster Medical Scholarship
- ScotiaBank Breast Cancer Scholarship
- UCO Fenwerts Humanitarian Bursary
- William A. Vanderburgh Estate Bursaries
FACULTY OF HEALTH SCIENCES

There are many other bursaries provided through the central campus bursary programme, which will be disbursed to students in the fall each year. Information about each award, criteria and amounts will be provided to all medical students each fall. For further information about bursaries, please contact Deborah Martin, (905) 525-9140, ext. 22141.

ACADEMIC AWARDS

The Undergraduate Medical Programme has in the past indicated its preparedness to recognize students who distinguish themselves and the University by virtue of their scholarship and their contribution to the university community. At the same time, the School has indicated that the terms of reference for such awards should neither compromise the spirit of cooperative scholarship which characterizes its MD Programme nor replace its priority of concern for financial assistance awards.

A small but growing number of estates and agencies have donated funds to the University and the Undergraduate Medical Programme for purposes of recognizing scholastic merit among medical students. In order to meet the requirements of these awards within the spirit of cooperative scholarship, these funds are available to support individual students in their pursuit of specific elective projects or activities.

Students are required to submit an application through the Election Office outlining the nature of their work and the need for funds. For further information, contact Deborah Martin, (905) 525-9140, ext. 22141.

ABBOTT MEMORIAL SCHOLARSHIP LOAN FUND

This fund was established by the Federation of Medical Women of Canada. Small loans are available to any female medical student or first-year resident. In special cases, a loan up to $1,000 may be made to a student for recognized postgraduate training. Loans are payable within five years of date of issue, after which time interest will be charged at a rate of 5% compounded annually.

Information regarding these loans may be obtained from Kay Moffat, Executive Coordinator, Federation of Medical Women of Canada, Box 8244, Ottawa, Ontario, K1G 3H7.

MEDICAL OFFICER TRAINING PLAN

The Department of National Defence administers a programme for medical students known as the Canadian Forces Medical Officer Training Plan. Under this plan, students may be subsidized (tuition, plus pay) throughout their undergraduate medical studies and residency. To qualify for enrollment a student must be acceptable without condition in a programme in medicine in a Canadian university or in an accredited Residency Programme.

Further information on this programme and on career opportunities in medicine in the Canadian Armed Forces may be obtained from local Canadian Forces Recruiting Centres. In Hamilton, the Recruiting Centre is at 100 Main Street East. Telephone (905) 572-4000.

LOAN FUNDS

The Undergraduate Medical Programme administers a small loans programme to assist medical students with demonstrable need. Unfortunately, these funds are limited and cannot be relied on to meet a major portion of any student's financial obligations.

The sources of these funds include: The Ontario Medical Association Loan Fund, the William Andrew Vanderburgh Sr. Memorial Fund, the Ripley Estate Loan Fund, the Dr. Elizabeth Bagshaw Fund and the Dr. A. Bolt Memorial Fund. For further information about loans contact Deborah Martin, (905) 525-9140, ext. 22141.

B.H.SC. MIDWIFERY PROGRAMME {6501}

WEB ADDRESS: http://www-ths.mcmaster.ca/midwifery

St. Joseph's Hospital, Fontbonne Building, Room 609
905-522-1165, Ext. 62273

Assistant Dean
K. Kaufman/B.S.N., M.S., Dr.PH., R.M.

Programme Administrator
B. Pindar-Donick

Programme Overview

The programme is jointly offered by Laurentian University, McMaster University and Ryerson Polytechnic University and leads to the degree Bachelor of Health Sciences (B.H.Sc.) in Midwifery. The full-time programme which is available at McMaster sets out the timetable in a four year timetable of full-time study.

The programme reflects the philosophy of midwifery in Ontario and its focus on women participating in their healthcare. The importance of public involvement in the evolution of the profession is evident in the ongoing participation of healthcare users in programme advisory and evaluation activities, and in the application admission process. The programme works closely with practising midwives and other maternity care providers to ensure a high quality clinical environment for students.

Curriculum

The programme includes courses from basic sciences, social sciences, health sciences, women's studies and electives, in addition to clinical courses. A variety of course formats including distance learning through teleconferencing is used in group settings mainly from the university campuses. However, other locations may be used.

INTENSIVES

There are five times during the programme when students come together from the three sites for several days as a means of fostering professional identity and group support. Students begin the program with MIDWIF I 1A06 (Introduction to Midwifery) which begins with an intensive and is hosted by Laurentian University in Sudbury. Intensives require all students to travel to the host location and remain for the duration which generally lasts one week. Attendance is mandatory. Additional: MIDWIF 2A03 (Midwifery Care I Intensive), MIDWIF 2B15 (Midwifery Care II), MIDWIF 2C15 (Midwifery Care II), and MIDWIF 3E03 (Professional issues) include Intensives.

CLINICAL COURSES

Clinical courses consist of a placement in a practice and concurrent problem-based tutorials that are offered during one semester. Students are assigned to a midwifery practice for an extended period of time to ensure continuity of care to expectant mothers, and supervision from a clinical preceptor. Throughout the programme, students will be placed in more than one midwifery practice and will gain clinical experience in a hospital setting with a family physician and an obstetrician. Efforts are made to assist students in being assigned to the clinical practice of their choice. However, due to limited placement locations, students may have to travel for clinical placements. Travel and living expenses are the responsibility of the student.

REQUIREMENTS

132 units total (Levels I to IV)

LEVEL I: 30 UNITS
6 units HTH SCI 1D06
6 units HTH SCI 1C06
6 units WOMEN ST 1A06
3 units HTH SCI 3M03 (Term II)
6 units MIDWIF 1A06
3 units MIDWIF 1G03 (Term I)

LEVEL II: 30 UNITS
3 units MIDWIF 2B03
6 units from HTH SCI 3B03, 3LL3, MIDWIF 3D03
15 units MIDWIF 2A03, 2E12
3 units MIDWIF 2F03
3 units Electives

LEVEL III: 42 UNITS
15 units MIDWIF 2B15
9 units MIDWIF 3A09 (Spring/Summer)
15 units MIDWIF 2C15
3 units MIDWIF 3F03 (Spring/Summer)

LEVEL IV: 30 UNITS
15 units MIDWIF 3B15
12 units MIDWIF 3C12
3 units MIDWIF 3E03

1 Transfer/challenge credit may be available.
2 Clinical course consists of a placement in a practice and concurrent problem-based tutorials that span antenatal, intrapartum, postnatal and newborn care.
3 Includes a week when all students are brought together at one site.
Admission Requirements and Procedures

Admission into the Midwifery Education Programme is reserved for candidates who satisfy the academic requirements of the programme. It is recommended that applicants complete at least one year of university studies prior to application. All certified transcripts from secondary and post secondary institutions previously attended must accompany the application. Applicants who have not attended university, as well as certified translations of the documents (if they are in a language other than English). The application deadline is February 1, 2001. Applications received after February 1, 2001 will not be considered. For those applicants currently registered in required subjects, interim grades must be submitted and courses completed by June 30, 2001. Final grades must be available immediately thereafter.

All documents submitted with the application become the property of the university. Successful applications remain on file.

Applicants Directly from Ontario Secondary Schools

A. OSSD with six (6) OAC (Ontario Academic Credit) courses including the following required courses:
   1. One of OAC English I; OAC English II or OAC English III
   2. One of OAC Biology or OAC Chemistry (both are recommended)
   3. An OAC in Social Sciences (history, sociology, psychology, geography, or law);

AND

B. Students must obtain a minimum of 70% in each of the three (3) required courses AND a minimum overall final average of 70% in six OAC courses including the required courses.

Prior/Current College Diploma Studies

Applicants with Ontario College Studies or equivalent must have full courses that are equivalent to the OACs in the three required subjects as stated above. In addition, a minimum of 70% must be obtained in each of the three required subject areas. A minimum of 70% average from at least two years of college work must be obtained. Applicants with CEGEP background should consult the OAC equivalence chart found in the Admission Requirements section of this Calendar.

Prior/Current University Students

Applicants with prior or current university studies, at the time of application must have high school OAC's or equivalent university courses in three of the required subject areas noted above. Students must have 70% in each of the three required subjects. In addition, the applicant's overall average from the best ten full courses or equivalent two years of university work must be a minimum of 70%.

Mature Students

Mature students must have completed the three required subjects not in a post secondary institution, and have obtained a minimum grade of 70% in each course. Students who do not meet the basic academic requirements as listed below are advised to take OACs or introductory university level courses. The two years absence from formal studies clause may be waived for those who take OAC upgrading. The following University requirements for Mature Students also apply. A student must:
   1. be at least 21 years old, or will be prior to the first day of classes for the session to which application is made;
   2. have not attended secondary school for at least two years;
   3. have never attended university;
   4. have not been enrolled in a college diploma programme within the last five years or have completed less than one year of college work.

Prior Midwifery Education or Experience

Applicants will be individually assessed. Applicants should note that the College of Midwives of Ontario offers a Prior Learning Experience and Assessment process to determine equivalency to Ontario requirements for registration. Please contact the College of Midwives of Ontario, 2195 Yonge Street, 4th Floor, Toronto, Ontario, M4S 2B2.

Transfer or Challenge Credit

Students with previous university education may be eligible for transfer credits for non-clinical courses in Levels I and II. Transfer credits will be determined on an individual basis. Students who do not receive transfer credit but feel they would like to challenge a course must follow the University guidelines to proceed a challenge process. Please see Credit in Courses by Special Assessment in the Admission Requirements section of this Calendar. Challenge Credits are only available for HTH SCI 1D06 (Topics in Biological Sciences), HTH SCI 1C05 (Clinical Skills for Midwifery), HTH SCI 3H03 (Critical Appraisal of Research Literature), and HTH SCI 1C06 (Social and Cultural Dimensions of Health). Transfer or Challenge Credits will not reduce the time required to complete the programme.

Selection Procedure

Midwives should have the ability to give supervision, care and advice to women during pregnancy, labour and the postpartum period. They must be able to conduct deliveries and provide care for a newborn. In order to fulfill this criteria, midwives must have thorough and rigorous academic training. Midwives, as primary health care providers, should have well-developed interpersonal skills. They must be competent in areas of health education, counselling and interprofessional collaboration. Applicants to the programme will be assessed for their ability to exhibit and further develop these important personal/professional qualities.

The Midwifery Education Programme has limited placements and the admission process is very competitive. Therefore, the possession of the minimum requirements does not guarantee admission. To ensure suitable candidates are admitted, the programme has a selection procedure which allows candidates to be assessed on an additional basis.

The admission process is comprised of three stages. Applicants must be successful at stages one and two to be considered for stage three.

1. Assessment of Academic Eligibility: Review of applications for completeness and evidence of academic eligibility.

2. Review of Personal Questionnaire: Each applicant must answer five questions in a typed submission not exceeding five double-spaced pages.

3. Personal Interviews: Applicants with the highest scores on the interviews will be considered for an offer of admission.

UNSUCCESSFUL APPLICANTS

Applications are not held over from one year to another. If an unsuccessful applicant wishes to reapply to the Midwifery Education Programme, a new application, including transcripts and supplementary materials must be submitted. Unsatisfactory applicants may request feedback about their application for the current year. Applicants must make their requests in writing to the programme no later than June 30th of the year of application. Depending on the volume of requests it may take several months for the programme to reply.

APPLICATION DEADLINE

Submission of completed application forms to the Ontario University's Application Centre and all supporting documents/transcripts, must be received by the University no later than February 1 of the year in which registration is expected.

Financial Information

In 2000-2001 the tuition fee for a student in the Midwifery Education Programme were $4,126.35 for Level I and $4,106.35 for upper levels. Supplementary fees are estimated at $200.00 per year.

Financial assistance is available from the federal and provincial governments through the Ontario Student Assistance Programme (OSAP). Students intending to apply for OSAP may begin their application process to OSAP once they are notified about receiving an interview. The final status of your application can be confirmed with OSAP at a later date.

Additional costs include books, supplies, and other learning resources estimated at $500.00-$1000.00.

Students should expect to cover a portion of costs for accommodation and meals when students meet together at one site five different times during the programme.
Academic Regulations

In addition to meeting the General Academic Regulations of the University, students enrolled in the Midwifery Education Programme will be subject to the following programme regulations.

The Midwifery Education Programme reserves the right, at any point during the term, to remove a student from a clinical placement or laboratory setting if the student exhibits unsafe clinical practice or behaviour that places clients or others at risk and/or violates the Midwifery Act of Ontario. Such removal will result in the student receiving an F grade and may result in dismissal from the Programme.

CONTINUATION IN THE PROGRAMME

All courses (clinical and non-clinical) with the subject abbreviation MIDLWIF and HTH SCI (as outlined in the Curriculum Plan) are required for the degree. Students are reviewed at the end of each term. Students must achieve a Cumulative Average (CA) of at least 6.0 in all graded courses and achieve a Pass/Satisfactory performance in all clinical courses at each review to continue in Good Standing in the programme.

A student is considered to be in Good Standing when all of the following criteria are met. The student must:

1. achieve a Cumulative Average (CA) of at least 6.0 in all graded courses;
2. achieve a minimum grade of C in HTH SCI 1D06 (Topics in Biological Science); and a grade minimum of B- in MIDLWIF 1A06 (Introduction to Midwifery);
3. achieve a Pass/Satisfactory performance in all clinical courses;
4. receive a passing grade (minimum D-) in graded courses other than those stated in 2. above.

PROBATION

A student will be placed on probation if any of the following criteria is met. The student:

1. obtains a CA less than 6.0 in graded courses.
2. obtains a grade of less than C in HTH SCI 1D06 (Topics in Biological Science) or a grade less than B- in MIDLWIF 1A06 (Introduction to Midwifery).
3. receives an F or Fail/Unsatisfactory in any course.
4. fails any one course.

If a student receives a CA of less than 6.0 (5.5 to 5.9), he/she may remain in the programme, but will be placed on programme probation for one reviewing period. A student may be on programme probation only once. If a student receives a CA of 3.5 - 5.4, he/she may transfer to another programme for which he/she qualifies.

A student must obtain a minimum pass grade (D- except in HTH SCI 1D06 and MIDLWIF 1A06) in the course being repeated and receive an overall CA of 6.0 at the completion of a probation period. Planned course work for any student on probation will be assessed by the Academic Review Committee.

REQUIRED TO WITHDRAW

A student will be required to withdraw from the programme if any of the following criteria is met. The student:

1. obtains a Cumulative Average (CA) of less than 6.0 at the end of a probation period.
2. fails two courses in an academic year.
3. fails any two clinical course at any time throughout the programme.
4. fails the second attempt at a course.
5. fails to complete programme requirements for graduation within the maximum allowable time (five years).

DEAN’S HONOUR LIST

Students will be evaluated for standing on the Dean's Honour List only upon completion of the programme. Students will be named to the Dean's Honour List if they receive no failing, provisional or unsatisfactory grades in any courses throughout the programme and achieve a CA of 9.5, on graded courses taken throughout the programme.

GRADUATION REQUIREMENTS

A student is eligible for graduation when the following criteria are met. The student must:

1. complete all required courses, including electives, with a CA of at least 6.0 on including a minimum grade of C in HTH SCI 1D06 and a minimum grade of B- in MIDLWIF 1A06.
2. complete all clinical courses with a Pass/Satisfactory grade.
3. complete all courses for the degree within five years.

Professional Membership

The practice of midwifery is regulated by the College of Midwives under the Midwifery Act, 1991 and the Regulated Health Professions Act, 1991. The College of Midwives has approved a set of core competency for entry to practice which guides the Midwifery Programme's curriculum. Regulations under the Ministry Act set out the following for registration: attendance at a minimum of 80 births, of which the student must be involved as a midwifery caregiver for at least 30 must include care throughout pregnancy, labour and the puerperium.

The Association of Ontario Midwives is the professional body representing midwives and the practice of midwifery in the province of Ontario. The Association of Ontario Midwives advocates for the professional interests of midwives in the area of professional liability insurance and funding for midwifery services. They provide public education and promote midwifery as an integral part of the Ontario health care system.

The programme strongly suggests that students join both the College of Midwives Subscriber Status and the Association of Ontario Midwives as a student member.

Graduation from the Midwifery Education Programme does not guarantee registration with the College of Midwives. All applicants to the College must meet additional registration requirements. New graduates are required to work in an established practice for their first year of registration.

Regulatory requirements are subject to change from time to time. The programme will maintain a close working relationship with the regulatory body so that students obtain the required clinical experiences to be eligible, for registration.

THE SCHOOL OF NURSING
more details about these sessions or to register for a visit, please call the Office of the Registrar at (905) 525-4600. Applicants not applying directly from high school who require an application package should call (905) 525-9140, ext. 22232.

The B.Sc.N. Programme

The B.Sc.N. Programme promotes the development of nursing as a caring, client-centred, scientifically based profession. With an emphasis on problem-based, small group, self-directed learning, the programme provides a general baccalaureate education in nursing for the preparation of professional nurses who will practise in a variety of health-care settings. Central to our mission is the preparation of nurses who will work to enhance the quality of health of individuals, families, communities, and society. In fulfilling this mission, the B.Sc.N. Programme promotes skills in its graduates to prepare them for life-long, self-directed learning, critical thinking, advocacy and collective action.

As students progress in the B.Sc.N. Programme, they will find an increasing emphasis on interpersonal skills, independent learning, and leadership qualities. Applicants should evaluate their own potential for developing abilities to interact with others and to assume leadership roles. Learning is a process of inquiry; a skill to develop as a life-long activity in an environment conducive to openness and sharing among faculty and students. Emphasis on small group tutorials and self-directed learning promotes the development of self-evaluation skills and critical thinking abilities. Extensive multimedia, laboratory and library resources support a belief in the importance of independent study. Students apply concepts from Nursing and related disciplines to their experiences in classroom and clinical settings. (Opportunities exist for international and outpoot clinical practice experiences.)

Evaluation by self, peers and faculty is part of an on-going assessment process in the achievement of clinical, course, and programme objectives.

BELIEFS AND GOALS

We believe that nursing is a scientific activity which seeks to describe, understand and accept reality as human beings experience it, and to provide professional care in this context.

The scientific activity of nursing involves critical appraisal, the ability to selectively utilize research findings and the use of a problem-solving process.

We believe that all human beings are unique, self-interpreting individuals with potential and with freedom of choice in determining the quality of life. The nurse and the client (individual, group or community) are accountable for their decisions and actions.

The unique contribution of nursing is in professional caring, which has both scientific and humanistic components.

At McMaster, we believe that health care is a team responsibility and that nursing education can be offered most beneficially in an interprofessional setting.

We believe that we can contribute to the development of nursing as a profession by producing graduates who:

1. Demonstrate personal characteristics that reflect a developing professional meaning: that is:

   a) recognize the intrinsic dignity, worth and uniqueness of persons
   b) demonstrate sensitivity and awareness of personal assets and limitations
   c) demonstrate advocacy, empathy, tolerance, accountability
   d) maintain ethical standards
   e) think rigorously and critically
   f) foster independent and collaborative practice
   g) provide leadership for change

2. Accept responsibility for life-long learning and professional growth.

3. Identify and understand internal and external influences on human health.

4. Utilize knowledge of biological, physical, verbal, emotional and spiritual factors in nurse/client situations.

5. Demonstrate knowledge of the impact of interprofessional interchange on nursing, other health disciplines and the health-care system.

6. Demonstrate nursing practice that reflects knowledge of the processes of change, caring, coping, valuing, learning and critical appraisal.

7. Demonstrate a comprehensive approach to nursing practice in a variety of settings.

8. Support and promote a humanistic and scientific approach to the care of nursing clients.

Admission Policy and Procedure

ADMISSION POLICY

Application to the B.Sc.N. Programme in the Faculty of Health Sciences implies acceptance of admission policies, procedures and the methods by which applicants are chosen for the programme.

Entrance requirements in the B.Sc.N. Programme are limited, admission is by selection. Possession of the published minimum requirements does not guarantee admission.

There are three streams of study leading to the completion of the B.Sc.N degree. The Basic (A) Stream requires four years of study, and is available to those applying directly from an Ontario secondary school with OACs; to those who have qualifications equivalent to OACs; to university students who wish to transfer to a nursing; and to applicants with other qualifications who meet the admission requirements.

The Post Diploma (B) Stream is available to Diploma Registered Nurses only. Graduates of an approved diploma nursing programme who are admitted to the B.Sc.N. Programme are granted advanced credit and may complete the programme in five academic terms if taken on a full-time basis.

The Ontario Primary Health Care Nurse Practitioner Programme (C) Stream is a post-diploma/post degree programme. Diploma-prepared nurses require 24 months of full-time study to complete their BScN/NP degree, while degree-prepared nurses require 12 months on a full-time basis or up to 36 months on a part-time basis to complete the Nurse Practitioner Certificate.

The requirements and application deadlines vary depending on the applicant's background and the programme selected.

Offers awarded by the assessors are final. Detailed medical information, including a record of completion of required immunizations, will be required upon acceptance into the programme. Evidence of CPR certification (BCLS) will also be required.

The School of Nursing is committed to equality of opportunity. Disability is not grounds for exclusion from the School. Every attempt will be made to remove barriers and create accommodation provided any accommodation maintains the same academic and clinical standards for all students and does not require significant programme change. Applicants should contact the School of Nursing Admissions Office (905) 525-9140 for information.

Applicants Directly from Ontario Secondary Schools

The selection method for Ontario secondary school applicants is by academic qualifications. Early conditional offers of admission are made in late March based on the following: a) six appropriate OAC courses with Grade 11/12 intermediate OAC grades, or b) at least three final OAC grades and Grade 11/12 advanced grades plus enrolment in the appropriate three additional OAC courses. Offers based on intermediate grades will be conditional upon maintaining satisfactory performance on final grades.

Applicants With Other Qualifications

For applicants not applying directly from Secondary School or without the necessary OAC equivalents, selection is based on academic qualifications, a rating obtained on a questionnaire and a personal interview. The response to the questionnaire is assessed by teams normally representing the faculty, the students or alumni, and the community. Applicants may be invited to a personal interview at McMaster in May 2001. Applicants are responsible for their travel expenses. Failure to attend the interview will result in cancellation of the application. The scores awarded by the assessors are final.
Admission Procedure

Applicants from Ontario Secondary Schools (A Stream)
Applicants currently completing OACs apply through the Ontario Universities' Application Centre (OUAC). (See address below.) Application forms are available in secondary school guidance offices. Applications for all studies beginning in September must be received by OUAC no later than May 1. Secondary schools will forward mid-term and final transcripts directly to OUAC in support of applications.

Applicants With Qualifications Equivalent to OAC (A Stream)
Applicants should contact the Ontario Universities' Application Centre (OUAC) for an application package and return it to them by May 1, to be considered for admission. (See address below.) Applicants must also have official transcripts forwarded from their secondary school to the McMaster B.Sc.N. Programme by May 1.

Return to:
Ontario Universities' Application Centre (OUAC)
170 Research Lane
Guelph, ON, N1G 5E2
http://www.ouac.on.ca

Applicants with Other Qualifications and Post Diploma Applicants (A and B Streams)
Applicants should contact the Ontario Universities' Application Centre (OUAC) for an application form and the Admissions Coordinator (Nursing) for an application package. Applications for all studies beginning in September must be received by February 15.

Ontario Universities' Application Centre (OUAC)
170 Research Lane
Guelph, ON, N1G 5E2
http://www.ouac.on.ca

Admissions Coordinator (Nursing)
McMaster University, HSC-2E10
1200 Main Street West
Hamilton, ON, L8N 3Z5

Ontario Primary Health Care Nurse Practitioner Programme (C Stream)
Applicants must contact the Ontario Universities' Application Centre (OUAC) to obtain the Primary Health Care Nurse Practitioner Education Programme Application Package. (Please see address above.) Applicants for all studies beginning in September must be received by OUAC no later than February 1.

Admission Requirements

Applicants will be informed of the admission decision by mid-June. Where courses are in progress at the time of admission, the offer of admission will be conditional upon the applicant achieving a final cumulative average of 8- in the required course work.

Post Diploma Applicants
Selection is based on academic qualifications, a rating obtained on a questionnaire and a personal interview. (Integrated BScN: NP applicants will not be interviewed.) The response to the questionnaire is assessed by teams normally representing the faculty, the students or alumni, and the community. Applicants may be invited to a personal interview at McMaster in May 2001.

Applicants are responsible for their travel expenses. Failure to attend the interview will result in cancellation of the application. The scores awarded by the assessors are final.

Applicants will be informed of the admission decision by mid-June. Applicants enrolled in diploma nursing programmes at the time of application must be eligible to write the nursing registration examinations no later than June of the year of application to the B.Sc.N. Programme in order to assure possession of a current annual registration payment card from the College of Nurses of Ontario.

Note: Application to the programme must be made within two years of completion of the OAC requirements. The admission average will be calculated on the best six OAC subjects, including the four required subjects.

Applicants with Qualifications Equivalent to OAC
Applicants from other provinces and countries must achieve the equivalent to the qualifications listed above in their secondary school graduation year.

Applicants with Other Qualifications
Applicants normally should:
1. a) be currently enrolled in first year of a University programme and have achieved a university admission average of at least 75% or
b) achieve a cumulative average of at least B- in all University degree credit courses taken. A minimum of 12 units or equivalent are required. (These courses may be taken as a full-time or part-time student. University correspondence degree courses are acceptable.)

Note: University degree credit courses completed prior to admission will be assessed for advanced credit by the Office of the Coordinator of Studies following admission to the programme.

2. submit Form 105D to OUAC along with the $85 fee by February 15.
3. submit a completed original and three copies of the response to the questionnaire provided in the application package along with the $50 fee to McMaster by February 15.

Admission Requirements

A student who plans to enter the Undergraduate Nursing Programme may qualify under one of the categories described below.

I. BASIC (A) STREAM
Applicants Directly from Ontario Secondary Schools
Requirements
1. One of OAC English I, OAC English II, or OAC English III;
2. One of OAC Calculus, OAC Algebra and Geometry, OAC Finite Mathematics;
3. Two of OAC Biology, OAC Chemistry or OAC Physics;
4. Two additional OACs to total six credits.

Note: Application to the programme must be made within two years of completion of the OAC requirements. The admission average will be calculated on the best six OAC subjects, including the four required subjects.

II. POST DIPLOMA (B) STREAM
Applicants normally must:
1. possess a current College of Nurses of Ontario annual registration payment card or be eligible for reciprocity, or be eligible to write and subsequently pass the Registration examinations.
2. have an Ontario diploma in nursing or the equivalent with a minimum overall average of 2.7 (B-).
3. submit Form 105D to OUAC along with the $85 fee no later than February 15;
4. submit a completed original and three copies of the response to the questionnaire provided in the application package, a photocopy of the current College of Nurses of Ontario annual registration payment card, transcripts, and the $50 fee to McMaster by February 15.

Note: University degree credit courses completed prior to admission will be assessed for advanced credit by the Office of the Coordinator of Studies following admission to the programme.

III. ONTARIO PRIMARY HEALTH CARE
NURSE PRACTITIONER PROGRAMME (C) STREAM
Selection is based on academic qualifications, professional experience, clinical references, and personal questionnaire scores. The response to the questionnaire is assessed by teams normally representing the faculty, the students or alumni and the community. The scores awarded by the assessors are final. Applicants will be informed of the admission decision by May.

Applicants with a Diploma in Nursing must:
1. have an Ontario Diploma in nursing or the equivalent with a minimum overall average of 70%;
2. hold a current College of Nurses of Ontario annual registration payment card;
3. have the equivalent of a minimum of two years full-time nursing practice within the past five years as evidenced by the employer-completed Verification of Employment form(s);
4. submit Form 105D to OUAC along with the $85 fee by February 1;
5. submit a copy of the current College of Nurses annual registration payment card, the relevant professional experience form, verification of employment form(s), two clinical reference forms, a personal questionnaire response, official transcripts from a diploma nursing programme, copies of any additional professional registration, memberships or certificates listed on the relevant professional experience form (i.e., RNAO, CPR), and an official transcript showing a minimum of B- in at least one full-year University degree credit course or a Cumulative Average of at least B- along with the $50 fee to McMaster by February 1.

Applicants with a Baccalaureate in Nursing must:
1. possess an Ontario baccalaureate in nursing or the equivalent with a minimum overall average of 70%. In cases where the minimum grade is not achieved, consideration may be given to university credit work completed following graduation which demonstrates equivalent academic ability;
2. hold a current College of Nurses of Ontario annual registration payment card;
3. have the equivalent of a minimum of two years full-time nursing practice within the past five years as evidenced by the employer-completed Verification of Employment form(s);
4. submit Form 105D to OUAC along with the $85 fee by February 1;
5. submit a copy of the current College of Nurses annual registration payment card, the relevant professional experience form, verification of employment form(s), two clinical reference forms, a personal questionnaire response, official transcripts from a degree nursing programme, copies of any additional professional registrations, memberships or certificates listed on the relevant professional experience form (i.e., RNAO, CPR) to McMaster by February 1.

Preference will be given for:
- Ontario residents
- work experience in nursing that has been continuous
- practical experience in one or more of the following areas: primary health care, ambulatory care, public health, community health, long term care, emergency care or outpass nursing
- hands-on practical experience

UNSUCCESSFUL APPLICANTS
Unsuccessful applicants may inquire about their application for the current year by writing to the Chair of the Undergraduate Nursing Admissions Committee. No inquiries will be considered after August 31 of the year of application. Applications are not held over from one year to another. An unsuccessful applicant may reapply to the B.Sc.N. Programme by submitting a new application, including supporting documentation.

APPLICATION FOR DEFERRAL OF REGISTRATION
Deferred registration is granted only under exceptional circumstances to those candidates who have been admitted and have accepted the offer. Registration may be deferred for one year only. The request for deferral outlining the reasons for the request must be postmarked no later than July 31 of the year for which deferral is requested.

Academic Regulations
In addition to meeting the General Academic Regulations of the University, students enrolled in the B.Sc.N. programme shall be subject to the following programme regulations:

Registration in the B.Sc.N. programme implies acceptance on the part of the student of the objectives of that programme and the methods by which progress toward the achievement of those objectives is evaluated.

Since the academic regulations are continually reviewed, the University reserves the right to change the regulations.

The University also reserves the right to cancel the academic privileges of a student at any time should the student's scholastic record or conduct warrant so doing. Where the performance of the student in clinical nursing practice may jeopardize or endanger the welfare of the patient, or the patient's family, the student may be removed from clinical experience any time during the academic year until continuation in the course is reviewed. The clinical privileges associated with any clinical course must be successfully achieved for attainment of a passing grade in the course.

PART-TIME STUDENTS
It is possible to complete the B.Sc.N. programme on a part-time basis. University and programme regulations governing full-time undergraduate students will govern part-time students although there are additional guidelines for part-time study.

As enrolment is limited, places reserved for part-time students at each level will be restricted. Normally, nursing courses are available only during the day. Electives may be taken either in the day or evening. Counselling sessions will be available for part-time students after admission.

B.Sc.N. Programme Academic Regulations
Basic (A) and Post Diploma (B) Stream
A student must:
1. achieve a Cumulative Average (CA) of at least 3.5;
2. achieve a grade of at least C- in the graded Nursing and required Health Sciences courses. A grade of D-, D or D+ is permissible in one Level I Health Sciences course and in only one required Health Sciences course beyond Level I;
3. achieve a Pass designation in all clinical courses and the clinical component of NURSING 1F04 and 1G04.

The following courses are designated clinical courses:
- Basic (A) Stream: NURSING 2L03, 2P03, 3X04, 3Y04, 4J07, 4K07
- Diploma Registered Nurses (B) Stream: NURSING 3L3, 4S06, 4T06

All clinical courses above Level I are evaluated on a Pass/Fail basis. Areas of excellence in practice are noted in a detailed evaluation summary for each course.

(A course for which credit has not been given may be repeated only when approval is given by the B.Sc.N. Programme Chair in consultation with the programme Reviewing Committee.)

Nurse Practitioner (C) Stream and
Nurse Practitioner Certificate Stream
A post-diploma student must:
1. achieve a Cumulative Average (CA) of at least 3.5;
2. achieve a grade of at least C- in the graded Nursing and required Health Sciences courses with the exception that a grade of D-, D or D+ is permissible in one Level I Health Sciences course and only once in required Health Sciences courses beyond Level I.
Both post-diploma and post-degree students must:

1. achieve a Pass designation in the clinical component as well as a grade of B- in the theoretical component in each of NURSPRAC 4A10, 4C13, 4T10;
2. achieve a grade of B- in NURSPRAC 4P03, 4R03.

The following courses are designated clinical courses:
- NURSPRAC 4A10, 4C13, 4T10

CONTINUATION IN THE PROGRAMME

To continue in the B.Sc.N. programme a student must obtain a CA of at least 3.5. A student whose CA is at least 3.0 may, at the discretion of the B.Sc.N. Programme Chair in consultation with the programme Reviewing Committee, proceed in the programme and will be placed on programme probation. A student may be placed on programme probation only once during the programme.

FAILURE

A student whose CA is less than 3.5, and who has not been granted programme probation, may not continue at the University. A student who fails to obtain a CA of 3.5 at the completion of the programme probation may not continue at the University.

A student may normally repeat a level of work only once.

If a student fails to meet the minimum grade requirements in the required graded Nursing and required Health Sciences courses or a Pass designation in the clinical nursing courses, the student may, at the discretion of the Programme Chair in consultation with the programme Reviewing Committee, be allowed to repeat the course in which the minimum grade or Pass requirement has not been met. If a student fails to meet the minimum grade or Pass requirement after repeating the course, the course may be repeated once in the same session.

Only one Nurse Practitioner course may be repeated. If a grade of less than B- or unsatisfactory is obtained in the Nurse Practitioner course in the second attempt, the student will be removed from the programme.

TRAVEL EXPENSES FOR COURSES

WITH A PRACTICUM COMPONENT

Students are responsible for arranging their own travel to and from learning settings external to the University and for covering any costs incurred. All students who enrol in the B.Sc.N. Programme are expected to be able to travel to any learning setting in Hamilton and the surrounding area that is accessible by public transportation. Normally, students will only be assigned to settings to which they can travel by public transit. If a setting is not accessible by public transit, or if the travel demands of the setting exceed what can be provided by the public transit system (e.g., Public Health, VON), only those students who indicate in writing that they will be responsible for their own transportation will be given that assignment. The final assignment of learning settings for any course is constrained by the availability of the requested setting and faculty resources. Students may, therefore, be required to complete the practicum component of a course in a learning setting that is not of their choosing.

Curriculum for the B.Sc.N. Programme

BASIC (A) STREAM  (6390)

The Faculty has planned the curriculum so that the study of nursing, the physiological, psychological and social sciences, and the humanities are interrelated and span the entire programme. In Level I, the amount of nursing experience is relatively small; the major proportion of study is in the behavioural and natural sciences. The nursing component increases progressively through Levels II, III, and IV, as the study of natural sciences is completed. Normally, because of timetable constraints, courses must be taken in the level indicated in the curriculum.

ELECTIVES

Thirty units of electives are to be selected from disciplines of the student’s choice, of which a minimum of 12 units are to be chosen from courses designated as Level II or above. For some courses, the amount of duplication of required content will preclude their being used for elective credit in the B.Sc.N. programme.

REQUIREMENTS

LEVEL I: 32 UNITS

(Units graded: 32)
12 units HTH SC1 1A06, 1H03, 1H13
12 units NURSING 1F04, 1G04
6 units PSYCH 1A03 and 1A43
6 units Electives

LEVEL II: 28 UNITS

(Units graded: 23; Units pass/fail: 6)
6 units HTH SC1 2H03, 2H13
14 units NURSING 2L03, 2M03, 2N03, 2P03, 2Q02
6 units Electives

LEVEL III: 32 UNITS

(Units graded: 24; Units pass/fail: 8)
7 units HTH SC1 3B03, 3C04
16 units NURSING 3S03, 3T03, 3U02, 3X04, 3Y04
9 units Electives

LEVEL IV: 30 UNITS

(Units graded: 16; Units pass/fail: 14)
2 units HTH SC1 4L02
22 units NURSING 4A02, 4E03, 4F03, 4J07, 4K07
6 units Electives

TOTAL UNITS: 123

REGISTRATION TO PRACTISE NURSING

On receiving the B.Sc.N. degree after successful completion of the (A) Stream of the B.Sc.N. programme, graduates are eligible to write the RN Licensing Examinations which are administered by the College of Nurses of Ontario. Application to write the RN Licensing Examinations is made through the Faculty of Health Sciences.

DIPLOMA RN (B) STREAM  (6391)

The programme of study for Diploma Registered Nurses is integrated with existing course offerings. The practice of nursing in diverse clinical settings will occur in all academic terms. The curriculum is designed to build on the existing knowledge and skills of the students, to prevent duplication of learning experiences and to prepare the students to function in an expanded role in community and institutional settings.

The curriculum is planned for five academic terms if taken on a full-time basis. If taken on a part-time basis, students are normally allowed six years after the first Nursing course to complete the programme requirements.

REQUIREMENTS FOR STUDENTS ENTERING IN SEPTEMBER 2001

ELECTIVES

Twenty-four units of electives are to be selected from disciplines of the student’s choice, of which a minimum of 12 units are to be chosen from courses designated as Level II or above. For some courses, the amount of duplication of required content will preclude their being used for elective credit in the B.Sc.N. programme.

REQUIREMENTS

ADVANCED CREDIT: 42 UNITS

LEVEL III: 45 UNITS

(Units graded: 45)
TERMS 1 AND 2: 33 UNITS
21 units HTH SC1 1CC7, 2CC7, 3B03, 3C04
12 units 3M03, 3S03, 3T03, 3V03
SPRING TERM: 6 UNITS
6 units Electives
SUMMER TERM: 6 UNITS
6 units Electives

LEVEL IV: 34 UNITS

(Units graded: 22; Units pass/fail: 12)
TERMS 1 AND 2: 34 UNITS
2 units HTH SC1 4L02
20 units NURSING 4A02, 4E03, 4F03, 4S06, 4T06
12 units Electives

TOTAL UNITS: 121
REQUIREMENTS FOR STUDENTS WHO ENTERED PRIOR TO SEPTEMBER 2001

All B.Sc.N (B) Stream students who entered the programme prior to September 2001 have the option of continuing under the curriculum in effect when they entered. Alternatively, students may take advantage of the programme requirements taking effect in September 2001. All students are strongly encouraged to contact the Coordinator of Studies for individual counselling to decide upon their programme of study. Students require a minimum of 121 units to graduate.

ELECTIVES

Thirty units of electives are to be selected from disciplines of the student’s choice, of which a minimum of 12 units are to be chosen from courses designated as Level II or above. For some courses, the amount of duplication of required content will preclude their being used for elective credit in the B.Sc.N. programme.

REQUIREMENTS

ADVANCED CREDIT: 33 UNITS

LEVEL III: 45 UNITS

(Units graded: 40; Units pass/fail: 5)

TERMS 1 AND 2: 33 UNITS

17 units HTH SCI 1A06, 1Z24, 3B03, 3C04
16 units NURSING 3L2L, 3MM3, 3S03, 3T03, 3VV2, 3WW3

SPRING TERM: 6 UNITS

6 units Electives

SUMMER TERM: 6 UNITS

6 units Electives

LEVEL IV: 47 UNITS

(Units graded: 35; Units pass/fail: 12)

TERMS 1 AND 2: 29 UNITS

9 units HTH SCI 2C07, 4L02
20 units NURSING 4A02, 4E03, 4F03, 4S06, 4T06

SPRING TERM: 6 UNITS

6 units Electives

SUMMER TERM: 6 UNITS

6 units Electives

ADDITIONAL ELECTIVES (ANY TERM): 6 UNITS

6 units Electives

TOTAL UNITS: 125

ONTARIO PRIMARY HEALTH CARE NURSE PRACTITIONER PROGRAMME (C) STREAM

AND NURSE PRACTITIONER CERTIFICATE PROGRAMME

This programme has been developed by a provincial consortium of ten Ontario universities offering one standardized curriculum since 1995.

The programme prepares students with a nursing diploma or a nursing baccalaureate with relevant experience to provide individuals, families and communities with the five basic components of comprehensive primary health care services (promotion, prevention, cure, rehabilitation and support) within an extended scope of nursing.

Computer skills and Internet access are mandatory. Distance education modalities are employed in all courses in the Nurse Practitioner (C) Stream and Nurse Practitioner Certificate Stream. Tutorial sessions are held on site at the University. Field experience is required for several courses.

Full-time BScN interventions attend classes for 24 consecutive months. Full-time certification NP students attend classes for 12 consecutive months. Once NP core courses are started, the five courses must be completed within three calendar years.

NURSE PRACTITIONER (C) STREAM

REQUIREMENTS FOR STUDENTS ENTERING IN SEPTEMBER 2001

REQUIREMENTS

ADVANCED CREDIT: 42 UNITS

Required elective completed before admission: 6 units

LEVEL III: 42 UNITS

(Units graded: 42)

TERMS 1 AND 2: 33 UNITS

21 units HTH SCI 1C07, 2C07, 3B03, 3C04
6 units NURSING 3S03, 3T03
6 units Electives

SUMMER TERM: 9 UNITS

9 units Electives

LEVEL IV: 44 UNITS

(Units graded: 34, Units pass/fail: 10)

TERMS 1 AND 2: 31 UNITS

2 units HTH SCI 4L02
26 units NURSPRAC 4A10, 4P03, 4R03, 4T10
3 units Electives

SUMMER TERM: 13 UNITS

(Units graded: 3; Units pass/fail: 10)

13 units NURSPRAC 4C13

TOTAL UNITS: 125

REQUIREMENTS FOR STUDENTS WHO ENTERED PRIOR TO SEPTEMBER 2001

All Nurse Practitioner (C) Stream students who entered prior to September 2001 have the option of continuing under the curriculum in effect when they entered. Alternatively, students may take advantage of the programme requirements taking effect in September 2001. All students are strongly encouraged to contact the Coordinator of Studies for individual counselling to decide upon their programme of study.

REQUIREMENTS

ADVANCED CREDIT: 33 UNITS

Required elective completed before admission: 6 units

LEVEL III: 42 UNITS

(Units graded: 42)

TERMS 1 AND 2: 33 UNITS

21 units HTH SCI 1C07, 2C07, 3B03, 3C04
6 units NURSING 3S03, 3T03
6 units Electives

SUMMER TERM: 9 UNITS

9 units Electives

LEVEL IV: 47 UNITS

(Units graded: 47)

TERMS 1 AND 2: 34 UNITS

2 units HTH SCI 4L02
26 units NURSPRAC 4A10, 4P03, 4R03, 4T10
6 units Electives

SUMMER TERM: 13 UNITS

(Units graded: 3; Units pass/fail: 10)

13 units NURSPRAC 4C13

TOTAL UNITS: 128

NURSE PRACTITIONER CERTIFICATE PROGRAMME

REQUIREMENTS

39 UNITS

(Units graded: 29; Units pass/fail: 10)

TERMS 1 AND 2: 26 UNITS

(Units graded: 26)

26 units NURSPRAC 4A10, 4P03, 4R03, 4T10

SUMMER TERM 13 UNITS

(Units graded: 3; Units pass/fail: 10)

13 units NURSPRAC 4C13

TOTAL UNITS: 39
EXTENDED CLASS OF REGISTRATION (RN/EC)  
On successful completion of the Ontario Primary Health Care Nurse Practitioner Programme, nurses registered with the College of Nurses of Ontario are eligible to write the Extended Class Licensing examination through the College of Nurses of Ontario (CNO). Updates regarding this process are available to registered students on the NP Network.

Nursing Leadership/Management Programme  
[6396]

The Nursing Leadership/Management Programme, which was previously administered and is currently endorsed by the Canadian Nurses Association, was transferred to McMaster in 1993. The Programme is offered to Registered Nurses located throughout Canada and internationally by means of distance education. It is also offered locally through individual self-directed study and tutorial.

The course work is designed to familiarize Registered Nurses with the theory and clinical application necessary to function effectively in a formal or informal leadership position. Content includes theory and techniques of management, leadership, organizational development and change, motivation, labour relations, legal implications, ethics, finance and the Canadian Health Care System. Separate modules are available in budgeting and total quality management.

Enrolment is by approval of the Coordinator. Further information may be obtained through the Programme Office.

ACADEMIC REGULATIONS

Students in the Nursing Leadership/Management Programme are subject to the General Academic Regulations of the University and the regulations of the B.Sc.N. Programme.

REQUIREMENTS

(Units graded: 6; Units pass/fail: 2)
6 units NURSING 4B06
1 unit NURSING 4C01
1 unit NURSING 4D01

TOTAL UNITS: 8

Students who are subsequently admitted to the Post Diploma (B) Stream of the B.Sc.N. Programme will be granted credit for the equivalent courses in the B.Sc.N. Programme.

Oncology Programmes

ADMISSION POLICY

All candidates must reside in Ontario and be registered to practice nursing by the College of Nurses of Ontario. Selection criteria for admission to the Adult Oncology programme is based on recent, relevant oncology nursing experience and demonstrated commitment to oncology nursing practice. Selection criteria for admission to the Paediatric Oncology programme is based on recent, relevant paediatric oncology nursing experience and demonstrated commitment to paediatric oncology nursing practice. Further information may be obtained through the Oncology Programme Office in Health Sciences Centre, Room 2J32.

ACADEMIC REGULATIONS

Students in the Oncology programmes are subject to the General Academic Regulations of the University and the regulations of the B.Sc.N. Programme.

Adult Oncology Programme  
[6398]

This programme has been established to provide registered nurses working with adult cancer patients the opportunity to develop enhanced knowledge and skills required for the evolving challenges of their roles across the cancer consortium. The programme has been developed within the context of the existing post diploma stream. The McMaster model of Nursing and philosophy of student-centred and problem-based learning are maintained and provide the foundation for curriculum design. Key aspects of the programme include professional role development, evidence based practice, and development of assessment, communication, supportive care and collaborative practice skills.

The Adult Oncology programme is offered to nurses within the province of Ontario and will be made accessible through a distance education format.

REQUIREMENTS

(Units graded: 13; Units pass/fail: 9)
3 units NURSING 3AA3
3 units NURSING 3CC3
3 units NURSING 3DD3
3 units NURSING 3MM3
4 units HTH SCI 3C04
6 units NURSING 4S06

TOTAL UNITS: 22

Students who are subsequently admitted to the Post Diploma (B) Stream of the B.Sc.N. Programme will be granted credit for these courses (or their equivalent) in the B.Sc.N. Programme.

Paediatric Oncology Programme  
[6394]

In order to accommodate the educational needs of registered nurses working in paediatric oncology, a programme has been developed within the context of the existing post-diploma stream. This programme affirms the McMaster curriculum model of student-centred, problem-based or problem-focused teaching and learning; respect for the adult learner; a curriculum cognizant of and responsive to evolving nursing practice, a commitment to interprofessional approaches and a commitment to a strong scientific component. Students enrolled in the programme will be actively linked with one of the provincial tertiary paediatric haematology-oncology sites and maintain their clinical practice at that institution. The courses themselves will emphasize the existing literature and practice modalities in paediatric haematology-oncology and incorporate these into some of the present post-diploma baccaulaureate courses. Some courses are available using a distance education modality.

REQUIREMENTS

(Units graded: 13; Units pass/fail: 9)
3 units NURSING 3AA3
3 units NURSING 3PO3
3 units NURSING 3Q03
3 units NURSING 3MM3
3 units NURSING 3PP3
4 units HTH SCI 3C04
6 units NURSING 4S06

TOTAL UNITS: 22

Students who are subsequently admitted to the Post Diploma (B) Stream of the B.Sc.N. Programme will be granted credit for these courses (or their equivalent) in the B.Sc.N. Programme.

SCHOOL OF REHABILITATION SCIENCE

WEB ADDRESS: http://www.fhs.mcmaster.ca/rehab

Programmes in Occupational Therapy, Physical Therapy, and Speech-Language Pathology are offered by the Faculty of Health Sciences at McMaster University. For further information concerning the two graduate programmes, the Master of Science in Occupational Therapy degree, MCHS (OT) and the Master of Science in Physical Therapy degree, MCHS (PT) are now offered. For further information concerning the two graduate programmes, please consult the School of Rehabilitation Science website at http://www.fhs.mcmaster.ca/rehab or contact Institute of Applied Health Sciences, Room 403 Ext. 27601

Honours Biology and Pharmacology Programme (Co-op)  

This is a joint programme between the Faculty of Health Sciences and the Faculty of Science (Department of Biology). The Pharmacology courses, which are run in a small group, problem-based format, are the responsibility of the Faculty of Health Sciences, drawn from the following departments: Biomedical Sciences, Medicine, Obstetrics and Gynecology, and Pathology. Please see the Faculty of Science, Department of Biology section for admission requirements.
Dean of Humanities
D.R. Woolf/B.A., D.Phil., F.R.H.S.
Associate Dean of Humanities (Studies)
J.D. Alsop/B.A., M.A., Ph.D., F.R.H.S.
Director of Academic and Administrative Services
P.A. Kalnins/B.A.

Academic Advisors
S.A. Richard/B.A.
C. Schlechta/B.A.
K. Singer

Business Manager
S. Mercer

Faculty Advancement Officer
N. Alexanian/B.A.

Assistant to the Faculty Advancement Officer
Kendyl Woodman/B.Ed.

Faculty Liaison Officer
R. Muhic-Day/B.A., M.A.

The Humanities at McMaster partake in a distinguished tradition. Our subjects - languages and literatures, history and philosophy, art, drama, music and women's studies - are crucial to self-knowledge and social awareness. They also develop the intellectual skills - critical and creative thinking, oral and written communication, understanding other people - that are vital in a knowledge society.

Our faculty members are dedicated scholars who are eager to share their knowledge. We welcome students and scholars who are interested in the application of computers to their subjects, who aspire to excellence in the fine and performing arts, who want deeper understanding of other cultures and mastery of their languages, or who desire to pursue classical, historical or philosophical studies.

The attainment of precise knowledge and fresh insights through lectures, class discussions, reflection, analysis and writing is the essence of study in the Faculty of Humanities' seven academic units. These are:

- School of the Arts
- Department of Classics (Ancient History and Archaeology, Classical Languages and Literature)
- Department of English
- Department of French
- Department of History
- Department of Modern Languages and Linguistics (Chinese, Catalan, German, Hispanic Studies, Italian, Japanese, Polish, Russian)
- Department of Philosophy

In addition, the Faculty offers the following interdepartmental programmes and one Interdisciplinary Minor:

- Honours Communication Studies (beginning in 2002-2003, subject to government approval)
- Combined Honours in Comparative Literature
- Combined Honours in German
- Combined Honours in Hispanic Studies
- Combined Honours in Italian
- Honours Linguistics
- Honours Modern Languages and Linguistics
- Combined Honours in Multimedia
- Combined Honours in Peace Studies (beginning in 2001-2002, subject to government approval)
- Combined Honours in Women's Studies
- Combined B.A. in Indigenous Studies
- Interdisciplinary Minor in Archaeology

PROGRAMMES AND DEGREES

A. Level I Programmes

HUMANITIES I

PROGRAMME NOTES

1. A full-course load for Humanities I is 30 units. (The final digit in course numbers indicates the unit weight of a course. A 6-unit course is taught from September to April and a 3-unit course is a half-year course which may be taught either from September to December or January to April.) Admission to a Level II programme normally requires completion of six units of the relevant subject. In order to be considered for admission to a Level II programme, students should consult the admission statements for the Level II programmes when selecting their Level I courses.

2. The Faculty offers INQUIRY 1HUG, Inquiry in the Humanities. Humanities I students may choose this course as an elective. For a course description see Inquiry or Humanities in the Course Listings section of this Calendar.

3. Humanities I students are permitted to take up to 12 units of work in any single subject.

4. Students with an OAC in Greek or Latin will register for six units of Level II Greek or Latin in lieu of the corresponding 1Z03 and 1ZZ3 courses.

5. Humanities I students are restricted to taking no more than 12 units of introductory language courses.

6. Portfolio Required: ART 1F06: The prerequisite for ART 1F06 requires permission of the School of the Arts based on a required portfolio interview. If you intend to take ART 1F06 which is required for entrance into any Honours Art programme, you must make an appointment with the School for a portfolio interview in February/March of the calendar year in which you wish to register for the programme. The portfolio should contain a variety of original work in different media, including work derived from both firsthand observation and the imagination. Aptitude in art and academic ability are both considered in the selection process. In exceptional circumstances where distance does not allow for an interview, portfolios may be submitted in the form of colour slides or photographs. Late applications will be considered subject to space availability and merit after the first allocations have been confirmed in June. Acceptance into ART 1F06 is contingent upon receiving a written confirmation from the School of the Arts.

7. Students wishing to take Music courses other than MUSIC 1A03 or 1AA3 must make arrangements with the School of the Arts for qualifying tests.

COURSE LIST

ART 1F06
ART HIST 1A03, 1AA3
CLASSICS 1A03, 1B03, 1BB3, 1LO3, 1LL3
CMST 1A03, 1B03
COMP LIT 1A03, 1AA3
DRAMA 1A03, 1A03
ENGLISH 1A03, 1AA3, 1BB3, 1BB3, 1C06
FRENCH 1A06, 1N06, 1Z06
GERMAN 1B03, 1B03, 1C03, 1Z03, 1Z03
GREEK 1Z03, 1Z03
HISPANIC 1A03, 1A03, 1A03, 1Z03, 1Z03
HISTORY 1A03, 1AA3, 1BB3, 1BB3, 1LO3, 1LL3
ITALIAN 1A03, 1AA3, 1C03, 1C03, 1D03, 1DD3
JAPANESE 1Z03, 1Z03
LATIN 1Z03, 1Z03
LINGUIST 1AA3, 1AA3
MMEDIA 1A03, 1B03, 1C03
MUSIC 1A03, 1AA3, 1CC3, 1D03, 1Y03, 1YY3
(Please Note 7 above.)
PEACE ST 1A03, 1B03
PHILOS 1A03, 1B03, 1C03, 1D03, 1E03
RUSSIAN 1Z03, 1Z03
WOMEN ST 1A06
FACULTY OF HUMANITIES

REQUIREMENTS:
Students admitted to Humanities I (0700) must complete 30 units as follows:
- 12 units from Course List (should include six units in each of two subjects listed above)
- 18 units Electives, which may include courses from the Course List

MUSIC I
REQUIREMENTS
Students admitted to Music I (0370) must complete 33 units of work as follows:
- 21 units MUSIC 1CC3, 1D03, 1E06, 1G03, 1Y03, 1Y3
- 12 units Electives

B. Degree Programmes

Upon successful completion of Humanities I, a student may be admitted to a programme of study leading toward a Bachelor of Arts degree. (Completion of Music I may lead to a Bachelor of Music or Bachelor of Arts degree.) There are three ways to complete a Bachelor's degree in the Faculty of Humanities.

SINGLE HONOURS PROGRAMME
This involves three years of study, beyond Level I, concentrated in the work of a single discipline (e.g. History). After three years of Music study beyond Music I, students receive a B.Mus. degree.

COMBINED HONOURS PROGRAMME
This involves three years of study, beyond Level I, concentrated in the work of two disciplines (e.g. English and Women's Studies). In fact, a student can combine study in any two Humanities disciplines, or one Humanities discipline and a subject from another Faculty where appropriate (e.g. History and Political Science) or one Humanities discipline with Japanese Studies.

MINOR
A minor is an option available to a student enrolled in a four-level programme. A minor consists of at least 18 units of Level II, III, or IV courses beyond the designated Level I course(s), using elective units only, that meet the requirements set out in the programme description of that minor. A student is responsible for ensuring that the courses taken meet these requirements. When registering for courses to be applied towards a minor, in the case of cross-listed courses, students must ensure that they register in the appropriate subject for the minor designation. Those who have the necessary requirements may apply for recognition of that minor when they graduate. If recognition for a minor is granted, this recognition will be recorded on the student's transcript. Minors cannot be revoked once approved. Students may return for a second degree in the subject in which they have obtained a minor, but only at the Honours level. For further information please refer to Minors in the General Academic Regulations section in this Calendar.

B.A. PROGRAMME
This involves two years of study, beyond Level I, concentrated in the work of a single discipline.

The content and the requirements of single Honours, Combined Honours and other B.A. programmes are found after the Academic Regulations below.

There are a number of Humanities courses which may be taken as electives without prerequisites. Individual course descriptions, by Department, are given under the section entitled Course Listings.

Not only are students from other Faculties able to take individual courses which have no prerequisites, but they are also able to transfer into any of the degree programmes offered by the Faculty of Humanities. For the majority of programmes in the Faculty, admission may be gained after the successful completion of any Level I programme at the university, providing this includes the necessary programme requisites as outlined in the admission statement for each Humanities programme as described under Programmes for the B.A., B.A. (Honours) and B.Mus. Degrees.

SECOND LANGUAGE PROFICIENCY
Students embarking on Humanities programmes should be aware that most graduate schools require, for admission, proficiency in at least one, and frequently two, languages other than English. In this Faculty, proficiency in at least one language other than English is regarded as an essential tool for students interested in Comparative Literature and Linguistics. Generally, proficiency in more than one language is a hallmark of most highly-qualified Humanities' graduates seeking the widest range of post-graduation academic and employment opportunities.

PART-TIME STUDY
Students wishing to enter any programme offered by the Faculty of Humanities and pursue a programme on a part-time basis should consult the appropriate Departmental Counsellor(s) before making their plans.

ACADEMIC REGULATIONS

Students enrolled in Humanities programmes, in addition to meeting the general Academic Regulations of the University, shall be subject to the following Faculty Regulations and Policies.

TRANSFER TO THE FACULTY OF HUMANITIES
Students from other Faculties are able to transfer to degree programmes offered by the Faculty of Humanities provided that they have obtained a Cumulative Average of at least 3.5 and have completed the necessary requirements for admission to a programme.

REINSTATEMENT TO THE FACULTY OF HUMANITIES
Students seeking reinstatement must complete the Returning Student Application form available at the Office of the Registrar (Gilmour Hall, Room 100) and the Faculty of Humanities (Chesterfield Hall, Room 112). A $50.00 fee must be submitted to the Office of the Registrar by June 30 for September entry and by November 30 for January entry.

Applications should explain the reasons for the student's inadequate performance, corroborated by two Letters of Reference from qualified professionals or employers, and should include relevant documentary evidence, for example a letter from a physician outlining any medical condition that might have affected the student's academic performance or final grades. Reinstatement cases will be carefully screened and the evidence considered will include the student's academic performance before and after admission to McMaster, as well as the nature of the reasons cited in the application letter, the Letters of Reference, and the accompanying documentation. Reinstatement is not guaranteed.

If students are reinstated at the University, their Cumulative Average will be re-set to 0.0 on zero units, although students may (at Faculty discretion) retain credit for prior work. Following reinstatement, students will be on academic probation and must complete a minimum of 60 units of work after reinstatement to be eligible for Graduation with Distinction or other recognition based on the Cumulative Average.

REGISTRATION AND COURSE CHANGES
It is the responsibility of the student to ensure that the programme of work undertaken meets the requirements for the degree. When registering or making changes to course selection, students must seek the written approval of the Dean of the Faculty of Humanities. Dates for final registration and course changes appear in the Sessional Dates section of this Calendar and are rigidly adhered to.

OVERLOAD
Students who wish to take more courses than recommended for a single Level of their programme may do so only if their Cumulative Average on completion of the previous Fall/Winter session is at least 7.0. A student with outstanding deferred examinations or termwork will not be permitted to overload in the following Term. Students registered in the final Level of their programme are permitted to overload by up to six additional units in order to become eligible to graduate.

SUMMER SCHOOL
Students who have been granted deferred examination or termwork privileges for courses taken in the preceding Winter session must secure the advance permission of the Dean of the Faculty of Humanities before registering in Spring/Summer courses. A decision will be made based upon the academic record of the student and the amount of work outstanding.

LETTER OF PERMISSION
Students in good academic standing, who wish to attend another university to take courses for credit toward a McMaster degree, must first request a Letter of Permission from the Office of the Dean of the Faculty of Humanities. A Letter of Permission is
automatically cancelled if a student is placed on academic probation, programme probation, or required to withdraw from the University. Students should take note of any conditions on the Letter of Permission that might apply, including the requirement of a grade of at least C- for transfer credit. Courses taken at another university cannot be used to satisfy the University's minimum residence requirement, will not be included in the calculation of the averages at McMaster, and therefore cannot be used to raise standing. The transcript designation will read COM, indicating Complete, when a C- or better is attained.

SUMMER IMMERSION PROGRAMMES IN FRENCH

Students must obtain approval from the Office of the Dean of the Faculty of Humanities prior to participating in any language immersion programme.

The government-sponsored summer language bursary programme offers universities the opportunity to take French courses at a large number of accredited institutions. Students wishing to attend another university in order to participate in a language immersion programme must: (a) petition the Office of the Dean of the Faculty of Humanities, (b) submit detailed course descriptions for assessment, and (c) obtain a Letter of Permission.

Students registered in a programme in French may take a maximum of six units of credit in this manner as elective work only. Students not registered in a programme in French may take up to 12 units of credit.

EXCHANGE PROGRAMMES WITHIN CANADA

For information on the Canadian Scholars Exchange Programme (CANSIP) (formerly known as GOTESIP), please refer to the Academic Facilities, Student Services and Organizations section of this Calendar under the heading Student Exchanges.

THIRD YEAR STUDY ELSEWHERE/ HUMANITIES STUDY ABROAD

Humanities Study Abroad During Level III of Honours Programmes

There are two ways to undertake international studies during Level III of an Honours programme: (i) a Formal Exchange Programme or (ii) a Third Year Study Elsewhere Programme.

(i) Formal Exchange Programme

During Level III of Honours Programmes

Formal Exchange Programmes are those in which McMaster University has a Formal Exchange Agreement. Exchange students register and pay tuition fees and supplementary fees at McMaster. No tuition is paid at the other institution. See the General Academic Regulations section in this Calendar and the sections on Eligibility and Application below.

(ii) Third Year Study Elsewhere Honours Programme

Qualified Level III students may undertake studies at a university abroad for one or two terms in the Third Year Study Elsewhere Programme. This programme is not available at universities with which McMaster University has a Formal Exchange Agreement. Students register at McMaster but do not pay tuition to McMaster University. In addition to paying tuition fees at the other institution, students must pay all associated travel, study and living expenses. See the General Academic Regulations section in this Calendar and the sections on Eligibility and Application below.

ELIGIBILITY

Students registered in any Honours or Combined Honours programme in the Faculty of Humanities may apply to replace all or part of the work of their third year with an acceptable programme of study taken at a university or equivalent institution approved by the Faculty of Humanities.

To be eligible to take part in this programme, students must have completed at least 60 units of work with a Cumulative Average of at least 7.0. Individual programmes may have additional requirements. All requirements must be satisfied by the end of the Fall/Winter session (September-December) preceding the commencement of study elsewhere. Students taking part in this programme do not have the option of graduating with a three-year B.A. degree on the basis of work completed in this programme, but must return to McMaster University to complete their final 30 units of work.

Students may receive up to 30 units of credit for a full year of study at another institution. The awarding of all credit for work completed elsewhere may be confirmed only after departments have received transcripts and reviewed students’ academic achievements following their return and after they have officially registered for Level IV. In certain cases, students may be recommended for the Deans’ Honour List on the basis of work completed elsewhere.

APPLICATION

Students interested in applying for this programme should consult the Coordinator, Humanities Study Abroad, Togo Salmon Hall, Room 607, and the students’ department(s) or School approximately one year before planning to begin their study abroad (i.e. during the Fall term of the year in which they enter Level III). A plan for the completion of the academic programme, approved by the programme counsellor(s), must be submitted together with the application to the Coordinator no later than the end of January. However, application for some exchanges may be due as early as December.

SPRING COUNSELLING

During the Spring Counselling period:

1. Information sessions are held by departments in the Faculty of Humanities to discuss undergraduate programmes, course offerings for the next academic session, etc.

2. Students seeking admission to a Level II programme for the following Fall/Winter session must complete an Application for Admission to Level II available in the Humanities Faculty Office in Chester New Hall, Room 112.

3. Students in Levels II, III, or IV obtain a copy of the new Undergraduate Calendar from the Office of the Registrar and updated Degree Audit Reports from the department offering the programme in which they are registered.

The dates for the Spring Counselling period may vary somewhat from year to year; however, the specific dates and information will be posted on campus, outlined in the campus newspaper and will be announced in some classes. It is the student’s responsibility to participate in these counselling activities.

SCHOOL OF THE ARTS

(FORMERLY SCHOOL OF ART, DRAMA AND MUSIC)

WEB ADDRESS:

http://www.humanities.mcmaster.ca/-sota/index.html

The School of the Arts offers programmes in:

- Art
- Art History
- Drama
- Multimedia
- Music

In addition, Minors are available in: Art History, Drama, Film and Music.

PROGRAMMES IN ART AND ART HISTORY

NOTE

Students intending to do graduate work in the field of Art History should note that most universities offering such programmes require undergraduate work in French, German or Italian for admission. These students are strongly encouraged to include one of these language courses as early as possible in their programme.

Honours Art

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION

Enrolment in Honours Art is limited. Selection is based on academic achievement but requires, as a minimum, completion of any Level I programme and: (a) a Cumulative Average of at least 6.0, (b) a grade of at least B- in ART 1F06 and (c) the successful completion of ART HIST 1A03 and 1AA3 (or 1A06).
NOTES
1. Students in Honours Art must complete ART 2A06, 2B06, 2C06, and 2F06 before registering in Level III or IV Art courses.
2. Students must achieve a minimum grade of B in ART 3E06 or 3G06 before registering in ART 4E12.
3. Students wishing to obtain a Minor in Art History should note that six, and only six, units of Art History required in the Art programme may be counted toward the Minor of 24 units.
4. Students wishing to obtain a Minor in Film should note that 24 units of Film courses, listed under Drama courses, are required.

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
51 units ART 2A06, 2B06, 2C06, 2F06, 3C03, 3D03, 3D03, 3E06, 4E12
6 units from ART 3A03, 3B03, 3P03
9 units ART HIST 2A03, 2D03, 3A03
6 units Levels III and IV Art History
18 units Electives

Combined Honours in Art and Another Subject

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Enrolment in this programme is limited. Selection is based on academic achievement but requires, as a minimum, completion of the combined Honours in Art and Art History programme. Students registered in the Combined Honours in Art and Art History programme will substitute three units elective for ART HIST 2D03.

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
36 units Levels III and IV Art History
36 units Courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)
18 units Electives

Honours Art History

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 6.0 including an average of at least 7.0 in ART HIST 1A03 and 1AA3 or a grade of at least B in ART HIST 1A06.

NOTES
1. Before choosing Level III courses, students should become familiar with the prerequisites for Level IV courses.
2. Art History students may wish to pursue a Minor in Film by completing 24 units of Film courses listed under Drama courses.

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
21 units ART HIST 2A03, 2B03, 2C03, 2D03, 2E03, 2I03, 3P03
9 units Level III Art History
9 units Levels III and IV Art History
6 units from ART HIST 4A03, 4B03, 4C03, 4E03, 4H03, 4V03, 4X03
45 units Electives

B.A. in Art History

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 3.5 including an average of at least 4.0 in ART HIST 1A03 and 1AA3 or a grade of at least C in ART HIST 1A06.

REQUIREMENTS
90 units total (Levels I to III)
30 units from the Level I programme completed prior to admission into the programme
15 units ART HIST 2A03, 2B03, 2C03, 2D03, 2I03
15 units Levels III and IV Art History
30 units Electives

Minor in Art History

24 units of Art History, of which no more than six units may be from Level I.

PROGRAMMES IN DRAMA

NOTES
1. The School of the Arts offers a broadly based programme of study in the history, theory, and critical understanding of the dramatic art in performance. Program requirements at Level II are designed to expose students to the breadth of the study. Level III courses offer more specific approaches to the study of performance. A limited amount of student specialization within the programme is possible at this level. The Honours Seminars at Level IV focus on independent research and are restricted to Level IV Honours Drama students. Students are advised to note carefully the prerequisites for all courses. Students are also advised to take note which courses are offered in alternate years.
2. Students registered in Honours Drama are strongly urged to complete six units of non-introductory work in a language other than English. Students in Combined Honours are strongly urged to complete an introductory course in a language other than English (OAC level or equivalent).
Honours Drama {2148}

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 6.0 including an average of at least 7.0 in DRAMA 1A03 and 1A03 or a grade of at least B+ in DRAMA 1A06.

REQUIREMENTS
36 units total (Levels I to III)
12 units from the Level II programme completed prior to admission into the programme
6 units DRAMA 2D03, 2L03, 2M03 (or one of DRAMA 2D06, 2M06)
6 units Level II Drama
12 units Level III or IV Drama
36 units Electives

Minor in Drama
24 units of Drama, of which no more than six units may be from Level I.

Minor in Film
24 units of DRAMA 2X06, 3H03, 3J03, 3R03, 3FR3, 3T03, 3TT3

MULTIMEDIA STUDIES
WEB ADDRESS: http://www.humanities.mcmaster.ca/-mmedia/

Honours Arts & Science and Multimedia
(B.Arts Sc.; See Arts & Science Programme)

Combined Honours B.A. in Multimedia and Another Subject

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Enrolment in this programme is limited. Selection is based on academic achievement in Level I Multimedia courses but requires, as a minimum, completion of any Level I programme and a Cumulative Average of at least 6.0 including a grade of at least B- in each of two courses from MMEDIA 1A03, 1B03, and 1C03 (formerly HUMAN 1A03, 2E03, and 2H03).

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
6 units DRAMA 2D03, 2L03, 2M03 (or one of DRAMA 2D06, 2M06)
6 units Level II Drama
27 units Level III or IV Drama
6 units Level IV Drama including at least three units from DRAMA 4C03, 4CC3, 4E03, 4EE3, 4FF3
45 units Electives

Combined Honours in Drama and Another Subject

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 6.0 including an average of at least 7.0 in DRAMA 1A03 and 1A03 or a grade of at least B- in DRAMA 1A06.

NOTES
1. A Minor in Film is not permitted in the Honours Drama programme.
2. A number of courses that directly pertain to the study of Drama are offered by other departments: Classics, Comparative Literature, English, French, Kinesiology, and Women's Studies. These are recommended as electives listed at the end of the Drama course descriptions. Up to nine units from the list may be made available as substitutes for Drama courses, and counted toward the fulfillment of a programme in Drama. Students are advised that there may be restrictions on enrolment in these courses.

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
6 units DRAMA 2D03, 2L03, 2M03 (or one of DRAMA 2D06, 2M06)
6 units Level II Drama
27 units Level III or IV Drama
6 units Level IV Drama including at least three units from DRAMA 4C03, 4CC3, 4E03, 4EE3, 4FF3
45 units Electives

B.A. in Drama {1148}

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 3.5 including an average of at least 4.0 in DRAMA 1A03 and 1A03 or a grade of at least C- in DRAMA 1A06.

REQUIREMENTS
90 units total (Levels I to III)
30 units from the Level I programme completed prior to admission into the programme
6 units DRAMA 2D03, 2L03, 2M03 (or one of DRAMA 2D06, 2M06)
6 units Level II Drama
12 units Level III or IV Drama
36 units Electives

NOTES
1. Completion of a Music degree requires considerable daytime attendance.
2. Normally, students with an undergraduate degree in Music will not be admitted to a B.Mus. degree programme as a second undergraduate degree.

MUSIC I {0370}

REQUIREMENTS
Students admitted to Music I must complete 33 units of work as follows:
21 units MUSIC 1CC3, 1D03, 1E06, 1G03, 1Y03, 1YY3
12 units Electives
Honours Music (B.Mus.) (2370)

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION

1. Completion of Music I and a Cumulative Average of at least 6.0.

NOTES

1. The courses appearing in Course List 1 are specifically intended to prepare students to attend a Faculty of Education and for a career in school and music teaching. Students interested in Music Education are advised to consult the Music Counsellor during their first year for advice on fulfilling the entrance requirements of Faculties of Education.

2. Students who intend to pursue graduate studies in music or who wish to use the music degree as preparation for postgraduate studies in other professions should select a significant number of the courses in Course List 2.

COURSE LIST 1

MUSIC 3AA3, 3J03, 3K03, 3L03, 3M03, 3N03, 3O03, 3P03, 3Q03, 3R03, 4C03, 4D03, 4E03, 4F03, 4G03, 4H03, 4I03, 4J03, 4K03, 4L03, 4M03, 4N03, 4O03, 4P03, 4Q03, 4R03, 4S03, 4T03, 4U03, 4V03

COURSE LIST 2

MUSIC 3B03, 3BB3, 3C03, 3D03, 3E03, 3F03, 3G03, 3H03, 3I03, 3J03, 3K03, 3L03, 3M03, 3N03, 3O03, 3P03, 3Q03, 3R03, 3S03, 3T03, 3U03, 3V03, 3W03, 3X03, 3Y03, 3Z03

COURSE LIST 3

MUSIC 4A03, 4AA3, 4BB3, 4CC3, 4D03, 4E03, 4F03, 4G03, 4H03, 4I03, 4J03, 4K03, 4L03, 4M03, 4N03, 4O03, 4P03, 4Q03, 4R03, 4S03, 4T03, 4U03, 4V03

COURSE LIST 4

MUSIC 3A03, 3B03, 3C03, 3D03, 3E03, 3F03, 3G03, 3H03, 3I03, 3J03, 3K03, 3L03, 3M03, 3N03, 3O03, 3P03, 3Q03, 3R03, 3S03, 3T03, 3U03, 3V03, 3W03, 3X03, 3Y03, 3Z03

Combined Honours B.A. in Music and Another Subject

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION

1. Completion of Music I and a Cumulative Average of at least 6.0.

COURSE LIST 1

All Level III and IV Music courses except MUSIC 2A03, 2AA3, 2BB3, 2CC3, 2D03, 2E03, 2F03, 2G03, 2H03, 2I03, 2J03, 2K03, 2L03, 2M03, 2N03, 2O03, 2P03, 2Q03, 2R03, 2S03, 2T03, 2U03, 2V03, 2W03, 2X03, 2Y03, 2Z03

COURSE LIST 2

MUSIC 2A03, 2AA3, 2BB3, 2CC3, 2D03, 2E03, 2F03, 2G03, 2H03, 2I03, 2J03, 2K03, 2L03, 2M03, 2N03, 2O03, 2P03, 2Q03, 2R03, 2S03, 2T03, 2U03, 2V03, 2W03, 2X03, 2Y03, 2Z03

COURSE List 3

MUSIC 3A03, 3B03, 3C03, 3D03, 3E03, 3F03, 3G03, 3H03, 3I03, 3J03, 3K03, 3L03, 3M03, 3N03, 3O03, 3P03, 3Q03, 3R03, 3S03

COURSE List 4

MUSIC 3A03, 3B03, 3C03, 3D03, 3E03, 3F03, 3G03, 3H03, 3I03, 3J03, 3K03, 3L03, 3M03, 3N03, 3O03, 3P03, 3Q03, 3R03, 3S03, 4A03, 4B03, 4C03, 4D03, 4E03, 4F03, 4G03, 4H03, 4I03, 4J03, 4K03, 4L03, 4M03, 4N03, 4O03, 4P03, 4Q03, 4R03, 4S03, 4T03, 4U03, 4V03

REQUIREMENTS

123 units total (Levels I to IV)

33 units Music I

27 units MUSIC 2B03, 2BB3, 2CC3, 2D03, 2E03, 2F03, 2G03, 2H03, 2I03, 2J03, 2K03, 2L03, 2M03, 2N03, 2O03, 2P03, 2Q03, 2R03, 2S03

3 units from MUSIC 2A03, 2AA3, 2BB3, 2CC3, 2D03, 3E03, 3F03, 3G03, 3H03, 3I03, 3J03, 3K03, 3L03, 3M03, 3N03, 3O03, 3P03, 3Q03, 3R03, 3S03

21 units from Course Lists 1 and 2

9 units from Course Lists 3 and 4

30 units Electives

B.A. in Music (1378)

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION

1. Completion of Music I and a Cumulative Average of at least 3.5.

2. Students from another Level I programme may be admitted with a Cumulative average of at least 3.5, a grade of at least C in MUSIC 1A06, and a successful audition.

3. Students registered in the B.A. Music programme who wish to transfer into the Honours B.Mus. programme must apply through the Dean's Office before the end of classes in their final year of study.

COURSE LIST 1

All Level II, III and IV Music courses, except MUSIC 2G03, 3G03, 4G03.

REQUIREMENTS

90 units total (Levels I to III)

30 units Music I programme

15 units MUSIC 2B03, 2BB3, 2CC3, 2D03, 2H03, 2Y03, 2YY3

12 units from Course List 1

30 units Electives

Minor in Music

24 units of Music of which no more than nine units may be from Level I, subject to the prerequisites and qualifying tests specified in this Calendar.

Diploma in Music Performance

The Diploma is intended to recognize a concentration in the area of music performance and is available to two distinct groups of people:

1. Students who are enrolled in, or graduates of, a Music degree programme at McMaster; and

2. Students enrolled in, or graduates of, other McMaster degree programmes, as well as musicians in the community, such as graduates from the Royal Conservatory of Music, Mohawk College, or other universities, etc., who wish to receive formal recognition for their musical achievements.

GROUP 1 - MCMASTER STUDENTS

ADMISSION

Registration in, or completion of, a degree programme in Music. Students should meet with the Academic Counsellor for Music in the School of the Arts as early as possible in their degree programme.

GROUP 2 - OTHERS

ADMISSION

Completion of a music audition/examination consisting of:

1. Demonstration of technique (a level equivalent to at least honours standing in Grade 6 of the Royal Conservatory of Music);

2. Performance (approximately 20 minutes duration) of two or three varied pieces of your choice (approximately Grade 8 level), including at least one from the 20th century;

3. Ear test appropriate to the Grade 8 honours performance level;

4. Written examination of rudiments of theory (Grade 2 level);

5. Interview; and

6. MUSIC 1E06 or equivalent, e.g., A.R.C.T. (Associate of the Royal Conservatory of Music).

In lieu of the above, students concentrating in jazz must complete an audition demonstrating equivalent experience in jazz performance.

Auditions take place between January and March. Applicants must contact the School of the Arts for an audition. Advanced credit, up to a maximum of 15 units, may be determined on an individual basis.

REQUIREMENTS

The Diploma will require completion of 24 units as follows:

15 units MUSIC 2E06, 3E06, and one of MUSIC 3S03, 4G03, 4E09

9 units MUSIC 4E09

Lesson fees: Lesson fees are charged over and above tuition for MUSIC 2E06, 3E06, 3S03 and 4E09. Students registered in Honours Music will not be charged extra fees for MUSIC 2E06.

For those registered in a degree programme at McMaster University, MUSIC 4E09 must be taken over and above the total number of units required for a McMaster degree. Because this course may not be used for credit towards any McMaster degree, students pursuing the Diploma must plan their work to accommodate nine extra units.
INTERDISCIPLINARY PROGRAMMES IN THE HUMANITIES

The Office of Interdisciplinary Studies located in Togo Salmon Hall, Room 726, is the administrative home for the Comparative Literature, Peace Studies and Women's Studies programmes. These programmes are listed alphabetically within the Faculty of Humanities section of this Calendar. The Comparative Literature, Peace Studies and Women's Studies courses are listed alphabetically in the Course Listings section.

DEPARTMENT OF CLASSICS

WEB ADDRESS:
http://www.humanities.mcmaster.ca/~classics

NOTES
1. Students in a Classics programme may choose courses from the following subfields: Ancient History and Society, Ancient Philosophy, Classical Archaeology and Art History, Classical Literature in Translation, Greek Language and Literature, Latin Language and Literature.
2. With the approval of the Department of Classics and the Office of the Dean of the Faculty of Humanities, students who have completed 60 units of work of any Honours programme in Classics may replace all or part of their Level III work by courses of study at a university or equivalent institution abroad. Consult the Department for further details.
3. Students may receive up to six units of credit for archaeological field work at an approved Classical site. Consult the Department for further details.
4. Students intending to do graduate work in the field of Classics should note that most universities offering such programmes require undergraduate work in Greek and Latin for admission. These students are strongly encouraged to include Greek and Latin courses as early as possible in their programme.
5. Students intending to do graduate work in the field of Classics may wish to include an independent study course (CLASSICS 4T03) in the final level of their programme.

Honours Classics

(PROGRAMME A: ANCIENT HISTORY AND ARCHAEOLOGY) (2131)

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 6.0 including a grade of at least B- in one of:
- CLASSICS 1B06, 1L06 (Students with OAC Ancient Greek may substitute six units of Level II Greek; students with OAC Latin may substitute six units of Level II Latin.)
- GREEK 1206 or LATIN 1Z06 (Students with OAC Ancient Greek may substitute six units of Latin; students with OAC Latin may substitute six units of Level II Latin.)

NOTE
Beginning in 2002-2003, admission to the programme will require completion of any Level I programme and a Cumulative Average of at least 6.0 including a grade of at least B- in one of:
- CLASSICS 1B06, 1L06, GREEK 1206, or LATIN 1Z06 (Students with OAC Ancient Greek may substitute six units of Level II Greek; students with OAC Latin may substitute six units of Level II Latin.)
- GREEK 1206 or LATIN 1Z06 (Students with OAC Ancient Greek may substitute six units of Level II Greek; students with OAC Latin may substitute six units of Level II Latin.)

REQUIREMENTS

120 units total (Levels I to IV)

- 30 units from the Level I programme completed prior to admission into the programme
- 6 units from CLASSICS 2B03, 2E03, 2H03, 3EE3, 3I03, 3I03, 3T03
- 24 units Greek (including GREEK 1Z03 and 1Z03 (or 1Z06), if not completed in Level I)
- 24 units Latin (including LATIN 1Z03 and 1Z03 (or 1Z06), if not completed in Level I)
- 6 units Levels II, III and IV Classics, Greek, Latin
- 30 units Electives

Honours Classics

(PROGRAMME B: CLASSICAL LANGUAGES AND LITERATURE) (2132)

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 6.0 including a grade of at least B- in one of:
- GREEK 1Z06 or LATIN 1Z06 (Students with OAC Ancient Greek may substitute six units of Level II Greek; students with OAC Latin may substitute six units of Level II Latin.)

NOTE
Beginning in 2002-2003, admission to the programme will require completion of any Level I programme and a Cumulative Average of at least 6.0 including a grade of at least 7.0 in:
- GREEK 1Z03 and 1Z03 or in LATIN 1Z03 and 1Z03 (Students with OAC Ancient Greek may substitute six units of Level II Greek; students with OAC Latin may substitute six units of Level II Latin.)

REQUIREMENTS

120 units total (Levels I to IV)

- 30 units from the Level I programme completed prior to admission into the programme
- 21 units from CLASSICS 2A03, 2B03, 2C03, 2D03, 2E03, 2L03, 2L13, 2Z03, 3C03, 3CC3, 3EE3, 3G03, 3H03, 3L03, 3MM3, 3Q03, 3R03, 3S03, 3T03, 3UU3, 3VV3
- 6 units from CLASSICS 4B03, 4BB3, 4D06, 4E03, 4LL6, 4T03
- 9 units Levels II, III and IV Classics, Greek, Latin
- 36 units Courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)
- 18 units Electives to total 120 units

Combined Honours in Classics and Another Subject

(PROGRAMME A: ANCIENT HISTORY AND ARCHAEOLOGY) (2132)

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 6.0 including a grade of at least B- in one of:
- CLASSICS 1B06, 1L06, GREEK 1206, or LATIN 1Z06 (Students with OAC Ancient Greek may substitute six units of Level II Greek; students with OAC Latin may substitute six units of Level II Latin.)

NOTE
Beginning in 2002-2003, admission to the programme will require completion of any Level I programme and a Cumulative Average of at least 6.0 and an average of at least 7.0 in any six units of Level I Classics, Greek or Latin courses. (Students with OAC Ancient Greek may substitute six units of Level II Greek; students with OAC Latin may substitute six units of Level II Latin.)

REQUIREMENTS

120 units total (Levels I to IV)

- 30 units from the Level I programme completed prior to admission into the programme
- 21 units from CLASSICS 2A03, 2B03, 2C03, 2D03, 2L03, 2L13, 2Z03, 3C03, 3CC3, 3EE3, 3G03, 3H03, 3L03, 3MM3, 3Q03, 3R03, 3S03, 3T03, 3UU3, 3VV3
- 6 units from CLASSICS 4B03, 4BB3, 4D06, 4E03, 4LL6, 4T03
- 9 units Levels II, III and IV Classics, Greek, Latin
- 36 units Courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)
- 18 units Electives to total 120 units
Combined Honours in Classics and Another Subject

(PROGRAMME B: CLASSICAL LANGUAGES AND LITERATURE)

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION

Completion of any Level I programme and a Cumulative Average of at least 6.0 and an average of at least 7.0 in GREEK 1203 and 1ZZ3 or in LATIN 1206 and 1Z03. (Students with OAC Ancient Greek may substitute six units of Level II Greek; students with OAC Latin may substitute six units of Level II Latin.)

NOTE

Beginning in 2002-2003, admission to the programme will require completion of any Level I programme and a Cumulative Average of at least 6.0 and an average of at least 7.0 in GREEK 1203 and 1ZZ3 or in LATIN 1203 and 1Z03. (Students with OAC Ancient Greek may substitute six units of Level II Greek; students with OAC Latin may substitute six units of Level II Latin.)

REQUIREMENTS

120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
6 units from CLASSICS 2D03, 2E03, 2H03, 3EE3, 3I03, 3II3, 3T03
24 units Greek or Latin
6 units Levels II, III and IV Classics, Greek, Latin
36 units Courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)
18 units Electives to total 120 units

B.A. in Classics

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION

Completion of any Level I programme and a Cumulative Average of at least 3.5 and an average of at least 4.0 in any six units of Level I Classics, Greek or Latin courses. (Students with OAC Ancient Greek may substitute six units of Level II Greek; students with OAC Latin may substitute six units of Level II Latin.)

NOTES

1. Beginning in 2002-2003, admission to the programme will require completion of any Level I programme and a Cumulative Average of at least 3.5 and an average of at least 4.0 in any six units of Level I Classics, Greek or Latin courses. (Students with OAC Ancient Greek may substitute six units of Level II Greek; students with OAC Latin may substitute six units of Level II Latin.)
2. Students entering the programme with GREEK 1ZZ3 or LATIN 1ZZ3 who have not also completed a Level I Classics course are strongly encouraged to include CLASSICS 2L03, 2L3 in their Level II programme.
3. Students are encouraged to include at least six units of Greek or Latin in their programme. GREEK 1206 and LATIN 1206, if not completed in the Level I programme, may be taken as elective courses.

REQUIREMENTS

90 units total (Levels I to III)
30 units from the Level I programme completed prior to admission into the programme
24 units Classics, Greek, Latin, including at least nine units of Levels III and IV courses
30 units Electives

Minor in Classics

24 units of Classics, of which no more than six units may be from Level I.

Minor in Greek

24 units of Greek, of which no more than six units may be from Level I.

Minor in Latin

24 units of Latin, of which no more than six units may be from Level I.

INTERDISCIPLINARY MINOR IN ARCHAEOLOGY

For details see Interdisciplinary Minors and Thematic Areas section of this Calendar.

COMMUNICATION STUDIES

Subject to approval by the Ministry of Training, Colleges and Universities, beginning in 2002-2003, the Faculty of Humanities intends to offer the following Single Honours and Combined Honours Programmes in Communication Studies.

WEB ADDRESS: http://www.humanities.mcmaster.ca/-cmst

Honours Communication Studies

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION

Completion of any Level I programme and a Cumulative Average of at least 6.0 including an average of at least 7.0 in CMST 1A03 and 1B03. In their Level I programme, students should select courses carefully in order to meet the prerequisites for courses listed in specific Streams.

NOTES

1. Students in this programme must complete two of the following Streams:

   STREAM 1: The Language and Discourse Stream examines language using natural language.

   STREAM 2: The Cultural Studies Stream examines visual communication and other popular cultural forms.

   STREAM 3: The Performance Studies Stream examines time-based practices of communication and social interaction.

   STREAM 4: The Mass Communications Stream examines technologically mediated communication, its different forms of organization and its social impact.

2. Some courses are listed in more than one Stream. Students can receive credit in only one stream for such courses.

3. Students must take at least three units of Level IV courses in each of the two Streams they are completing.

4. It is recommended that students, especially those in the Language and Discourse Stream, take six units of a language other than English.

COURSE LIST 1 - LANGUAGE AND DISCOURSE STREAM

5 units CMST 2E03, 3G03
12 units from CMST 2F03, 2U03, 2V03, 2W03, 3C03, 3D03, 3E03, 3V03, 3W03, 3W3, 3Y03, 4G03, 4H03, 4I03, 4J03, PSYCH 2C03, 2H03, 3U03

COURSE LIST 2 - CULTURAL STUDIES STREAM

9 units CMST 2J03, 2K06
9 units from CMST 2J03, 2K06, 2M03, 2M3, 2N03, 2O03, 2T03, 2V03, 2C03, 3F03, 3J03, 3P03, 3R03, 3R3, 3T03, 3T3, 3W03, 3W3, 3X03, 4F03, 4FF3

COURSE LIST 3 - PERFORMANCE STUDIES STREAM

6 units CMST 2G03, 4C03
6 units from CMST 2H03, 2P03, 2R03, 2S03, 3U03
6 units from CMST 2K03, 3H03, 3M03, CMST 1D1G ST 3G03, KINESIOL 4JJ3

COURSE LIST 4 - MASS COMMUNICATION STREAM

6 units one of CMST 2K03, 2L03; and one of CMST 3C03, 3D03
12 units from CMST 2K03, 2L03, 3C03, 3D03, 3I03, 3K03, 3D03, 4E03
REQUIREMENTS

120 units total (Level I to IV)
30 units from the Level I programme completed prior to admission into the programme
12 units CMST 2A03, 2B03, 2C03, 2D03
3 units from CMST 3A03, 3B03
3 units from CMST 4A03, 4B03
36 units from Course Lists (See Note 1 above)
36 units Electives

Combined Honours in Communication Studies and Another Subject

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION

Completion of any Level I programme and a Cumulative Average of at least 6.0 including an average of at least 7.0 in CMST 1A03 and 1B03. In their Level I programme, students should select courses carefully in order to meet the prerequisites for courses listed in specific Streams.

NOTES

1. Students in this programme must complete one of the following Streams:
   - Stream 1: The Language and Discourse Stream examines communication using natural language.
   - Stream 2: The Cultural Studies Stream examines visual communication and other popular cultural forms.
   - Stream 4: The Mass Communications Stream examines technologically mediated communication, its different forms of organization and its social impact.

2. Students must take at least three units of Level IV courses in their Stream.

3. It is recommended that students, especially those in the Language and Discourse Stream, take six units of a language other than English.

COURSE LIST 1 - LANGUAGE AND DISCOURSE STREAM

6 units CMST 2A03, 2B03
12 units from CMST 2F03, 2G03, 2H03, 2I03, 2J03, 2K03, 3A03, 3B03, 3C03, 3D03, 3E03, 3F03, 3G03, 3H03, 3I03, 3J03, 3K03, 3L03, 3M03, 3N03, 3O03, 3P03, 3Q03, 3R03, 3S03, 3T03, 3U03, 3V03, 3W03, 3X03, 3Y03, 3Z03

COURSE LIST 2 - CULTURAL STUDIES STREAM

9 units CMST 2J03, DRAMA 2X06
9 units from CMST 2L03, 2M03, 2N03, 2O03, 2Q03, 2R03, 2S03, 2T03, 2U03, 2V03, 2W03, 2X03, 2Y03, 2Z03, 3A03, 3B03, 3C03, 3D03, 3E03, 3F03, 3G03, 3H03, 3I03, 3J03, 3K03, 3L03, 3M03, 3N03, 3O03, 3P03, 3Q03, 3R03, 3S03, 3T03, 3U03, 3V03, 3W03, 3X03, 3Y03, 3Z03

COURSE LIST 3 - PERFORMANCE STUDIES STREAM

6 units CMST 2Q03, 3A03
6 units from CMST 2TH03, 2TG03, 3U03, 3V03, 3W03, 3X03, 3Y03, 3Z03
6 units from CMST 2Q03, 3A03, 3B03, 3C03, 3D03, 3E03, 3F03, 3G03, 3H03, 3I03, 3J03, 3K03, 3L03, 3M03, 3N03, 3O03, 3P03, 3Q03, 3R03, 3S03, 3T03, 3U03, 3V03, 3W03, 3X03, 3Y03, 3Z03

COURSE LIST 4 - MASS COMMUNICATION STREAM

6 units CMST 2K03, 3A03, 3B03
12 units from CMST 2K03, 3A03, 3B03, 3C03, 3D03, 3E03, 3F03, 3G03, 3H03, 3I03, 3J03, 3K03, 3L03, 3M03, 3N03, 3O03, 3P03, 3Q03, 3R03, 3S03, 3T03, 3U03, 3V03, 3W03, 3X03, 3Y03, 3Z03

REQUIREMENTS

120 units total (Level I to IV)
30 units from the Level I programme completed prior to admission into the programme
12 units CMST 2A03, 2B03, 2C03, 2D03
3 units from CMST 3A03, 3B03
3 units from CMST 4A03, 4B03
18 units from one of the Course Lists (See Note 1 above)
36 units Electives specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)
18 units Electives to total 120 units

COMPARATIVE LITERATURE

Honours Arts & Science
and Comparative Literature
(B.Arts Sc.; See Arts & Science Programme)

Combined Honours in Comparative Literature and Another Subject

Comparative Literature is the study of literature from an international and interdisciplinary perspective. The Combined Honours Programme allows students to pursue both Comparative Literature (taught in English) and another subject of their choosing.

ADMISSION

Completion of any Level I programme and a Cumulative Average of at least 6.0 including an average of at least 7.0 in Level I to IV as follows:

120 units total (Level I to IV)
30 units from the Level I programme completed prior to admission into the programme
12 units from COMP LIT 2A03, 2A03, 3A03, 3B03, 3C03, 3D03, 3E03
6 units from COMP LIT 4AA3, 4B03, 4C03, 4D03
18 units Levels II, III, IV Comparative Literature
36 units Courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)
18 units Electives to total 120 units

Minor in Comparative Literature

24 units of Comparative Literature, of which no more than six units may be taken from Level I.

DEPARTMENT OF ENGLISH

WEB ADDRESS:

AREAS OF STUDY

The Department has defined four areas of study. Students should consult the Programme Notes for their specific programme to determine their requirements regarding these areas. Level II and III courses are allocated to the areas as follows:

<table>
<thead>
<tr>
<th>AREA</th>
<th>COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA 1</td>
<td>Early British Literature</td>
</tr>
<tr>
<td></td>
<td>2B06, 3C06, 3D06, 3K06, 3L06, 3V06</td>
</tr>
<tr>
<td>AREA 2</td>
<td>Later British Literature</td>
</tr>
<tr>
<td></td>
<td>2D06, 3G06, 3M06, 3N06</td>
</tr>
<tr>
<td>AREA 3</td>
<td>Canadian, American and Post-Colonial</td>
</tr>
<tr>
<td></td>
<td>2G06, 2H06, 3R06</td>
</tr>
<tr>
<td>AREA 4</td>
<td>Theory and Cultural Studies</td>
</tr>
<tr>
<td></td>
<td>2K06, 2M03, 2MM3, 3J06, 3Q03, 3Q33</td>
</tr>
</tbody>
</table>
Honours Arts & Science and English
(B.Ars.Sc.; See Arts & Science Programme)

Honours English {2200}

Students who entered the programme prior to September 2001 should consult the 2000-2001 Calendar or the Departmental Counsellor for programme requirements.

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 6.0 including an average of at least 7.0 in six units of Level I English or a grade of at least B- in ENGLISH 1C06 or 1D06.

NOTES
1. When registering, students should distribute their required English courses (see Requirements below) as follows:
   - Level II 18 units of Levels II and/or III English
   - Level III 18 units of Levels II and/or III English
   - Level IV six units of Levels II and/or III English; 12 units of Level IV English seminars (No student may take more than 12 units of Level IV seminars.)
2. With permission of the Department, students may substitute ENGLISH 4X03 for three units of Level IV seminar work in second term. Students who are interested in taking 4X03 should contact the faculty member chairing the 4X03 committee early in the first term.
3. Most graduate programmes in English require proficiency in a second language. Students who plan to pursue graduate studies in English are strongly encouraged to include in their programme a second language beyond the introductory level.

REQUIREMENTS
120 units total (Levels I to IV)
- 30 units from the Level I programme completed prior to admission into the programme
- 12 units from Area 1 English courses
- 6 units from Area 2 English courses
- 6 units from Area 3 English courses
- 12 units from Area 4 English courses
- 6 units from Areas 1-4 and ENGLISH 2D03, 3B03, 3CC3, 3HI3, 3LI3, 3P03, 3S03, 3W03, 3X03, 3XX3
- 12 units Level IV English seminars
- 36 units Electives

Combined Honours in English and Another Subject

Students who entered the programme prior to September 2001 should consult the 2000-2001 Calendar or the Departmental Counsellor for programme requirements.

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 6.0 including an average of at least 7.0 in six units of Level I English or a grade of at least B- in ENGLISH 1C06 or 1D06.

NOTES
1. When registering, students should distribute their required English courses (see Requirements below) as follows:
   - Level II 12 units of Levels II and/or III English
   - Level III 12 units of Levels II and/or III English
   - Level IV six units of Levels II and/or III English; six units of Level IV English seminars (No student may take more than six units of Level IV seminars.)
2. With permission of the Department, students may substitute ENGLISH 4X03 for three units of Level IV seminar work in second term. Students who are interested in taking 4X03 should contact the faculty member chairing the 4X03 committee early in the first term.

Minor in English
Six units of Level I English and 18 units of Levels II and III English.

DEPARTMENT OF FRENCH

WEB ADDRESS:
http://www.humanities.mcmaster.ca/-french/trefhomed.htm

Honours Arts & Science and French
(B.Ars.Sc; See Arts & Science Programme)

Honours French

PROGRAMME A: LANGUAGE AND LITERATURE {2231}

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 6.0 including an average of at least B- in FRENCH 1A06 or 2M06 or a grade of at least B+ in FRENCH 1N06.
NOTE
Upon completion of 60 units of work (including 18 units of required Level II French courses), and with the approval of the Department of French and the Office of the Dean of the Faculty of Humanities, Level III of Honours French may be replaced by courses of study at a French-language university.

COURSE LIST 1
FRENCH 4F03, 4I03, 4LL3, 4MM3, 4N03, 4Q03, 4S03, 4U03, 4X03, 4Y03

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
12 units FRENCH 2B03, 2BB3, 3C03, 4A03
6 units from FRENCH 2G03, 3CC3, 3F03, 4BB3
3 units from FRENCH 2J03, 2JJ3
3 units from FRENCH 2W03, 2WW3
3 units from FRENCH 2D03, 2E03, 3AA3, 3BB3, 3Z03, 4U03
3 units from FRENCH 3K03, 3KK3
3 units from FRENCH 3Q03, 3QQ3
3 units from FRENCH 3A03, 3SS3, 4J03
9 units from Course List 1
9 units Levels III and IV French
36 units Electives

Honours French

PROGRAMME A: LANGUAGE AND LITERATURE

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 6.0 including a grade of at least B+ in FRENCH 1A06 or 2M06 or a grade of at least B+ in FRENCH 1N06. Students who are interested in entering this programme are advised to take LINGUIST 1A03 and 1AA3.

NOTE
Upon completion of 60 units of work (including 18 units of required Level II French courses), and with the approval of the Department of French and the Office of the Dean of the Faculty of Humanities, Level III of Honours French may be replaced by courses of study at a French-language university.

COURSE LIST 1
FRENCH 3A03, 3AA3, 3BB3, 3K03, 3KK3, 3Q03, 3QQ3, 3SS3, 3Z03, 4F03, 4I03, 4J03, 4LL3, 4MM3, 4N03, 4Q03, 4S03, 4U03, 4Y03

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
12 units FRENCH 2B03, 2BB3, 2G03, 2H03
12 units FRENCH 3C03, 3CC3, 3GG3, 3H03
6 units FRENCH 4A03, 4BB3
3 units from FRENCH 2JJ3, 2JJ3
3 units from FRENCH 2W03, 2WW3
9 units from Course List 1
9 units from FRENCH 4E03, 4H03, 4II3, 4S03, 4X03
12 units Linguistics courses beyond Level I
24 units Electives

Combined Honours in French and Another Subject

PROGRAMME A: LANGUAGE AND LITERATURE

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 6.0 including a grade of at least B+ in FRENCH 1A06 or 2M06 or a grade of at least B+ in FRENCH 1N06.

NOTES
1. Students are not permitted to combine this programme with Combined Honours French Programme B.
2. Upon completion of 60 units of work (including at least 12 units of required Level II French courses), and with the approval of the Department of French and the Office of the Dean of the Faculty of Humanities, up to 15 units of Level III French may be replaced by courses of study at a French-language university.

COURSE LIST 1
FRENCH 4F03, 4I03, 4LL3, 4MM3, 4N03, 4Q03, 4S03, 4U03, 4X03, 4Y03

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
12 units FRENCH 2B03, 2BB3, 3C03, 4A03
3 units from FRENCH 2J03, 2JJ3
3 units from FRENCH 2W03, 2WW3
3 units from FRENCH 3K03, 3KK3
3 units from FRENCH 3Q03, 3QQ3
3 units from FRENCH 3AA3, 3BB3, 3Z03, 4U03
6 units from Course List 1
3 units from FRENCH 3A03, 3SS3, 4J03
36 units Courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)
18 units Electives to total 120 units

B.A. in French

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 3.5 including a grade of at least C+ in FRENCH 1A06 or 2M06 or a grade of at least C+ in FRENCH 1N06.
Combined Honours in History and Another Subject

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION

Completion of any Level I programme and a Cumulative Average of at least 6.0 including an average of at least 7.0 in six units of Level I History or a grade of at least B- in HISTORY 1L06.

NOTES

1. In selecting courses, students must ensure that they take a minimum of three units in each of three fields of History. This requirement must be satisfied by the end of Level III. All Level II and III History courses from the above list may be used towards this requirement.
2. No Level IV seminar may be taken before completion of 12 units of History beyond Level I.
3. HUMAN 2F03 (Selected Interdisciplinary Topics in Medieval Life and Culture) may be taken as a substitute for three units of Level II History.
4. KINESIOL 3A03 (History of Physical Culture and Sports Medicine) may be taken as a substitute for three units of Level III History.

REQUIREMENTS

120 units total (Levels I to IV)

- 30 units from the Level I programme completed prior to admission into the programme
- 18 units Level II History
- 15 units Level III History
- 12 units Level IV History
- 45 units Electives

B.A. in History

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION

Completion of any Level I programme and a Cumulative Average of at least 3.5 including an average of at least 4.0 in any six units of Level I History.

NOTES

1. In selecting courses, students must ensure that they take a minimum of three units in each of three fields of History. All Level II and III History courses from the above list may be used towards this requirement.
2. HUMAN 2F03 (Selected Interdisciplinary Topics in Medieval Life and Culture) may be taken as a substitute for three units of Level II History.
3. KINESIOL 3A03 (History of Physical Culture and Sports Medicine) may be taken as a substitute for three units of Level III History.

REQUIREMENTS

90 units total (Levels I to III)

- 30 units from the level I programme completed prior to admission into the programme
- 12 units Level II History
- 12 units Level III History
- 36 units Electives
Minor in History
24 units of History of which no more than six units may be from Level I. Consult the Course Listings section for course prerequisites and limited enrolment courses.

COMBINED B.A. IN INDIGENOUS STUDIES AND ANOTHER SUBJECT
For details see Combined B.A. in Indigenous Studies and Another Subject section of this Calendar.

JAPANESE STUDIES

Combined Honours in Japanese Studies and Another Subject
- Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme including JAPANESE 1Z03 and IZZ3 and a Cumulative Average of at least 6.0. A minimum grade of at least B- is required in JAPANESE 1ZZ3. Students who have not fulfilled this requirement should consult the Director of the Committee of Instruction.

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
18 units JAPANESE 2Z06, 3Z26, 4L03, 4Z03
6 units JAPAN ST 2P06
12 units from JAPANESE 3B03, JAPAN ST 2C03, 3B03, 3E03, 3H03, 3S03, 3UU3, 4A06, 4B03, GEO 3HJ3, HISTORY 4BB6, POL SCI 4MM6
36 units Courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)
18 units Electives to total 120 units

Minor in Japanese Studies
24 units from JAPANESE 1Z06 and JAPAN ST 2P06 and 12 additional units of Japanese or Japanese Studies courses.

DEPARTMENT OF MODERN LANGUAGES AND LINGUISTICS

WEB ADDRESS:
http://www.humanities.mcmaster.ca/-modlang/mlhome.htm

The Department of Modern Languages and Linguistics offers B.A. Honours programmes in:
- German
- Hispanic Studies
- Italian
- Linguistics
- Modern Languages and Linguistics
In addition, Minors are available, using electives only, in: German, Hispanic Studies, Italian, Japanese and Linguistics.
Language courses in Catalan, Chinese, Polish and Russian are also offered by the Department.

Combined Honours in German and Another Subject
Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme including GERMAN 1B03 and 1B83, or 1Z03 and 1ZZ3 and a Cumulative Average of at least 6.0. A minimum grade of B- is required in GERMAN 1B83 or 1ZZ3.

NOTES
1. It is highly recommended that students include HISTORY 3Q03 as an elective in this programme.
2. Upon completion of 60 units and with the approval of the Department of Modern Languages and Linguistics and the Office of the Dean of the Faculty of Humanities, one or both terms of Level III of this programme may be replaced by courses of study at a university or universities under the Humanities Study Elsewhere Programme.

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I Programme completed prior to admission into the programme
36 units Levels II, III or IV German
36 units courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)
18 units Electives to total 120 units

Combined Honours in Hispanic Studies and Another Subject
Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme including HISPANIC 1AG3 and 1AA3; or 1Z03 and 1ZZ3 and a Cumulative Average of at least 6.0. A minimum grade of B- is required in HISPANIC 1AA3 or 1ZZ3.

NOTES
1. It is highly recommended that students include HISTORY 3Q03 as an elective in this programme.
2. Upon completion of 60 units and with the approval of the Department of Modern Languages and Linguistics and the Office of the Dean of the Faculty of Humanities, one or both terms of Level III of this programme may be replaced by courses of study at a university or universities under the Humanities Study Elsewhere Programme.

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I Programme completed prior to admission into the programme
36 units Levels II, III or IV Hispanic
36 units courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)
18 units Electives to total 120 units

Combined Honours in Italian and Another Subject
Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme including ITALIAN 1A03 and 1AA3, or 1C03 and 1CC3, or 1D03 and 1DD3, and a Cumulative Average of at least 6.0. A minimum grade of B- is required in ITALIAN 1AA3, 1CC3, or 1DD3.

NOTE
Upon completion of 60 units and with the approval of the Department of Modern Languages and Linguistics and the Office of the Dean of the Faculty of Humanities, one or both terms of Level III of this programme may be replaced by courses of study at a university or universities under the Humanities Study Elsewhere Programme.
### Faculty of Humanities

**Requirements**

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<tr>
<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td>120</td>
<td>Total (Levels I to IV)</td>
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<tr>
<td>30</td>
<td>from the Level I programme completed prior to admission into the programme</td>
</tr>
<tr>
<td>36</td>
<td>Levels II, III or IV Italian</td>
</tr>
<tr>
<td>36</td>
<td>courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)</td>
</tr>
<tr>
<td>18</td>
<td>Electives to total 120 units</td>
</tr>
</tbody>
</table>

**Honours Linguistics**

This programme is designed for students who are concentrating on the scientific study of language (phonology, morphology, syntax, semantics, etc.)

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

**Admission**

Completion of any Level I programme and a Cumulative Average of at least 6.0 including an average of at least 7.0 in LINGUIST 1A03 and 1AA3.

**Notes**

1. Students whose other subject involves the study of a language may substitute the 12 units of language other than English with 12 units from Course List 1.
2. Upon completion of 60 units of work and with the approval of the Department of Modern Languages and Linguistics and the Office of the Dean of the Faculty of Humanities, one or both terms of Level III may be replaced by courses of study at a university under the Humanities Study Elsewhere Programme.

**Course List 1**

All Linguistics courses beyond Level I; and all courses taught in a language other than English; MMEDIA 1A03, 2A03, 2D03, 2I03, 3B03, 3D03, 3E03, 4C03; PHILOS 2B03, 3F03, 4D03; PSYCH 2E03, 2H03, 3A03, 3U03

**Requirements**

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>120</td>
<td>Total (Levels I to IV)</td>
</tr>
<tr>
<td>30</td>
<td>from the Level I programme completed prior to admission into the programme</td>
</tr>
<tr>
<td>12</td>
<td>from LINGUIST 2A03, 2AA3, 2LL3, 3B03, 3P03, 3X03, 3G03, 4D03, 4XX3</td>
</tr>
<tr>
<td>12</td>
<td>from LINGUIST 2L03, 2M03, 3I03, 3L03, 3M03</td>
</tr>
<tr>
<td>12</td>
<td>from a language other than English, above Level I (See Note 1 above.)</td>
</tr>
<tr>
<td>36</td>
<td>Courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)</td>
</tr>
<tr>
<td>18</td>
<td>Electives to total 120 units</td>
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</tbody>
</table>

**Honours Modern Languages and Linguistics**

This programme combines the study of two modern languages (French, German, Italian, Japanese, Spanish) with some areas of Linguistics (socio-linguistics, pragmatics, applied linguistics).

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

**Admission**

Completion of any Level I programme and a Cumulative Average of at least 6.0 including 12 units covering two different languages other than English. A minimum grade of B- is required in FRENCH 1A06, 1N06 or 2Z06 (see Note 1 below); GERMAN 1BB3 or 1ZZ3; HISPANIC 1AA3 or 1ZZ3; ITALIAN 1AA3, 1CC3 or 1DD3; JAPANESE 1ZZ3.

**Notes**

1. Students entering the programme with FRENCH 1Z06 must complete FRENCH 1N06 or 2Z06, in addition to the 18 units of French, beyond Level I.
2. Upon completion of 60 units and with the approval of the Department of Modern Languages and Linguistics and of the Office of the Dean of the Faculty of Humanities, one or both terms of Level III of this programme may be replaced by courses of study at a university or universities under the Humanities Study Elsewhere Programme.

**Course List 1**

All Linguistics courses beyond Level I; and all courses taught in a language other than English; MMEDIA 1A03, 2A03, 2D03, 2I03, 3B03, 3D03, 3E03, 4C03; PHILOS 2B03, 3F03, 4D03; PSYCH 2E03, 2H03, 3A03, 3U03

**Requirements**

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
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<tr>
<td>120</td>
<td>Total (Levels I to IV)</td>
</tr>
<tr>
<td>30</td>
<td>from the Level I programme completed prior to admission into the programme</td>
</tr>
<tr>
<td>18</td>
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<tr>
<td>18</td>
<td>from a language other than English (above Level I)</td>
</tr>
<tr>
<td>18</td>
<td>from a second language other than English (above Level I)</td>
</tr>
<tr>
<td>18</td>
<td>Electives to total 120 units</td>
</tr>
</tbody>
</table>

**Combined Honours in Linguistics and Another Subject**

This programme is designed for students who want to combine the scientific study of language with another subject of their choice.

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

**Admission**

Completion of any Level I programme and a Cumulative Average of at least 6.0 including an average of at least 7.0 in LINGUIST 1A03 and 1AA3.
Honours Modern Languages [2362]
The Honours Modern Languages programme is being phased out. The last intake to this programme was in September 2000.

COURSE LIST 1
All Level II, III and IV courses in Comparative Literature, Linguistics, German, Hispanic Studies, Italian and Russian

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
3 units COMP LIT 2C03
6 units LINGUIST 2A03, 2AA3
3 units from COMP LIT 2A03, 2AA3
54 units 27 units above Level I in each of two languages (German, Italian or Spanish) and their literatures
6 units from Course List 1 (excluding the two languages chosen)
18 units Electives to total 120 units

Combined Honours in Modern Languages and Another Subject
The Combined Honours programme in Modern Languages and Another Subject is being phased out. No new registrants will be permitted in this programme effective September 2000.

COURSE LIST 1
All Level II, III and IV courses in Comparative Literature, Linguistics, German, Hispanic Studies, Italian and Russian.

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
3 units COMP LIT 2C03
3 units LINGUIST 2A03
3 units from Course List 1
27 units courses above Level I from one of: German, Italian or Spanish
18 units Electives to total 120 units

Minors

Minor in German
24 units of German, of which no more than six units may be taken from Level I.

Minor in Hispanic Studies
24 units of Hispanic Studies, of which no more than six units may be taken from Level I.

Minor in Italian
24 units of Italian, of which no more than six units may be taken from Level I.

Minor in Japanese Language
24 units of Japanese, of which no more than six units may be taken from Level I.

Minor in Linguistics
24 units of Linguistics, of which no more than six units may be taken from Level I.

MULTIMEDIA STUDIES
WEB ADDRESS: http://www.humanities.mcmaster.ca/~mmedia/

Honours Arts & Science and Multimedia
(B.Arts Sc.; See Arts & Science Programme)

Combined Honours B.A. in Multimedia and Another Subject
Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Enrolment in this programme is limited. Selection is based on academic achievement in Level I Multimedia courses but requires, as a minimum, completion of any Level I programme and a Cumulative Average of at least 6.0 including a grade of at least B- in each of two courses from MMEDIA 1A03, 1B03, and 1C03 (formerly HUMAN 1A03, 2E03, and 2H03).

COURSE LIST 1
ART HIST 3M03; COMP SCI 1MC3, 1MD3, 2SC3, 3SE3; LINGUIST 4D03; MMEDIA 2C03, 2D03, 2E03, 2F03, 2G03, 2H03, 2I03, 3C03, 3D03, 3E03, 3F03, 3G03, 4C03, 4D03

REQUIREMENTS
120 units total (Levels I - IV)
30 units from the Level I programme completed prior to admission into this programme (including two of MMEDIA 1A03, 1B03 or 1C03)
18 units MMEDIA 2A03, 2B03, 3A03, 3B03, 4A03, 4B03
3 units from MMEDIA 2C03, 3G03
15 units from Course List 1
54 units Courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.
18 units Electives to total 120 units

PEACE STUDIES
Subject to approval by the Ministry of Training, Colleges and Universities, beginning in the 2001-2002 academic year, a Combined Honours B.A. Programme in Peace Studies and Another Subject will be offered.

Combined Honours in Peace Studies and Another Subject
Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 6.0 including an average of at least 7.0 in PEACE ST 1A03 and 1B03.

NOTES
1. Students must include at least 18 units of Levels III or IV courses from Course Lists 1 and 2 below.
2. Students should note that certain courses in Course Lists 1 and 2 have their own disciplinary prerequisites.

COURSE LIST 1
PEACE ST 2103 Social and Political Issues (cross-listed as PHIL 2G03)
PEACE ST 3E06 Postcolonial Literatures: Theory and Practice (cross-listed as COMP LIT 3R06 and ENGLISH 3R06)
PEACE ST 3F03 The Modern Middle East (cross-listed as HISTORY 3AA3)
PEACE ST 3G03 History of Modern Germany (cross-listed as HISTORY 3Q03)
PEACE ST 3H03 The International Relations of the European Powers, 1815-1914 (cross-listed as HISTORY 3HH3)
FACULTY OF HUMANITIES

PEACE ST 3I03 The International Relations of the European Powers, 1914-1945 (cross-listed as HISTORY 3I03)
PEACE ST 3J03 Modern Latin America Since 1820 (cross-listed as HISTORY 3YY3)
PEACE ST 3M03 Philosophies of War and Peace (cross-listed as PHILOS 3P03)
PEACE ST 3W03 Contemporary Native Literature in Canada (cross-listed as ENGLISH 3W03 and INDIG ST 3D03)
PEACE ST 3X03 Contemporary Native Literature in the United States (cross-listed as ENGLISH 3X03 and INDIG ST 3E03)

REQUIREMENTS

18 courses not listed may be substituted, at the option of the Faculty

NOTE A cumulative Average of at least 6.0 is required.

7.0 units total

Course List 2

ANTHROP 2X03 Violence in Anthropological Perspective
ANTHROP 2XX3 Conflict, Culture and the Quest for Peace
ANTHROP 3CN3 Culture and Nationalism
ANTHROP 3TO3 Power and Resistance
ECON 2F03 The Political Economy of Development
ECON 2L03 Peace, Human Security and Economic Development
LABR ST 2A03 Trade Unions
LABR ST 2C03 Theoretical Foundations of the Labour Movement
LABR ST 2D03 Different Labours, Different Voices
LABR ST 3G03 Economic Restructuring and Work Organization
POL SCI 2E06 Global Politics
POL SCI 3A03 International Politics in the Postwar Period
POL SCI 3KKK Genocide: Sociological and Political Perspectives (cross-listed as POL SCI 3KKK)
POL SCI 3KK3 The Causes of War
POL SCI 3Y03 Democratization and Human Rights
POL SCI 3KKK Genocide: Sociological and Political Perspectives (cross-listed as POL SCI 3KKK)

Requirements

120 units total (Levels I to IV)

30 units from the Level I programme completed prior to admission to the programme

3 units PEACE ST 2A03
3 units from ANTHROP 3TO3, PEACE ST 3M03, RELIG ST 2H03, SOCIO1 3KK3
3 units PEACE ST 4A03 or 4B03
9 units from Course List 1
9 units from Course List 2
9 units from Course Lists 1 and 2
36 units Courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)
18 units Electives to total 120 units

NOTES

With the permission of the Director of Peace Studies, some courses not listed may be substituted, at the appropriate Level, from Anthropology, Biology, English, History, Indigenous Studies, Labour Studies, Philosophy, Religious Studies, Science and Sociology provided that the course prerequisites are fulfilled.

Minor in Peace Studies

Requirements

24 units total

6 units PEACE ST 1A03, 1B03
18 units from PEACE ST 2A03, 4A03, 4B03 and Course Lists 1 and 2 above

DEPARTMENT OF PHILOSOPHY

INTERNET ADDRESS:
http://www.humanities.mcmaster.ca/~philos/philhome.htm

Honours Arts & Science and Philosophy
(B.A. Arts: See Arts & Science Programme)

Honours Philosophy

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

Admission

Completion of any Level I programme and a Cumulative Average of at least 6.0, including a grade of at least B- in any Level I Philosophy course or, if no such course was taken, in six units of work acceptable to the Department of Philosophy.

Notes

1. Beginning in 2002-2003, admission to the programme will require completion of any Level I programme and a Cumulative Average of at least 6.0 and an average of at least 7.0 in six units of Level I Philosophy or, if no such course was taken, in six units of work acceptable to the Department of Philosophy.

2. Students are advised to take note which courses are offered in alternate years.

3. Upon completion of 60 units of work and with the approval of the Department of Philosophy and the Office of the Dean of the Faculty of Humanities, one or both terms of Level III may be replaced by courses of study at a designated university abroad.

Requirements

120 units total (Levels I to IV)

30 units from the Level I programme completed prior to admission to the programme

27 units PHILOS 2A06, 2C06, 3A06, 3G03, 3003, 4H03
3 units PHILOS 2B03
3 units Levels II, III or IV Philosophy
15 units Levels III or IV Philosophy
6 units Level IV Philosophy
36 units Electives

Combined Honours in Philosophy and Another Subject

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

Admission

Completion of any Level I programme and a Cumulative Average of at least 6.0, including a grade of at least B- in any Level I Philosophy course or, if no such course was taken, in six units of work acceptable to the Department of Philosophy.

Notes

1. Beginning in 2002-2003, admission to the programme will require completion of any Level I programme and a Cumulative Average of at least 6.0 and an average of at least 7.0 in six units of Level I Philosophy or, if no such course was taken, in six units of work acceptable to the Department of Philosophy.

2. Students intending to do graduate work in Philosophy are advised to include PHILOS 2B03 in their programme.

3. Students are advised to note carefully the prerequisites for all courses. Students are also advised to take note which courses are offered in alternate years.

4. Upon completion of 60 units of work and with the approval of the Department of Philosophy and the Office of the Dean of the Faculty of Humanities, one or both terms of Level III may be replaced by courses of study at a designated university abroad.
REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
12 units PHILOS 2A06, 2C06
3 units from PHILOS 2B03, HUMAN 2C03
15 units Levels III and IV Philosophy
6 units Level IV Philosophy
36 units Courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)
18 units Electives to total 120 units

Honours Philosophy and Biology (B.A.)

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 6.0 and an average of at least 7.0 in six units of Level I Philosophy or, if no such course was taken, in six units of work acceptable to the Department of Philosophy and an average of at least 7.0 in BIOLOGY 1A03 and 1AA3 with a grade of at least B- and six units of Level I Mathematics. Students are cautioned to observe that CHEM 1AA3 is the normal prerequisite for BIOLOGY 2B03 and BIOLOGY 2C03, which are required courses in the programme. Enrolment in this programme is limited.

NOTES
1. Beginning in 2002-2003, admission to the programme will require completion of any Level I programme and a Cumulative Average of at least 6.0 and an average of at least 7.0 in six units of Level I Philosophy (or, if no such course was taken, in six units of work acceptable to the Department of Philosophy) and an average of at least 7.0 in BIOLOGY 1A03 and 1AA3 with a grade of at least B- and six units of Level I Mathematics. Students are advised to note carefully the prerequisites for all courses. Students are also advised to take note which courses are offered in alternate years.
2. Students are advised to note carefully the prerequisites for all courses. Students are also advised to take note which courses are offered in alternate years.
3. Upon completion of 60 units of work and with approval of the Department of Philosophy and the Office of the Dean of the Faculty of Humanities, one or both terms of Level III may be replaced by courses of study at a designated university abroad.

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
24 units MATH 2A03, 2B03, 2C03, 2R03, 2S03, 3A03, 3E03, 3X03
3 units from MATH 3AA3, 3EE3
3 units from MATH 4B03, 4E03, 4X03
12 units from Level III and IV Mathematics, Statistics
12 units PHILOS 2A06, 2C06
3 units PHILOS 2B03
21 units Level III or Level IV Philosophy
9 units Level IV Philosophy
9 units Electives

B.A. in Philosophy

Students wishing to enter this programme must complete an Application for Admission to Level II in mid-March in order to be considered for admission.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 6.0 and an average of at least 7.0 in six units of Level I Philosophy or, if no such course was taken, in six units of work acceptable to the Department of Philosophy and an average of at least 7.0 in BIOLOGY 1A03 and 1AA3 with a grade of at least B- and six units of Level I Mathematics. Students are advised to note carefully the prerequisites for all courses. Students are also advised to take note which courses are offered in alternate years.

REQUIREMENTS
90 units total (Levels I to III)
30 units from the Level I programme completed prior to admission into the programme
12 units PHILOS 2A06, 2C06
3 units from PHILOS 2B03, HUMAN 2C03
3 units Levels II, III or IV Philosophy
6 units Levels III or IV Philosophy
36 units Electives

Minor in Philosophy

24 units from PHILOS 2A06 and 2C06; and 12 additional units of Philosophy of which no more than six units may be from Level I.

WOMEN'S STUDIES

WEB ADDRESS: http://www.humanities.mcmaster.ca/-womenst/

Combined Honours B.A. in Women's Studies and Another Subject

Women's Studies may be taken as a Combined Honours degree or as a Minor. All Women's Studies courses are interdisciplinary, allowing students to explore the relationship between different branches of knowledge and to examine critically different approaches to knowledge construction and theoretical positions in understanding the contributions and social locations of women. Graduates of the Programme will be able to choose from a wide
career list which includes industrial and government consulting, personnel management, labour relations, education and health care professions. The Programme's focus on research prepares students for graduate school.

ADMISSION
Completion of any Level I programme and a Cumulative Average of at least 6.0 including a grade of at least B- in WOMEN ST 1A06.

NOTES
1. Students who have not taken WOMEN ST 1A06 because they have transferred from another university may be considered for admission to the programme if they are deemed by the Admissions Committee to have fulfilled requirements equivalent to WOMEN ST 1A06.
2. In Levels II, III and IV, students must take six units of Women's Studies courses appropriate to their level and six additional units of approved discipline-related courses at each level.
3. The courses required for the Women's Studies portion of the Combined Honours programme may not include courses offered in the student's other subject area.

REQUIREMENTS
120 units total (Levels I to IV)
36 units from the Level I programme completed prior to admission into the programme
6 units WOMEN ST 2A03, 2AA3
6 units from ANTHROP 2R03; HUMAN 2F03; LABR ST 2D03; RELIG ST 2B03, 2BB3, 2SS3; SOCIOLO 2006, 2U06; WOMEN ST 2B06, 2D03, 2H03, 2H-H3, 2K06, 2L03
6 units WOMEN ST 3A03, 3AA3
6 units from ANTHROP 3RR3; LABR ST 3E03; POL SCI 3V03; SOCIOLO 3D03, 3E03, 3X03; WOMEN ST 3B03, 3C03, 3CC3, 3D03, 3DD3, 3E03, 3F06, 3G03, 3GG3, 3I03, 3W03, 3X03
6 units WOMEN ST 4A06
6 units from HISTORY 4H06; KINESIOLO 4T03; SOCIOLO 4U03; SOC WORK 4R03; WOMEN ST 4B03, 4B33, 4BJ3, 4C03, 4CC3
36 units Courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)
18 units Elective course work beyond Level I

With the permission of the Director of Women's Studies, some courses not listed above may be substituted, at the appropriate level, from: Anthropology, Classics, Comparative Literature, English, French, Geo, History, Kinesiology, Labour Studies, Philosophy, Religious Studies and Sociology.

Minor in Women's Studies

NOTE
The courses required for the Minor may not include courses offered in the student's other subject area.

REQUIREMENTS
24 units total
6 units WOMEN ST 1A06
18 units Level II and III Women's Studies courses as listed under Women's Studies in the Course Listings section of this Calendar
PROGRAMMES AND DEGREES

A. Level I Programmes

The Faculty of Science offers two Level I programmes:

SCIENCE I (0710)
MATHEMATICS AND STATISTICS (0320)

The Faculty of Science also offers an Honours B.Sc. Kinesiology Degree. Please refer to the Faculty of Social Sciences, Programmes and Degrees, Level I Programmes section of this Calendar, for Kinesiology Level I requirements for admission to Honours Kinesiology (B.Sc.).

SCIENCE I (0710)

PROGRAMME NOTES

1. Level I students must select courses carefully to meet the Level II admission requirements of a specific programme (see Faculty of Science Programme Listings in this section of the Calendar for Level II programme admission requirements). A suitable choice of Level I options will allow successful students to enter Level II of any of several programmes.

2. Up to six units of electives may be taken from any Level I courses offered by any faculty provided the prerequisites have been met and provided the course is open to students in the Faculty of Science.

3. INQUIRY 1SC3 may be taken as an elective.

4. It is possible to complete Science I through evening/summer studies. Students wishing this option should consult the Office of the Registrar for timetable information.

5. SCIENCE 1A00 is a one-hour mandatory Health and Safety course which must be completed by all Science students.

6. Students registered in Science I are not allowed to take upper level electives.

REQUIREMENTS: 30 UNITS

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<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>MATH 1A03</td>
</tr>
<tr>
<td>3</td>
<td>from MATH 1A03, STATS 1CC3</td>
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<tr>
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<td>from BIOLOGY 1A03, 1A03, CHEM 1A03, PHYSICS 1B03</td>
</tr>
<tr>
<td>15</td>
<td>from the Science I Course List (of which no more than six units may be taken from any one discipline) (see below)</td>
</tr>
<tr>
<td>6</td>
<td>Level I electives</td>
</tr>
<tr>
<td>1</td>
<td>course</td>
</tr>
</tbody>
</table>

SCIENCE I COURSE LIST:

Each course consists of three units and is completed in one term, i.e., from September to December (Term 1) or from January to April (Term 2). Some courses are offered again in the Spring/Summer Session (May to August).

1. CHEM 1R03 is offered for those students who did not complete OAC Chemistry and wish to proceed to CHEM 1A03.
2. Students with little or no previous computer experience may substitute COMP SCI 1SA3 for COMP SCI 1MC3; however, students must achieve a grade of at least B+ in COMP SCI 1SA3 to satisfy the prerequisite for COMP SCI 1MD3.
3. ENVIR SC 1G03 provides more Level II course and programme choices.
4. No more than six units from Computer Science or Environmental Science may be completed in Level I.
5. PHYSICS 1P03 provides the background necessary to proceed to PHYSICS 1B03 for those students who did not complete OAC Physics or who completed it with a grade of less than 60%.

MATHMATICS AND STATISTICS I (0320)

PROGRAMME NOTES

1. Successful completion of Mathematics and Statistics I including COMP SCI 1MC3 and 1MD3 meets the minimal course requirements for admission to the Honours B.Sc. Computer Science Specialist Programme; however, the requirements of the Science I programme must be completed before entry to Level IV of this Specialist Programme.

2. Up to 18 units of electives may be taken from any Level I courses offered by any faculty provided the prerequisites have been met and provided the course is open to students in the Faculty of Science.

3. INQUIRY 1SC3 may be taken as an elective.

4. It is possible to complete Mathematics and Statistics I through evening/summer studies. Students wishing this option should consult the Office of the Registrar for timetable information.

5. SCIENCE 1A00 is a one-hour mandatory Health and Safety course which must be completed by all Science students.

6. Students registered in Mathematics and Statistics I are not allowed to take upper level electives.

REQUIREMENTS: 30 UNITS

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<th>Units</th>
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<tr>
<td>9</td>
<td>MATH 1A03, 1A03, 1B03</td>
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</tr>
<tr>
<td>1</td>
<td>course</td>
</tr>
</tbody>
</table>

B. Degree Programmes

McMaster University General Student Information, MUGSI, is an on-line system that, among other options, enables students to track their academic progress. The Degree Audit, available on MUGSI, gives a listing of courses outstanding for the programme and is continually updated as courses are added and successfully completed.
HONOURS B.SC. PROGRAMMES

The Faculty of Science is in the process of restructuring its honours programmes. The School of Geography and Geology and the Department of Physics have completed restructuring. For specifics, please refer to programmes listed under the School of Geography and Geology and the Department of Physics.

The following are two options available for most four level Honours B.Sc. programmes offered by departments in the Faculty of Science. The Specialist Option requires a concentration of studies in a specific discipline and completion of a Senior Project or Thesis in the final year. The Complementary Studies Option requires at least 15 units of complementary studies from faculties other than the Faculty of Science and completion of 6 units of inquiry course work in the final year.

The Faculty of Science offers Level IV Inquiry courses in different disciplines. Level IV Honours Science students may take these to satisfy their inquiry requirement. See Inquiry in the Course Listings section of this Calendar.

There are also four Honours Science Programmes (Complementary Studies Option) that provide a breadth of study in science. Each programme requires a concentration of studies from one of the four areas of science: geo science, life science, mathematical science or physical science. They also require the completion of at least 21 units from the remaining three areas of science, completion of 15 units from faculties other than the Faculty of Science and completion of 6 units of inquiry course work in the final year.

HONOURS CO-OP PROGRAMMES

The Faculty of Science has instituted Cooperative Education programmes, beginning in Level III. In Honours Biochemistry, Honours Biology and Pharmacology, Honours Chemistry, Honours Environmental Science, Honours Medical and Health Physics, and Honours Physics.

Co-operative programmes have limited enrolment and admission is by selection. Please see the admission statement for each programme in this section of the Calendar. Employment must be full-time during the work term. Students enrolled in Co-op programmes must be registered in full-time studies during the academic terms of their programme. With written permission from the work term supervisor, one three unit course may be taken during each four-month period of a work term. A Science Co-op Fee will be charged for each academic term of a Co-op programme.

For further information, please consult the Associate Dean of Science (Studies) or Science Cooperative Education in the Faculty of Science.

COOPERATIVE INTERNSHIPS

The Faculty of Science offers students the opportunity to participate in 12-16 month full-time paid work placements in industry that provide students with technical work experience related to their academic interests. Internships are available to students registered as Full Time students in Level II or III of an Honours B.Sc. programme, who will have at least 24 units left to complete upon their return and are eligible to return to complete their undergraduate degree. Students compete for placements with participating companies through an application and interview process. A fee is assessed following the start of the placement.

For further information, please consult the Associate Dean of Science (Studies), Science Cooperative Education in the Faculty of Science or Engineering Career Services in the Faculty of Engineering.

INTERNATIONAL STUDY DURING LEVEL III OF HONOURS PROGRAMMES

There are two ways to undertake international studies during Level III of an Honours programme; via a Formal Exchange Programme or a Third Year Study Elsewhere programme.

FORMAL EXCHANGE PROGRAMME DURING LEVEL III OF HONOURS PROGRAMMES

See the heading International Study in the General Academic Regulations section in this Calendar.

THIRD YEAR STUDY ELSEWHERE HONOURS PROGRAMME

Third Year Study Elsewhere is not available at universities with which McMaster University has a Formal Exchange Agreement. Students registered in single or Combined Honours programmes in the Faculty of Science are encouraged to apply to study the whole of a third year at an appropriate university* (see below).

To be eligible to take part in this programme, students are expected to complete Level II with a Cumulative Average of at least 6.0. Students must pay all associated travel, study and living expenses. For students in need of financial assistance, OSAF (Ontario Student Aid Programme) grants and loans may be available for this programme. Furthermore, McMaster University offers some bursaries to those in need of help.

Students interested in this programme should begin discussions with the Associate Dean of Science (Studies) about one year before they plan to enrol elsewhere.

Students must propose an academic programme that must be submitted to their Department for approval. Academic approval must be completed by the end of February for registration in the following Fall.

Students must maintain links through correspondence with their departments at McMaster University while they are engaged in study elsewhere. All credit for work completed may only be confirmed after departments have reviewed the students' academic achievement following their return and registration in their final year of study. The maximum credit available in this way is normally 30 units for the full year of study, equivalent to Level III. In certain cases, students may be recommended for the Deans' Honour List on the basis of work undertaken in the programme.

*There are approved universities in the following areas: Rhone-Alpes (France), Baden-Wurttemberg (Germany), Lombardy (Italy) and Catalonia (Spain).

EXCHANGE PROGRAMMES WITHIN CANADA

For information on the Canadian Scholars Exchange Programme (CANEX) (formerly known as GOTESEP), please refer to the Academic Facilities, Student Services and Organizations section of this Calendar under the heading Student Exchanges Officer.

MINORS

Minors are available to students registered in four- or five-level programmes. In addition to the University's regulations governing the designation of a Minor, all Departments in the Faculty of Science require the inclusion of at least six units of Level III or IV courses to complete a Minor in a Science subject.

Depending on the student's programme, there may be certain minors which are excluded. Please see the Programme Notes for individual programmes in this section of the Calendar. Please see Minors in the General Academic Regulations section in this Calendar for further information.

Minors offered by the Faculty of Science:

- Astronomy
- Biochemistry
- Biology
- Chemistry
- Computer Science
- Earth Science
- Environmental Science*
- Geographical Information Systems (GIS)
- Materials Properties
- Materials Processing
- Mathematics and Statistics
- Physics
- Psychology
- Psychology
- Psychology

* The minors in Geography and Geology are no longer offered. However, students who are currently working towards a minor in these subjects may complete them according to the requirements as outlined in the 2000-2001 Undergraduate Calendar.

B.SC. PROGRAMMES

Three-level B.Sc. programmes provide a science education which is less demanding than the Honours programmes. Three-level B.Sc. programmes are offered in Geoscience, Life Science, Mathematical Science and Physical Science.

Students are advised to seek counselling to ensure that their course selections are appropriate. Students who identify a subject area of emphasis should seek counselling from the corresponding department.

The programme requirements for B.Sc. programmes are listed under the heading Three-Level B.Sc. Programmes in this section.
ACADEMIC REGULATIONS

Students enrolled in Science programmes, in addition to meeting the General Academic Regulations of the University, shall be subject to the following Faculty Regulations:

ADMISSION TO HONOURS B.SC. PROGRAMMES

The admission criteria for the Honours B.Sc. programmes are described explicitly in the individual programmes descriptions in this section.

Limited Enrolment Programmes

- Admission is limited for the following programmes:
  - Honours Biochemistry (Specialist Option)
  - Honours Biochemistry & Molecular Biology
  - Honours Biology (Specialist Option)
  - Honours Biology and Psychology
  - Honours Molecular Biology
  - Honours Psychology (Specialist Option)

Each of these programmes requires a thesis or project in Level IV. Resource limitations in providing a thesis or project supervisor for each student dictates that the number of students admitted must be limited. Admission is by selection based on academic achievement.

For further information please see Admission to Level II Programmes in this section of the Calendar.

ADMISSION TO B.SC. PROGRAMMES

The admission criteria for the B.Sc. programmes, in each of the areas Geoscience, Life Science, Mathematical Science and Physical Science, are listed under the heading Three-Level B.Sc. Programmes in this section. For further information please see Admission to Level II Programmes in this section of the Calendar.

CONTINUATION IN HONOURS B.SC. AND B.SC. PROGRAMMES

For information regarding requirements for continuing in Faculty of Science programmes, please see the General Academic Regulations section in this Calendar.

PROGRAMME PROBATION

Please refer to the General Academic Regulations section in this Calendar for changes to regulations concerning Programme Probation in the Faculty of Science.

REINSTATEMENT TO THE FACULTY OF SCIENCE

A student who is ineligible to continue in the Faculty of Science or who is May not continue at the University may normally not apply for reinstatement for one full academic year. Exceptions may be made only when there are extenuating circumstances which are supported by documentation.

Students seeking reinstatement must complete the Returning Student Application available at the Office of the Registrar or the Office of the Associate Dean of Science (Studies). The completed application and the $50 application fee must be submitted to the Office of the Registrar by July 15. Applications must be accompanied by a written explanation of the student's previous academic performance, reasons why the student would expect to succeed in the desired programme if reinstated, and activities since last registered at McMaster including all academic work. Reference letters are also recommended.

Reinstatement is not guaranteed.

FORMER SCIENCE STUDENTS AND READMISSION

Students who were previously registered in a Science programme and in good standing but did not register during the last academic year (Fall/Winter or Summer session) must write to the Office of the Associate Dean of Science (Studies) to seek permission to continue their studies. The letter should explain academic activities since the last registration.

If five years have passed since the last registration at McMaster, students must apply for Readmission through the Office of the Registrar. Please see the Application Procedures section of this Calendar.

DEADLINES

The Faculty of Science will not consider applications for admission, admission to a second degree or continuing studies, registration, deleting, cancelling, or adding of courses after the deadlines stated in this Calendar under Sessional Dates and Application Procedures sections, unless documentation showing good cause is submitted to the Associate Dean of Science (Studies).

SEQUENCE OF COURSES

Students in the Faculty of Science must have completed or be registered in the courses required for Level I before they may register for courses beyond Level I.

COURSE SELECTION

It is the responsibility of the student to ensure that the selection of courses meets the degree requirements for the programme in which the student is registered and that the stated prerequisite courses were completed with a grade of at least D-.

COURSE CHANGES

All course changes must be made through the Office of the Associate Dean of Science (Studies) and are subject to the deadline dates for adding and withdrawing established by the University. (See Sessional Dates section of this Calendar.) Beyond the September deadline date, first-term three-unit courses may be cancelled up to the November deadline. A cancelled three-unit first-term course may not be replaced by a second-term course for students who were registered for a full academic load in September. Beyond the January deadline date, second-term courses may not be replaced. Students who cancel a full-year course by the January deadline date may add a three-unit second-term course.

To add a limited enrolment course or a course requiring permission, a signed permission slip must be attached to the Application for Change of Student Record.

WORKLOAD

All programmes in the Faculty of Science may be taken by full-time and part-time students, with the exception of the Honours Co-op programmes. Students enrolled in Co-op programmes must be registered in full-time studies during the academic terms of their programme.

Students must maintain a full academic load during the Fall/Winter session to be eligible for scholarships available to full-time students.

Students are expected to avoid timetable conflicts among their courses, and students on a full academic load should ensure the number of courses is balanced in each term.

Students who wish to take more courses than recommended for a single level of their programme may do so if their Cumulative Average on completion of the previous Fall/Winter session is at least 7.0. Students registered in the final level of their programme are permitted to overload by up to six additional units in order to become eligible to graduate.

LETTER OF PERMISSION

Students enrolled in science programmes may apply to the Office of the Associate Dean of Science (Studies) to take courses at another university on Letter of Permission. Students must achieve a grade of at least C- for transfer credit. The transcript designation reads COM, indicating complete, when a grade of C- or better is attained, or NC, indicating not complete, when a grade of less than C- is attained.

Required courses given by the department offering the programme may not be taken elsewhere unless departmental approval is given. Courses required by the programme but not given by the department offering the programme may be taken elsewhere. For example, for a student registered in a Biology programme, all Biology courses must be taken at McMaster, however, the required Chemistry course may be taken elsewhere. Electives may be taken elsewhere.

Courses taken at another university cannot be used to satisfy the university's minimum residence requirements, will not be included in the calculation of the Cumulative or Sessional Averages, and therefore cannot be used to raise standing. Students may take up to six units of courses towards a Minor on Letter of Permission.

Students must be in good standing to be eligible to take courses on a Letter of Permission.

PROGRAMME TRANSFERS

Up to the end of Level III, students may be permitted to transfer between Faculty of Science programmes on the recommendation of the Department concerned and with the approval of the Associate Dean of Science (Studies).
Students are eligible to apply for transfer from a B.Sc. programme to a related Honours Programme or between Honours programmes provided that they have:

1. attained a Cumulative Average of at least 6.0, and
2. completed the courses required for admission to the programme.

Permission to transfer to a programme is subject to any exceptions or special restrictions outlined in the Admission statement or the Programme Notes for that programme.

Note: The minimum Cumulative Average required to transfer to an Honours programme in the Faculty of Science is 6.0. Students entering Level III of a three-level B.Sc. programme should note that if they have completed 60 units with a Cumulative Average of 5.5, they must attain a Sessional Average of at least 7.0 on 30 units of course work to raise their Cumulative Average to 6.0. Students with a Cumulative Average of less than 5.5, who wish to transfer to an Honours programme, are advised to satisfy graduation requirements for their current three-level programme.

For further information please see Transfer Procedures and Transferring to Graduate with a three-level B.Sc. degree from an Honours B.Sc. programme in this section of the Calendar.

GRADUATION

From Honours B.Sc. and B.Sc. Programmes

To graduate from a programme, students must meet the course requirements stated in the Calendar in force when they enter that programme, with the exception that a later Calendar may explicitly modify such requirements.

The requirements for graduation from these programmes are described under the heading Graduation in the General Academic Regulations section in this Calendar.

Transferring to Graduate with a Three-Level B.Sc. Degree from an Honours B.Sc. Programme

Students who successfully complete the first three levels of any Honours B.Sc. degree may request permission from the Associate Dean of Science (Studies) Office for transfer to graduate with a three-level B.Sc. Science degree.

SECOND BACHELOR'S DEGREE PROGRAMMES

In addition to the regulations in the General Academic Regulations section in this Calendar, the following Faculty regulations apply.

For many of the four-level Honours degrees in science, a Cumulative Average of at least 7.0 (overall average of B-) will be required for admission. For three-level degrees, a Cumulative Average of at least 5.0 (overall average of C) will be required for admission.

Students will be admitted to Second Degree studies only if their studies involve a significant additional component of work in the subject of concentration of a programme. Certain subject combinations are not permitted for Second Degrees. Students interested in applying for a Second Degree programme should consult the Office of the Associate Dean of Science (Studies) for further details.

Please see the Application Procedures section of this Calendar.

SCIENCE INQUIRY COURSE LIST

No more than six units of Science Inquiry may be taken unless permission for a nine unit Senior Project or Thesis is obtained.

The following are restricted to students in specified programmes:

- BIOCHEM 4C03 Inquiry in Biochemistry
- BIOCHEM 4P03 Research Project in Biochemistry
- BIOLOGY 4C09 Senior Thesis
- BIOLOGY 4F06 Senior Project
- BIOLOGY 4F07 Inquiry in Biology
- CHEM 4F06 Senior Thesis
- COMP SCI 4ZP6 Senior Thesis
- GEO 4CC3 Review Paper
- GEO 4F06 Senior Thesis
- PHYSICS 4A03 Inquiry in Physics
- PSYCH 4B06 Psychology Thesis
- PSYCH 4E09 Psychology Thesis
- PSYCH 4J03 Inquiry in Psychology

The following are restricted to students in Level IV of an Honours (Complementary Studies Option) programme in the Faculty of Science who have taken at least three units in the subject area but who are seeking neither a degree nor a minor in that subject area:

- INQUIRY 4SA3 Inquiry in Science II (Biochemistry)
- INQUIRY 4SB3 Inquiry in Science II (Biotechnology)
- INQUIRY 4SC3 Inquiry in Science II (Chemistry)
- INQUIRY 4SD3 Inquiry in Science II (Computing and Software)
- INQUIRY 4SE3 Inquiry in Science II (Geosciences)
- INQUIRY 4SF3 Inquiry in Science II (Mathematics and Statistics)
- INQUIRY 4SG3 Inquiry in Science II (Physics and Astronomy)
- INQUIRY 4SH3 Inquiry in Science II (Psychology)
- INQUIRY 4SI3 Inquiry in Science II (Radiation and Life)

The following are restricted to students in Level IV of an Honours programme in the Faculty of Science:

- GEO 4KK3 Inquiry: Minerals and Society
- GEO 4X03 Inquiry: Climate Change - A Geological Perspective

The following are restricted to students with the specified course prerequisites:

- MATH 3Z03 Inquiry: History of Mathematics

FIELD COURSES

Field courses are offered through the Department of Biology and the School of Geography and Geology. Some of these courses are taken outside the Fall/Winter session, during the spring or summer. Students who enrol in field courses must pay both:

- a fee to the department to cover travel expenses, room and board and
- the associated tuition fee to McMaster at Fall registration.

Although students initially register for field courses through the appropriate departmental offices, it is their responsibility to include field courses on their registration forms for the appropriate Fall/Winter session.

Detailed information regarding field courses and deadlines for registration may be obtained from the individual departmental offices.

March Counselling and Important Procedures

Counselling is available throughout the year from the Office of the Associate Dean of Science (Studies) and the academic departments in the Faculty of Science. In addition, it is highly recommended that all students in the Faculty of Science make a counselling appointment with a Departmental Undergraduate Advisor during the March Counselling period.

During the March Counselling period:

1. information sessions are held by the departments in the Faculty of Science to discuss undergraduate programmes, graduate programmes, careers, and study opportunities, etc.;
2. students obtain a copy of the new Undergraduate Calendar;
3. all Level I students seeking admission to a Level II programme for the following Fall/Winter session must complete an application form. See Admission to Level II Programmes;
4. students in Levels II or III who wish to transfer to another programme for the following Fall/Winter session must complete an application form. See Transfer Procedures;
5. students wishing to take courses requiring permission for the Fall/Winter session, including limited enrolment courses and Science Inquiry courses, apply to the appropriate department for permission. See Limited Enrolment Courses.

The dates for the March Counselling period may vary somewhat from year to year. The dates and information will be posted on campus, on the Web, outlined in the campus newspaper, and will be available in General Science buildings, Room 116. It is the student's responsibility to participate in March Counselling activities.

ADMISSION TO LEVEL II PROGRAMMES

Any student seeking admission to a Level II programme in the Faculty of Science for the following Fall/Winter session must complete an Application for Admission to Level II during the March Counselling period. This form, which allows students to rank four programmes, must be completed and returned to the Office of the Associate Dean of Science (Studies) by the end of March.
TRANSFER PROCEDURES

To be eligible to transfer between programmes in the Faculty of Science, students must meet the criteria as described under the heading of "Programme Transfers" in this section of the Calendar.

Students in Levels II or III who wish to transfer to another programme in the Faculty of Science for the following Fall/Winter session must complete an Application to Transfer to Another Programme during the March Counselling period. This form must be completed and returned to the Office of the Associate Dean of Science (Studies) by the end of March. Students will be notified of the results of their applications on their grade reports in early June. Programme transfers are not normally permitted during the Fall/Winter academic session.

LIMITED ENROLMENT COURSES

There are two types of limited enrolment courses as follows:

1. Limited enrolment courses requiring permission:
   
   These courses have a prerequisite stating as a requirement: Permission of the instructor, department, coordinator, chair, etc. during the March Counselling period and before March 31st. It is the student's responsibility to apply to the corresponding departmental office for permission for courses in which they wish to register for the following Fall/Winter session.

   If permission is given, the student may list the course on their registration form. However, if permission has not been given, registration for the course will not be approved.

   If a limited enrolment course is an absolute requirement for a programme, then students in that programme have a guaranteed place in the course. This will be noted in the course prerequisite.

2. Limited enrolment courses:
   
   These courses do not have a prerequisite stating as a requirement: Permission of the instructor, department, coordinator, chair, etc. Enrolment in these courses is handled on a first-come, first-served basis until the end of August. Students must state an alternate course(s) on their registrations for each limited enrolment course they list. Students should check MUGSI in the first week of September, before classes begin, to determine if they are registered for their limited enrolment course(s) or their alternate course(s).

   Note: During the September and January Drop and Add Periods, students must obtain a signed permission slip for both types of limited enrolment courses as mentioned above. Students are encouraged to obtain permission as soon as possible. They must attach the signed permission slip to their Application for Change of Student Record form to be permitted to enter their desired limited enrolment courses.

DEPARTMENT OF BIOCHEMISTRY

WEB ADDRESS: http://www.science.mcmaster.ca/biochem/

Honours Arts & Science and Biochemistry
(B.Art.Sc; See Arts & Science programme)

Honours Biochemistry
(Complementary Studies Option)

ADMISSION

Completion of the Science I requirements, including:

- 6 units MATH 1A03, STAT 1CC3
- 6 units BIOLOGY 1A03, 1AA3
- 6 units CHEM 1A03, 1AA3
- 3 units PHYSICS 1B03
- 3 units from Science I Course List
- 6 units Level I electives
- 1 course SCIENCE 1A00

While STATS 1CC3 is strongly recommended, students will also be considered for admission if they have completed MATH 1A03 instead of STAT 1CC3. Students with other backgrounds such as Health Sciences may also be admissible and are encouraged to contact the Chair of the Department of Biochemistry. Students wishing to take CHEM 2PA3 and 2PB3 in Level II must complete MATH 1A03.

MINIMUM AVERAGES/GRADERS:

A Cumulative Average of 5.0 and a grade of C+ in each of four of BIOLOGY 1A03, 1AA3, CHEM 1A03, 1AA3, and MATH 1A03.

NOTES

1. There are Level II (and III) prerequisites for many Level III (and IV) courses. The prerequisites should be considered when choosing your Level II and III courses.

2. Although required in Level III, completion of CHEM 2N03 in Level II is recommended.

3. Students planning to apply for admission to a Biochemistry Co-op programme must take both BIOLOGY 2B03 and CHEM 2N03 in Level II.

4. A minor in Biology or Chemistry is not permitted in the Honours Biochemistry (Complementary Studies Option) programme.

REQUIREMENTS

120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I

- 30 units (See Admission above.)

LEVEL II: 30 UNITS

- 18 units BIOCHEM 2A06, BIOLOGY 2C03, CHEM 2OA3, 2OB3, 2P03
- 6 units from the Faculty of Humanities and/or the Department of Religious Studies
- 6 units Electives, excluding Biochemistry (See Note 3 above.)

LEVEL III: 30 UNITS

- 15 units BIOCHEM 3B03, 3BB3, 3L03, BIOLOGY 2B03, CHEM 2N03
- 3 units HUMAN 2C03
- 6 units from the Faculties of Business, Humanities, Social Sciences
- 6 units Electives, excluding Biochemistry

LEVEL IV: 30 UNITS

- 3 units BIOCHEM 4G03
- 3 units from the Science Inquiry Course List
- 3 units from BIOCHEM 3H03, 3N03, 4H03, 4Q03, 4P03
- 3 units from BIOCHEM 4D03, 4E03
- 3 units from Level III, IV Biochemistry, BIOLOGY 3N03, 4X03, 4V03
- 6 units from Level III, IV courses, excluding Biochemistry
- 6 units Electives
Honours Biochemistry (Specialist Option) {2040}

ADMISSION

Enrolment in this programme is limited. Selection is based on academic achievement but requires, as a minimum, completion of the Science I requirements, including:

- 6 units MATH 1A03, STATS 1C3
- 6 units BIOLOGY 1A03, 1A3
- 6 units CHEM 1A03, 1A3
- 3 units PHYSICS 1B03
- 3 units from Science I Course List
- 6 units Level I electives
- 1 course SCIENCE 1A00

While STATS 1C3 is strongly recommended, students will also be considered for admission if they have completed MATH 1A03 instead of STATS 1C3. Students with other backgrounds such as Health Sciences I may also be admissible and are encouraged to contact the Chair of the Department of Biochemistry. Students wishing to take CHEM 2PA3 and 2PB3 in Level II must complete MATH 1A03.

MINIMUM AVERAGES/GRADATES:

A Cumulative Average of 5.0 and a grade of C+ in each of four of BIOLOGY 1A03, 1A3, CHEM 1A03, 1A3, and MATH 1A03.

NOTE

A minor in Biology or Chemistry is not permitted in the Honours Biochemistry (Specialist Option) programme.

REQUIREMENTS

120 units total (Levels I to IV), of which no more than 48 units may be Level I courses.

LEVEL I

- 30 units (See Admission above.)

LEVEL II: 30 UNITS

- 21 units BIOCHEM 2A06, BIOLOGY 2B03, 2C03, CHEM 2N03, 2O3, 2B3
- 3-6 units from either CHEM 2R03 or both CHEM 2PA3 and 2PB3
- 3-6 units Electives: CHEM 203, COMP SCI 1S03 (or 1M03) and STATS 2M03 are suggested.

LEVEL III: 30 UNITS (BIOCHEMISTRY OPTION) {2040}

- 12 units BIOCHEM 3B03, 3B33, 3L03, 3P03
- 6 units BIOLOGY 3003, CHEM 3F03
- 6 units from Level III, IV Biochemistry, Biology, Chemistry
- 6 units Electives, excluding Biochemistry

LEVEL IV: 30 UNITS (BIOCHEMISTRY OPTION) {2040}

- 9 units BIOCHEM 4E03, 4I03, 4M03
- 12 units from Level III, IV Biochemistry courses which must include one of BIOCHEM 4B06, 4F09, 4L03, 4P03
- 3 units from Level III, IV Science courses, excluding Biochemistry
- 6 units Electives

LEVEL III: 30 UNITS (BIOTECHNOLOGY AND GENETIC ENGINEERING OPTION) {2041}

- 12 units BIOCHEM 3B03, 3B33, 3L03, 3P03
- 9 units BIOLOGY 3003, 3E03, CHEM 3F03
- 3 units from Level III, IV Biochemistry, Biology, Chemistry
- 6 units Electives, excluding Biochemistry

LEVEL IV: 30 UNITS (BIOTECHNOLOGY AND GENETIC ENGINEERING OPTION)

- 9 units BIOCHEM 4D03, 4E03, 4H03
- 15 units including:
  - 3-9 units from BIOCHEM 4BB6, 4F09, 4G03
  - 3-6 units from BIOCHEM 4I03, 4M03
  - 3-6 units from Level III, IV Biochemistry, Biology, Chemistry (BIOLOGY 3X03 or 4V03 is recommended)
- 6 units Electives

Honours Biochemistry Co-op {2045}

ADMISSION

Enrolment in this programme is limited to a maximum of 25 students per year. Selection is based on academic achievement and an interview but requires, as a minimum, a Cumulative Average of at least 7.0 and completion of either Level II Honours Biochemistry, Honours Biochemistry and Molecular Biology, or Honours Molecular Biology.

Information about the programme and the selection procedure may be obtained from Science Cooperative Education and the Chair and will be explained in the month of February in an Information Session.

NOTES

1. This is a five-year co-op programme which includes two eight-month work terms which must be spent in Biochemistry related placements.
2. Students must be registered full-time and take a full academic workload.
3. Students are required to complete a Work Orientation Course before the first work placement.
4. Students who are entering Level III Honours Biochemistry Co-op have two choices:
   (i) Honours Biochemistry Co-op;
   (ii) Honours Biochemistry Co-op (Biotechnology and Genetic Engineering Option)
5. There are Level II and III prerequisites for many Level III and IV courses. The prerequisites should be considered when choosing your Level II and III courses.

REQUIREMENTS

120 units total (Levels I to IV), of which no more than 48 units may be Level I courses.

LEVEL I

- 30 units from the Science I requirements

LEVEL II

- 30 units from Honours Biochemistry (BIOLOGY 2B03 and CHEM 2N03 must be completed), Honours Biochemistry and Molecular Biology, or Honours Molecular Biology.

Biochemistry Option {2045}

YEAR 3

FALL/WINTER, TERM 1
- 9 units BIOCHEM 3B03, 3L03, BIOLOGY 3003
- 3 units from Level III, IV Biochemistry, Biology, Chemistry
- 3 units Electives

→ Work Orientation Course

FALL/WINTER TERM 2 AND SUMMER

First eight month Work Term

YEAR 4

FALL/WINTER, TERM 1
- 6 units BIOCHEM 4E03, 4M03
- 6 units from Level III, IV Biochemistry, Biology, Chemistry
- 3 units Electives

FALL/WINTER, TERM 2
- 9 units BIOCHEM 3BB3, 3P03, CHEM 3F03; (Students who have obtained appropriate experience during the previous work term may request permission from the Department to take 3 units of Level III, IV Biochemistry instead of BIOCHEM 3P03)
- 3 units from Level III, IV Biochemistry, Biology, Chemistry
- 3 units Electives

SUMMER AND FALL/WINTER, TERM 1

Second eight month Work Term

YEAR 5

FALL/WINTER, TERM 1

Work Term
FAL/WINTER, TERM 2
3 units BIOCHEM 4I03
3 units from BIOCHEM 4L03, 4P03
3 units Level III, IV Biochemistry
3 units from Level III, IV Science courses
3 units Electives

Biotechnology and Genetic Engineering Option

YEARS

FAL/WINTER, TERM 1
12 units BIOCHEM 3B03, 3L03, BIOLOGY 3003, 3E03
3 units Electives
→ Work Orientation Course

SUMMER AND FALL/WINTER TERM 2 AND SUMMER
First eight month Work Term

YEAR 4

FAL/WINTER, TERM 1
9 units BIOCHEM 4D03, 4E03, 4M03
3 units Electives

FAL/WINTER, TERM 2
9 units BIOCHEM 3BB3, 3P03, CHEM 3F03; (Students who have obtained appropriate experience during the previous work term may request permission from the Department to take 3 units of Level III, IV Biochemistry instead of BIOCHEM 3P03)
3 units from Level III, IV Biochemistry, Biology, Chemistry
3 units Electives

YEAR 5

FAL/WINTER, TERM 1
Work Term

FAL/WINTER, TERM 2
6 units BIOCHEM 4H03, 4I03
3 units from BIOCHEM 4G03, 4P03
3 units from Levels III, IV Science courses
3 units Electives

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Honours Biochemistry and Molecular Biology

ADMISSION
Enrolment in this programme is limited. Selection is based on academic achievement but requires, as a minimum, completion of the Science I requirements, including:
6 units MATH 1A03, STATS 1C03
6 units BIOLOGY 1A03, 1AA3
6 units CHEM 1A03, 1AA3
3 units PHYSICS 1B03
3 units from Science I Course List
6 units Level I electives
1 course SCIENCE 1A03

MINIMUM AVERAGES/GRADES:
A Cumulative Average of 5.0 and an average of C+ in each of four of BIOLOGY 1A03, 1AA3, CHEM 1A03, 1AA3 and MATH 1A03.

NOTE
A minor in Biology or Chemistry is not permitted in the Honours Biochemistry and Molecular Biology programme.

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
21 units BIOCHEM 2A06, BIOLOGY 2B03, 2C03, CHEM 2N03, 2PA3, 2PB3
6 units BIOLOGY 3C03, CHEM 3F03
3 units from Level III, IV Biochemistry, Biology, Chemistry
6 units Electives

LEVEL III: 30 UNITS
15 units BIOCHEM 3B03, 3P03, 3L03, 3E03
5 units BIOLOGY 3003, CHEM 3F03
3 units from Level III, IV Biochemistry, Biology, Chemistry (BIOLOGY 3E03 is recommended)
6 units Electives, excluding Biochemistry

LEVEL IV: 30 UNITS
9 units BIOCHEM 4D03, 4E03, 4M03
3 units from BIOCHEM 4G03, 4P03
9 units from Level III, IV Biochemistry or Molecular Biology courses which must include one of BIOCHEM 4BB6, 4P03, 4G03
3 units Level III, IV Biochemistry, Biology, Chemistry
6 units Electives

Minor in Biochemistry

REQUIREMENTS
24 units total
6 units from CHEM 1A06, 1A03, 1AA3
6 units from either 2A03 and 2B03 or CHEM 2BA3 and 2BB
6 units from BIOCHEM 2EE3, 3B03, 3G03
6 units from Level III, IV Biochemistry

DEPARTMENT OF BIOLOGY

WEB ADDRESS:
http://www.science.mcmaster.ca/biology/dept.html

Honours Philosophy and Biology
(B.A.; See Faculty of Humanities, Department of Philosophy)

Honours Arts & Science and Biology
(B.Arts Sc.; See Arts & Science Programme)

Honours Molecular Biology
(See Molecular Biology)
Honours Biology (Complementary Studies Option) {2052}

ADMISSION
Completion of Science I requirements, including:
6 units MATH 1A03, STAT 1CC3
6 units BIOLOGY 1A03, 1AA3
6 units CHEM 1A03, 1AA3
3 units PHYSICS 1B03
3 units from Science I Course List
6 units Level I electives
1 course SCIENCE 1A00

Students with other backgrounds such as Health Sciences may be admissible and are encouraged to contact the Chair of the Department of Biology.

MINIMUM AVERAGES/GRADERS:
A Cumulative Average of 5.0 and an average of 6.0 in BIOLOGY 1A03, 1AA3, and a grade of C+ in each of three of MATH 1A03, CHEM 1A03, 1AA3, PHYSICS 1B03, STAT 1CC3.

NOTES
1. Students in Levels III and IV of this programme should select courses in consultation with the Chair of the Department of Biology.
2. In some cases there are Level II (and III) prerequisites for Level III (and IV) courses. The prerequisites should be considered when choosing your Level II (lll) courses.
3. BIOLOGY 1J03 or 1K03 should not be taken.

COURSE LIST
All Level III and IV Biology courses, except BIOLOGY 4C09 and 4F06; BIOCHEM 3B03, 3BB3, 3C03, 3G03, 3H03, 3N03, 4D03, 4DD3, 4EE3, 4FF3, 4G03, 4H03, 4I03, 4J03, PROTEIN 4B03, PHYSICS 4B03, PHYSICS 4C09, PHYSICS 4D03, PHYSICS 4E03, PHYSICS 4F03, PHYSICS 4G03, PHYSICS 4H03, PHYSICS 4I03, PHYSICS 4J03, PHARMAC 4B03, PSYCH 4F03, 4H03, 4I03, 4J03, STAT 4C09, STAT 4D03, STAT 4E03, STAT 4F03, STAT 4G03, STAT 4H03, STAT 4I03, STAT 4J03

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
15 units from BIOLOGY 2A03, 2B03, 2C03, 2D03, 2F03, BIOCHEM 2EE3
3-6 units from either CHEM 2E03, or both CHEM 2OA3 and 2OB3
6 units from the Faculty of Humanities and/or the Department of Religious Studies
3-6 units Electives

LEVEL III: 30 UNITS
3 units from BIOLOGY 2A03, 2B03, 2C03, 2D03, 2F03, BIOCHEM 2EE3 (whichever is not completed)
6 units from Level III, IV Biology
6 units from Course List (see above)
3 units HUMAN 2C03
6 units from the Faculties of Business, Humanities, Social Sciences
6 units Electives, excluding Biology

LEVEL IV: 30 UNITS
6 units from the Science Inquiry Course List
6 units from Level III, IV Biology
6 units from Course List (see above)
6 units from Level III, IV courses, excluding Biology
6 units Electives

Honours Biology (Specialist Option) {2050}

ADMISSION
Enrolment in this programme is limited. Selection is based on academic achievement but requires, as a minimum, completion of the Science I requirements, including:
6 units MATH 1A03, STAT 1CC3
6 units BIOLOGY 1A03, 1AA3
6 units CHEM 1A03, 1AA3

3 units PHYSICS 1B03
3 units from Science I Course List
6 units Level I electives
1 course SCIENCE 1A00

MINIMUM AVERAGES/GRADERS:
A Cumulative Average of 5.0 and an average of 6.0 in BIOLOGY 1A03, 1AA3 and an average of 6.0 in MATH 1A03, 1AA3, PHYSICS 1B03, STAT 1CC3.

NOTES
1. Students are advised to note carefully the prerequisites for all Level III and IV courses listed in the following programme, particularly BIOCHEM 2EE3, 3G03.
2. The Department of Biology has the following areas of specialization:
   a) Animal Physiology
   b) Molecular, Cellular and Developmental Biology
   c) Ecology and Environmental Science
   d) Genetics and Evolution
   e) Microbiology
   f) Plant Biology
3. Admission to Honours Biology and Pharmacology (Co-op) requires CHEM 2OA3 and 2OB3 or 2006.
4. BIOLOGY 1J03 or 1K03 should not be taken.

COURSE LIST
All Level III and IV Biology courses; BIOCHEM 2EE3, 3B03, 3BB3, 3C03, 3G03, 3H03, 3N03, 4D03, 4DD3, 4EE3, 4FF3, 4G03, 4H03, 4I03, 4J03, PROTEIN 4B03, PSYCH 4F03, 4H03, 4I03, 4J03, STAT 4C09, STAT 4D03, STAT 4E03, STAT 4F03, STAT 4G03, STAT 4H03, STAT 4I03, STAT 4J03

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
18 units BIOLOGY 2A03, 2B03, 2C03, 2D03, 2F03, BIOCHEM 2EE3
3-6 units from either CHEM 2E03 or both CHEM 2OA3 and 2OB3 (See Note 3 above.)
3 units STAT 2MA3
3-6 units Electives, excluding Biochemistry and Biology

LEVEL III: 30 UNITS
18 units from Levels III, IV Biology
6 units from Course List (see above)
3 units Electives, excluding Biochemistry and Biology
3 units Electives

LEVEL IV: 30 UNITS
18 units from Levels III, IV Biology (which must include either BIOLOGY 4F06 or 4C09)
6 units from Course List (see above)
6 units Electives

Honours Biology and Mathematics {2050320}

ADMISSION
Completion of the Science I requirements, including:
6 units MATH 1A03, 1AA3
6 units BIOLOGY 1A03, 1AA3
6 units CHEM 1A03, 1AA3
6 units MATH 1B03
6 units from Science I Course List
6 units Level I electives
1 course SCIENCE 1A00

MINIMUM AVERAGES/GRADERS:
A Cumulative Average of 5.0 and an average of 6.0 in BIOLOGY 1A03, 1AA3 and an average of 6.0 in MATH 1A03, 1AA3, 1B03.
NOTES
1. Students should seek counselling for this programme in either the Department of Mathematics and Statistics or in the Department of Biology.
2. Students are advised to carefully note graduate programme requirements.
3. Students considering graduate studies in Biology are recommended to complete BIOLOGY 4C09 or BIOLOGY 4F06.
4. Students considering graduate studies in Mathematics, are recommended to complete MATH 2A03, 2R03 and either 2S03 or 2T03 in Level II, MATH 3A03 and 3X03 in Level III, and MATH 3A03 and 4X03 in Level IV. MATH 3E03 is recommended.
5. Students must complete at least nine units from Level IV Biology courses.
6. A minor in Statistics is not permitted in the Honours Biology and Mathematics program.
7. BIOLOGY 1J03 or 1K03 should not be taken.

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and with at least 9 units from Level IV courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
12 units BIOLOGY 2A03, 2B03, 2C03, 2F03
15 units MATH 2A03, 2A53, 2C03, 2E03, 2R03
3 units Electives
If not completed: MATH 1803

LEVEL III: 30 UNITS
12 units from Level III, IV Biology (See Note 5 above.)
6 units MATH 3F03, 3N03
3 units from MATH 2S03, 2T03, 3A03
3-6 units STATS 2D03, 2MB3
3-6 units Electives

LEVEL IV: 30 UNITS
18 units from Level III, IV Biology, Mathematics, Statistics, PSYCH 4I03 which must include at least 9 units of Level IV Biology (See Note 5 above.)
3-6 units from MATH 3A03, 3E03, 3F03, 3X03, STATS 3D03, 3DD3, 3S03, 3U03
6-9 units Electives

Honours Biology and Pharmacology (Co-op) [2050419]

ADMISSION
Enrolment in this programme is limited to a maximum of 25 students per year. Selection is based on academic and other achievement (see below) but requires, as a minimum, completion of Level II of an Honours Biology or Molecular Biology programme (including CHEM 20A3 and 2006) with a Cumulative Average of at least 6.0.

Information about this programme and the selection procedure can be obtained from Science Cooperative Education and the Chair of the Committee of Instruction and will also be explained in the month of February in an Information Session. It is recommended that students interested in enrolling in the programme attend the Information Session.

NOTES
1. This is a five-year co-op programme, three terms of which must be spent in work related to pharmacology, toxicology or pharmacetics. These three terms will include the summer term following the completion of Level III, the second term of Level IV and the first term of the fifth year. Level IV continues through the fourth and fifth year of the programme. A senior thesis will be completed during the summer of the fourth year. PHARMAC 3A06, 3B06, 4AA3, 4AA3, 4C03, 4D03 and 4E03 will use a self-directed problem-based learning approach. PHARMAC 4B03 may be taught in a lecture format in some years.
2. Students must be registered full-time and take a full academic workload.
3. Students are required to complete a Work Orientation Course before the first work placement.
4. Students should seek academic counselling for this programme in the Department of Biology.
5. BIOLOGY 1J03 or 1K03 should not be taken.

COURSE LIST
BIOCHEM 3B03, 3BB3, 3C03, 3G03, 3H03, 3N03; All Level III and IV Biology and Pharmacology courses; CHEM 3F03, 4DD3; GEO 3E03, 4A03, 4B03; MOL BIOL 4F03, 4H03, 4J03

REQUIREMENTS
129 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units from the Science I requirements

LEVEL II: 30 UNITS
6 units BIOLOGY 2B03, 2C03
3-6 units BIOCHEM 2A06 or 2EE3
6 units from BIOLOGY 2A03, 2D03, 2F03
3 units CHEM 20A3, 20B3
3 units STATS 2M03
3-6 units Electives

LEVEL III
12 units from Academic Level III, Terms 1 and 2, plus Work Orientation course, and completion of first four-month work term, Summer Term
9 units from Course List (see above). Must include BIOCHEM 3G03 if BIOCHEM 2A06 is not completed.
12 units PHARMAC 3A06, 3B06
3 units Electives

LEVEL IV
15 units from Academic Level IV, Term 1, completion of second four-month work term, Term 2, completion of senior thesis, Summer Term

YEAR 1
3 units BIOLOGY 3X03
3 units from PHARMAC 4A03, 4B03, 4C03
9 units from Course List (see above)

YEAR 2
9 units PHARMAC 4F09

YEAR 3
15 units from Academic Level IV, Term 2, and completion of third four-month work term, Term 1

YEAR 4
20 units from Academic Level IV

YEAR 5
15 units from Academic Level IV

YEAR 6
15 units from Academic Level IV
Honours Biology and Psychology {2050460}

ADMISSION
Enrolment in this programme is limited. Selection is based on academic achievement but requires, as a minimum, completion of the Science I requirements, including:

- 6 units MATH 1A03, STATS 1CC3
- 6 units BIOLOGY 1A03, 1AA3
- 6 units CHEM 1A03, 1AA3
- 3 units PHYSICS 1B03
- 3 units PSYCH 1A03
- 3 units KINESIOL 1A00

1 course (level II electives)

PSYCH 1AA3 must be completed by the end of Level II and is strongly recommended in Level I.

MINIMUM AVERAGES/GRADES:
A Cumulative Average of 5.0 and an average of 6.0 in BIOLOGY 1A03, 1AA3, a grade of C+ in PSYCH 1A03, and an average of 6.0 in CHEM 1A03, 1AA3.

NOTES
1. Counselling for this programme is shared by the Departments of Biology and Psychology and alternates each year.
2. MATH 1B03 and PHYSICS 1B03 are strongly recommended for students intending to pursue graduate work in Experimental Psychology or Neuroscience.
3. In Level III or IV students must complete at least one laboratory course in Psychology (see course list). Enrolment is limited for the Psychology laboratory courses.
4. Students who hope to obtain scholarships should complete all 30 units of Levels II and III in the fall and winter terms.
5. A minor in Biochemistry is not permitted in the Honours Biology and Psychology programme.
6. KINESIOL 3E03 (Neural Control of Human Movement) may be taken as a substitute for three units of Level III Psychology. KINESIOL 4P03 (The Brain and Human Movement) may be taken as a substitute for three units of Level IV Psychology.
7. BIOLOGY 1J03 or 1K03 should not be taken.

COURSE LIST 1
BIOLOGY 2A03, 2D03, 2F03, All Level III and IV Biology courses;
BIOCHEM 3H03, 3N03, 4D03, 4D03, 4E03, 4E03, 4I03, 4M03;
HTH SCI 2G03; MED PHYS 3T03; MOL BIOL 4F03, 4H03;
PHARMAC 4B03

COURSE LIST 2
PSYCH 2E03, 2F03, 2H03, 2T03, All Level III and IV Psychology courses (PSYCH 2A03, 2B03, and 2C03 may only be used as elective credit)

COURSE LIST 3
PSYCH 3L03, 3L03, 3Q03, 3S03, 3V03, 4G03, 4Q03 (All Psychology lab courses, except 3L03 are Limited Enrolment courses)

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
15 units BIOLOGY 2B03, 2C03, CHEM 2OA3, 2OB3, BIOCHEM 2EE3
6 units from PSYCH 2E03, 2F03, 2H03, 2T03
3 units PSYCH 2R03
6 units Electives. CHEM 2R03 is recommended.
If not completed: PSYCH 1AA3

LEVEL III: 30 UNITS
3 units BIOCHEM 3G03
9 units from Course List 1 (see above), which may not include more than 3 units of Level II Biology
6 units from Course List 2 (see above) which must include at least 3 units of Level III or IV Psychology
3 units from Level III or IV courses from Course List 1 or 2 (see above)
3 units from Course List 3 (See Note 3 above.)
6 units Electives. BIOCHEM 2EE3 if not completed

LEVEL IV: 30 UNITS
24 units from Level III or IV courses from Course Lists 1 and 2 (see above), including at least nine units from Course List 1 and nine units from Course List 2. One of BIOLOGY 4C09, 4F06 or PSYCH 4D06 must be included.
6 units Electives

B.Sc. Three-Level Degree
A three-level programme with a Biology Orientation is available through the B.Sc. in Life Science programme which is listed under the heading Three-Level B.Sc. Programmes in this section.

Minor in Biology

REQUIREMENTS
24 units total
6 units from BIOLOGY 1A06, 1AA3, 1A03
18 units from Level II, III, IV Biology courses, including at least six units from Level III, IV Biology courses

DEPARTMENT OF CHEMISTRY

WEB ADDRESS: http://www.chemistry.mcmaster.ca

NOTES
1. Students in all Chemistry programmes are expected to have basic skills in the use of personal computers, word processing software and spreadsheet software. COMP SCI 1SA3 is recommended for students without these skills.
2. Students are encouraged to seek academic counselling from the Undergraduate Advisor for Chemistry programmes.
3. Students who wish to transfer from Level II or III to an Honours Chemistry programme must have a C.A. of at least 6.0 and must have completed the equivalent of Science I, including all the courses required for Admission to an Honours Chemistry programme.
4. MATH 1B03 must be completed by the end of Level II and is strongly recommended in Level I.

Honours Arts & Science and Chemistry (B.Arts.Sc.; See Arts & Science programme)

Honours Chemistry (Complementary Studies Option)

(2072)

ADMISSION
Completion of the Science I requirements, including:

- 6 units MATH 1A03, 1AA3
- 6 units CHEM 1A03, 1AA3
- 6 units from PHYSICS 1B03, 1BA3 (or 1BB3)
- 6 units from Science I Course List
- 6 units Level I electives
- 1 course SCIENCE 1A00

MATH 1B03 must be completed by the end of Level II and is strongly recommended in Level I.

MINIMUM AVERAGES/GRADES:
A Cumulative Average of 5.0 and an average of 6.0 in CHEM 1A03, 1AA3.

NOTES
1. COMP SCI 2MF3, MATH 2C03, and PHYSICS 2A03 or 2B06 are recommended electives.
2. For those considering postgraduate studies in Chemistry, it should be noted that 18 units of Level IV Chemistry are required for consideration for admission to a Master.
3. In some cases there are Level II (and III) prerequisites for Level III (and Level IV) courses. The prerequisites should be considered when choosing your Level II (III) courses.
4. Students who obtain permission to take CHEM 4G06 may substitute three units of Level III, or IV Chemistry for CHEM 4TA3 in Level IV.

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units (See Admission above.)
LEVEL II: 30 UNITS
21 units CHEM 2A03, 2BA3, 2BB3, 2I03, 2L03, 2PA3, 2PB3
3 units MATH 2A03
6 units from the Faculty of Humanities and/or the Department of Religious Studies
If not completed: MATH 1B03

LEVEL III: 30 UNITS
15 units CHEM 3A03, 3BA3, 3BB3, 3D03, 3Q03
3 units HUMAN 2C03
6 units from the Faculties of Business, Humanities, Social Sciences
6 units Electives, excluding Chemistry

LEVEL IV: 30 UNITS
6 units from the Science Inquiry Course List
3 units CHEM 4TA3
3 units from Level III, IV Chemistry
6 units from Level IV Chemistry
6 units Electives from Level III, IV, excluding Chemistry
6 units Electives

Honours Chemistry (Specialist Option) (2070)

ADMISSION
Completion of the Science I requirements, including:
6 units MATH 1A03, 1AA3
6 units CHEM 1A03, 1AA3
6 units from PHYSICS 1B03, 1BA3 (or 1BB3)
6 units from Science I Course List
6 units Level I electives
1 course SCIENCE 1A00

MATH 1B03 must be completed by the end of Level II and is strongly recommended in Level I.

MINIMUM AVERAGES/GRADERS:
A Cumulative Average of 5.0 and an average of 6.0 in CHEM 1A03, 1AA3.

NOTE
For students interested in physical chemistry, recommended electives throughout the programme include MATH 2C03, STATS 1CC03 and 2MA3.

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
21 units CHEM 2A03, 2BA3, 2BB3, 2I03, 2L03, 2PA3, 2PB3
3 units MATH 2A03
3-6 units from PHYSICS 2A03, 2B06
0-3 units Electives, excluding Chemistry
If not completed, MATH 1B03

LEVEL III: 30 UNITS
21 units CHEM 3A03, 3BA3, 3BB3, 3D03, 3P03, 3Q03, 3Z23
6 units Electives, excluding Chemistry
3 units Electives

LEVEL IV: 30 UNITS
6 units from CHEM 4G06, or both CHEM 4TA3 and three units from Level III, IV Chemistry
12 units from Level IV Chemistry
6 units from Level III, IV Science, Engineering
6 units Electives

Honours Chemistry Co-op (2073)

ADMISSION
Enrolment in this programme is limited to a maximum of 10 students per year. Selection is based on academic achievement and an interview but requires, as a minimum, completion of Level II Honours Chemistry (Complementary Studies Option) or Honours Chemistry (Specialist Option) or Honours Biological Chemistry or Honours Biochemistry and Chemistry with a Cumulative Average of at least 6.0.

Information about the programme and the selection procedure may be obtained from Science Cooperative Education and will be explained in the month of February in an Information Session.

NOTES
1. This is a five-year co-op programme which includes two eight-month work terms that must be spent in Chemistry-related placements.
2. Students must be registered full-time and take a full academic workload.
3. Students are required to complete a Work Orientation Course before the first work placement.
4. There are Level II (and III) prerequisites for many Level III (and IV) courses. The prerequisites should be considered when choosing your Level II and III courses.
5. This programme is based on the requirements of the Honours Chemistry (Complementary Studies Option) programme.
6. Students considering postgraduate studies in Chemistry should note that 18 units of Level IV Chemistry are required for consideration for admission at McMaster.

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units from the Science I requirements

LEVEL II
30 units from Level II of Honours Chemistry (Complementary Studies Option), Honours Chemistry (Specialist Option), Honours Biological Chemistry, or Honours Biochemistry and Chemistry

If not completed, MATH 1B03

YEAR 3
15 units from Academic Level II, Term 1, plus Work Orientation course, and first work term of eight months duration, Term 2 and Summer term

TERM I
6 units CHEM 3A03, 3Q03
3 units HUMAN 2C03
6 units Electives. Students who wish to take CHEM 4G06 in Year 4 must complete CHEM 3BA3 and 3I03 in Year 3. Work Orientation Course

TERM 2 AND SUMMER
Work Term

YEAR 4
30 units from Academic Level IV, Term 1, and Academic Level III, Term 2, plus beginning of second eight-month work term, Summer term

TERMS 1 AND 2
15 units CHEM 3BA3, 3BB3, 3D03, 3I03, 4TA3
3 units from the Science Inquiry Course List
6 units from the Faculties of Business, Humanities, Social Sciences
6 units from Level III, IV courses, excluding Chemistry

SUMMER
Work Term

YEAR 5
15 units from Academic Level IV, Term 2, plus completion of second eight-month work term, Term 1.

TERM 1
Work Term

TERM 2
3 units from Level III, IV Chemistry
3 units from Level IV Chemistry
3 units from the Science Inquiry List
6 units Electives
## Honours Biological Chemistry

### ADMISSION

Completion of the Science I requirements, including:
- 6 units MATH 1A03, 1AA3
- 6 units BIOLOGY 1A03, 1AA3
- 6 units CHEM 1A03, 1AA3
- 3 units PHYSICS 1B03
- 3 units from Science I Course List

### REQUIREMENTS

**120 units total (Levels I to IV), of which no more than 48 units may be Level I courses**

**LEVEL I**

- 30 units (See Admission above.)

**LEVEL II: 30 UNITS**

- 3 units BIOLOGY 2B03
- 21 units CHEM 2A03, 2BA3, 2BB3, 2C03, 2L03, 2PA3, 2PB3
- 3 units MATH 2A03
- 3 units Electives, excluding Chemistry

If not completed: MATH 1B03 and PHYSICS 1B03 (or 1BB3)

**LEVEL III: 30 UNITS**

- 6 units BIOCHEM 3G03; BIOLOGY 2C03
- 3 units from BIOCHEM 2EE3, 3BB3 (See Note 3 above.)
- 12 units CHEM 3A03, 3BA3, 3BB3, 3Q03
- 3 units from CHEM 3D03, 3F03
- 6 units Electives

**LEVEL IV: 30 UNITS**

- 6 units CHEM 4D03, 4DD3
- 3 units from BIOCHEM 3F03, 3BB3, 4I03
- 6 units from CHEM 4G06 or both CHEM 4TA3 and 3 units of Level III, IV Chemistry
- 3 units from BIOCHEM 3L03, Level IV Biochemistry
- 3 units from Level III, IV Biology
- 6 units Electives

### NOTES

1. It is possible to take COMP SCI 1MD3 after COMP SCI 1SA3 with a grade of B+ or better. In that case COMP SCI 1SA3 can be used as a substitute for COMP SCI 1MC3. Nevertheless, students who intend to enter a Comp. Sci. programme are recommended to take COMP SCI 1MC3.

2. A minor in Mathematics or Mathematics and Statistics is not permitted in the Honours Biological Chemistry programme.

### REQUIREMENTS

**120 units total (Levels I to IV), of which no more than 48 units may be Level I courses**

**LEVEL I**

- 30 units (See Admission above.)

**LEVEL II: 30 UNITS**

- 12 units COMP SCI 2MD3, 2MF3, 2MJ3, 2SC3
- 6 units MATH 2A03, 2R03
- 6 units from the Faculty of Humanities and/or the Department of Religious Studies
- 6 units Electives, excluding Computer Science

If not completed: COMP SCI 1A00

**LEVEL III: 30 UNITS**

- 9 units COMP SCI 3MG3, 3MH3, 3TA3
- 3 units from COMP SCI 3CB3, 3GA3, 3IA3
- 3 units COMP SCI 2ME3
- 3 units HUMAN 2C03
- 6 units from the Faculties of Business, Humanities, Social Sciences
- 6 units Electives, excluding Computer Science

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**B.Sc. Three-Level Degree**

A three-level programme with a Chemistry orientation is available through the B.Sc. in Physical Science which is listed under the heading Three-Level B.Sc. Programmes in this section.

**Minor in Chemistry**

### REQUIREMENTS

- 24 units total
- 6 units from CHEM 1A06, 1A03, 1AA3
- 18 units from Level II, III, IV Chemistry courses, including at least 6 units from Level III, IV Chemistry courses

**DEPARTMENT OF COMPUTING AND SOFTWARE**

WEBADDRESS: http://www.cos.mcmaster.ca
LEVEL IV: 30 UNITS
12 units COMP SCI 3EA3, 3M13, 4MN3, 4TB3
6 units from COMP SCI 4ZP6 or the Science Inqury Course List
3 units from Level IV Computer Science, NEURCOMP 3W03
6 units Electives from Level III, IV, excluding Computer Science
3 units Electives

Honours Computer Science (Specialist Option) 2145

ADMISSION
Completion of any Level I programme, including:
6 units MATH 1A03, 1AA3
3 units MATH 1B03
6 units COMP SCI 1MC3, 1MD3
15 units Level I courses to complete a Level I programme

MINIMUM AVERAGES/GRADES:
A Cumulative Average of 5.0 and a grade of C+ in each of COMP SCI 1MC3, 1MD3.

NOTES
1. COMP SCI 3EA3 is listed as required in Level III but may be taken in Level IV.
2. A minor in Mathematics or Mathematics and Statistics is not permitted in the Honours Computer Science (Specialist Option) programme.

COURSE LIST
All Level III and IV Computer Science (excluding COMP SCI 4ZP6, all Level III, IV Mathematics and Statistics and Physics courses; NEURCOMP 3W03

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units (See Admission above.)
Students entering from a Faculty other than the Faculty of Science must complete the requirements of the Science I programme before entry to Level IV.

LEVEL II: 30 UNITS
15 units COMP SCI 2MD3, 2ME3, 2MF3, 2MJ3, 2SC3
6 units MATH 2A03, 2R03
9 units Electives. MATH 2T03 is recommended.
If not completed: SCIENCE 1A00

LEVEL III: 30 UNITS
15 units COMP SCI 3EA3, 3MG3, 3MH3, 3M13, 3TA3
3 units from COMP SCI 3CB3, 3GA3, 3IA3
6 units from Level III, IV Mathematics, Statistics
6 units Electives, excluding Computer Science, Mathematics, Statistics

LEVEL IV: 30 UNITS
6 units COMP SCI 4MN3, 4TB3
6 units COMP SCI 4ZP6
15 units from Course List (see above) which must include at least nine units of Level IV Computer Science
3 units Electives

Honours Computer Science and Mathematics 2145320

ADMISSION
Completion of any Level I programme, including:
6 units MATH 1A03, 1AA3
6 units COMP SCI 1MC3, 1MD3
3 units MATH 1B03
15 units Level I courses to complete a Level I programme

MINIMUM AVERAGES/GRADES:
A Cumulative Average of 5.0 and a grade of C+ in each of COMP SCI 1MC3, 1MD3, MATH 1AA3, 1B03.

NOTE
A minor in Statistics or Mathematics and Statistics is not permitted in the Honours Computer Science and Mathematics programme.

COURSE LIST
All Level III and IV Computer Science, Mathematics and Statistics courses; MATH 2E03; NEURCOMP 3W03; PHYSICS 2C03, 2D03, 2K03, 2L03; STATS 2D03, 2MA3, 2MB3

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
9 units COMP SCI 2MD3, 2MF3, 2SC3
12 units MATH 2A03, 2AB3, 2C03, 2R03
9 units Electives. MATH 2T03 is recommended.
If not completed: SCIENCE 1A00

LEVEL III: 30 UNITS
15 units COMP SCI 2ME3, 3MG3, 3MH3, 3M13, 3TA3
3 units from COMP SCI 3CB3, 3EA3, 3GA3, 3IA3
6 units MATH 3A03, 3X03
3 units from Level III, IV Mathematics, Statistics
3 units Electives

LEVEL IV: 30 UNITS
9 units COMP SCI 4MN3, 4ZP6
3 units from MATH 3AA3, 4C03, 4J03, 4Q03, 4S03, 4X03
6 units from Level III, IV Mathematics, Statistics
6 units from Course List (see above)
6 units Electives, excluding Computer Science, Mathematics, Statistics
3 units Electives

Honours Computer Science and Statistics 2145542

ADMISSION
Completion of any Level I programme, including:
6 units MATH 1A03, 1AA3
6 units COMP SCI 1MC3, 1MD3
3 units MATH 1B03
15 units from Level I courses to complete a Level I programme

MINIMUM AVERAGES/GRADES:
A Cumulative Average of 5.0 and a grade of C+ in each of COMP SCI 1MC3, 1MD3, MATH 1AA3, 1B03.

NOTE
A minor in Mathematics or Mathematics and Statistics is not permitted in the Honours Computer Science and Statistics programme.

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
9 units COMP SCI 2MD3, 2MF3, 2SC3
12 units MATH 2A03, 2AB3, 2C03, 2R03
9 units Electives. MATH 2T03 is recommended.
If not completed: SCIENCE 1A00

LEVEL III: 30 UNITS
15 units COMP SCI 2ME3, 3MG3, 3MH3, 3M13, 3TA3
3 units from COMP SCI 3CB3, 3EA3, 3GA3, 3IA3
6 units MATH 3A03, 3X03
3 units from Level III, IV Mathematics, Statistics
3 units Electives

LEVEL IV: 30 UNITS
9 units COMP SCI 4MN3, 4ZP6
3 units from MATH 3AA3, 4C03, 4J03, 4Q03, 4S03, 4X03
6 units from Level III, IV Mathematics, Statistics
6 units from Course List (see above)
6 units Electives, excluding Computer Science, Mathematics, Statistics
3 units Electives

Honours Computer Science and Statistics 2145542

ADMISSION
Completion of any Level I programme, including:
6 units MATH 1A03, 1AA3
6 units COMP SCI 1MC3, 1MD3
3 units MATH 1B03
15 units from Level I courses to complete a Level I programme

MINIMUM AVERAGES/GRADES:
A Cumulative Average of 5.0 and a grade of C+ in each of COMP SCI 1MC3, 1MD3, MATH 1AA3, 1B03.
Honours Computer Science B.Sc. (2149) as a Second Degree

ADMISSION
Completion of a Bachelor's degree in a discipline other than computer science with a Cumulative Average of at least 7.0 from a recognized university; completion of MATH 1A03, 1A83, or 1B03 and a grade of at least C+ in each of COMP SCI 1MC3, 1MD3 or equivalent.

As Second Degree candidates, applicants must first apply for admission to the University, through the Office of the Registrar (Admissions) indicating they wish to apply for the Honours Computer Science B.Sc. as a Second Degree programme.

NOTE
If a student in the programme has previously taken a required course (or its equivalent), he/she does not have to re-take the course. However, if the credit from that course has been used for a previous degree, the student will be required to take another course with the required number of units. A student is admitted to Level III of this programme.

COURSE LIST
All Level III, IV Computer Science courses (excluding 4ZP6), Mathematics and Statistics and Physics courses; MATH 2T03; NEURCOMP 3W03

REQUIREMENTS
60 units total

LEVEL III: 30 UNITS
15 units COMP SCI 2MD3, 2ME3, 2MF3, 2MJ3, 2SC3
6 units MATH 2A03, 2R03
3 units COMP SCI 3TA3
6 units from Course List. MATH 2T03 is recommended.
1 course SCIENCE 1A00

LEVEL IV: 30 UNITS
15 units COMP SCI 3EA3, 3MG3, 3MH3, 3M13, 4M3N
3 units from COMP SCI 3CB3, 3GA3, 3IA3, Level IV Computer Science
6 units Level IV Computer Science
6 units from COMP SCI 4ZP8, Level IV Computer Science

Honours Computer Science B.Sc. (2149) as a Second Degree

(Available only to students who entered this programme prior to September 2000)

ADMISSION
Completion of a Bachelor's degree in a discipline other than computer science with a Cumulative Average of at least 7.0 from a recognized university; completion of MATH 1A03, 1A83, 1B03, and COMP SCI 1MC3, 1MD3 or equivalent.

As Second Degree candidates, applicants must first apply for admission to the University, through the Office of the Registrar (Admissions) indicating they wish to apply for the Honours Computer Science B.Sc. as a Second Degree programme.

NOTE
If a student in the programme has previously taken a required course (or its equivalent), he/she does not have to re-take the course. However, if the credit from that course has been used for a previous degree, the student will be required to take another course with the required number of units.

COURSE LIST
All Level III, IV Computer Science courses (excluding 4ZP6), Mathematics and Statistics courses; NEURCOMP 3W03; PHYSICS 3B06, 3B3, 3BB3, 4D06, 4DA3, 4DB3

REQUIREMENTS
60 units total

15 units COMP SCI 2MD3, 2ME3, 2MF3, 2MJ3, 2SC3
9 units MATH 2A03, 2R03, 2T03
12 units COMP SCI 3EA3, 3MG3, 3MH3, 3M13
15 units from Course List, which must include at least nine units of Level IV Computer Science
6 units from COMP SCI 4ZP6, Level IV Computer Science
3 units from COMP SCI 3CB3, 3GA3, 3IA3, 3TAA3, Level IV Computer Science
1 course SCIENCE 1A00

B.Sc. Three-Level Degree
A three-level programme with a Computer Science orientation is available through the B.Sc. in Mathematical Science which is listed under the heading Three-Level B.Sc. Programmes in this section.

Minor in Computer Science

NOTES
1. Completion of 24 units of Computer Science courses is required in total.
2. Students who are currently working towards a minor in Computer Science may follow the requirements as outlined in the 2000-2001 Undergraduate Calendar.

Requirements
24 units total
6 units COMP SCI 1MC3, 1MD3
9 units COMP SCI 2MD3, 2ME3, 2MJ3
9 units from COMP SCI 2MF3, 3EA3, 3GA3, 3MG3, 3MH3, 3M13, 3TAA3, 4EB3, 4IB3

School of Geography and Geology

WEB ADDRESS: http://www.science.mcmaster.ca/geog/geomain.html

Honours Geography (B.A.), B.A. in Geography and Honours Geography and Environmental Studies (B.A.)

(See B.A. programmes, Faculty of Social Sciences, School of Geography and Geology)

Honours Arts & Science and Honours Arts & Science and Environmental Sciences

(See Arts & Science Programme)

Honours Earth and Environmental Sciences (B.Sc.)

ADMISSION
Completion of the Science I requirements, including:
6 units MATH 1A03, STAT 1CC3
3 units BIOLOGY 1A3
6 units CHEM 1A03, 1AA3
3 units ENVIR SC 1A03 or GEO 1G03
3 units PHYSICS 1B03
3 units from ENVIR SC 1A03, 1B03, GEO 1A03, 1B03
6 units Level I electives
1 course SCIENCE 1A00

Both ENVIR SC 1A03 and 1B03 must be completed by the end of Level II and are recommended in Level I.

MINIMUM AVERAGES/GRADUES:
A Cumulative Average of 5.0 and a grade of C+ in either ENVIR SC 1G03 or GEO 1G03 and in one of ENVIR SC 1A03, 1B03, GEO 1A03, 1B03.

NOTES
1. At the end of Level II, students in this programme may choose to follow one of three specialist streams or an open stream. The three possible specialist streams are as follows:
   - Biogeosciences
   - Geosciences
   - Hydrosciences
These students who do not elect to enter a specialist stream will be registered in the open stream.

2. The specialist streams of this programme aim to fulfill the academic requirements for professional registration of Geoscientists in Ontario. Please consult with the academic advisor in the School of Geography and Geology during the March counselling period to ensure proper selection of courses for professional registration. The open stream does not aim to fulfill professional registration requirements.

3. All students are strongly encouraged to meet with the academic advisor in the School of Geography and Geology to discuss programme requirements and course selections.
Open Stream

**Open Stream Course List 1:** BIOLOGY 2F03, 3S3, 3TT3, 4A03, 4S03, 4Y03; CHEM 2A03, 2E03; GEO 2C03, 2G03, 2K03, 2KK3, 3B03, 3C03, 3E03, 3G03, 3I03, 3P03, 3Q03, 3V03, 3W03, 4G03, 4R03, 4E03, 4FE3, 4FF3, 4HH3, 4K03, 4L03, 4Q03, 4T03, 4WW3, 4W03, 4W03, 4ZZ3

**LEVEL III**
- 6 units from Open Stream Course List 1 (see above)

**LEVEL IV**
- 9 units from Open Stream Course List 1 (see above), including six units Level III or IV courses

Honours Earth and Environmental Sciences Co-op (B.Sc.)

**ADMISSION**
Enrolment in this programme is limited to a maximum of 10 students per year. Selection is based on academic achievement and an interview but requires, as a minimum, completion of Level II Honours Earth and Environmental Sciences with a Cumulative Average of at least 6.0.

Information about the programme and the selection procedure may be obtained from Science Cooperative Education and the Coordinator of the Co-op programme in the School of Geography and Geology and will be explained during an Information Session in February.

**NOTES**
1. This is a five-year co-op programme which includes two eight month work terms which must be spent in placements related to Earth or Environmental Sciences.
2. Students must be registered full-time and take a full academic programme.
3. Students are required to complete a Work Orientation Course before the first work placement.
4. Students in this programme must choose to follow one of the specialist streams. The three possible specialist streams are as follows:
   - Biogeosciences
   - Geosciences
   - Hydrosciences
5. There are Level III prerequisites for many Level IV courses. The prerequisites should be considered when selecting your courses.
6. The field component of GEO 3FE3, 3FF3, 4FE3 is normally taken outside of term time. Details are announced in March.
7. A minor in Geography, Earth Science or Environmental Science is not permitted in the Honours Earth and Environmental Sciences Co-op programme. However, a minor in Geographical Information Systems is permitted.

**REQUIREMENTS**
- 120 units total (Levels I to IV) of which no more than 48 units may be Level I courses

**LEVEL I**
- 30 units (See Admission above)

**LEVEL II: 30 UNITS**
- 3 units CHEM 2B03 or GEO 2C03
- 12 units GEO 2A03, 2E03, 2G03, 2W03
- 6 units from Course List 1
- 9 units Electives
- If not completed: ENVR SC 1A03 (or GEO 1A03), ENVR SC 1B03 (or GEO 1B03)

**LEVEL III: 30 UNITS**
- 3 units GEO 3FE3 or 3FG3
- 6 units GEO 3P03, 3Y03
- 6-15 units from Course List 1 (see below)
- 6-15 units Electives

**LEVEL IV: 30 UNITS**
- 3 units GEO 4A03
- 6 units GEO 4CC3, 4R06
- 9-18 units from Course List 2 (see below)
- 6-15 units Electives

**Biogeosciences Stream**

**Biogeosciences Course List 1:** BIOLOGY 2F03; GEO 2C03, 2G03, 3B03, 3G03, 3Q03

**Biogeosciences Course List 2:** BIOLOGY 2F03, 3S3, 3TT3, 4A03, 4S03, 4Y03; CHEM 2A03 or 2E03; GEO 2C03, 2G03, 2K03, 3B03, 3G03, 3I03, 3P03, 3Q03, 4B03, 4L03, 4FE3, 4FF3, 4HH3, 4Q03

**LEVEL III**
- 6 units from Biogeosciences Course List 1 (see above)
- 9 units from Biogeosciences Course List 2 (see above)

**LEVEL IV**
- 9 units from Biogeosciences Course List 1 (see above)
- 6-9 units from Biogeosciences Course List 2 (see above)

**Geosciences Stream**

**Geosciences Course List 1:** GEO 2C03, 2G03, 2K03, 2KK3, 3E03, 3G03, 3Q03, 3Z03

**Geosciences Course List 2:** GEO 2C03, 2G03, 2KK3, 3E03, 3G03, 3I03, 3P03, 3Q03, 3V03, 3Z03, 4E03, 4FE3, 4FF3, 4HH3, 4Q03, 4C03, 4T03, 4203, 4ZZ3

**LEVEL III**
- 6 units from Geosciences Course List 1 (see above)
- 9 units from Geosciences Course List 2 (see above)

**LEVEL IV**
- 9 units from Geosciences Course List 1 (see above)
- 6-9 units from Geosciences Course List 2 (see above)

**Hydrosciences Stream**

**Hydrosciences Course List 1:** GEO 2C03, 2G03, 3C03, 3G03, 3W03, 3Z03

**Hydrosciences Course List 2:** GEO 2C03, 2G03, 2K03, 3B03, 3C03, 3G03, 3I03, 3Q03, 3V03, 3W03, 3Z03, 4B03, 4G03, 4E03, 4FE3, 4FF3, 4HH3, 4K03, 4L03, 4Q03, 4T03, 4WW3, 4WW3

**LEVEL III**
- 6 units from Hydrosciences Course List 1 (see above)
- 9 units from Hydrosciences Course List 2 (see above)

**LEVEL IV**
- 9 units from Hydrosciences Course List 1 (see above)
- 6-9 units from Hydrosciences Course List 2 (see above)
### TERM 2 AND SUMMER

**Work Term**

#### YEAR 4
30 units from Academic Level IV, *Term 1* and Academic Level III, *Term 2*, plus beginning of second eight month work term, *Summer Term.*

#### TERMS 1 AND 2
- 3 units GEO 3Y03
- 3 units GEO 4A03
- 3-6 units from GEO 4CC3, 4R06
- 12-15 units from Stream Course Lists (see below)
- 6 units Electives

**SUMMER**

**Work Term**

**YEAR 5**
15 units from Academic Level IV, *Term 2* and completion of second eight month work term, *Term 1.*

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### Biogeosciences Stream {2212840}

#### Biogeosciences Course List 1: BIOLOGY 2F03, GEO 2C03, 2G03, 3B03, 3G03, 3Q03
#### Biogeosciences Course List 2: BIOLOGY 2F03, 3SS3, 3TT3, 4A03, 4S03, 4Y03; CHEM 2A03 or 2E03; GEO 2C03, 2G03, 2K03, 3B03, 3G03, 3I03, 3Q03, 4B03, 4L03, 4FE3, 4FF3, 4HH3, 4Q03

**YEAR 3**
- 6 units from Biogeosciences Course List 1 (see above)

**YEAR 4**
- 6 units from Biogeosciences Course List 1 (see above)
- 6-9 units from Biogeosciences Course List 2 (see above)

**YEAR 5**
- 3 units Biogeosciences Course List 1 (see above)
- 9 units from Biogeosciences Course List 2 (see above)

### Geosciences Stream {2212845}

#### Geosciences Course List 1: GEO 2G03, 2K03, 2KK3, 3E03, 3G03, 3Q03, 3V03, 3Z03
#### Geosciences Course List 2: GEO 2G03, 2K03, 2KK3, 3E03, 3G03, 3I03, 3K03, 3P03, 3Q03, 3V03, 3Z03, 4E03, 4FE3, 4FF3, 4KK3, 4Q03, 4Q03, 4Q03, 4Q03, 4Z03, 4ZZ3

**YEAR 3**
- 6 units from Geosciences Course List 1 (see above)

**YEAR 4**
- 6 units from Geosciences Course List 1 (see above)
- 6-9 units from Geosciences Course List 2 (see above)

**YEAR 5**
- 3 units from Geosciences Course List 1 (see above)
- 9 units from Geosciences Course List 2 (see above)

### Hydrosciences Stream {2212850}

#### Hydrosciences Course List 1: GEO 2C03, 2G03, 3C03, 3G03, 3W03, 3Z03
#### Hydrosciences Course List 2: GEO 2C03, 2G03, 2K03, 3B03, 3G03, 3I03, 3Q03, 3V03, 3W03, 3Z03, 4B03, 4C03, 4FE3, 4FF3, 4L03, 4Q03, 4W03, 4WW3

**YEAR 3**
- 6 units from Hydrosciences Course List 1 (see above)

**YEAR 4**
- 6 units from Hydrosciences Course List 1 (see above)
- 6-9 units from Hydrosciences Course List 2 (see above)

**YEAR 5**
- 3 units from Hydrosciences Course List 1 (see above)
- 9 units from Hydrosciences Course List 2 (see above)

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### Honours Environmental Science (B.Sc.) {2211}

The Honours Environmental Science (B.Sc.) programme is being phased out. Registration in Level III will be last available in September 2001. This programme has been replaced with the Honours Earth and Environmental Sciences (B.Sc.) programme. Students who wish to transfer to the new Honours programme in Earth and Environmental Sciences should consult the Academic Advisor in the School of Geography and Geology.

**NOTES**

1. There are Level II (and III) prerequisites for many Level III (and IV) courses. The prerequisites should be considered when choosing your Level II courses. Students should take the Level II Required Specialist course required for the Specialist Stream they wish to follow in Levels III and IV.
2. Students in this programme may choose a specialist stream at the end of Level II and may follow this stream through completion of the programme. The five possible Specialist Streams are as follows:
   - **Geochemistry Stream:**
     - Required Specialist courses: GEO 2E03, 3Q03, 4Q03
     - Specialist Course List: GEO 2K03, 2KK3, 3E03, 3G03, 3Q03, 3V03, 4A03, 4FE3, CHEM 3B03
   - **Surficial Geoscience Stream:**
     - Required Specialist courses: GEO 2G03, 3G03, 4G03
     - Specialist Course List: GEO 2B03, 2E03, 3E03, 3G03, 3V03, 3W03, 3Y03, 3Z03, 4Z03, 4ZZ3, 4A03, 4Q03
   - **Biogeocchemistry Stream:**
     - Required Specialist courses: GEO 2B03, 3B03, 4B03
     - Specialist Course List: GEO 4FE3, 4L03, BIOLOGY 2D03, 3SS3, 3TT3, 4A03, 4Y03
   - **Hydrology Stream:**
     - Required Specialist courses: GEO 2W03, 3W03, 4W03
     - Specialist Course List: GEO 2B03, 2C03, 2WW3, 3C03, 3G03, 3Y03, 4WW3, 4Z03, ECON 3W03
   - **Climatology Stream:**
     - Required Specialist courses: GEO 2C03, 3C03, 4C03
     - Specialist Course List: GEO 2B03, 2W03, 3Y03, 4FE3, 4W03, BIOLOGY 3TT3, ECON 3W03

To qualify for specialisation in a particular field (stream) a student must complete nine units of the required specialist courses and **12 units** from the corresponding specialist course list.

3. It is highly recommended that students make a counselling appointment with the Academic Advisor in the School of Geography and Geology during the March Counselling Period. Students may request that the School of Geography and Geology authorizes a transcript notation attesting that they have followed and/or completed their chosen stream.

4. The field component of GEO 3FE3 is normally taken in the two weeks **before** the start of the fall term in Level III.

5. A minor in Geography or Geology is not permitted in the Honours Environmental Science programme.
COURSE LIST
BIOLOGY 2003, 3SS3, 3TT3, 4AO3, 4Y03; CHEM 3A03; ECON 3W03; GEO 2A03, 2B03, 2C03, 2E03, 2G03, 2K03, 2KK3, 2W03, 2WW3, 3B03, 3C03, 3E03, 3FG3; 3G03, 3K03, 3Q03, 3V03, 3W03, 3Y03, 3Z03, 3ZZ3, 4B03, 4C03, 4E03, 4FE3, 4FF3, 4G03, 4L03, 4Q03, 4W03, 4WW3, 4Z03, 4ZZ3

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL III: 30 UNITS
12 units GEO 3A03, 3FE3, 3R03, 3U03
6 units from GEO 3B03, 3C03, 3G03, 3Q03, 3W03
6 units from Course List (See above and Note 2)
6 units Electives

LEVEL IV: 30 UNITS
3 units GEO 4A03
3-6 units GEO 4R06, 4CC3
6 units from GEO 4B03, 4C03, 4G03, 4Q03, 4W03
6-9 units from Course List (See above and Note 2)
9 units Electives

Honours Environmental Science (2212)
Co-op (B.Sc.)
The Honours Environmental Science Co-op (B.Sc.) programme is being phased out. Registration in Level IV will be last available in September 2001. This programme has been replaced with the Honours Earth and Environmental Sciences Co-op (B.Sc.) programme. Students who wish to transfer to the new Honours Co-op programme in Earth and Environmental Sciences should consult the Academic Advisor in the School of Geography and Geology.

NOTES
1. This is a five-year co-op programme which includes two eight-month work terms which must be spent in placements related to Environmental Science.
2. Students must be registered full-time and take a full academic programme.
3. Students are required to complete a Work Orientation Course before the first work placement.
4. There are Level II (and III) prerequisites for many Level III (and IV) courses. The prerequisites should be considered when choosing your Level II courses. Students should take the Level II Required Specialist course required for the Specialist Stream they wish to follow in Levels III and IV.
5. Students in this programme may choose a specialist stream in Level II and may follow this stream through completion of the programme. The five possible Specialist Streams are as follows:
   a. Geochemistry Stream:
      Required Specialist courses: GEO 2E03, 3G03, 4Q03
      Specialist Course List: GEO 2K03, 2KK3, 3E03, 3FG3, 3K03, 3Y03, 4FE3, CHEM 3A03
   b. Surficial Geoscience Stream:
      Required Specialist courses: GEO 2G03, 3G03, 4G03
      Specialist Course List: GEO 2B03, 2E03, 3E03, 3FG3, 3V03, 3W03, 3Y03, 3Z03, 3ZZ3, 4E03, 4Z03, 4ZZ3
   c. Biogeochemistry Stream:
      Required Specialist courses: GEO 2B03, 3B03, 4B03
      Specialist Course List: GEO 4FE3, 4L03, BIOLOGY 2D03, 3SS3, 3TT3, 4A03, 4Y03
   d. Hydrology Stream:
      Required Specialist courses: GEO 2W03, 3W03, 4W03
      Specialist Course List: GEO 2B03, 2C03, 2WW3, 3C03, 3G03, 3Y03, 4WW3, 4Z03, ECON 3W03
   e. Climatology Stream:
      Required Specialist courses: GEO 2C03, 3C03, 4C03
      Specialist Course List: GEO 2B03, 2W03, 3Y03, 4FE3, 4W03, BIOLOGY 3TT3, ECON 3W03
5. During March counselling students may request that the School of Geography and Geology authorizes a transcript notation attesting that they have followed and/or completed their chosen stream.
6. It is highly recommended that students make a counselling appointment with the Academic Advisor in the School of Geography and Geology during the March Counselling Period.
7. The field component of GEO 3FE3 is normally taken in the two weeks before the start of the fall term in Level III.
8. A minor in Geography or Geology is not permitted in the Honours Environmental Science Co-op programme.

YEAR 4
30 units from Academic Level IV, Term 1 and Academic Level III, Term 2, plus beginning of second eight-month work term, Summer Term.

TERM 1 AND 2
6 units GEO 3U03, 3A03
3-6 units GEO 4R06, 4CC3
6 units from GEO 3B03, 3C03, 3G03, 3Q03, 3W03, 4B03, 4C03, 4G03, 4Q03, 4W03
6-9 units from Course List (See Note 5 above.)
6 units Electives

SUMMER Work Term

YEAR 5
15 units from Academic Level IV, Term 2, and completion of second eight-month work term, Term 1.

TERM 1 Work Term

TERM 2
3 units GEO 4A03
3 units from GEO 3B03, 3C03, 3G03, 3W03, 3Q03, 4B03, 4C03, 4G03, 4Q03, 4W03
3 units from Course List (See Note 5 above.)
6 units Electives

B.Sc. Three-Level Degree
A three-level programme with a Geography/Geology orientation is available through the B.Sc. in Geoscience (formerly Earth Science) which is listed under the heading Three-Level B.Sc. Programmes in this section.

Minor in Geography
Please see Minor in Geography in the School of Geography and Geology in the Faculty of Social Sciences section of this Calendar.
MINOR IN EARTb SCIENCE

(Formerly Minor in Geology)

REQUIREMENTS
24 units total
3 units from ENVIR SC 1G03, GEO 1G03, GEOS 1G03, GEOLOGY 1C03
3 units from ENVIR SC 1A03, 1B03, 1H03, GEO 1A03, 1B03, 1H03
3 units from GEO 2E03, 2K03, 2KK3, 2P03, 3D03, 3E03, 3F03, 3G03, 3H03, 3P03, 3Q03, 3V03, 3Z03, 4E03, 4F03, 4K03, 4P03, 4Q03, 4T03, 4X03, 4Z03, 4ZZ3, including at least six units from Level III, IV courses

MINOR IN ENVIRONMENTAL SCIENCE

REQUIREMENTS
24 units total
6 units from ENVIR SC 1A03, 1B03, 1G03, 1H03, GEO 1A03, 1B03, 1G03; GEOS 1C03, 1G03; GEOLOGY 1C03
18 units from BIOLOGY 2F03, 3R03, 3SS3, 3T13, 4J03, 4Y03, CHEM 2A03, 2E03, 2R03, GEO 2A03, 2B03, 2C03, 2E03, 2G03, 2S03, 2W03, 3A03, 3B03, 3C03, 3Q03, 3V03, 3W03, 4A03, 4B03, 4C03, 4L03, 4Q03, 4W03, 4WW3, including at least six units from Level III, IV GEO courses and at least three units from Level II, III, or IV BIOLOGY or CHEM courses

MINOR IN GEOGRAPHICAL INFORMATION SYSTEMS (GIS)

REQUIREMENTS
24 units total
6 units from ENVIR SC 1A03, 1B03, 1G03, GEO 1A03, 1B03, 1G03, 1H03, 1H03
18 units GEO 2I03, 3103, 3S03, 3Y03, 4I03, 4S03

PROGRAMMES FOR STUDENTS WHO ENTERED PRIOR TO SEPTEMBER 2000

Honours Geography

Honours Geology

Students who entered these programmes prior to September 2000 must consult the Academic Advisor for the School of Geography and Geology to discuss ways of fulfilling their programme requirements.

DEPARTMENT OF KINESIOLOGY

WEB ADDRESS: http://kinlabserver.mcmaster.ca

The Department of Kinesiology offers two Honours programme options beyond Level I: an Honours Bachelor of Kinesiology and an Honours Bachelor of Science. The required Kinesiology courses are identical for both programmes and are differentiated only by the elective courses. Both programmes allow for the completion of prerequisites for various professional degree programmes. Further information and programme requirements for Honours Bachelor of Kinesiology, see the Faculty of Social Sciences, Department of Kinesiology section of this Calendar.

Honours Bachelor of Kinesiology (B.KIN) and Bachelor of Kinesiology (B.KIN)

(See Faculty of Social Sciences, Department of Kinesiology)

Honours Kinesiology

MINIMUM AVERAGES/GRADES:
A Cumulative Average of 5.0 and an average of 6.0 in KINESIOL 1A06, 1E03, 1H03.

NOTES
1. KINESIOL 1FL0 (Lifestyle Recreation and Fitness) is a non-credit requirement and must be completed in Level I.
2. Students who do not meet the admission criteria for the Honours Kinesiology programme, but whose Cumulative Average is between 3.0 and 3.5 may register in a three-level degree programme for which they qualify. Students with a Cumulative Average of at least 4.0 may transfer to the B.Kin (four level) programme.
3. BIOLOGY 1A03, 1AA3 and CHEM 1A03, 1AA3 are required for students wishing to take upper level Biology courses. PSYCH 1A03, 1AA3 are required for students wishing to take upper level Psychology courses.
4. Students transferring into the Honours Bachelor of Science programmes in Kinesiology with credit in KINESIOL 1B03 must take STATS 1CC3.
5. Students wishing to complete a minor in Science must carefully choose their Level I and II electives keeping in mind the various prerequisite requirements for Level I and III courses.

COURSE LIST

KINESIOL 3AA3, 3D03, 3E03, 3K03, 3Y03, 3A06, 4B03, 4C03, 4CC3, 4H03, 4I03, 4J03, 4K03, 4L03, 4P03, 4Q03, 4R03, 4R6, 4S03, 4SS3, 4V03, 4W03, 4YY3

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I.

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
15 units KINESIOL 2A03, 2C06, 2G03, 2H03
9 units from the Faculty of Science
3 units HUMAN 2CC3
3 units Electives

LEVELS III AND IV: 60 UNITS
30 units Level III or IV Kinesiology, including at least 18 units from Course List (see above)
6 units from Levels II, III, IV Faculty of Science courses
12 units from Levels III, IV Faculty of Science courses
12 units from the Faculties of Business, Humanities, Social Sciences

MATERIALS SCIENCE AND ENGINEERING

WEB ADDRESS: http://mse.eng.mcmaster.ca

Honours Materials Science

(Specialist Option)

ADMISSION
Completion of the Science I requirements, including:
6 units MATH 1A03, 1AA3
6 units CHEM 1A03, 1AA3
3 units COMP SCI 1MC3
6 units PHYSICS 1B03, 1BA3 (or 1BB3)
3 units MATH 1B03
6 units Level I electives
1 course SCIENCE 1AO0
PHYSICS 1B03 is recommended.

MINIMUM AVERAGES/GRADES:
A Cumulative Average of 5.0 and a grade of at least C+ in each of CHEM 1A03, 1AA3, MATH 1AA3.

OR
Completion of the Engineering I requirements, including:
3 units CHEM 1E03
8 units ENGINEER 1A00, 1C04, 1D04
6 units MATH 1H03, 1HH3
6 units MATH 1N03, 1NN3
6 units PHYSICS 1D03, 1E03
6 units Approved complementary studies electives

MINIMUM AVERAGES/GRADES:
A Cumulative Average of at least 4.0
COURSE LIST
All Level III and IV Materials courses; CHEM ENG 3Q03; ENGINEER 3P03, 4J03; ENG PHYS 3E03, 3F03, 4F03, 4Z03; MECH ENG 3O04; PHYSICS 3M33, 3Q03, 4K03

REQUIREMENTS
124-126 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 32-33 UNITS
2-3 units from CHEM 2E03, 2I03, 2WW2
6 units MATH 2A03, 2C03
7 units ENGINEER 2003 (unless MATLS 1A03 already taken); 2P04
11 units MATLS 2B03, 2D03, 2H03, 2X02
6 units PHYSICS 2B06

LEVEL III: 33 UNITS
4 units CHEM ENG 2A04
14 units MATLS 3C03, 3D03, 3E04, 3T04
3 units MATH 3I03
3 units from STATS 3N03, 3Y03
3 units from PHYSICS 3O03, 3M03
6 units Electives

LEVEL IV: 29-30 UNITS
8 units MATLS 4A02, 4K04, 4L02
15-16 units from Course List (see above)
6 units Electives, excluding Astronomy, Chemistry, Computer Science, Engineering, Engineering Physics, Materials, Mathematics, Physics, Statistics

Minor in Materials Properties

NOTE
In order to meet prerequisite requirements, at least six units of appropriate Level II Mathematics must be taken.

REQUIREMENTS
3 units from ENGINEER 2003, MATLS 1A03
1 course from CHEM ENG 2A04, MATLS 3A03
11-12 units MATLS 2X02, 3I05, 3C03, 3D03, 3T04
6 units MATLS 2B03, 2D03

Minor in Materials Processing

NOTE
In order to meet prerequisite requirements, at least six units of appropriate Level II Mathematics must be taken.

REQUIREMENTS
3 units from ENGINEER 2003, MATLS 1A03
1 course from CHEM ENG 2A04, MATLS 3A03
11 units MATLS 3B03, 3E04, 4B04
6 units MATLS 2B03, 2D03

DEPARTMENT OF MATHEMATICS AND STATISTICS

WEB ADDRESS: http://www.science.mcmaster.ca/MathStat/Dept.html

Honours Mathematics (Specialist Option) {2320}

ADMISSION
Completion of a Level I programme in any Faculty, including:
9 units MATH 1A03, 1AA3, 1B03
21 units Level I courses to complete a Level I programme

MINIMUM AVERAGES/GRADES:
A Cumulative Average of 5.0 and a grade of C+ in each of MATH 1A03, 1B03.

NOTES
1. By electing STATS 2D03 and STATS 2MB3 in Level II of this programme, a student can also complete Level II Honours Statistics (Specialist Option) or Level II Honours Mathematics and Statistics (Specialist Option).
2. A minor in Statistics is not permitted in the Honours Mathematics (Specialist Option) programme.

COURSE LIST 1
MATH 2E03, STATS 2D03, 2MA3, 2MB3

COURSE LIST 2
All Level III and IV Mathematics and Statistics courses

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
15 units MATH 2A03, 2A83, 2C03, 2R03, 2S03
9 units from Course List 1 (see above)
6 units Electives
If not completed: SCIENCE 1A00

LEVEL III: 30 UNITS
15 units MATH 3A03, 3A3, 3E03, 3EE3, 3X03
6 units from Course Lists 1 and 2 (see above)
9 units Electives

LEVEL IV: 30 UNITS
3 units from MATH 4B03, 4E03, 4G03, 4X03
18 units from Course List 2 (see above)
9 units Electives

Honours Applied Mathematics {2021}

ADMISSION
Completion of the Science I requirements, including:
6 units MATH 1A03, 1AA3
3 units CHEM 1A03
3 units from COMP SCI 1MC3, 1SA3
6 units PHYSICS 1B03, 1BA3 (or 1BB3)
3 units MATH 1B03
3 units from Science I Course List
6 units Level I electives
1 course SCIENCE 1A00

MINIMUM AVERAGES/GRADES:
A Cumulative Average of 5.0 and a grade of C+ in each of four of MATH 1H03, 1NN3, PHYSICS 1E03, CHEM 1E03, ENGINEER 1D04.

OR
Completion of the Engineering I requirements with:

MINIMUM AVERAGES/GRADES:
A Cumulative Average of 5.0 and a grade of C+ in each of four of MATH 1H03, 1NN3, PHYSICS 1E03, CHEM 1E03, ENGINEER 1D04.

NOTES
1. Students are encouraged to choose from the Course Lists to give an area of concentration. The courses listed in Course List B give offerings in fluid mechanics, solid mechanics (elasticity), software engineering, geophysics, materials science, thermodynamics and statistical mechanics. Other applied areas may be included, in consultation with a faculty advisor in the Department of Mathematics and Statistics.
2. Selections from Course List A should be made carefully to provide the prerequisite courses necessary for admission to the desired courses from Course List B.
3. Permission will be given to any student registered in this programme to replace MATH 2M06 or MATH 2P04 and 2Q04 with MATH 2A03 and 2C03 as prerequisites for Engineering courses.

4. Courses in Chemical Engineering and Civil Engineering will be open to any student registered in the Honours Applied Mathematics programme. Entry to courses in Electrical and Computer Engineering will be subject to possible enrolment limitations. Please consult with an advisor in the appropriate department.

5. As this programme involves two faculties, students may encounter difficulties in scheduling their preferred applied courses.

**COURSE LIST A**

- CHEM ENG 2A04; CIV ENG 2C04; COMP ENG 2S14, 2D14; ELEC ENG 2C14; ENGINEER 2Q03, 2P04; GEO 3Z23; MATHS 2X02; MATH 2E03; MECH ENG 2W04; PHYSICS 2B06, 2H04

**COURSE LIST B**

- CHEM ENG 3004; CIV ENG 3G03, 4K04; COMP ENG 3S14, 3D14, 3SK4; ENGR PHYS 3C03; MATHS 3E04, 3T04; MECH ENG 3AA3, 3C04, 3R03, 3S03; PHYSICS 3C03, 3K03, 3M03, 3MM3, 3N03, 4K03; Any other Level III or IV Engineering course, subject to the approval of a faculty advisor

**REQUIREMENTS**

120-125 units total (Levels I to IV), of which no more than 48 units may be Level I courses

**LEVEL I**

- 30 units (See Admission above.)

**LEVEL II: 30-32 UNITS**

- 12 units MATH 2A03, 2A83, 2C03, 2R03
- 3 units from MATH 2S03, 2T03
- 3 units STAT 2D03
- 6-8 units from Course List A (see above)
- 6 units Electives

**LEVEL III: 30-33 UNITS**

- 15 units MATH 3A03, 3F03, 3FF3, 3Q03, 3X03
- 3-4 units from Course Lists A and B (see above)
- 6-8 units from Course List B (see above)
- 6 units Electives

**LEVEL IV: 30 UNITS**

- 9 units from MATH 4G03, 4G3, 4Q03, 4V03, 4X03
- 3 units from MATH 3AA3, STAT 3U03
- 9-12 units from Course List B (see above)
- 6-9 units Electives

**Honours Mathematics and Physics {2320440}**

**ADMISSION**

Completion of the Science I requirements, including:

- 6 units MATH 1A03, 1A83
- 6 units CHEM 1A03, 1A3
- 6 units PHYSICS 1B03, 1BA3 (or 1BB3)
- 3 units MATH 1B03
- 3 units from Science I Course List
- 6 units Level I electives
- 1 course SCIENCE 1A00

COMP SCI 1MC3 or 1SA3 is recommended in Level I.

**MINIMUM AVERAGES/GRADES:**

A Cumulative Average of 5.0 and a grade of C+ in each of MATH 1AA3, 1B03, PHYSICS 1B03, 1BA3, 1BB3.

**NOTES**

1. Students who complete Level II of Honours Mathematics and Physics are eligible to proceed to any Level III Honours (Specialist Option) programme in Mathematics or Physics.

2. PHYSICS 3C03 is listed in Level III but is offered in alternate years, and may be taken in Level IV.

3. A minor in Astronomy or Statistics is not permitted in the Honours Mathematics and Physics programme.

**COURSE LIST**

- COMP SCI 2M03, 2SC3; MATH 2E03; STATS 2D03, 2MB3; all Level III and IV Astronomy courses; all Level III and IV Mathematics and Statistics courses; PHYSICS 4J04, all Level III and IV Physics courses except PHYSICS 3T03, 3R06

**REQUIREMENTS**

121-123 units total (Levels I to IV), of which no more than 48 units may be Level I courses

**LEVEL I**

- 30 units (See Admission above.)

**LEVEL II: 31 UNITS**

- 12 units MATH 2A03, 2AB3, 2C03, 2R03
- 3 units from MATH 2S03, 2T03
- 13 units PHYSICS 2B06, 2H04, 2C03
- 3 units Electives

**LEVEL III: 30-31 UNITS**

- 9 units MATH 3A03, 3F03, 3X03
- 9 units PHYSICS 3C03, 3K03, 3MM3
- 3-4 units from Course List (see above)
- 9 units Electives

**LEVEL IV: 30-31 UNITS**

- 6 units MATH 3AA3, 4X03
- 4 units PHYSICS 4B04
- 14-15 units from Course List (see above)
- 6 units Electives

**Honours Mathematics and Statistics {2320543}**

(Complementary Studies Option)

**ADMISSION**

Completion of a Level I programme in any Faculty, including:

- 9 units MATH 1A03, 1A83, 1B03
- 21 units Level I courses to complete a Level I programme

**MINIMUM AVERAGES/GRADES:**

A Cumulative Average of 5.0 and a grade of C+ in each of MATH 1AA3, 1B03.

**NOTES**

1. Students contemplating graduate studies in Mathematics or Statistics should consider Honours Mathematics and Statistics (Specialist Option).

2. In some cases there are Level II (and III) prerequisites for Level III (and IV) courses. These should be considered when choosing your Level II (and III) courses.

**REQUIREMENTS**

120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

**LEVEL I**

- 30 units (See Admission above.)

**LEVEL II: 30 UNITS**

- 18 units MATH 2A03, 2AB3, 2C03, 2R03; STATS 2D03, 2MB3
- 6 units from the Faculty of Humanities and/or the Department of Religious Studies
- 6 units Electives, excluding Mathematics, Statistics

If not completed: SCIENCE 1A00

**LEVEL III: 30 UNITS**

- 6 units STATS 3D03, 3DD3
- 3 units from MATH 2S03, 2T03
- 3 units from MATH 3A03, 3X03
- 3 units from Level III Mathematics and Statistics, MATH 2K03
- 3 units from HUMAN 2C03, MATH 2E03
- 6 units from the Faculties of Business, Humanities, Social Sciences
- 6 units Electives, excluding Mathematics, Statistics

**LEVEL IV: 30 UNITS**

- 6 units from the Science Inquiry Course List
- 3 units from MATH 3A03, 3E03, 3X03
- 12 units from Level III, IV Mathematics and Statistics courses, MATH 2K03
- 3 units from Level III, IV courses, excluding Mathematics, Statistics
- 6 units Electives
Honours Mathematics and Statistics {2320542}  
(Specialist Option)

**ADMISSION**
Completion of a Level I programme in any Faculty, including:
9 units  MATH 1A03, 1A3, 1B03
21 units  Level I courses to complete a Level I programme

**MINIMUM AVERAGES/GRADERS:**
A Cumulative Average of 5.0 and a grade of C+ in each of MATH 1AA3, 1B03.

**REQUIREMENTS**
120 units total (Levels I to IV), of which no more than 48 units may be from Level I courses

**LEVEL I**
30 units  (See Admissions above.)

**LEVEL II: 30 UNITS**
15 units  MATH 2A03, 2AB3, 2C03, 2R03, 2S03
6 units  STATS 2D03, 2MB3
9 units  Electives
If not completed: SCIENCE 1A00

**LEVEL III: 30 UNITS**
18 units  MATH 3A03, 3AA3, 3E03, 3X03; STATS 3D03, 3DD3
6 units  from Level III, IV Statistics
6 units  Electives

**LEVEL IV: 30 UNITS**
6 units  from MATH 3EE3, 4B03, 4E03, 4G03, 4X03
6 units  from Level III, IV Mathematics
6 units  from Level III, IV Statistics
6 units  Electives

Honours Statistics (Specialist Option)  {2542}

**ADMISSION**
Completion of a Level I programme in any Faculty, including:
9 units  MATH 1A03, 1AA3, 1B03
21 units  Level I courses to complete a Level I programme

**MINIMUM AVERAGES/GRADERS:**
A Cumulative Average of 5.0 and a grade of C+ in each of MATH 1AA3, 1B03.

**NOTE**
A minor in Mathematics is not permitted in the Honours Statistics (Specialist Option) programme.

**COURSE LIST 1**
COMP SCI 2MD3, 2ME3, 2SC3; MATH 2E03

**COURSE LIST 2**
All Level III and IV Statistics courses

**COURSE LIST 3**
COMP SCI 3AA3, 3SD3; MATH 3EE3, 3EF3, 3FF3, 3Q03, 3R03, 4C03, 4J03, 4K03, 4Q03, 4W03, 4X03

**REQUIREMENTS**
120 units total (Levels I to IV), of which no more than 48 units may be from Level I courses

**LEVEL I**
30 units  (See Admission above.)

**LEVEL II: 30 UNITS**
12 units  MATH 2A03, 2AB3, 2C03, 2R03
3 units  from MATH 2SC3, 2T03
6 units  STATS 2D03, 2MB3
9 units  Electives
If not completed: SCIENCE 1A00

**LEVEL III: 30 UNITS**
15 units  MATH 3A03, 3AA3, 3X03; STATS 3D03, 3DD3
6 units  from Course Lists 1, 2 and 3 (see above)
9 units  Electives

**LEVEL IV: 30 UNITS**
6 units  STATS 4D03, 4M03
6 units  from Course List 2 (see above)
9 units  from Course Lists 2 and 3 (see above)
9 units  Electives

B.Sc. Three-Level Degree
A three-level programme with a Mathematics or Statistics orientation is available through the B.Sc. in Mathematical Science which is listed under the heading Three-Level B.Sc. Programmes in this section.

Minor in Mathematics and Statistics

**NOTES**
1. It is possible for a student to complete this Minor through evening and summer study.
2. MATH 2L03 should not be taken by students wishing to complete this minor.

**REQUIREMENTS**
27 units total
9 units  MATH 1A03, 1AA3, 1B03
18 units  from Level II, III, IV Mathematics and Statistics, including at least six units from Level III, IV Mathematics and Statistics

MEDICAL PHYSICS AND APPLIED RADIATION SCIENCES

**WEB ADDRESS:** http://www.physics.mcmaster.ca

**NOTE**
Students in Medical and Health Physics programmes are expected to have basic skills in the use of personal computers, word processing and spreadsheet software and some familiarity with a programming language. MATH 1J03 is strongly recommended.

Honours Medical and Health Physics  {2443}

**ADMISSION**
Completion of the Science I requirements, including:
6 units  MATH 1A03, 1AA3
3 units  BIOLOGY 1A03
6 units  CHEM 1A03, 1AA3
3 units  PHYSICS 1B03
3 units  MATH 1B03
3 units  from BIOLOGY 1AA3, PHYSICS 1BA3 (or 1BB3)
6 units  Level I electives
1 course  SCIENCE 1A00
BIOLOGY 1A03 and PHYSICS 1BA3 (or 1BB3) must be completed by the end of Level II and are recommended in Level I.

**MINIMUM AVERAGES/GRADERS:**
A Cumulative Average of 5.0, an average of 6.0 in MATH 1A03, 1AA3, 1B03 and a grade of C+ in PHYSICS 1B03.

**NOTE**
A minor in Astronomy or Mathematics or Statistics is not permitted in the Honours Medical and Health Physics programme.

**REQUIREMENTS**
120 units total (Levels I to IV), of which no more than 48 units may be from Level I courses

**LEVEL I**
30 units  (See Admission above.)

**LEVEL II: 31 UNITS**
3 units  BIOCHEM 2EE3
3-6 units  CHEM 2E03, or both CHEM 2A03 and 2B03
3 units  MATH 2A03, 2C03, 2E03
13 units  PHYSICS 2B03, 2D03, 2H04
0-3 units  Electives, BIOLOGY 2C03 is recommended.
If not completed: BIOLOGY 1AA3, PHYSICS 1BA3 (or 1BB3)

**LEVEL III: 31 UNITS**
9 units  BIOLOGY 2B03; MATH 3C03, 3D03
6 units  MED PHYS 3R03, 3T03
13 units  PHYSICS 2C03, 3H04, 3MM3, 3N03
3 units  Electives, BIOCHEM 3G03 is recommended.

**LEVEL IV: 30 UNITS**
3 units  BIOLOGY 4U03
12 units  MED PHYS 4R06, 4T03, 4XX3
15 units  PHYSICS 4A03, 4D06, 4E03, 4K03
Honours Medical and Health Physics Co-op

ADMISSION
Enrolment in this programme is limited to a maximum of 10 students per year. Selection is based on academic achievement and an interview but requires, as a minimum, completion of Level II Honours Medical and Health Physics with a Cumulative Average of at least 6.0.

Information about the programme and the selection procedure may be obtained from Science Cooperative Education and the Chair of the Committee of Instruction and will be explained in the month of March in an Information Session.

NOTES
1. This is a five-year co-op programme which includes two eight-month work terms which must be spent in Medical or Health Physics related placements.
2. Students must be registered full-time and take a full academic programme.
3. Students are required to complete a Work Orientation Course before the first work placement.

REQUIREMENTS
121 units total (Levels I to IV) of which no more than 48 units may be Level I courses

LEVEL I
30 units from the Science I requirements

LEVEL II
31 units from Honours Medical and Health Physics

YEAR 3
17 units from Academic Level III, Term 1, plus Work Orientation course, and completion of the first work term of eight months duration, Term 2 and Summer term.

TERM 1
3 units MATH 3C03
3 units MED PHYS 3T03
6 units PHYSICS 2C03, 3H03, 3N03
3 units Electives. BIOCHEM 3G03 is recommended.

TERM 2 AND SUMMER
Work Term

YEAR 4
31 units from Academic Level IV, Term 1, and Academic Level III, Term 2, plus beginning of second eight-month work term, Summer term.

TERMS 1 AND 2
6 units BIOLOGY 3B03, 4U03
3 units MATH 3D03
13 units MED PHYS 3I01, 3R03, 3F05, 3X03
9 units PHYSICS 3M03, 4D06

SUMMER
Work Term

YEAR 5
12 units from Academic Level IV, Term 2, plus completion of second eight-month work term, Term 1.

TERM 1
Work Term

TERM 2
4 units MED PHYS 4I01, 4T03
8 units PHYSICS 3H02, 4E03, 4K03

MOLECULAR BIOLOGY

Honours Biochemistry and Molecular Biology
(See Department of Biochemistry)

Honours Molecular Biology

ADMISSION
Enrolment in this programme is limited. Selection is based on academic achievement but requires, as a minimum, completion of the Science I requirements, including:
6 units MATH 1A03, STATS 1C03
6 units BIOLOGY 1A03, 1A04
6 units CHEM 1A03, 1A04
3 units PHYSICS 1B03
3 units from Science I Course List
6 units Level I electives
1 course SCIENCE 1A00
PHYSICS 1B03 (or 1BB3) must be completed by the end of Level II and is very strongly recommended in Level I.

MINIMUM AVERAGES/GRADES:
A Cumulative Average of 5.0 and an average of 6.0 in BIOLOGY 1A03 and 1A04 and a grade of C+ in each of three of CHEM 1A03, 1A04, MATH 1A03, STATS 1C03, PHYSICS 1B03.

NOTES
1. This Honours degree programme is administered within the Faculty of Science through a Committee of Instruction and also draws on the Departments of Biology, Biochemistry and Pathology.
2. Information and counselling may be obtained through the Programme Coordinator.
3. A minor in Biochemistry, Biology, or Chemistry is not permitted in the Honours Molecular Biology programme.

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
21 units BIOCHEM 2A08; BIOLOGY 2B03, 2C03; CHEM 2A03, 2B03, 2R03
3 units from BIOLOGY 2A03, 2B03, CHEM 2N03
6 units Electives. BIOLOGY 2A03, 2B03, CHEM 2N03 are recommended
If not completed: PHYSICS 1B03 (or 1BB3)

LEVEL III: 30 UNITS
3 units from BIOLOGY 3H03, BIOCHEM 3B03
15 units BIOCHEM 3B03, 3L03, BIOLOGY 3E03, 3O03, 3V03
9 units from BIOLOGY 3A03, 3B03, 3C03, 3H03, 3I03, 3N03, 3P03, 3X03
3 units Electives
LEVEL IV: 30 UNITS
3 units from BIOCHEM 4L03, 4P03; BIOLOGY 4F06; MOL BIOL 4R09
6 units BIOCHEM 4D03, 4E03
3 units from BIOCHEM 4I03, 4M03
9-15 units from BIOCHEM 4I03, 4M03, 4Q03; BIOLOGY 4B03, 4I03, 4K03, 4P03, 4P03, 4R03, 4T03, 4V03; MOL BIOL 4F03, 4H03, 4J03; PHARMAC 4B03
3-6 units Electives.

NEURAL COMPUTATION

Honours Neural Computation (2381)

ADMISSION
Completion of the Science I requirements, including:
6 units MATH 1A03, 1A43
3 units BIOLOGY 1A03
6 units COMP SCI 1MC3, 1MD3
3 units PSYCH 1A03
12 units Level I electives
1 course SCIENCE 1A00

MINIMUM AVERAGES/GRADES:
A Cumulative Average of 5.0, and a grade of C+ in each of PSYCH 1A03 and COMP SCI 1MD3.

NOTES
1. This Honours degree programme is administered within the Faculty of Science through a Committee of Instruction and also draws on the Departments Psychology, Mathematics and Statistics, and Computing and Software.
2. Information and counselling may be obtained through the Program Coordinator in the Department of Psychology.
3. A Minor in Psychology, Computer Science or Mathematics is not permitted in the Honours Neural Computation Programme, although electives may be drawn from any of these areas.
4. The Neural Computation thesis in Level I may be taken from any participating department with permission of the Programme Coordinator.

COURSE LIST
COMP SCI 2MJ3, 3GA3, 3SD3, 3TA3, 4GB3, 4IB3, 4TC3; MATH 2C03, 2E03, 2S03, 2T03, 3F03, 3N03, 4S03; PSYCH 2E03, 2H03, 2TT3, 3BB3, 3BL3, 3F03, 4A3, 4B3; STATS 3D03, 3DD3

REQUIREMENTS
120-121 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
6 units MATH 1B03, STATS 2D03
3 units COMP SCI 2MD3
6 units from Course List (see above)
3 units PSYCH 2F03
3 units NEURCOMP 3W03
9 units Electives

LEVEL III: 30-31 UNITS
12 units from Course List (see above)
3-4 units from MATH 2A03, 2P04, 2Q04
3 units MATH 2R03
3 units PSYCH 3BN3
9 units Electives

LEVEL IV: 30 UNITS
12 units from Course List (see above)
9 units NEURCOMP 4D09
9 units Electives

LEVEL IV: 30 UNITS
30 units (See Admission above.)
LEVEL II: 31 UNITS
16 units PHYSICS 2B06, 2C03, 2D03, 2H04
6 units MATH 2A03, 2C03
9 units from stream requirements (see below)
If not completed: MATH 1B03

LEVEL III: 31 UNITS
7 units PHYSICS 3H04, 3MM3
6 units MATH 3C03, 3D03
18 units from stream requirements (see below)

LEVEL IV: 30-32 UNITS
3 units PHYSICS 4A03
9 units from Level III, IV Astronomy, Mathematics, Physics, GEO 3V03
18-20 units from stream requirements (see below)

Interdisciplinary Stream
LEVELS II, III, IV: 45 UNITS
18 units from Levels III, IV courses
27 units Electives
If not completed: three units from the Science Inquiry Course List

Astrophysics Stream
LEVEL II: 9 UNITS
3 units ASTRON 1F03
6 units Electives

LEVEL III: 18 UNITS
3 units ASTRON 3X03
3 units PHYSICS 3N03
12 units Electives

LEVEL IV: 19 UNITS
3 units ASTRON 3Y03
10 units PHYSICS 4B04, 4F03, 4G03
6 units Electives

Experimental Stream
LEVEL II: 9 UNITS
9 units Electives

LEVEL III: 18 UNITS
6 units PHYSICS 3B06
6 units PHYSICS 3K03, 3N03
6 units Electives

LEVEL IV: 20 UNITS
17 units PHYSICS 4B04, 4D06, 4F03, 4J04
3 units Electives

Theory Stream
LEVEL II: 9 UNITS
6 units MATH 2R03, 2T03
3 units Electives

LEVEL III: 18 UNITS
9 units PHYSICS 3A03, 3K03, 3N03
9 units Electives, (MATH 3Q03 is recommended.)

LEVEL IV: 19 UNITS
13 units PHYSICS 3C03, 4B04, 4F03, 4G03
6 units Electives

Honours Physics
(Complementary Studies Option)
The Honours Physics (Complementary Studies Option) is being phased out. Registration in Level III will be last available in September 2001. Students who intended to register in Level II of this programme should refer to the Honours Physics programme for an equivalent option. Students currently registered in this programme who wish to transfer to the new Honours Physics programme should consult the Department of Physics and Astronomy.

NOTE
A minor in Astronomy or Mathematics or Mathematics and Statistics is not permitted in the Honours Physics (Complementary Studies Option) programme.

Requirements
123-125 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL III: 31-32 UNITS
7 units MATH 3C03, PHYSICS 3H04
3 units from PHYSICS 3C03, 3M03
6-7 units from Level III Physics, Level III Astronomy, GEO 3V03, 3Z23, MATH 3D03
3 units HUMAN 2C03
6 units from the Faculty of Business, Humanities, Social Sciences
6 units Electives, excluding Physics, Astronomy, GEO 3Z23

LEVEL IV: 31-32 UNITS
3 units PHYSICS 4A03
3 units from the Science Inquiry Course List
4 units PHYSICS 4J04
9-10 units from Level III, IV Physics, Level III Astronomy, GEO 3V03, 3Z23
6 units from Level III, IV courses, excluding Physics, Astronomy, GEO 3V03, 3Z23
6 units Electives

Honours Physics (Specialist Option)

The Honours Physics (Specialist Option) is being phased out. Registration in Level III will be last available in September 2001. Students who intended to register in Level II of this programme should refer to the Honours Physics programme for an equivalent option. Students currently registered in this programme who wish to transfer to the new Honours Physics programme should consult the Department of Physics and Astronomy.

Notes
1. Students who have completed Level II of Honours Physics (Specialist Option) with a Cumulative Average of 6.0 are eligible to proceed to Level III of Honours Physics (Specialist Option), or Honours Astrophysics (with completion of either ASTRON 1F03 or 2E03).
2. Students are required to take six units from PHYSICS 3B06, 3B03, 3B03, 4D03, 4A03, 4D03. This requirement is listed in Level III but may be completed in Level IV. It is recommended that any courses selected from PHYSICS 3B06, 3B03, 3B03 are taken in Level III and any courses selected from PHYSICS 4D06, 4A03, 4D03 are taken in Level IV.
3. Students interested in applied physics should include PHYSICS 3B06, 4D06 in their programme.
4. A minor in Astronomy or Mathematics or Mathematics and Statistics is not permitted in the Honours Physics (Specialist Option) programme.

Requirements
124 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL III: 31 UNITS
6 units MATH 3C03, 3D03
6 units from PHYSICS 3B06, 3B03, 4D06, 4A03, 4D03
(See Notes 2 and 3 above.)
16 units PHYSICS 3H04, 3K03, 3M03, 3M3, 3N03
3 units Electives

LEVEL IV: 32 UNITS
14 units PHYSICS 4A03, 4B04, 4F03, 4J04
3 units from PHYSICS 3A03, 3C03, 4E03, 4G03, 4K03, ASTRON 3X03, 3Y03
6 units from Level III, IV Science
9 units Electives (See Notes 2 and 3 above.)

Honours Physics Co-op

Admission
Enrolment in this programme is limited to a maximum of 10 students per year. Selection is based on academic achievement and an interview but requires, as a minimum, completion of Level II Honours Physics with a Cumulative Average of at least 6.0. Information about the programme and the selection proce-
The Honours Astrophysics programme is being phased out. Registration in Level III will be last available in September 2001. Students who intended to register in Level II of this programme should refer to the Honours Physics programme, Astrophysics Stream for an equivalent option. Students currently registered in this programme who wish to transfer to the new Honours Physics programme should consult the Department of Physics and Astronomy.

### NOTES
1. ASTRON 3X03 and 3Y03 must be completed but are offered in alternate years. These courses should be taken when they are offered.
2. Students are required to take six units from PHYSICS 3B06, 3BA3, 3BB3, 4D06, 4DA3, 4DB3. This requirement is listed in Level III but may be completed in Level IV. It is recommended that any courses selected from PHYSICS 3B06, 3BA3, 3BB3 are taken in Level III and any courses selected from PHYSICS 4D06, 4DA3, 4DB3 are taken in Level IV.
3. A minor in Mathematics or Mathematics and Statistics or Physics is not permitted in the Honours Astrophysics programme.

### REQUIREMENTS
123 units total (Levels I to IV) of which no more than 48 units may be Level I courses

#### LEVEL III: 31 UNITS
3 units from ASTRON 3X03, 3Y03
6 units from PHYSICS 3B06, 3BA3, 3BB3, 4D06, 4DA3, 4DB3
16 units PHYSICS 3H04, 3K03, 3M03, 3N03, 3P03
6 units MATH 3C03, 3D03

#### LEVEL IV: 31 UNITS
13 units PHYSICS 4A03, 4B04, 4F03, 4G03
3 units from ASTRON 3X03, 3Y03
6 units from PHYSICS 3A03, 3C03, 4E03, 4K03
3 units from Level III, IV Science
6 units Electives

### B.Sc. Three-Level Degree
A three-level programme with a Physics orientation is available through the B.Sc. in Physical Science which is listed under the heading Three-Level B.Sc. Programmes in this section.

### Minor in Astronomy

#### REQUIREMENTS
3 units from ASTRON 1F03, 2E03
6 units from MATH 2A03 and one of MATH 2C03, 2O03
3-6 units from PHYSICS 2A03, 2B06
3-6 units from either one of PHYSICS 2H03, 2H04, CHEM 2P06, 2R03, or both CHEM 2P03 and 2P03
3 units from PHYSICS 2D03, 2G03, 2K03
6 units ASTRON 3X03, 3Y03
3 units from PHYSICS 2C03, 3M03, 3C03, CHEM 3B4A3

### Minor in Physics

#### NOTE
MATH 2A03 is the minimum mathematics required in order to complete a Minor in Physics. However, more flexibility is possible if one of MATH 2C03, 2O03 is also completed.

#### REQUIREMENTS
24 units total
6 units from PHYSICS, 1A06, 1B03 (or 1C03), 1B06, 1B4A3 (or 1B03) 1C06
18 units from GEO 3V03, 3Z23, Levels II, III, IV Physics, including at least six units from Level IV Physics

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Honours Psychology (B.A.) and B.A. in Psychology
(See Faculty of Social Sciences, Department of Psychology)

Honours Biology and Psychology
(B.Sc.; See Department of Biology)

Honours Arts & Science and Psychology
(B.Arts Sc.; See Arts & Science Programme)

Honours Psychology (B.Sc.) (2462)
(Complementary Studies Option)

ADMISSION
Completion of the Science I requirements, including:
6 units MATH 1A03, STATS 1C3
3 units BIOLOGY 1A03 or 1A3
3 units CHEM 1A03 or PHYSICS 1B03 (See Note 4 below.)
6 units PSYCH 1A03, 1A3
6 units from Science I Course List
6 units Level I electives
1 course SCIENCE 1A00

Students will also be considered for admission if they have completed MATH 1AA3 instead of STATS 1CC3. However, STATS 1CC3 is strongly recommended and must be completed by the end of term 1 in Level II.

MATH 1B03 is strongly recommended for students intending to pursue graduate work in Psychology.

MINIMUM AVERAGES/GRADRES:
A Cumulative Average of 5.0 and an average of 6.0 in PSYCH 1A03, 1A3.

NOTES
1. In Level III or IV a student must complete at least one laboratory course in Psychology (see the Course List). Enrollment is limited in the laboratory courses.
2. In some cases there are Level II (and III) prerequisites for Level III (and IV) courses. These should be considered when choosing your Level II (and III) courses.
3. KINESIOL 3E03 (Neural Control of Human Movement) may be taken as a substitute for three units of Level III Psychology. KINESIOL 4P03 (The Brain and Human Movement) may be taken as a substitute for three units of Level IV Psychology.
4. It is recommended that students complete both CHEM 1A03 and PHYSICS 1B03. Chemistry is particularly useful for neuroscience and biological aspects of psychology. Physics is particularly useful for perception, electrophysiology, and mathematical modeling of psychological processes.

COURSE LIST
PSYCH 3BL3, 3EE3, 3L03, 3LL3, 3QQ3, 3S03, 3V03, 4QQ3

ADMISSION
Enrollment in this program is limited. Selection is based on academic achievement but requires, as a minimum, completion of the Science I requirements, including:
6 units MATH 1A03, STATS 1C3
3 units BIOLOGY 1A03 or 1A3
3 units CHEM 1A03 or PHYSICS 1B03 (See Note 6 below.)
6 units PSYCH 1A03, 1A3
6 units from Science I Course List
6 units Level I electives
1 course SCIENCE 1A00

Students will also be considered for admission if they have completed MATH 1AA3 instead of STATS 1CC3. However, STATS 1CC3 is strongly recommended and must be completed by the end of term 1 in Level II.

MATH 1B03 is strongly recommended for students intending to pursue graduate work in Psychology.

MINIMUM AVERAGES/GRADRES:
A Cumulative Average of 5.0 and an average of 6.0 in PSYCH 1A03, 1A3.

NOTES
1. In Level III or IV a student must complete at least one laboratory course in Psychology (see the Course List). Enrollment is limited in the laboratory courses.
2. Completion of MATH 1AA3, CHEM 1AA3 and PHYSICS 1BA3 (or 1B3) by the end of Level II is recommended.
3. KINESIOL 3E03 (Neural Control of Human Movement) may be taken as a substitute for three units of Level III Psychology. KINESIOL 4P03 (The Brain and Human Movement) may be taken as a substitute for three units of Level IV Psychology.
4. Students may choose a specialist stream in Behavioural Neuroscience at the end of Level I. The following courses are required for this option: BIOLOGY 1A03; COMP SCI 1MC3; MATH 1B03; NEURCOMP 3W03; STATS 2D03 or PSYCH 2RR3; PSYCH 2E03, 2F03, 2H03, 3B03, 3E09, 4B3; one of PSYCH 3BL3, 3EE3, 3L03, 3V03; and nine units from PSYCH 3A03, 3F03, 3G03, 3H03, 3I03, 3J03, 3M03, 3N03, 3P03, 3R03, 3U03, 3V03, 3Y03, 4C03.
5. Students must apply to the Department of Psychology by March 31st of their first year to be considered for the Behavioural Neuroscience stream. A grade of at least B- in PSYCH 1A03 and 1AA3 and an average of at least 6.0 in 12 units from PHYSICS 1B03; CHEM 1A03; COMP SCI 1MC3; MATH 1A03; STATS 1CC3; BIOLOGY 1A03 is required for admittance.
6. It is recommended that students complete both CHEM 1A03 and PHYSICS 1B03. Chemistry is particularly useful for neuroscience and biological aspects of psychology. Physics is particularly useful for perception, electrophysiology, and mathematical modeling of psychological processes.

COURSE LIST
PSYCH 3BL3, 3EE3, 3L03, 3LL3, 3QQ3, 3S03, 3V03, 4QQ3
REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
3 units PSYCH 2FR3
9 units from PSYCH 2E03, 2F03, 2H03, 2TT3
9 units from any courses in the Faculty of Science, excluding Psychology
6 units from any Faculty other than the Faculty of Science
3 units Electives

LEVEL III: 30 UNITS
3 units from PSYCH 2E03, 2F03, 2H03, 2TT3, or Level III, IV Psychology
15 units from Level III, IV Psychology, including one course from Course List (See Note 1 above.)
6 units from Level III, IV courses in the Faculty of Science, excluding Psychology
6 units Electives

LEVEL IV: 30 UNITS
18 units from Levels III, IV Psychology which must include one of PSYCH 4D06, 4E09
6 units Electives, excluding Psychology
6 units Electives
If not completed: one course from Course List (See Note 1 above.)

B.Sc. Three-Level Degree
A three-level programme with a Psychology orientation is available through the B.Sc. in Life Science which is listed under the heading Three-Level B.Sc. Programmes in this section.

Minor in Psychology
NOTES
1. It is possible for a student to complete this Minor through evening and summer study.
2. When choosing Level II courses students should consider the prerequisites requirements for the various Level III courses.

REQUIREMENTS
24 units total
6 units from PSYCH 1A06, 1A03, 1AA3
18 units from Level II, III Psychology courses, including at least six units from Level III Psychology courses

SCIENCE
Honours Science (Complementary Studies Option)
NOTE
The Faculty is currently revising these Honours Programmes. Students planning to enter these programmes should consult the Academic Advisor for the specific programme.

STREAM A (GEOSCIENCES) (2513)
STREAM B (LIFE SCIENCES) (2514)
STREAM C (MATHEMATICAL SCIENCES) (2515)
STREAM D (PHYSICAL SCIENCES) (2516)

ADMISSION
Completion of Science I, including:
3 units MATH 1A03
3 units from MATH 1AA3, STATS 1CC3 (See Note 3 below.)
18 units from Science I Course List (See below for courses required for each stream.)
6 units Level I electives
1 course SCIENCE 1A00
One of ENVIR SC (or GEO) 1A03, 1B03, 1G03 must be completed by the end of Level II.

MINIMUM AVERAGES/GRADES:
A Cumulative Average of 5.0 and one of:
for Stream A: a grade of C+ in (each of) two of ENVIR SC (or GEO) 1A03, 1B03, 1G03
for Stream B: a grade of C+ in one of BIOLOGY 1A03, PSYCH 1AA3, 1A03
for Stream C: a grade of C+ in (each of) two of COMP SCI 1MC3, 1MD3, MATH 1AA3, 1B03
for Stream D: a grade of C+ in one of CHEM 1A03, PHYSICS 1B03 (or 1B03)

NOTES
1. There are Level II (and III) prerequisites for many Level III (and IV) courses. These should be considered when choosing your Level II courses.
2. Minors within the Faculty of Science are not permitted in the Honours Science (Complementary Studies Option) programmes.
3. Students who choose Stream A or B must take STATS 1CC3. Students who choose Stream C or D must take MATH 1AA3.

COURSE LIST A
All Level II, III and IV Geo courses except Non-science Geo courses. Non-science Geo courses contain the letter H in the course code.

COURSE LIST B
BIOCHEM 2E03, 3B03, 3BB3, 3C03, 3G03, 3H03, 3N03, 4C03, 4D03, 4E03; 4F03, 4G03; MOL BIOL 4F03, 4H03; PHARMAC 4B03

All Level II, III and IV Biology courses

All Level II, III, and IV Psychology courses, except PSYCH 2AA3, 2G03, 2H03, 3Z03, 3ZZ3, 4D06

COURSE LIST C
All Level II, III and IV Computer Science, Mathematics and Statistics courses

COURSE LIST D
All Level II, III and IV Astronomy, Chemistry and Physics courses

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
12 units from Level II courses in the selected stream Course List (courses may be chosen from one Course List only)
6 units from Level II courses in any Course List, excluding courses from the selected stream Course List
6 units from the Faculty of Humanities and/or the Department of Religious Studies
6 units Electives, excluding courses from the selected stream Course List
If not completed for all streams: one of ENVIR SC (or GEO) 1A03, 1B03, 1G03
If not completed for:
Stream A: ENVIR SC (or GEO) 1A03, 1B03, 1G03
Stream B: BIOLOGY 1A03 and 1AA3, PSYCH 1A03 and 1AA3
Stream C: 9 units from COMP SCI 1MC3, 1MD3, MATH 1AA3, 1B03
Stream D: CHEM 1A03 and 1AA3, MATH 1B03, PHYSICS 1B03 and 1B03

LEVEL III: 30 UNITS
12 units from Level III courses in the selected stream Course List
3 units from Level III courses in any Course List, excluding courses from the selected stream Course List
3 units HUMAN 2C03
6 units from the Faculties of Business, Humanities, Social Sciences
6 units Electives, excluding courses from the selected stream Course List
LEVEL IV: 30 UNITS
6 units from the Science Inquiry Course List
12 units from Level III, IV courses in the selected stream Course List
6 units from Level III; IV courses in any Course List, excluding courses from the selected stream Course List
6 units Electives, excluding courses from the selected stream Course List

THREE-LEVEL B.S.C. PROGRAMMES

B.Sc. in Geoscience [1149]

ADMISSION
Completion of the Science I requirements, including:
6 units MATH 1A03, STATS 1A03
6 units from ENVIR SC (or GEO) 1A03, 1B03, 1G03
12 units from Science I Course List
6 units Level I electives
1 course SCIENCE 1A00

MINIMUM AVERAGES/GRADERS:
A Cumulative Average of 3.5 and a grade C- in one of ENVIR SC (or GEO) 1A03, 1B03, 1G03.

NOTES
1. There are Level II prerequisites for many Level III courses: these should be considered when choosing your Level II courses. As an aid to choosing a coherent set of courses in a single discipline, students should consult the required specialist stream courses in the Honours Earth and Environmental Sciences programme.
2. In addition, students should seek academic counselling from the School of Geography and Geology to ensure that their choices are appropriate.

COURSE LIST 1
GEO 2A03, 2B03, 2C03, 2CC3, 2DD3, 2E03, 2G03, 2GG3, 2I03, 2K03, 2KK3, 2P03, 2Q03, 2S03, 2W03, 2WW3

COURSE LIST 2
GEO 3A03, 3B03, 3C03, 3E03, 3G03, 3I03, 3K03, 3P03, 3Q03, 3S03, 3U03, 3W03, 3Z02

REQUIREMENTS
80 units total (Levels I to III), of which no more than 42 units may be Level I courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
15 units from Course List 1 (see above)
6 units from the Faculty of Humanities and/or the Department of Religious Studies
3 units HUMAN 2C03
3 units Electives, excluding courses from Course List 1
3 units Electives

LEVEL III: 30 UNITS
12 units from Course List 2 (see above)
3-6 units from Course Lists 1 and 2 (see above)
6 units from the Faculties of Business, Humanities, Social Sciences
6 units Electives, excluding courses in Course Lists 1 and 2
0-3 units Electives, excluding Biology

B.Sc. in Mathematical Science [1325]

ADMISSION
Completion of any Level I programme, including:
6 units MATH 1A03, 1A03
3 units from COMP SCI 1MC3, MATH 1B03
21 units Level I courses to complete a Level I programme
MATH 1B03 must be completed by the end of Level II.
Students wishing Level II Computer Science courses must take both COMP SCI 1MC3 and 1MD3.

MINIMUM AVERAGES/GRADERS:
A Cumulative Average of 3.5 and an average of 4.0 in two of COMP SCI 1MC3, 1MD3, MATH 1A03, 1AA3, 1B03.

NOTES
1. There are Level II prerequisites for many Level III courses: these should be considered when choosing your Level II courses. As an aid to choosing a coherent set of courses in a single discipline, students should consult the list of courses required in the Honours (Complementary Studies Option) programme in that discipline.
2. In addition, students should seek academic counselling to ensure that their choices are appropriate. For counselling, students should approach the department corresponding to their
area of emphasis, either Mathematics and Statistics or Computing and Software. Students without an area of particular emphasis should obtain counselling from the Department of Mathematics and Statistics.

**COURSE LIST 1**
COMP SCI 2MD3, 2ME3, 2MF3, 2MJ3, 2SC3; MATH 2A03, 2AB3, 2C03, 2E03, 2K03, 2R03, 2S03, 2T03; STATS 2D03, 2MB3

**COURSE LIST 2**
All Level III and IV Computer Science, Mathematics and Statistics courses

**REQUIREMENTS**
90 units total (Levels I to III), of which no more than 42 units may be Level I courses

**LEVEL I**
30 units (See Admission above.)

**LEVEL II: 30 UNITS**
3 units HUMAN 2C03
15 units from Course List 1 (see above)
6 units from the Faculty of Humanities and/or the Department of Religious Studies
3 units Electives, excluding Computer Science, Mathematics, Statistics
3 units Electives
If not completed: MATH 1B03, SCIENCE 1A00

**LEVEL III: 30 UNITS**
12 units from Course List 2 (see above)
1 course from Course Lists 1 and 2 (see above)
6 units from the Faculties of Business, Humanities, and Social Sciences
6 units Electives, excluding Computer Science, Mathematics, Statistics
0-3 units Electives, excluding Biology

**MINIMUM AVERAGES/GRADES:**
A Cumulative Average of 3.5 and an average of 4.0 in two of CHEM 1A03, 1AA3, PHYSICS 1B03, 1BA3 (or 1BB3).

**NOTES**
1. There are Level II prerequisites for many Level III courses: these should be considered when choosing your Level II courses. As an aid to choosing a coherent set of courses in a single discipline, students should consult the list of courses required in the Honours (Complementary Studies Option) programme in that discipline.
2. In addition, students should seek academic counselling to ensure that their choices are appropriate. For counselling, students should approach the department corresponding to their area of emphasis, either Chemistry or Physics. Students without an area of particular emphasis should obtain counselling from the Department of Physics.
3. Students proceeding in Physics must include PHYSICS 2B06 and MATH 2A03 and MATH 2C03 in Level II.

**COURSE LIST 1**
CHEM 2A03, 2BA3, 2BB3, 2E03, 2I03, 2L03, 2OA3, 2OB3, 2PA3, 2PB3, 2R03; MATH 2A03, 2C03; PHYSICS 2A03, 2B06, 2C03, 2D03, 2H04, 2K03

**COURSE LIST 2**
All Level III Astronomy, Chemistry, and Physics courses

**REQUIREMENTS**
90 units total (Levels I to III), of which no more than 42 units may be Level I courses

**LEVEL I**
30 units (See Admission above.)

**LEVEL II: 30 UNITS**
18 units from Course List 1 (see above)
6 units from the Faculties of Humanities, Social Sciences
6 units Electives, excluding Level II, III, IV Astronomy, Chemistry, and Physics
If not completed: MATH 1B03, CHEM 1AA3, PHYSICS 1BA3 (or 1BB3)

**LEVEL III: 30 UNITS**
12 units from Course List 2 (see above)
3 units HUMAN 2C03
6 units from the Faculties of Business, Humanities, Social Sciences
6 units Electives, excluding Astronomy, Chemistry, and Physics
3 units Electives, excluding Biology

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**B.Sc. in Physical Science**

**ADMISSION**
Completion of the Science I requirements, including:
6 units MATH 1A03, 1AA3
3 units CHEM 1A03
3 units PHYSICS 1B03
3 units from CHEM 1AA3, PHYSICS 1BA3 (or 1BB3)
9 units from Science I Course List
6 units Level I electives
1 course SCIENCE 1A00
MATH 1B03, CHEM 1AA3, PHYSICS 1BA3 (or 1BB3) must be taken by the end of Level II and are strongly recommended in Level I.
FACULTY OF
SOCIAL SCIENCES

PROGRAMMES AND DEGREES

A. Level I Programmes

SOCIAL SCIENCES I (0720)

PROGRAMME NOTE

Students registered in Honours B.A. or B.A. programmes in the Faculty of Social Sciences are required to complete six units of courses chosen from the Faculty of Humanities and/or the Department of Religious Studies. Students enrolled in Religious Studies programmes are required to complete six units from the Faculty of Humanities. It is recommended that this requirement be completed in Level I.

COURSE LIST 1

- ANTHROP 1A03, 1B03, 1203
- ECON 1A06
- GEO 1HS3, 1HU3
- GERONTOL 1A06
- HEALTHST 1E03, 1S03
- INQUIRY 1SS3
- LABR ST 1A03, 1Z03
- POL SCI 1G06
- PSYCH 1A03, 1AA3
- RELIG 1A06, 1D06, 1E03, 1H03, 1I03
- SOC WORK 1A06
- SOCIOL 1A06

REQUIREMENTS: 30 UNITS

- 12 units from Course List
- 18 units Electives, which may include courses from Course List (See Note above.)

KINESIOLOGY I

Enrolment in this Programme is limited.

PROGRAMME NOTES

1. Application is made to the Kinesiology I Programme.

2. The Department of Kinesiology offers two Honours programme options beyond Level I. The Honours Bachelor of Kinesiology (Hons.B.Kin.) and the Honours Bachelor of Science (Hons. B.Sc.). The required Kinesiology courses are identical for both programmes. Students who wish to register in the Honours Bachelor of Kinesiology Programme may take any courses for which they have the prerequisite as their electives. Students who intend to register in the Honours Bachelor of Kinesiology Programme but have not completed all Level I requirements must complete the following additional courses: MATH 1A03; STATS 1CC3; one of BIOLOGY 1A03, 1AA3, CHEM 1A03, PHYSICS 1B03; and one additional course from the Science I Course List as part of their Level I electives. (See Faculty of Science, Programmes and Degrees, Level I Programme section of this Calendar.)

Both programmes provide students the opportunity to complete courses required for various professional degree programmes. Students are strongly encouraged to seek advice in determining which programme option is best suited for them.

3. A Bachelor of Kinesiology (B.Kin.) Degree programme is available to students who do not qualify for an Honours Kinesiology programme.

REQUIREMENTS: 30 UNITS

- 12 units KINESIOL 1A06, 1E03, 1H03
- 1 course KINESIOL 1FL0
- 18 units Electives (See Note 2 above.)

B. Degree Programmes

HONOURS PROGRAMMES (HONOURS BACHELOR OF ARTS A.D. HONOURS BACHELOR OF KINESIOLOGY)

Honours Bachelor of Arts programmes and the Honours Bachelor of Kinesiology degree programme consist of a total of 120 units of work normally completed over four years. Honours programmes provide a concentration in the particular field, as well as an extended time of study, and are normally a requirement for those who contemplate proceeding to graduate studies.

Students enrolled in an Honours programme in the Faculty of Social Sciences, in addition to meeting the University requirements for an Honours degree (see the General Academic Regulations section in this Calendar) must also fulfill the following breadth and skills requirements prescribed by the Faculty: six units from the Faculty of Humanities and/or the Department of Religious Studies. (Students enrolled in Religious Studies programmes are required to complete six units from the Faculty of Humanities; research methods/statistics as prescribed by the Department and a course in critical thinking (HUMAN 2C03).)

Internship Options: The Faculty of Social Sciences offers two types of full-time, paid work opportunities for students registered in Honours programmes. Cooperative Internships that can last 8, 12 or 16 months provide intense employment opportunities for students. One-semester Internships (four months), usually completed during the summer, provide valuable workplace experience, without extending the degree beyond four years. All internships allow students to explore career goals, assist in the development of their employability skills and make important contacts for their employment after graduation.

Students who have successfully completed all of their respective Level II programme requirements and SOC SCI 2E00 (effective September 2002) may apply for non-credit internship options. Students who qualify compete for work opportunities with participating employers through an application process. The number of students accepted into the program is small in any year and depends on available work opportunities. Internships must be undertaken before the student has completed all requirements for the degree. An administrative fee will be assessed following the start of the internship. At the conclusion of an internship, a job report from the student and a letter of evaluation from the employer must be submitted. If both are satisfactory, a brief notation describing the internship is placed on the student's transcript.
Any interested students should consult the details of his/her programme to determine whether this option is available. Further details of cooperative internship options may be obtained from:

Office of the Associate Dean
Kenneth Taylor Hall, Room 120
(905) 525-9140, extension 232288
email: exp.ed@mcmaster.ca

Honours Bachelor of Arts (Specialist Option): Economics, and Psychology offer an Honours (Specialist Option) programme which involves greater concentration of work in the particular discipline.

Combined Honours Bachelor of Arts Programmes: Subject to possible timetable restrictions, and provided that the student meets the requirements for entry into each of the relevant Honours programmes, a student may combine work in any two departments and be graduated with a Combined Honours degree. These combinations are available within the Faculty, with programmes in the Faculty of Humanities, and with the Arts and Science programme. The Honours Gerontology degree is offered only in combination with another subject. All Combined Honours programmes must be approved by both Departments concerned as well as by the Office of the Associate Dean(s). Students will normally complete approximately 36 units of work beyond Level I in each component of the programme (normally 12 units per level in each subject). The Honours B.Kin. degree is not available in combination with another subject.

Minor: A minor is an option available to students enrolled in a four- or five-level programme. Normally, students must complete a minimum of 24 units in the minor subject. With approval, courses taken to satisfy programme requirements may also be used toward the requirements of a minor. Students are responsible for ensuring that the courses taken meet the requirements for a minor. Students who have the necessary requirements may apply for recognition of that minor when they graduate. If granted, this recognition will be recorded on the student's transcript. For further information see Minors in the General Academic Regulations section of this calendar.

Combined B.A./B.S.W.: The School of Social Work offers a Combined B.A./B.S.W. programme of studies leading to a B.A. and a B.S.W. degree. (See the programme description in this section.) The B.S.W. degree may be minor subject. B.S.W. programmes consist of a total of 120 units of work, normally completed over four years.

Bachelor of Arts Programmes: B.A. programmes consist of a total of 90 units of work, normally completed over three years. Three-level Bachelor's degree programmes are available in Gerontology and Another Subject and Indigenous Studies and Another Subject. The other subject may be from the Faculty of Social Sciences or the Faculty of Humanities. These programmes may also be combined with the B.S.W. as a four-level programme.

Part-time Studies
Subject to limitations of course offerings, a student may pursue on a part-time basis any programme in the Faculty of Social Sciences, except for the Kinesiology programmes.

ACADEMIC REGULATIONS

Students enrolled in a programme in the Faculty of Social Sciences, in addition to meeting the Academic Regulations of the University, shall be subject to the following regulations of the Faculty of Social Sciences.

TRANSFER TO THE FACULTY OF SOCIAL SCIENCES

Students from other Faculties are able to transfer to degree programmes offered by the Faculty of Social Sciences provided they have obtained a Cumulative Average of at least 3.5 and have completed the necessary admission requirements.

Students who do not meet these requirements must consult with the Office of the Associate Dean. Requests for transfer will be considered at the same time as applications for reinstatement (see below).

TRANSFER TO KINESIOLOGY I

A maximum of 40 transfer students are admitted each year. To be considered, applicants must have an average of at least 7.0 (B-) on a minimum of 24 units of university work taken on a full-time basis. McMaster students interested in transferring should contact the Undergraduate Administrative Assistant (Kinesiology), or the Office of the Associate Dean, Social Sciences for a Transfer Application and Supplementary Form by March 31 of the year in which the transfer is desired. Students transferring from another university should see the Admission Requirements and Application Procedures sections of this Calendar.

REINSTATEMENT

A student who may not continue at the University may apply for reinstatement. Application for reinstatement must be made to the Office of the Registrar using the Returning Student Application form by the deadline for the session. See Sessional Dates section of this Calendar. Reinstatement applications will be carefully reviewed and the evidence considered will include the student's academic performance before and after admission to McMaster, letters of explanation supported by two Letters of Reference and other appropriate documentation.

Reinstatement is not automatic or guaranteed and decisions are normally made after June 30 for September entry. Effective September 1997, the Cumulative Average for students who are reinstated is reset to 0.0 on zero units. Credit is retained for courses in which passing grades have been achieved. Former Kinesiology students will be considered for reinstatement to Kinesiology upon completion of a minimum of 24 units of work in a non-Kinesiology programme with a minimum average of 7.0 (B-). Application forms are available from the Office of the Associate Dean or the Department of Kinesiology. The application deadline is March 31 for September entry. Reinstatement is not guaranteed.

DEADLINES

The Faculty of Social Sciences will not consider applications for admission, admission to a second degree or continuing studies, registration, or dropping and adding of courses after the deadlines stated in this Calendar under Sessional Dates and Application Procedures, unless written documentation is provided showing good cause, as determined by the Faculty Admissions, Study and Reviewing Committee.

HUMANITIES/RELIGIOUS STUDIES REQUIREMENT

Students registered in the Faculty of Social Sciences except for those in B.Kin. and those completing a B.A. with a B.S.W. are required to complete six units of courses chosen from the Faculty of Humanities and/or the Department of Religious Studies.

Students enrolled in Religious Studies programmes are required to complete six units from the Faculty of Humanities.

Students in Psychology programmes should note the additional Business, Humanities or Science requirements.

COURSE SELECTION AND CHANGES

A student must ensure that the selection of courses meets the degree requirements for the programme in which the student is registered, that any prerequisites have been met, and that the appropriate written permission has been obtained if required.

All registrations, programme changes and course changes must be approved by the Office of the Associate Dean, and are subject to the deadline dates established by the University as published in this Calendar under the Sessional Dates section.

Qualified students are permitted to transfer between B.A. and Honours programmes with the approval of the Office of the Associate Dean. Transfers are subject to the deadline dates established by the University.

ACADEMIC ADVISING

The aim of academic advising is to help students tailor a programme of studies to fit their interests. Advising also involves reviewing these interests from time to time to accommodate changing plans and needs and academic performance.
Faculty of Social Sciences

Advising is available throughout the year from the Office of the Associate Dean of Social Sciences and the departments or academic units in the Faculty of Social Sciences. It is highly recommended that students consult with a Departmental Undergraduate Advisor during March in conjunction with the distribution of the new Undergraduate Calendar.

AWARDS

Full-time students must maintain a full academic load as defined by their programme during the Fall/Winter session to be eligible for full-time, in-course awards. For conditions and terms of awards for full-time and part-time students, please refer to the Undergraduate Academic Awards section of this Calendar.

OVERLOAD

Students who wish to take more courses than recommended for a single level of their programme may do so if their Cumulative Average on completion of the previous Fall/Winter session is at least 7. Students registered in the final level of their programme are permitted to overload by up to six additional units in order to become eligible to graduate.

WITHDRAWAL

Students who wish to withdraw from the University are required to advise the Office of the Associate Dean in writing. Students must surrender their McMaster Identification Cards to the Office of the Associate Dean to ensure the processing of any fee refunds. Students who fail to withdraw formally from any course(s) by the stated deadlines will remain registered whether or not they attend classes and will be assigned a grade.

LETTER OF PERMISSION

Students in good academic standing who wish to attend another university to take courses for credit toward a McMaster degree, must first request a Letter of Permission from the Office of the Associate Dean. Students should take note of any conditions on the Letter of Permission that might apply, including the requirement of a grade of at least C- for transfer credit. Courses taken at another university cannot be used to satisfy the university's minimum residence requirements, will not be included in the calculation of the McMaster average, and therefore cannot be used to raise standing. The transcript designations will read COM, indicating complete, when a grade of C- or better is attained.

STUDENT EXCHANGE PROGRAMMES

McMaster University has agreements with institutions in Canada and abroad including, Australia, France, and the United Kingdom to provide students the opportunity to participate in an exchange programme for one year or a term. Exchanges allow students to gain a varied perspective on their course of study and enhance their professional and personal goals. In addition, exchange programmes offer students the most inexpensive means of studying abroad as students participating in these exchanges avoid the foreign student fees by paying fees to McMaster.

All students must have completed at least one year of continuous study and be in good standing to be eligible to participate in an exchange. In most cases, students who participate in exchange programmes go abroad for the third Level of an Honours programme.

Students interested in any exchange programme must discuss their plans with their department and with the Office of the Associate Dean if they intend to transfer credit to their McMaster degree programme. Such discussions should begin about one year before they plan to enrol elsewhere.

For further information please see International Study in the General Academic Regulations section in this Calendar. Information concerning Canadian Scholars Exchange Programme (CANEX) formerly known as GOTSSEP, can be found in the Academic Facilities, Student Services and Organizations section of this Calendar under the heading Student Exchanges.

Acceptance to the Ontario and University-wide Exchange Programmes is by recommendation. Application forms can be obtained from:

STUDENT EXCHANGES

HAMILTON HALL, ROOM 405
TELEPHONE: (905) 525-9140, EXTENSION 24748

Department of Anthropology

WEB ADDRESS: http://www.socsci.mcmaster.ca/-anthro

ANTHROPOLOGY SUBFIELDS

(Applicable to all Anthropology programmes)

Anthropology includes the four major subfields of Social/Cultural Anthropology, Physical/Biological Anthropology, Archaeology, and Linguistics. Students may specialize in any one of these subfields though it is not necessary to do so. It should be noted, however, that each subfield has its own sequence of courses and prerequisites. (See the Course Listing section in this Calendar.)

CULTURAL/SOCIAL ANTHROPOLOGY

ANTHROP 2B03, 2F03, 2H03, 2P03, 2R03, 2X03, 2XX3, 2203, 3B03, 3CN3, 3F03, 3G03, 3L03, 3P03, 3Q03, 3R03, 3SY3, 3T03, 3Y03, 3Z03, 4AE3, 4D03, 4I03, 4N03, 4P03, 4Q03, 4Y03

PHYSICAL/BIOLOGICAL ANTHROPOLOGY

ANTHROP 2AN3, 2DD3, 2E03, 2FA3, 2FF3, 2JJ3, 2U03, 3C03, 3H03, 3N03, 3PP3, 3Z03, 3Z23, 4J03, 4J13, 4P03, 4S03

(Relevant courses are also offered by Biology and Kinesiology.)

ARCHAEOLOGY

ANTHROP 2E03, 2PA3, 2V03, 3AA3, 3CC6, 3D03, 3E03, 3EE3, 3K03, 4F03, 4H03, 4IF3, 4P13, 4U03

OTHER COURSES

Courses not distinguished by subfield include the following courses:

ANTHROP 3W03, 3WW3, 4G03, 4S03 as well as the seminar courses ANTHROP 4G03 and 4G13.

In planning a programme, it is important for students to take note of the prerequisites of certain upper-level courses.

Honours Arts & Science and Anthropology

(B.Arts Sc.; See Arts & Science programme)

COOPERATIVE INTERNSHIP OPTIONS

FOR HONOURS ANTHROPOLOGY STUDENTS

The Faculty of Social Sciences offers two types of full-time, paid work opportunities for students registered in Honours programmes. Effective September 2002, students must complete SOC SCI 2E10 before participating in an internship. For further information see Degree Programmes, Internship Options, in the Faculty of Social Sciences section of this Calendar.

Honours Anthropology

(2010)

ADMISSION

Completion of any Level I programme with a Cumulative Average of at least 6.0 including an average of at least 7.0 in six units from ANTHROP 1A03, 1B03, 1Z03.

NOTE

Students who have completed ANTHROP 2E03 are not required to take ANTHROP 3L03.

REQUIREMENTS

120 units total (Levels I to IV), of which 48 units may be Level I

30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)

12 units ANTHROP 2E03, 2P03, 2PA3, 3L03 (See Note above.)

3 units from ANTHROP 2DD3, 2E03, 2FA3, 2FF3, 2JJ3, 2U03, 3C03, 3H03, 3N03, 3PP3, 3Z03, 3Z23, 4J03, 4J13, 4P03, 4S03

3 units ANTHROP 4E03

9 units Level IV Anthropology

21 units Level II, III or IV Anthropology

3 units from SOC SCI 2E03 or STATS 1CC3

3 units HUMAN 2003

33 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.

*If requirement completed in Level I, these units will be taken as electives.
Combined Honours in Anthropology and Another Subject

ADMISSION
Completion of any Level I programme with a Cumulative Average of at least 6.0 including an average of at least 7.0 in six units from ANTHROP 1A03, 1B03, 1Z03. Satisfaction of admission requirements for the Honours programme in the other B.A. subject.

NOTES
1. Subject to meeting admission requirements, students may combine two subjects and be graduated with a combined honours B.A. degree. These combinations are available within the Faculty, with programmes in the Faculty of Humanities and with the Arts and Science programmes.
2. Students who have completed ANTHROP 2103 are not required to take ANTHROP 3L03

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
12 units ANTHROP 2E03, 2F03, 2PA3, 3L03 (See Note 2 above.)
3 units from ANTHROP 2D03, 2FF3, 2Z03, 3H03, 3K03, 3P03
3 units from ANTHROP 2B03, 2P03, 2V03, 3A03, 3B03, 3F03
3 units ANTHROP 4103
3 units Level IV Anthropology
12 units Level II, III or IV Anthropology
36 units courses specified for the other subject
3 units from SOC SCI 2J03 or STATS 1CC3 or in combined programmes within the Faculty of Social Sciences, the Research Methods/Statistics requirement specified for the other subject.
3 units HUMAN 2C03. Students combining Honours Arts and Science with Anthropology are exempt from this requirement.
12 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies. Students combining Anthropology with Arts and Science, or with a Humanities subject, are exempt from this requirement.
*If requirement completed in Level I, these units will be taken as electives.

B.A. in Anthropology [1010]

ADMISSION
Completion of any Level I programme with a Cumulative Average of at least 3.5 including an average of at least 4.0 in six units from ANTHROP 1A03, 1B03, 1Z03.

REQUIREMENTS
90 units total (Levels I to III), of which 42 may be Level I
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
6 units ANTHROP 2E03, 2F03, 2PA3
18 units Level II, III or IV Anthropology
36 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.

Minor in Anthropology

REQUIREMENTS
24 units total
6 units from ANTHROP 1A03, 1B03, 1Z03
3 units from ANTHROP 2E03, 2F03, 2PA3
15 units Level II, III or IV Anthropology

INTERDISCIPLINARY MINOR IN ARCHAEOLOGY

See the Interdisciplinary Minors and Thematic Areas section of this Calendar.

DEPARTMENT OF ECONOMICS

Honours Arts & Science and Economics
(B.Arts Sc.; See Arts & Science programme)

COOPERATIVE INTERNSHIP OPTIONS

FOR HONOURS ECONOMICS STUDENTS

The Faculty of Social Sciences offers two types of full-time, paid work opportunities for students registered in Honours programmes. Effective September 2002, students must complete SOC SCI 2EL0 before participating in an internship. For further information see Degree Programmes, Internship Options, in the Faculty of Social Sciences section of this Calendar.

Honours Economics (Specialist Option) [2151]

ADMISSION
Completion of any Level I programme with a Cumulative Average of at least 6.0 including a grade of B- in ECON 1A06. Credit in OAC Calculus or MATH 1K03 or equivalent.

NOTES
1. Students who completed COMMERCE 2F3A in the 1997-98 academic year may use this course as three units of Economics.
2. In 2001-2002, ECON 3A03 will be offered and ECON 3A03 will not be offered. In 2002-2003, ECON 3A03 will not be offered and ECON 3A03 will be offered. In subsequent years each of these courses will be offered every other year.
3. ECON 2CC3 and ECON 2L03 may not be used to satisfy economics unit requirements, but may be used as electives.

REQUIREMENTS
120 units total (Levels I to IV), of which 48 may be Level I
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
30 units ECON 2G03, 2G03, 2H03, 3A03, 3A03, 3F03, 3G03, 3L03, 4A03 (See Note 2 above.)
3 units from ECON 2K03, 3I03
18 units Level II, III, IV Economics with no more than six units from ECON 2A03, 2C03, 2D03, 2E03, 2F03, 2I03, 2J03, 2N03, 2P03, 2T03 (See Notes 1 and 3 above.)
6 units ECON 2B03 and 3U03
3 units* from MATH 1A03 or 1M03
3 units** from STATS 1L03, 2D03 (or OAC Finite Math)
3 units HUMAN 2C03
24 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies. The number of units of Economics courses above Level I (excluding ECON 2B03 and 3U03) must not exceed 60.
*If requirement completed in Level I, these units will be taken as electives.
**If requirement completed in Level I or with OACs, these units will be taken as electives.

Honours Economics [2150]

ADMISSION
Completion of any Level I programme with a Cumulative Average of at least 6.0 including a grade of B- in ECON 1A06. Credit in OAC Calculus, or MATH 1K03, or equivalent.

NOTES
1. Students who completed COMMERCE 2F3A in the 1997-98 academic year may use this course as three units of Economics.
2. ECON 2CC3 and ECON 2L03 may not be used to satisfy economics unit requirements, but may be used as electives.

REQUIREMENTS
120 units total (Levels I to IV), of which 48 may be Level I
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
21 units ECON 2G03, 2G03, 2H03, 3F03, 3L03, 4A03
3 units from ECON 2K03, 3I03
18 units Level II, III, IV Economics with no more than six units from ECON 2A03, 2C03, 2D03, 2E03, 2F03, 2I03, 2J03, 2N03, 2P03, 2T03 (See Notes above.)
**Combined Honours in Economics and Another Subject**

**ADMISSION**
Completion of any Level I programme with a Cumulative Average of at least 6.0 including a grade of B- in ECON 1A06. Credit in OAC Calculus or MATH 1K03 or equivalent. Satisfaction of admission requirements for the Honours programme in the other B.A. subject.

**NOTES**
1. Subject to meeting admission requirements, students may combine two subjects and be graduated with a combined honours B.A. degree. These combinations are available within the Faculty, with programmes in the Faculty of Humanities and with the Arts and Science programme.
2. One of OAC Finite Math, STAT 1L03, or STAT 2D03 is a prerequisite for the research methods courses offered by the Department of Economics (ECON 2B03).
3. Students registered in Combined Honours programmes within the Faculty of Social Sciences who wish to satisfy the Inquiry and Honours Seminar requirements specified by the other department may replace ECON 3F03 and 4A03 with another six units Economics.
4. Students who completed COMMERCE 2FA3 in the 1997-98 academic year may use this course as three units of Economics.
5. ECON 2C03 and ECON 2L03 may not be used to satisfy economics unit requirements, but may be used as electives.

**REQUIREMENTS**

- 120 units total (Levels I to IV), of which 48 units may be Level I
- 30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
- 21 units ECON 2G03, 2GG3, 2H03, 2H13, 3F03, 3LL3, 4A03 (See Note 3 above.)
- 3 units from ECON 2K03, 3I03
- 9 units Level II, III, IV Economics with no more than six units from ECON 2A03, 2C03, 2D03, 2E03, 2F03, 2I03, 2J03, 2N03, 2P03, 2T03 (See Notes 4 and 5 above.)
- 36 units ECON 2B03 and 3U03; or, in combined programmes within the Faculty of Social Sciences, the Research Methods/Statistics requirement specified for the other subject. (See Note 2 above.)
- 3 units from MATH 1A03 or 1M03
- 3 units from STAT 1L03, 2D03 (or OAC Finite Math)
- 3 units HUMAN 2C03. Students combining Honours Arts & Science with Economics are exempt from this requirement.
- 6 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/ or the Department of Religious Studies. Students combining Economics with Arts & Science, or with a Humanities subject, are exempt from this requirement.

**Honours Economics and Computer Science**

**ADMISSION**
Completion of any Level I programme with a Cumulative Average of at least 6.0, including a grade of at least B- in ECON 1A06, and a weighted average of at least 7.0 in ECON 1A06, COMP SCI 1MC3, 1MD3, MATH 1A03, 1A06 and 1B03. MATH 1B03 may be postponed until Level II.

**NOTES**
1. Students who completed COMMERCE 2FA3 in the 1997-98 academic year may use this course as three units of Economics.
2. ECON 2C03 and ECON 2L03 may not be used to satisfy economics unit requirements, but may be used as electives.

**REQUIREMENTS**

- 120 units total (Levels I to IV), of which 48 units may be Level I
- 30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
- 21 units ECON 2G03, 2GG3, 2H03, 2H13, 3F03, 3LL3, 4A03
- 3 units from ECON 2K03, 3I03
- 12 units Level II, III, IV Economics with no more than six units from ECON 2A03, 2C03, 2D03, 2E03, 2F03, 2I03, 2J03, 2N03, 2P03, 2T03 (See Notes above.)
- 24 units COMP SCI 2MD3, 2ME3, 2MF3, 2MJ3, 3MG3, 3MH3, 4ZP6
- 6 units Level II, III or IV Computer Science. (COMP SCI 3EA3, 3M13 and 4EB3 are recommended as preparation for Business Data Processing.)
- 6-9 units STAT 2D03 and either STAT 2MB3, or 3D03 and 3DD3 (or 3D06); or ECON 2B03 and 3U03
- 3 units HUMAN 2C03
- 12-15 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/ or the Department of Religious Studies.

**Honours Economics and Mathematics**

**ADMISSION**
Completion of any Level I programme with a Cumulative Average of at least 6.0 including a grade of at least B- in each of ECON 1A06, MATH 1A03, 1A06 and 1B03.

**NOTES**
1. Students who completed COMMERCE 2FA3 in the 1997-98 academic year may use this course as three units of Economics.
2. ECON 2C03 and ECON 2L03 may not be used to satisfy economics unit requirements, but may be used as electives.

**REQUIREMENTS**

- 120 units total (Levels I to IV), of which 48 units may be Level I
- 30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
- 21 units ECON 2G03, 2GG3, 2H03, 2H13, 3F03, 3LL3, 4A03
- 3 units from ECON 2K03, 3I03
- 12 units Level II, III, IV Economics with no more than six units from ECON 2A03, 2C03, 2D03, 2E03, 2F03, 2I03, 2J03, 2N03, 2P03, 2T03 (See Notes above.)
- 18 units MATH 2A03, 2AB3, 2C03, 2R03, 3AA3, 3A03
- 3 units from MATH 2S03, 2T03
- 15 units from Level III, IV Mathematics, Statistics
- 6-9 units STAT 2D03 and either STAT 2MB3, or 3D03 and 3DD3 (or 3D06); or ECON 2B03 and 3U03
- 3 units HUMAN 2C03
- 6-9 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/ or the Department of Religious Studies.

**B.A. in Economics**

**ADMISSION**
Completion of any Level I programme with a Cumulative Average of at least 3.5 and a grade of at least C- in ECON 1A06. Credit in OAC Calculus or MATH 1K03 or equivalent.
NOTES

1. Students who completed COMMERCE 2FA3 in the 1997-98 academic year may use this course as three units of Economics.
2. ECON 2CC3 and ECON 2L03 may not be used to satisfy economics unit requirements, but may be used as electives.

REQUIREMENTS

90 units total (Levels I to III), of which 42 units may be Level I

30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
9 units ECON 2B03, 2G03, 2H03
3 units from ECON 2K03, 3I03
12 units Level II, III, IV Economics with no more than six units from ECON 2A03, 2C03, 2D03, 2E03, 2F03, 2I03, 2J03, 2K03, 2P03, 2T03. (See Notes above.)
3 units* from MATH 1A03 or 1M03
3 units** from STATS 1L03, 2D03 (or OAC Finite Math)
30 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies. The number of units of Economics courses above Level I (excluding ECON 2B03 and 3U03) must not exceed 36.

*If requirement completed in Level I, these units will be taken as electives.
**If requirement completed in Level I or with OACs, these units will be taken as electives.

Minor in Economics

NOTES

1. Although ECON 2G03 and 2H03 are not required for the Minor in Economics, most Level III and IV Economics courses have at least one of these courses as a prerequisite.
2. ECON 2CC3 and ECON 2L03 may not be used to satisfy economics unit requirements.
3. Students who completed COMMERCE 2FA3 prior to September 2001 may use it as 3 units of Level 2 Economics.

REQUIREMENTS

24 units total

6 units ECON 1A06
18 units Level II, III, IV Economics with no more than six units from ECON 2A03, 2C03, 2D03, 2E03, 2F03, 2I03, 2J03, 2K03, 2P03, 2T03. (See Notes above.)

SCHOOL OF GEOGRAPHY AND GEOLOGY

WEB ADDRESS: http://www.science.mcmaster.ca/geo/geomain.html

Honours Geography (B.Sc.), and Honours Geology (B.Sc.)

(See Faculty of Science, School of Geography and Geology.)

Honours Arts & Science and Geography

(See Faculty of Arts, School of Geography and Geology.)

COOPERATIVE INTERNSHIP OPTIONS FOR HONOURS GEOGRAPHY STUDENTS

The Faculty of Social Sciences offers two types of full-time, paid work opportunities for students registered in Honours programmes. Effective September 2002, students must complete SOC SCI 2EL0 before participating in an internship. For further information see Degree Programmes: Internship Options, in the Faculty of Social Sciences section of this Calendar.

Honours Geography

[2240]

ADMISSION

Completion of any Level I programme with a Cumulative Average of at least 6.0 including an average of at least 6.0 in six units from GEO 1HS3, 1HU3, ENVIR SC 1A03, 1B03, 1G03.

NOTES

1. One of SOC SCI 2J03 or STATS 1CC3 must be completed by the end of 60 units.
2. Students are encouraged to check prerequisites of upper-level GEO courses and to speak with an Undergraduate Advisor in the School of Geography and Geology regarding course selection.

3. Students who entered the programme prior to September 2001, need only complete 12 units of Level IV GEO, including one of GEO 4CC3 or 4R06 and will increase their electives by three units.

REQUIREMENTS

120 units total (Levels I to IV) of which 48 units may be Level I

30 units from the Level I programme completed prior to admission to the programme
6 units GEO 2103, 3R03
3 units from GEO 2E03, 2H03
3 units from GEO 3F03, 3H03
15 units Level IV GEO, including one of GEO 4CC3 or 4R06
12 units Level III GEO, excluding GEO 3CC3, 3D03, 3H03, 3R03
12 units Level II or III GEO, excluding GEO 2G03, 2HC3, 2HU3, 2W03, 3CC3, 3D03, 3H03, 3HR3
3 units from SOC SCI 2J03 or STATS 1CC3* (See Note 1 above.)
3 units HUMAN 2C03
33 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.

*If requirement completed in Level I, these units will be taken as electives.

Honours Geography [2246]

(Geographic Information Systems Specialist Option)

The Honours Geography (Geographic Information Systems Specialist Option) is being phased out and replaced by a minor (See Minor in Geographic Information Systems (G.I.S.) in this section of the Calendar). Level I students who had intended to register in this programme or students who registered prior to September 2001 should see the Academic Advisor in the School of Geography and Geology for programme requirements and individual counselling.

Honours Geography and Environmental Studies

[2243]

ADMISSION

Completion of any Level I programme with a Cumulative Average of at least 6.0 including an average of at least 6.0 in six units from GEO 1HS3, 1HU3, ENVIR SC 1A03, 1B03, 1G03 (See Note 1 below.)

NOTES

1. GEO 1HS3, 1HU3 and one of ENVIR SC 1A03, 1B03, 1G03 must be completed by the end of 60 units.
2. One of SOC SCI 2J03 or STATS 1CC3 must be completed by the end of 60 units.
3. Students are encouraged to check prerequisites of upper-level GEO courses and to speak with an Undergraduate Advisor in the School of Geography and Geology regarding course selection.

REQUIREMENTS

120 units total (Levels I to IV) of which 48 units may be Level I

30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
18 units GEO 2A03, 2I03, 3A03, 3HE3, 3R03, 4A03
3 units from GEO 2E03, 2H03
3 units from GEO 3F03, 3H03
15 units Level IV GEO, including one of GEO 4CC3 or 4R06
12 units Level III GEO, excluding GEO 3CC3, 3D03, 3H03, 3HR3
12 units Level II or III GEO, excluding GEO 2G03, 2HC3, 2HU3, 2W03, 3CC3, 3D03, 3H03, 3HR3
6 units* GEO 1HS3, 1HU3, which must be completed by the end of 60 units
3 units* from ENVIR SC 1A03, 1B03, 1G03, which must be completed by the end of 60 units
3 units from SOC SCI 2J03 or STATS 1CC3* (See Note 2 above.)
3 units HUMAN 2C03
12 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.

*If requirement completed in Level I, these units will be taken as electives.
Honours Geography and Environmental Studies

(2247)

The Honours Geography and Environmental Studies (Geographic Information Systems Specialist Option) programme is being phased out and replaced by a minor (See Minor in Geographic Information Systems (G.I.S.) in this section of the Calendar). Level I students who had intended to register in this programme or students who registered prior to September 2001 should see an Undergraduate Advisor in the School of Geography and Geology for programme requirements and individual counselling.

Combined Honours B.A. in Geography and Another Subject

ADMISSION
Completion of any Level I programme with a Cumulative Average of at least 6.0 including an average of at least 6.0 in six units from GEO 1H03, 1H06, 1H07, 1H08, 1H09, 1H03, 1G03, 1H03 and satisfaction of admission requirements for the Honours programme in the other B.A. subject.

NOTES
1. Subject to meeting admission requirements, students may combine two subjects and be graduated with a combined honours B.A. degree. These combinations are available within the Faculty, with programmes in the Faculty of Humanities and with the Arts and Science programme.
2. Students are encouraged to check prerequisites of upper-level GEO courses and to speak with an Undergraduate Advisor in the School of Geography and Geology regarding course selection.
3. Students who entered the programme prior to September 2001, may substitute 3 units of Level IV GEO with electives.
4. Students in a combined Honours programme within the Faculty of Social Sciences may substitute GEO 2HR3 with the three or six unit Research Methods course specified for the other subject (i.e., GERONTOL 2C03, HEALTHST 2B03, POL SCI 3N06, SOCIOL 2Z03).

REQUIREMENTS
120 units total (Levels I to IV) of which 48 units may be Level I,
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
6 units GEO 2B03, 3R03
3 units from GEO 2E03, 2HR3 (See Note 4 above.)
3 units from GEO 3F03, 3H03
6 units Level III GEO, excluding, GEO 3CC3, 3DD3, 3HJ3, 3HR3
9 units Level II or III GEO, excluding, GEO 2GG3, 2HC3, 2HG3, 2H03, 2WW3, 3CC3, 3DD3, 3HJ3, 3HR3
15 units Level IV GEO, including one of GEO 4CC3 or 4R06 (See Note 3 above.)
or
12-15 units Level IV GEO and the thesis or honours seminar specified by the department for the other subject (See Note 3 above.)
36 units courses specified for the other subject
3 units from SOC SCI 2J03 or STAT 1CC3*
3 units HUMAN 2C03. Students combining Honours Arts & Science with Geography are exempt from this requirement.
6-9 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies. Students combining Geography and Arts & Science or with a Humanities subject, are exempt from this requirement.
*If requirement completed in Level I, these units will be taken as electives.

B.A. in Geography

(1240)

ADMISSION
Completion of any Level I programme with a Cumulative Average of at least 3.5 including an average of at least 4.0 in six units from GEO 1H03, 1H03, 1G03, 1H03, ENVIR SC 1A03, 1B03, 1G03.

REQUIREMENTS
90 units total (Levels I to III), of which 42 units may be Level I
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
12 units Level III GEO with no more than six units from GEO 3CC3, 3DD3, 3HJ3, 3HR3
12 units Level II GEO with no more than six units from GEO 2GG3, 2HC3, 2HJ3, 2WW3
36 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.

Minor in Geography

REQUIREMENTS
24 units total
6 units from GEO 1A03, 1B03, 1G03, 1H03, 1H03, ENVIR SC 1A03, 1B03, 1G03, 1H03
18 units Level II, III or IV GEO, including at least 6 units of Level III or IV. No more than six units may be from GEO 2GG3, 2HC3, 2HJ3, 2WW3, 3CC3, 3DD3, 3HJ3, 3HR3.

Minor in Environmental Studies

NOTES
1. At least nine of the 12 Course List units must be selected from outside the student's own department or school.
2. At least six Course List units must be outside of GEO

COUSE LIST
ANTHROP 2A03, 2B03, 2C03, 2D03, 2E03, 2FO3, 2HU3, 2HJ3, 3CC3, 3CS3, 3HJ3, 3HR3
BIOLOGY 2D03, 2E03, 2FO3, 2HS3, 2TU3, 2Y03
ECON 2J03, 3W03
GEO 2A03, 2B03, 2HH3, 2HJ3, 3CC3, 3CS3, 3HJ3, 3HR3
HEALTHST 2E03
PHILOS 2G03, 2N03
POL SCI 2E06, 2Z03, 3Z03, 4DO6
RELG ST 2W03

REQUIREMENTS
24 units total
3 units from GEO 1H03, 1H03
3 units from ENVIR SC 1A03, 1B03, 1G03, 1H03
6 units from GEO 2A03, 3A03, 4A03
12 units from Course List including at least 6 units from Level III or IV (See Notes 1 and 2 above.)

Minor in Geographic Information Systems (G.I.S.)

NOTES
1. Students registered in any Honours Geography (B.A.) or Earth and Environmental Sciences (B.Sc.) programme may use 6 units from GEO 1H03, 1H03, ENVIR SC 1A03, 1B03, 1G03, 1H03; and GEO 2B03 and 3Y03 toward both their programme requirements and the G.I.S. Minor.
2. Progression to Level III courses is conditional upon achieving a grade of at least C+ in GEO 2B03. Students who do not meet this requirement may not complete the Minor.

REQUIREMENTS
24 units total
6 units from ENVIR SC 1A03, 1B03, 1G03, 1H03, GEO 1H03, 1H03 (See Note 1 above.)
18 units GEO 2B03, 3D03, 3S03, 3Y03, 4I03, 4S03 (See Notes 1 and 2 above.)

GERONTOLOGICAL STUDIES

WEB ADDRESS: http://www.socsci.mcmaster.ca/~geros

COOPERATIVE INTERNSHIP OPTIONS FOR HONOURS GERONTOLOGY STUDENTS
The Faculty of Social Sciences offers two types of full-time, paid work opportunities for students registered in Honours programmes. Effective September 2002, students must complete SOC SCI 2E03 before participating in an internship. For further information see Degree Programmes, Internship Options, in the Faculty of Social Sciences section of this Calendar.
Combined Honours B.A. in Gerontology and Another Subject

ADMISSION
Enrolment in this programme is limited. Admission is by selection but requires, as a minimum, completion of any Level I programme with a minimum Cumulative Average of 6.0 including a grade of at least B- in GERONTO1 1A06 (or its equivalent), and satisfaction of admission requirements for the Honours B.A. programme in the other subject.

NOTES
1. Students wishing to complete a combined Honours B.A. in Gerontology, Health Studies and another subject must see the Health Studies programme in this section of the Calendar for programme requirements.
2. Application for admission, including a statement explaining the applicant’s interest in the programme, must be made to the Chair of the Committee of Instruction, by March 31. The Admissions Committee may wish to interview the applicant.
3. Students who have not taken GERONTO1 1A06 in Level I may be considered for admission to the programme if they have an equivalent introductory gerontology course. Such students must consult the Chair of the Committee of Instruction regarding GERONTO1 1A06 equivalency prior to applying.
4. Courses other than those listed in Course List 1 may be substituted with the prior permission of the Chair of the Committee of Instruction.
5. GERONTO1 2C03 and SOC SCI 2J03 (or GERONTO1 3G03 or another approved three or six unit statistics course) must be completed by the end of Level III.
6. Students who choose to complete a 6 unit, Level IV thesis (independent study) in the other subject may replace GERONTO1 4A06 with six units of Level III or IV Gerontology or courses from Course List 1. This substitution must be approved by the Chair of the Committee of Instruction.
7. Students are strongly recommended to complete GERONTO1 2E03 prior to registration in GERONTO1 3B03.

COURSE LIST 1

ANTHROP 3Z03
ECON 3D03, 3Q03, 3Z03
GEO 3HH3
HEALTHST 2C03, 2D03
HTH SCI 3B03
KINESIOL 3F03
PHILOS 3C03
RELG ST 2M03, 2N03, 2WW3
SOC WORK 3C03, 4L03, 4R03
SOCIOL 3CC3, 3G03, 3HH3
or other designated and approved courses. (See Note 4 above.)

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
6 units GERONTO1 2B03, 2D03
6 units GERONTO1 3B03, 3D03 (See Note 7 above.)
6 units GERONTO1 4A06 or if available, a thesis in the other subject (See Note 6 above.)
3 units Level IV Gerontology
12 units Level II, III or IV Gerontology or courses from Course List 1 (See Note 7 above.)
36 units Courses as specified for the other subject
3 units GERONTO1 2C03
3-6 units from SOC SCI 2J03, STATS 1CC3 (or GERONTO1 3G03)*, or in combined programmes within the Faculty of Social Sciences, the Research Methods/Statistics requirement specified for the other subject.
3 units HUMAN 2G03. Students combining Arts and Science with Gerontology are exempt from this requirement.
9-12 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/ or the Department of Religious Studies.
*If requirement completed in Level I, these units will be taken as electives.

B.A. in Gerontology and Another Subject

ADMISSION
Enrolment in this programme is limited. Admission is by selection but requires, as a minimum, completion of any Level I programme with a minimum Cumulative Average of 3.5 including a grade of at least C- in GERONTO1 1A06 (or its equivalent), and satisfaction of admission requirements for the B.A. in the other subject.

NOTES
1. Application for admission, including a statement explaining the applicant’s interest in the programme, must be made to the Chair of the Committee of Instruction, by March 31. The Admissions Committee may wish to interview the applicant.
2. Students who have not taken GERONTO1 1A06 in Level I may be considered for admission to the programme if they have an equivalent introductory gerontology course. Such students must consult the Chair of the Committee of Instruction regarding GERONTO1 1A06 equivalency prior to applying.
3. Courses other than those listed in Course List 1 may be substituted with the prior permission of the Chair of the Committee of Instruction.
4. No more than six units of work in the other subject of the combined programme which are also in Course List 1 may be used to fulfill the requirements of both programme components.
5. Students in the B.A. in Gerontology and Another Subject/Bachelor of Social Work programme should consult with the Chair of the Committee of Instruction regarding GERONTO1 3B03 (the Gerontology Field Observation requirement) and SOC WORK 3D06.
6. Students are strongly recommended to complete GERONTO1 2E03 prior to registration in GERONTO1 3B03.

COURSE LIST 1

ANTHROP 3Z03
ECON 3D03, 3Q03, 3Z03
GEO 3HH3
HEALTHST 2C03, 2D03
HTH SCI 3B03
KINESIOL 3F03
PHILOS 3C03
RELG ST 2M03, 2N03, 2WW3
SOC WORK 3C03, 4L03, 4R03
SOCIOL 3CC3, 3G03, 3HH3
or other designated and approved courses. (See Note 3 above.)

REQUIREMENTS
(For the B.A. in Gerontology and Sociology programme requirements see below.)
90 units total (Levels I to III), of which 42 units may be Level I
30 units from the Level I programme completed prior to admission to the programme (See Admission above.)
6 units GERONTO1 2B03, 2D03
3 units GERONTO1 2C03
6 units GERONTO1 3B03, 3D03 (See Note 6 above.)
9 units Level II, III or IV Gerontology or courses from Course List 1 (See Note 6 above.)
24 units courses specified for the other subject (See Note 4 above.)
12 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/ or the Department of Religious Studies.

B.A. Gerontology and Sociology {1265520}

(Programme requirements only)

For admission information and programme notes, see B.A. in Gerontology and Another Subject (above).

COURSE LIST 1

ANTHROP 3Z03
ECON 3D03, 3Q03, 3Z03
GEO 3HH3
HEALTHST 2C03, 2D03
HTH SCI 3B03
KINESIOL 3F03
PHILOS 3C03
RELG ST 2M03, 2N03, 2WW3
SOC WORK 3C03, 4L03, 4R03
or other designated and approved courses. (See Note 3 above.)
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REQUIREMENTS

30 units total (Levels I to III), of which 42 units may be Level I

6 units GERONTOL 2B03, 2D03
6 units GERONTOL 3B03, 3D03 (See Note 6 above.)
9 units Level II, III or IV Gerontology or courses from Course List 1 (See Note 6 above.)
3 units GERONTOL 2C03 or SOCIOL 2Z03
6 units SOCIOL 2S06
15 units Level II or III Sociology
15 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.

B.A. in Gerontology as a Second Degree (1265)

ADMISSION

Enrolment in this programme is limited. Admission is by selection but requires, as a minimum, completion of an undergraduate degree from a recognized university normally with a minimum Cumulative Average of 4.0 (or its equivalent), a grade of at least C- in GERONTOL 1A06 (or its equivalent), and evidence of a personal interest in Gerontological Studies, which may be evaluated by one, or a combination of a written statement and an interview.

An applicant is normally required to complete the prerequisites for graduate study by April of the year in which application is made.

As Second Degree candidates, applicants must first apply for admission to the University, through the Office of the Registrar (Admissions) indicating they wish to apply for Gerontology as a Second Degree. This application step must be completed by March 1. A supplementary application for admission to the Gerontology programme will then be sent to the applicant from the Office of the Registrar (Admissions).

The supplementary application, including a statement explaining the applicant's interest in the programme, must be addressed to the Chair of the Committee of Instruction regarding GERONTOL 1A06 equivalency prior to applying.

NOTES

1. Students who wish to enter a graduate or professional programme after completion of their second degree in Gerontology are advised to consult the Gerontology office of the Registrar prior to registration in GERONTOL 3B03.

2. Students are required to complete a total of 30 units for the second degree, all of which must be completed at McMaster. Students may apply for permission to the Chair of the Committee of Instruction for credit in equivalent Gerontology courses or courses from Course List 1 as part of their first degree. If the requirement is waived, additional courses must be taken at McMaster to total 30 units.

3. Courses other than those listed below in Course List 1 may be substituted with the prior permission of the Chair of the Committee of Instruction.

4. Students who have completed the methods requirement in their first degree should consult the Chair of the Gerontology Committee of Instruction.

5. Students are strongly recommended to complete GERONTOL 2E03 prior to registration in GERONTOL 3B03.

KINESIOL 3F03
PHILOS 3C03
RELIG ST 2M03, 2N03, 2W03
SOC WORK 3C03, 4L03, 4R03
SOCIOL 3C03, 3G03, 3H03
or other designated and approved courses. (See Note 3 above.)

REQUIREMENTS (MINIMUM)

30 units total

6 units GERONTOL 2B03, 2D03
6 units GERONTOL 3B03, 3D03 (See Note 5 above.)
3 units GERONTOL 2C03 (See Note 4 above.)
9 units Level II, III or IV Gerontology or courses from Course List 1
6 units Electives

Combined Honours in Gerontology and Another Subject as a Second Degree

ADMISSION

Enrolment in this programme is limited. Admission is by selection and only former McMaster students who have completed a three-year Bachelor of Arts degree in Combined Gerontology and another subject or courses in other designated and approved courses. (See Note 3 above.)

REQUIREMENTS (MINIMUM)

30 units total

6 units GERONTOL 2B03, 2D03
6 units GERONTOL 3B03, 3D03 (See Note 5 above.)
3 units GERONTOL 2C03 (See Note 4 above.)
9 units Level II, III or IV Gerontology or courses from Course List 1
6 units Electives

Combined Honours in Gerontology and Another Subject as a Second Degree

ADMISSION

Enrolment in this programme is limited. Admission is by selection and only former McMaster students who have completed a three-year Bachelor of Arts degree in Combined Gerontology and another subject or courses in other designated and approved courses. (See Note 3 above.)

REQUIREMENTS (MINIMUM)

30 units total

6 units GERONTOL 2B03, 2D03
6 units GERONTOL 3B03, 3D03 (See Note 5 above.)
3 units GERONTOL 2C03 (See Note 4 above.)
9 units Level II, III or IV Gerontology or courses from Course List 1
6 units Electives

Combined Honours in Gerontology and Another Subject as a Second Degree

ADMISSION

Enrolment in this programme is limited. Admission is by selection and only former McMaster students who have completed a three-year Bachelor of Arts degree in Combined Gerontology and another subject or courses in other designated and approved courses. (See Note 3 above.)

REQUIREMENTS (MINIMUM)

30 units total

6 units GERONTOL 2B03, 2D03
6 units GERONTOL 3B03, 3D03 (See Note 5 above.)
3 units GERONTOL 2C03 (See Note 4 above.)
9 units Level II, III or IV Gerontology or courses from Course List 1
6 units Electives

Combined Honours in Gerontology and Another Subject as a Second Degree

ADMISSION

Enrolment in this programme is limited. Admission is by selection and only former McMaster students who have completed a three-year Bachelor of Arts degree in Combined Gerontology and another subject or courses in other designated and approved courses. (See Note 3 above.)

REQUIREMENTS (MINIMUM)

30 units total

6 units GERONTOL 2B03, 2D03
6 units GERONTOL 3B03, 3D03 (See Note 5 above.)
3 units GERONTOL 2C03 (See Note 4 above.)
9 units Level II, III or IV Gerontology or courses from Course List 1
6 units Electives

Combined Honours in Gerontology and Another Subject as a Second Degree

ADMISSION

Enrolment in this programme is limited. Admission is by selection and only former McMaster students who have completed a three-year Bachelor of Arts degree in Combined Gerontology and another subject or courses in other designated and approved courses. (See Note 3 above.)

REQUIREMENTS (MINIMUM)

30 units total

6 units GERONTOL 2B03, 2D03
6 units GERONTOL 3B03, 3D03 (See Note 5 above.)
3 units GERONTOL 2C03 (See Note 4 above.)
9 units Level II, III or IV Gerontology or courses from Course List 1
6 units Electives
Combined Honours in Health Studies and Another Subject

ADMISSION
Enrolment in this programme is limited. Admission is by selection but requires, as a minimum, completion of any Level I programme with a minimum Cumulative Average of 6.0 including a grade of at least B- in

3 units from HEALTHST 1A03, 1E03, 1H03, and a grade of at least B- in

3 units from HEALTHST 1A03, 1E03, 1H03, or

3 units from SOC SCI 1H03, and satisfaction of admission requirements for the Honours B.A. programme in the other subject.

NOTES
1. Application for admission to the Gerontology component of the programme, including a statement explaining the applicant's interest in the programme, must be made to the Chair of the Committee of Instruction, by March 31. The Admissions Committee may wish to interview the applicant.
2. Application for admission to the Health Studies component of the programme must be made to the Health Studies Programme Office, KTH-208.
3. Students who choose to complete a 6-unit, Level IV thesis (independent study) in the other subject may replace GERONTOL 4A06 with 6 units of Level III or IV Gerontology or Health Studies courses. This substitution must be approved by the Committee of Instruction.
4. Students are strongly recommended to complete GERONTOL 3B03 prior to registration in GERONTOL 3B03.

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I

30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)

6 units GERONTOL 2B03, 2D03

6 units GERONTOL 3B03, 3D03 (See Note 4 above.)

12 units HEALTHST 2A03, 3A03, 3B03, 4B03

9 units Level II, III or IV Gerontology and Health Studies courses

36 units courses specified for the other subject

3 units from HEALTHST 2B03, GERONTOL 2C03 or an equivalent research methods course if required by the other subject

3-6 units from GERONTOL 3G03, SOC SCI 2J03 or an equivalent statistics course as prescribed by the other subject

6 units GERONTOL 4A06 or an approved thesis course from the other subject (See Note 3 above.)

3 units HUMAN 2C03

3 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.

1. Application for admission to the Gerontology component of the programme, including a statement explaining the applicant's interest in the programme, must be made to the Chair of the Committee of Instruction, by March 31. The Admissions Committee may wish to interview the applicant.
2. Application for admission to the Health Studies component of the programme must be made to the Health Studies Programme Office, KTH-208.
3. Students who choose to complete a 6-unit, Level IV thesis (independent study) in the other subject may replace GERONTOL 4A06 with 6 units of Level III or IV Gerontology or Health Studies courses. This substitution must be approved by the Committee of Instruction.
4. Students are strongly recommended to complete GERONTOL 3B03 prior to registration in GERONTOL 3B03.

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I

30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)

6 units GERONTOL 2B03, 2D03

6 units GERONTOL 3B03, 3D03 (See Note 4 above.)

12 units HEALTHST 2A03, 3A03, 3B03, 4B03

9 units Level II, III or IV Gerontology and Health Studies courses

36 units courses specified for the other subject

3 units from HEALTHST 2B03, GERONTOL 2C03 or an equivalent research methods course if required by the other subject

3-6 units from GERONTOL 3G03, SOC SCI 2J03 or an equivalent statistics course as prescribed by the other subject

6 units GERONTOL 4A06 or an approved thesis course from the other subject (See Note 3 above.)

3 units HUMAN 2C03

3 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.

1. Application for admission to the Gerontology component of the programme, including a statement explaining the applicant's interest in the programme, must be made to the Chair of the Committee of Instruction, by March 31. The Admissions Committee may wish to interview the applicant.
2. Application for admission to the Health Studies component of the programme must be made to the Health Studies Programme Office, KTH-208.
3. Students who choose to complete a 6-unit, Level IV thesis (independent study) in the other subject may replace GERONTOL 4A06 with 6 units of Level III or IV Gerontology or Health Studies courses. This substitution must be approved by the Committee of Instruction.
4. Students are strongly recommended to complete GERONTOL 3B03 prior to registration in GERONTOL 3B03.

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I

30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)

6 units GERONTOL 2B03, 2D03

6 units GERONTOL 3B03, 3D03 (See Note 4 above.)

12 units HEALTHST 2A03, 3A03, 3B03, 4B03

9 units Level II, III or IV Gerontology and Health Studies courses

36 units courses specified for the other subject

3 units from HEALTHST 2B03, GERONTOL 2C03 or an equivalent research methods course if required by the other subject

3-6 units from GERONTOL 3G03, SOC SCI 2J03 or an equivalent statistics course as prescribed by the other subject

6 units GERONTOL 4A06 or an approved thesis course from the other subject (See Note 3 above.)

3 units HUMAN 2C03

3 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.

1. Application for admission to the Gerontology component of the programme, including a statement explaining the applicant's interest in the programme, must be made to the Chair of the Committee of Instruction, by March 31. The Admissions Committee may wish to interview the applicant.
2. Application for admission to the Health Studies component of the programme must be made to the Health Studies Programme Office, KTH-208.
3. Students who choose to complete a 6-unit, Level IV thesis (independent study) in the other subject may replace GERONTOL 4A06 with 6 units of Level III or IV Gerontology or Health Studies courses. This substitution must be approved by the Committee of Instruction.
4. Students are strongly recommended to complete GERONTOL 3B03 prior to registration in GERONTOL 3B03.
PHILOS  2D03, 3C03
PSYCH  3B03, 3N03, 3NN3
RELIG ST  2M03, 2N03, 2WW3
-SCIENCE  2G03
SOC WORK  3C03
SOCIOI  3G03, 3HH3
STPP  4B03
WOMEN ST  2HH3
REQUIREMENTS
24 units total
24 units from the Course List

COMBINED B.A. IN INDIGENOUS STUDIES AND ANOTHER SUBJECT
See the Combined B.A. Indigenous Studies and Another Subject section of this Calendar.

DEPARTMENT OF KINESIOLOGY
WEB ADDRESS: http://kinlobservr.mcmaster.ca

Honours Kinesiology (B.Sc.)
(See B.Sc. Programmes in Kinesiology, Faculty of Science, Department of Kinesiology)

COOPERATIVE INTERNSHIP OPTIONS
FOR HONOURS KINESIOLOGY STUDENTS
The Faculty of Social Sciences offers two types of full-time, paid work opportunities for students registered in Honours programmes. Effective September 2002, students must complete SOC SCI 2EL0 before participating in an internship. For further information see Degree Programmes, Internship Options, in the Faculty of Social Sciences section of this Calendar.

Honours Bachelor of Kinesiology  {2303}

ADMISSION
Completion of Kinesiology I with a Cumulative Average of at least 6.0 including an average of at least 6.0 in KINESIOL 1A06, 1E03, 1H03.

NOTES
1. Students may register in a maximum of 15 units of Level III or IV Kinesiology courses in Level III of their programme.
2. At some time during their programme, students must complete a minimum of six units from the Faculty of Humanities and/or the Department of Religious Studies.

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I.

LEVEL I: 30 UNITS
30 units from Kinesiology I completed prior to admission to the programme. (See Admission above.)

LEVEL II: 30 UNITS
15 units KINESIOL 2A03, 2C06, 2G03, 2H03
3 units HUMAN 2C03
3 units from SOC SCI 2J03, STATS 1CC3*
9 units Electives

LEVELS II AND IV: 60 UNITS
30 units Level III or IV Kinesiology (See Note 1 above.)
30 units Electives (See Note 2 above.)

* If requirement completed in Level I, these units may be taken as electives.

Bachelor of Kinesiology  {2308}

ADMISSION
Completion of Kinesiology I with a Cumulative Average of at least 4.0.

NOTE
Students may register in a maximum of 9 units of Level III or IV Kinesiology courses in Level III of their programme.

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I.

LEVEL I: 30 UNITS
30 units from Kinesiology I completed prior to admission to the programme. (See Admission above.)

LEVEL II: 30 UNITS
15 units KINESIOL 2A03, 2C06, 2G03, 2H03
3 units from SOC SCI 2J03, STATS 1CC3*
12 units Electives

LEVELS III AND IV: 60 UNITS
18 units Level III or IV Kinesiology (See Note above.)
42 units Electives.

NOTE
If requirement was completed in Level I, these units may be taken as electives.

REQUIREMENTS FOR STUDENTS WHO ENTERED A LEVEL II KINESIOLOGY PROGRAMME IN SEPTEMBER 1999
Honours Bachelor of Kinesiology  {2303}

NOTES
1. Students may register in a maximum of 15 units of Level III or IV Kinesiology courses in Level III of their programme.
2. At some time during their programme, students must complete a minimum of six units from the Faculty of Humanities and/or the Department of Religious Studies.

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I.

LEVEL I: 30 UNITS
30 units from Kinesiology I completed prior to admission to the programme.

LEVEL II: 30 UNITS
15 units KINESIOL 2A03, 2B03, 2C06, 2G03
1 course KINESIOL 2FL0
3 units HUMAN 2C03
12 units Electives

LEVELS III AND IV: 60 UNITS
30 units Level III or IV Kinesiology (See Note 1 above.)
30 units Electives (See Note 2 above.)

Bachelor of Kinesiology  {2308}

NOTE
Students may register in a maximum of 15 units of Level III or IV Kinesiology courses in Level III of their programme.

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I.

LEVEL I: 30 UNITS
30 units from Kinesiology I completed prior to admission to the programme.

LEVEL II: 30 UNITS
15 units KINESIOL 2A03, 2B03, 2C06, 2G03
1 course KINESIOL 2FL0
15 units Electives

LEVELS III AND IV: 60 UNITS
30 units Level III or IV Kinesiology (See Note above.)
30 units Electives

LABOUR STUDIES
WEB ADDRESS: http://www.socsci.mcmaster.ca/labrst

COOPERATIVE INTERNSHIP OPTIONS
FOR HONOURS LABOUR STUDIES STUDENTS
The Faculty of Social Sciences offers two types of full-time, paid work opportunities for students registered in Honours programmes. Effective September 2002, students must complete SOC SCI 2EL0 before participating in an internship. For further information see Degree Programmes, Internship Options, in the Faculty of Social Sciences section of this Calendar.
Honours Labour Studies [2641]

(Specialist Option)

Level I students who had intended to register in this program or students who registered prior to 2001 should see a Student Advisor in the Office of the Associate Dean for programme requirements.

Honours Labour Studies [2640]

ADMISSION
Enrolment in this programme is limited. Selection is based on academic achievement and a supplementary letter but requires, as a minimum, completion of any Level I programme with a Cumulative Average of at least 6.0 including an average of at least 7.0 in LABR ST 1A03 and 1Z03 (or 1A03).

NOTES
1. Application for admission (forms available from Labour Studies Office), including a statement explaining the applicant’s interest in the programme, should be made to the Chair, Admissions Committee, by March 31.


3. Students may not transfer to another Labour Studies programme except by the normal application process.

4. Students who complete a six unit Research Methods/Statistics course will reduce their elective component by three units.

5. Electives: SOCIOL 1A06, ECON 1A06 and six units from the Faculty of Humanities and/or the Department of Religious Studies should be included in the Level I programme to provide some electives in this programme.

6. Students combining Labour Studies with a Humanities subject or with Religious Studies must complete LABR ST 4A06 and SOC SCI 2J03 or STATS 1CC3. Students in other Combined Honours Programmes may complete the Honours Seminar requirement as specified by the other Department and replace LABR ST 4A06 with six units Level III Labour Studies courses.

COURSE LIST 1

COMMERCE 2BA3, 4BC3, 4BD3
LABR ST 2B03, 2BB3, 2106, 3A03, 3B03, 3C03, 3D03, 3E03, 3F03

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I

30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)

21 units from Course List 1, where at least 9 units must be completed within the Faculty of Humanities and/or the Department of Religious Studies. 

12 units from Course List 1, where at least 9 units must be selected from Level III or IV courses.

15 units from Course List 1, where at least 9 units must be completed within the Faculty of Humanities and/or the Department of Religious Studies.

3 units from Course List 1, where at least 9 units must be completed within the Faculty of Humanities and/or the Department of Religious Studies.

3 units from Course List 1, where at least 9 units must be completed within the Faculty of Humanities and/or the Department of Religious Studies.

3 units from Course List 1, where at least 9 units must be completed within the Faculty of Humanities and/or the Department of Religious Studies.

12 units* from SOCIOL 1A06 and ECON 1A06 which must be completed by the end of 60 units.

0-15 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.

*If requirement completed in Level I, these units will be taken as electives.

Combined Honours in Labour Studies and Another Subject

ADMISSION
Enrolment in this programme is limited. Selection is based on academic achievement and a supplementary letter but requires, as a minimum, completion of any Level I programme with a Cumulative Average of at least 6.0 including an average of at least 7.0 in LABR ST 1A03 and 1Z03 (or 1A03).

NOTES
1. Subject to meeting admission requirements, students may combine two subjects and be graduated with a combined honours B.A. degree. These combinations are available within the Faculty, programmes in the Faculty of Humanities and with the Arts and Science programme.

2. Application for admission (forms available from Labour Studies Office), including a statement explaining the applicant’s interest in the programme, should be made to the Chair, Admissions Committee, by March 31.


4. Students may not transfer to another Labour Studies programme except by the normal application process.

5. Students who complete a six unit Research Methods/Statistics course will reduce their elective component by three units.

6. Electives: SOCIOL 1A06, ECON 1A06 and six units from the Faculty of Humanities and/or the Department of Religious Studies should be included in the Level I programme to provide some electives in this programme.

7. Students combining Labour Studies with a Humanities subject or with Religious Studies must complete LABR ST 4A06 and SOC SCI 2J03 or STATS 1CC3. Students in other Combined Honours Programmes may complete the Honours Seminar requirement as specified by the other Department and replace LABR ST 4A06 with six units Level III Labour Studies courses.

COURSE LIST 1

COMMERCE 2BA3, 4BC3, 4BD3
LABR ST 2B03, 2BB3, 2106, 3A03, 3B03, 3C03, 3D03, 3E03, 3F03

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I

30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)

21 units from Course List 1, where at least 9 units must be selected from Level III or IV courses.

3 units from Course List 1, where at least 9 units must be completed within the Faculty of Humanities and/or the Department of Religious Studies.

36 units courses specified for the other subject.

3 units from SOCIOL 2J03 or STATS 1CC3* or an equivalent Research Methods/Statistics course as prescribed by the other Social Sciences Programmes. (See Note 4 above.)

3 units from Course List 1, where at least 9 units must be completed within the Faculty of Humanities and/or the Department of Religious Studies.

*If requirement completed in Level I, these units will be taken as electives.

B.A. in Labour Studies [1640]

ADMISSION
Enrolment in this programme is limited. Selection is based on academic achievement and a supplementary letter but requires, as a minimum, completion of any Level I programme with a Cumulative Average of at least 3.5 including an average of at least 4.0 in LABR ST 1A03 and 1Z03 (or 1A03).

NOTES
1. Application for admission (forms available from Labour Studies Office), including a statement explaining the applicant’s interest in the programme, should be made to the Chair, Admissions Committee, by March 31. Students applying for the Honours programme will automatically be considered for the B.A. programme.


3. Students may not transfer to another Labour Studies programme except by the normal application process.
REQUIREMENTS
90 units total (Levels I to III), of which 42 units may be Level I
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
15 units LABR ST 2A03, 2C03, 2D03, 3G03, COMMERCE 4BC0, 4B60
15 units from Course List 1, where at least 9 units must be selected from Level III or IV courses.
12* units SOCIOL 1A06 and ECON 1A06 which must be completed by the end of 60 units
18 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.

*If requirement completed in Level I, these units will be taken as electives.

Minor in Labour Studies

ENROLMENT IS LIMITED.
Labour Studies will admit a maximum of 10 students to the Minor each year.

NOTES
1. Application for admission (forms available from Labour Studies Office), including a statement explaining the applicant's interest in the programme, should be made to the Chair, Admissions Committee, by March 31.
2. Students working towards a Minor in Labour Studies may take no more than three units of Level IV Labour Studies courses.
4. Students may not transfer from the Minor in Labour Studies to another Labour Studies programme except by the normal application process.
5. Students who have completed LABR ST 2A06 may take nine units Level II, III, IV Labour Studies instead of 12 units.

REQUIREMENTS
6 units LABR ST 1A03 and 1203 (or 1AA3)
6 units LABR ST 2A03 (See Note 5 above.), 2C03
12 units Level II, III or IV Labour Studies (See Note 2 above.)
12 units ECON 1A06 and SOCIOL 1A06

PHYSICAL EDUCATION (B.P.E.)

(See Department of Kinesiology)

DEPARTMENT OF POLITICAL SCIENCE

WEB ADDRESS: http://sosclerv2.soscl.mcmaster.ca/-polisci/

Honours Arts & Science and Political Science (B.Arts Sc.; See Arts & Science programme)

COOPERATIVE INTERNSHIP OPTIONS

FOR HONOURS POLITICAL SCIENCE STUDENTS

The Faculty of Social Sciences offers two types of full-time, paid work opportunities for students registered in Honours programmes. Effective September 2002, students must complete SOC SCI 2ELO before participating in an internship. For further information see Degree Programmes, Internship Options, in the Faculty of Social Sciences section of this Calendar.

Honours Political Science [2450]

ADMISSION
Completion of any Level I programme with a Cumulative Average of at least 6.0 including a grade of at least B- in POL SCI 1G06 or 1A06.

NOTES
1. Students should be alerted to those Level II and III courses that are required to qualify for a number of Level IV courses. Students who wish to enter courses but who lack the necessary prerequisites must obtain the permission of the instructor.
2. POL SCI 3N06 and 2C06 are required for students enrolled in Honours Political Science programmes and they are recommended for students in the B.A. programme.

Combined Honours in
Political Science and Another Subject

ADMISSION
Completion of any Level I programme with a Cumulative Average of at least 6.0 including a grade of at least B- in POL SCI 1G06 or 1A06. Satisfaction of the admission requirements for the Honours programme in the other subject.

NOTES
1. Subject to meeting admission requirements, students may combine two subjects and be graduated with a combined honours B.A. degree. These combinations are available within the Faculty, with programmes in the Faculty of Humanities and with the Arts and Science programme.
2. Students should be alerted to those Level II and III courses that are required to qualify for a number of Level IV courses. Students who wish to enter courses but who lack the necessary prerequisites must obtain the permission of the instructor.
3. POL SCI 3N06 and 2C06 are required for students enrolled in Honours Political Science programmes and they are recommended for students in the B.A. programme.

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
6 units PCL SCI 2006
24 units Level II, III, IV Political Science of which a maximum of 12 units may be Level II
12 units Level IV Political Science
6 units POL SCI 3N06
3 units HUMAN 2C03
39 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies. (The maximum Political Science courses to be taken is 60 units.)

B.A. in Political Science [1450]

ADMISSION
Completion of any Level I programme, with a Cumulative Average of at least 3.5 including a grade of at least C- in POL SCI 1G06 or 1A06.

NOTES
1. Students should be alerted to those Level II and III courses that are required to qualify for a number of Level IV courses. Students who wish to enter courses but who lack the necessary prerequisites must obtain the permission of the instructor.
2. POL SCI 3N06 and 2C06 are required for students enrolled in Honours Political Science programmes and they are recommended for students in B.A. programmes.
MINOR IN POLITICAL SCIENCE

NOTE
Level IV courses have limited enrolment with preference given to Honours Political Science students. Students must apply by ballot through the Department.

REQUIREMENTS
24 units total
6 units Level I Political Science
18 units Level II, III, IV Political Science of which up to 12 units may be Level II

DEPARTMENT OF PSYCHOLOGY

WEBADDRESS: http://www.science.mcmaster.ca/psychology/psych.html

Honours Psychology (B.Sc.)
(See B.Sc. programmes in Psychology, Faculty of Science, Department of Psychology)

Honours Psychology (B.Sc.) (Complementary Studies Option)
(See B.Sc. programmes in Psychology, Faculty of Science, Department of Psychology)

Honours Biology and Psychology (B.Sc.)
(See B.Sc. programmes in Biology, Faculty of Science, Department of Biology)

Honours Arts & Science and Psychology
(B.Arts Sc.; See Arts & Science programme)

Honours Psychology (B.A.)
(B.A., Specialist Option)

ADMISSION
Enrolment in this programme is limited. Selection is based on academic achievement but requires, as a minimum, completion of any Level I programme with a Cumulative Average of at least 6.0, an average of at least 7.0 in PSYCH 1A03 and 1A13 or a grade of at least B- in PSYCH 1A06 and credit in MATH 1A03 or a grade of at least C- in MATH 1M03.

NOTES
1. Applications for all Levels may be picked up at the Office of the Associate Dean, Faculty of Social Sciences, Kenneth Taylor Hall, Room 120. The applications are available March 1st and must be submitted by March 31st.
2. Credit in MATH 1A03 or 1M03 with a grade of at least C- must be completed before entrance into Level II of the programme.
3. STATS 1C03 and PSYCH 2R03 must be completed before entrance into Level III of the programme.
4. At some time during the programme, the student:
   a) must meet a laboratory requirement by completing one of PSYCH 3BL3, 3EE3, 3L03, 3LL3, 3QQ3, 3S03, 3V03, 4QQ3.
   b) must complete six units from the Faculty of Humanities and/or the Department of Religious Studies;
   c) must complete HUMAN 2C03.
5. Students intending to pursue graduate work in Psychology or to take Mathematics beyond Level I are strongly recommended to include MATH 1B03 in their undergraduate programme.
6. Beginning September 2002 students entering Level II of an Honours Psychology programme will be required to complete one of BIOLOGY 1K03, 1A03, 1A13 by the end of 60 units. BIOLOGY 1A03 or 1K03 is a prerequisite for PSYCH 2F03.

COURSE LIST 1
PSYCH 3BL3, 3EE3, 3L03, 3LL3, 3QQ3, 3S03, 3V03, 4QQ3

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I

LEVEL II: 30 UNITS
6 units
- STATS 1C03*, PSYCH 2R03
9 units from PSYCH 2E03, 2F03, 2H03, 2T03, 2TT3
3 units from the Faculty of Science, excluding Psychology and the Mathematics courses taken to satisfy the admission or programme requirements. BIOLOGY 1A03 is highly recommended.
6 units Electives, excluding Psychology. (See Notes 3(b) and (c) above.

LEVEL III: 30 UNITS
18 units
- Level III Psychology; or three units from PSYCH 2E03, 2F03, 2H03, 2T03, 2TT3 (if not taken in Level II) and 15 units of Level III Psychology. (See Note 4(a) above.
6 units Electives, excluding Psychology. (See Note 4(b) and (c) above.
8 units Electives

LEVEL IV: 30 UNITS
12 units
- PSYCH 4D06
12 units
- Level III or IV Psychology including one course from Course List 1, if not already completed. (See Note 4(a) above.
12 units Electives (See Note 4(b) and (c) above.

Honours Psychology (B.A.)

ADMISSION
Completion of any Level I programme with a Cumulative Average of at least 6.0, an average of at least 7.0 in PSYCH 1A03 and 1A13 or a grade of at least B- in PSYCH 1A06 and credit in MATH 1A03 or a grade of at least C- in MATH 1M03.

NOTES
1. Credit in MATH 1A03 or 1M03 with a grade of at least C- must be completed before entrance into Level II of the programme.
2. STATS 1C03 and PSYCH 2R03 must be completed before entrance into Level III of the programme.
3. At some time during the programme, the student:
   a) must meet a laboratory requirement by completing one of PSYCH 3BL3, 3EE3, 3L03, 3LL3, 3QQ3, 3S03, 3V03, 4QQ3.
   Enrolment in Psychology Laboratory courses is limited.
   b) must complete six units from the Faculty of Humanities and/or the Department of Religious Studies;
   c) must complete HUMAN 2C03.
4. Beginning September 2002 students entering Level II of an Honours Psychology programme will be required to complete one of BIOLOGY 1K03, 1A03, 1A13 by the end of 60 units. BIOLOGY 1A03 or 1K03 is a prerequisite for PSYCH 2F03.

COURSE LIST 1
PSYCH 3BL3, 3EE3, 3L03, 3LL3, 3QQ3, 3S03, 3V03, 4QQ3

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I

LEVEL II: 30 UNITS
8 units
- STATS 1C03*, PSYCH 2R03
9 units from PSYCH 2E03, 2F03, 2H03, 2T03, 2TT3
3 units from the Faculty of Science, excluding Psychology and the Mathematics courses taken to satisfy the admission or programme requirements. BIOLOGY 1A03 is recommended.
9 units Electives, excluding Psychology. (See Notes 3(b) and (c) above.
3 units Electives

*If requirement completed in Level I, these units will be taken as electives.
LEVEL III: 30 UNITS
15 units Level III Psychology; or three units from PSYCH 2E03, 2F03, 2H03, 2T03, 2TT3 (if not taken in Level II) and
12 units of Level III Psychology. (See Note 3 (a) above.)
12 units Electives, excluding Psychology (See Notes 3 (b) and (c) above.)
3 units Electives

LEVEL IV: 30 UNITS
15 units Level III or IV Psychology including one course from
Course List I, if not already completed. (See Note 3 (a) above.)
9 units Electives excluding Psychology. (See Notes 3 (b) and (c) above.)
6 units Electives

Combined Honours in Psychology and Another Subject (B.A.)

ADMISSION
Completion of any Level I program with a Cumulative Average of at least 6.0, an average of at least 7.0 in PSYCH 1A03 and 1AA3 or a grade of at least C- in MATH 1AA3. Satisfaction of the admission requirements for the Honours programme in the other subject.

NOTES
1. Subject to meeting admission requirements, students may combine two subjects and be graduated with a combined honours B.A. degree. These combinations are available within the Faculty, with programmes in the Faculty of Humanities and with the Arts and Science programmes.
2. Credit in MATH 1A03 or 1M03 with a grade of at least C- must be completed before entrance into Level II of the programme.
3. STATS 1C03 and PSYCH 2RR3 must be completed before entrance into Level III of the programme.
4. At some time during the programme, the student:
a) must meet a laboratory requirement by completing one of
PSYCH 3BL3, 3EE3, 3LL3, 3GG3, 3S03, 3V03, 4QQ3. Enrolment in Psychology Laboratory courses is limited.
b) must complete six units from the Faculty of Humanities and/or the Department of Religious Studies;
c) must complete HUMAN 2C03.
5. Beginning September 2002 students entering Level II of an Honours Psychology programme will be required to complete one of BIOLOGY 1K03, 1A03, 1AA3, by the end of 60 units. BIOLOGY 1A03 or 1K03 is a prerequisite for PSYCH 2F03.

COURSE LIST 1
PSYCH 3BL3, 3EE3, 3L03, 3LL3, 3GG3, 3S03, 3V03, 4QQ3

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I

LEVEL II: 30 UNITS
6 units STATS 1C03*, PSYCH 2RR3
6 units from PSYCH 2E03, 2F03, 2H03, 2T03, 2TT3
3 units* from the Faculty of Science, excluding the Psychology and the Mathematics courses taken to satisfy the admission or programme requirements. BIOLOGY 1A03 is recommended.
12 units courses as specified for the other subject
3 units Electives
*If requirement completed in Level I, these units will be taken as electives.

LEVEL III: 30 UNITS
12 units Level III Psychology, or three units from PSYCH 2E03, 2F03, 2H03, 2T03, 2TT3 (if not taken in Level II) and
nine units of Level III Psychology. (See Note 5(a) above.)
12 units courses as specified for the other subject
6 units Electives (See Note 5(b) and (c) above.)

LEVEL IV: 30 UNITS
12 units Level III or IV Psychology including one course from
Course List I, if not already completed. (See Note 5(a) above.)
12 units courses as specified for the other subject
6 units Electives (See Note 5(b) and (c) above.)

B.A. in Psychology {1460}

ADMISSION
Completion of any Level I programme with a Cumulative Average of at least 3.5 and an average of at least 4.0 in PSYCH 1A03 and 1AA3 or a grade of at least C- in PSYCH 1A06.

NOTES
1. Completion of one of MATH 1A03, 1K03 or 1M03 is required in Level II. Completion in Level I is highly recommended.
2. One of PSYCH 2G03, STATS 1A03 or 1CC3 must be completed before entrance into Level III of the programme.
3. Beginning September 2002, completion of one BIOLOGY 1K03, 1A03, 1AA3 by the end of 60 units is required for all Honours B.A. Psychology programmes and is strongly recommended for B.A. programmes.

REQUIREMENTS
90 units total (Levels I to III), of which 42 units may be Level I

LEVEL II: 30 UNITS
3 units from PSYCH 2G03, STATS 1A03, 1CC3* (See Note 2 above.)
6 units from PSYCH 2E03, 2F03, 2H03, 2T03, 2TT3
3 units Level II Psychology
3 units* from MATH 1A03, 1K03 or 1M03 (See Note 1 above.)
6 units from Business, Humanities or Science, excluding Psychology
6 units Electives, excluding Psychology
6 units Electives
6 units Electives

Minor in Psychology

NOTE
When choosing Level II Psychology courses, students should consider the prerequisite requirements for the various Level III courses as most require completion of a statistics course and three to six units from PSYCH 2E03, 2F03, 2H03, 2TT3.

REQUIREMENTS
24 units total
6 units PSYCH 1A03 and 1AA3 or 1A06
12 units Level II or III Psychology
6 units Level III Psychology

DEPARTMENT OF RELIGIOUS STUDIES

WEB ADDRESS: www.sociol.mcmaster.ca/relstud/

Honours Arts & Science and Religious Studies
(B.Arts Sc.; See Arts & Science programme)

Fields of Study
The Department offers courses in four fields of study. Students are encouraged to specialize in any one of these fields. Level II, III and IV courses are allocated to the fields as follows:

I. ASIAN RELIGIONS
RELIG ST 2E03, 2F03, 2H03, 2L03, 2P06, 3AA3, 3E03, 3L03, 3S03, 3U03, 3V03
SANSKRIT 3A06, 4B06

II. BIBLICAL STUDIES
RELIG ST 2B03, 2D03, 2EE3, 2GG3, 2H03, 2VV3, 2YY3, 2Z03, 3DD3, 3M03, 3N03, 3R03, 3T03
HEBREW 2A03, 2B03, 3A03, 3B03

III. WESTERN RELIGIOUS THOUGHT
RELIG ST 2C03, 2I13, 2JJ3, 2K03, 2MM3, 2U03, 2Z23, 3D03, 3S03, 3K03, 3LL3, 3M03, 3N03, 3Z03, 3Z23

IV. CONTEMPORARY AND COMPARATIVE RELIGIONS
RELIG ST 2AA3, 2BB3, 2EE3, 2H03, 2M03, 2N03, 2Q03, 2QQ3, 2SS3, 2V03, 2W03, 2WW3
NOTE
Students wishing to specialize in Asian Religions should consider beginning language training in Sanskrit or Japanese or both early in their programme (see the calendar offerings listed under these headings in the Course Listings section of this Calendar). Students wishing to specialize in Biblical Studies should consider work in Greek (see offerings under Classics, Greek in the Course Listings section of this Calendar).

Honours Religious Studies 2475

ADMISSION
Completion of any Level I programme with a Cumulative Average of at least 6.0 including an average of at least 7.0 in six units of Religious Studies courses, preferably including one Level I Religious Studies course.

NOTES
1. All honours students are strongly urged to consult a departmental undergraduate advisor in the selection of their Level III and IV courses.
2. Part-time students should note that RELIG 3F03 and 4A06 are regularly offered in the evening. Other courses required for completion of the degree are offered in the evening whenever possible. Students who anticipate difficulty in fulfilling programme requirements should consult a departmental undergraduate advisor as early as possible in their programme.
3. With the written approval of a departmental undergraduate advisor, courses from other departments may be substituted for Religious Studies.

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
6 units from Asian Religions
6 units from Biblical Studies
6 units from Western Religious Thought
3 units from Comparative and Comparative Religions
15 units RELIG ST 3F03, 4A06, 4J06
18 units Level II, III or IV Religious Studies of which at least six units must be from Level III. Level III courses which have been taken to satisfy the above fields of study requirements may be subtracted from these six units of Level III.
6 units* from Linguistics, a language other than English, Statistics or in combined programmes within the Faculty of Social Sciences, the Research Methods/Statistics course specified for the other subject.
3 units HUMAN 2C03. Students combining Honours Arts and Science with Religious Studies are exempt from this requirement.
9 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities. Students combining Religious Studies with Arts & Science, or with a Humanities subject are exempt from this requirement.
*If requirement completed in Level I, these units will be taken as electives.

Combined Honours in Religious Studies and Another Subject

ADMISSION
Completion of any Level I programme with a Cumulative Average of at least 6.0 including an average of at least 7.0 in six units of Religious Studies courses, preferably including one Level I Religious Studies course. Satisfaction of the admission requirements for the honours programme in the other subject.

NOTES
1. Subject to meeting admission requirements, students may combine two subjects and be graduated with a combined honours B.A. degree. These combinations are available within the Faculty, with programmes in the Faculty of Humanities and with the Arts and Science programme.
2. All honours students are required to consult a departmental undergraduate advisor in the selection of their Level three and four courses.
3. Part-time students should note that RELIG ST 3F03 and 4A06 are regularly offered in the evening. Other courses required for completion of the degree are offered in the evening whenever possible. Students who anticipate difficulty in fulfilling programme requirements should consult a departmental undergraduate advisor as early as possible in their programme.

Requirements
90 units total (Levels I to III), of which 42 units may be Level I
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
6 units from Asian Religions
6 units from Biblical Studies
3 units RELIG ST 3F03
12 units Level II, III or IV Religious Studies of which at least six units must be Level III. Level III courses which have been taken to satisfy the above fields of study requirements may be subtracted from these six units of Level III.
36 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities. (The maximum Religious Studies courses to be taken is 48 units.)
MINOR IN RELIGIOUS STUDIES

REQUIREMENTS
24 units total
24 units Religious Studies courses with no more than six units from Level 1

SCHOOL OF SOCIAL WORK

WEB ADDRESS: http://www.sosc.mcmaster.ca/socwork

126 FACULTY OF SOCIAL SCIENCES

Combined Bachelor of Arts/Bachelor of Social Work (B.A./B.S.W.)

ADMISSION
Completion of any Level I programme, including two of PSYCH 1A03 and 1A3 or (1A06), SOCIO 1A06, SOC WORK 1A06, normally with a CA of at least 6.0 and evidence of personal suitability, which may be evaluated by one or a combination of written statements, tests, or interviews.

An applicant must complete Level I (30 units) by April of the year in which application is made.

In choosing Level I courses, the student should take care to include those courses that will allow entry to the B.A. programme. Students should consult the relevant sections of the Calendar and/or the Office of the Associate Dean.

Enrolment in the Combined B.A./B.S.W. programme is limited. Students who intend to apply for the combined B.A. and B.S.W. programme must consult the School of Social Work prior to application.

All applications for admission to the School of Social Work are considered annually and must be made directly to the School before March 1 for the Fall/Winter term. First Nations students may select an alternate application process. Those who wish to do so should consult the School of Social Work for details.

Applicants transferring from other universities (see Two-Tier Applications below) must also apply through the Ontario Universities Application Centre (OUAC) and are required to meet the introductory Psychology and Sociology prerequisites.

Students admitted to the Combined programme who have completed B.A. work beyond Level I normally will require three years after admission to complete the programme.

TWO-TIER APPLICATIONS
If you are transferring from a university other than McMaster, or a college, you must complete two application forms as follows:

1. General Application (December 1)
If you wish to study full-time, obtain a TOSD application form from the Admissions Office of any Ontario university. Complete the form showing both your interest in the B.A./B.S.W. programme, and the subject you wish to take for the B.A. component. The form should be returned to OUAC, with the appropriate fee.

If you wish to study part-time, complete a McMaster University Application form which can be obtained from OUAC or directly from McMaster, at the Office of the Registrar, Gilmour Hall, Room 108. Return this form to OUAC with the appropriate fee.

To allow adequate time for the processing of the General Application, applicants are advised to submit their applications by December 1.

2. Supplementary Application (March 1)
After the General Application has been received at McMaster, the School of Social Work will mail you a Supplementary Application form, which must be completed and returned directly to the School of Social Work by March 1. To avoid delay, you should request this form personally through direct contact with the School of Social Work. This form is used to decide when applicants are able to write an admissions test, which is scheduled for two dates in March of each year, both on site and at alternative testing centres outside Hamilton.

Adequate time is needed to make these arrangements and to complete the admissions process. Therefore, it is impossible to consider applicants whose Supplementary Application arrives after the March 1 deadline.

NOTES
1. Course Groupings: There are two groups of courses in the Social Work programme:
   a. Foundation for Social Work includes core courses which are required.

2. Progression Within Programme: Students must achieve a minimum grade of C+ in each of SOC WORK 2A06, 2B03, 2BB3, 2EP3, 3A03, 3D06, 4D06, 4J03, 4L03, and 4X03, a Pass in SOC WORK 3D06 and 4D06 and a CA of at least 6.0.

3. Students must complete three units of Social Sciences Research Methods (eg. SOCIO 2Z03 or GERONTOL 2C03). A statistics course may not substitute for a research methods course.

4. Graduation: To qualify for the B.A./B.S.W. degrees, students must complete a total of at least 60 units of Social Work: 48 units towards the B.S.W. degree and 12 units Social and Political Context of Social Work courses including SOC WORK 4J03 as elective for the B.A. programme.

The B.S.W. degree component will be granted only if the student has achieved a minimum grade of C+ in each of SOC WORK 2A06, 2B03, 2BB3, 2EP3, 3A03, 3D06, 4D06, 4J03, 4L03, and 4X03, a Pass in SOC WORK 3D06 and 4D06 and a CA of at least 6.0.

5. Students are expected to assume the cost of travelling to and from field practice agencies.

REQUIREMENTS
138 units total (Levels I to IV), of which 48 units may be Level I
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
15 units SOC WORK 2A06, 2B03, 2BB3, 2EP3, (which must be completed prior to enrolling in SOC WORK 3D06 and 3D06)
12 units SOC WORK 3D06, 4D06 (which must be completed prior to enrolling in SOC WORK 4D06 and 4D06)
12 units SOC WORK 4D06, 4D06
9 units SOC WORK 3A03, 4003, 4X03
12 units SOC WORK 4J03 and nine additional units selected from the Social and Political Context of Social Work courses (See Note 4 above.)
3 units Social Sciences Research Methods. (These units will be taken as electives for the B.A. (See Note 3 above.)
24 units courses specified for the B.A. (This may vary according to the B.A. programme.)
21 units Electives. (Other requirements may be specified by the B.A. programme.)

Bachelor of Social Work (B.S.W.)

ADMISSION
Completion of an undergraduate degree from a recognized university, including two of introductory Psychology, Sociology or Social Work (equivalent to the McMaster courses PSYCH 1A03 and 1A3 or 1A06, SOCIO 1A06, SOC WORK 1A06) normally with an average of at least 6.0 or the equivalent, and evidence of personal suitability which may be evaluated by one or a combination of written statements, interviews, or tests.

First Nations students may select an alternate application process. Those who wish to do so should consult the School of Social Work for details.
An applicant is required to complete the prerequisite undergraduate degree work by April of the year in which application is made. Entrance in the B.S.W. programme is limited. Students who intend to apply to the B.S.W. programme must consult the School of Social Work prior to application.

All applications for admission to the School of Social Work are considered annually and must be made directly to the School well before March 1 for the Fall/Winter term. Applicants must also apply to the University.

TWO-TIER APPLICATIONS

Individuals interested in the B.S.W. programme must complete two application forms as follows:

1. General Application (December 1)
   If you wish to study full-time, you must obtain either a 105D application form from the Admissions Office of any Ontario university or, if you are a McMaster graduate, obtain the McMaster Returning Student Application form from the Office of the Registrar, Gilmour Hall, Room 108. You must return the completed form to the appropriate office (either the Ontario Universities’ Application Centre (OUAC) or to the Office of the Registrar, McMaster University) with the appropriate fee.
   If you wish to study part-time, you must obtain either a McMaster University Part-Time Application form or, if you are a McMaster graduate, obtain the McMaster Returning Student Application form from the Office of the Registrar, Gilmour Hall, Room 108. You must return the completed form to the appropriate office (either the Ontario Universities’ Application Centre or the Office of the Registrar, McMaster University) with the appropriate fee.

   In order to allow adequate time for the processing of the General Application, applicants are advised to submit their applications by December 1.

2. Supplementary Application (March 1)
   After the General Application has been received at McMaster, the School of Social Work will mail you a Supplementary Application form, which must be completed and returned directly to the School of Social Work by March 1. To avoid delay, you are advised to request this form personally through direct contact with the School of Social Work. This form is used to decide when applicants are able to write an admissions test, which is scheduled for two dates in March of each year, both on site and at alternative testing centres outside Hamilton.

Adequate time is needed to make these arrangements and to complete the admissions process. Therefore, it is impossible to consider applicants whose Supplementary Application arrives after the March 1 deadline.

NOTES

1. Course Groupings: There are two groups of courses in the Social Work programme:
   • Foundation of Social Work includes core courses which are required,

FOUNDATION OF SOCIAL WORK
SOC WORK 2A06, 2B03, 2BB3, 2E03, 3A03, 3D06, 3DD6, 4D06, 4D60, 4J03, 4X03

SOCIAL AND POLITICAL CONTEXT OF SOCIAL WORK
SOC WORK 3C03, 3H03, 3C03, 4B03, 4E03, 4F03, 4J03, 4G03, 4I03, 4J03, 4L03, 4R03, 4X03

2. Progression Within Programme: Students must achieve a minimum grade of C+ in each of SOC WORK 2A06, 2B03, 2BB3, 2E03, 3A03, 3D06, 4D06, 4J03, 4JJ03 and 4X03, a Pass in SOC WORK 3D06 and 4D60, and a CA of at least 6.0.

3. Students must complete three units of Social Sciences research methods (e.g. SOCIOl 2203 or GERONTOL 2C03). If this requirement was completed prior to admission to the B.S.W. programme, these additional units must be taken in the Social and Political Context of Social Work courses.

4. Graduation: To qualify for the B.S.W. students must complete a total of 60 units. The B.S.W. will be granted only if the student has achieved a grade of at least C- in each of SOC WORK 2A06, 2B03, 2BB3, 2E03, 3A03, 3D06, 4D06, 4J03, 4X03, 4G03 and 4X03, a Pass in SOC WORK 3D06 and 4D60, and a CA of at least 6.0.

5. Students are expected to assume the cost of travelling to and from field practice agencies.

REQUIREMENTS

60 units total

15 units SOC WORK 2A06, 2B03, 2BB3, 2E03 (which must be completed prior to enrolling in SOC WORK 3D06 and 3DD6)
12 units SOC WORK 3D06, 3DD6 (which must be completed prior to enrolling in SOC WORK 4D06 and 4D60)
12 units SOC WORK 4D06, 4DD6
9 units SOC WORK 4A03, 4G03, 4X03
9 units SOC WORK 4J03 and six additional units selected from the Social and Political Context of Social Work courses
3 units Social Sciences Research Methods. If requirement was completed prior to admission, these units must be chosen from Social and Political Context of Social Work courses. (See Note 3 above.)

DEPARTMENT OF SOCIOLOGY

WEB ADDRESS: http://www.mcmaster.ca/socsci/docs/socchome.htm

Honours Arts & Science and Sociology
(B.Arts Sc.; See Arts & Science programmes)

COOPERATIVE INTERNSHIP OPTIONS

FOR HONOURS SOCIOLOGY STUDENTS

The Faculty of Social Sciences offers two types of full-time, paid work opportunities for students registered in Honours programmes. Effective September 2002, students must complete SOC SCI 2E00 before participating in an internship. For further information see Degree Programmes, Internship Options, in the Faculty of Social Sciences section of this Calendar.

Honours Sociology (Specialist Option) [2522]

Students who register in this programme prior to 2001 may see an Academic Advisor in the Office of the Associate Dean for programme requirements.

Honours Sociology [2520]

ADMISSION

Completion of any Level I programme with a Cumulative Average of at least 6.0 including a grade of at least B- in SOCIOl 1A06.

NOTES

1. Students may take a maximum of six units of Level IV independent research (SOCIOl 4M03, 4M06 or 4N03).
2. Students should check both this Calendar and the Departmental Handbook for prerequisites and course descriptions.
3. Students may take a maximum of nine combined units of SOCIOl 3G93 and 4G93.

REQUIREMENTS

120 units total (Levels I to IV), of which 48 units may be Level I
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
3 units from SOCIOl 2S06
3 units from SOCIOl 3A03, 3P03, 3PP3
3 units from SOCIOl 3I03, 3O03, 3W03
12 units Level IV Sociology
18 units Level II or III Sociology
3 units SOCIOl 2203 which must be completed by the end of 60 units
3 units SOCIOl 3H06
3 units HUMAN 2C03
36 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.
Combined Honours in Sociology and Another Subject

ADMISSION
Completion of any Level I programme with a Cumulative Average of at least 6.0 including a grade of at least B- in SOCIOL 1A06. Satisfaction of admission requirements for the Honours programme in the other B.A. subject.

NOTES
1. Subject to meeting admission requirements, students may combine two subjects and be graduated with a combined honours B.A. degree. These combinations are available within the Faculty, with programmes in the Faculty of Humanities and with the Arts and Science programme.
2. Students who choose to complete a thesis (or independent research) in the other subject may replace 6 units of Level IV Sociology with Level III Sociology. This substitution must be approved in writing by a departmental undergraduate advisor.
3. Students may take a maximum of six units of Level IV independent research (SOCIOL 4M03, 4M06 or 4N03).
4. Students may take a maximum of nine combined units of SOCIOL 3G03 and 4G03.

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
6 units SOCIOL 2S06
3 units from SOCIOL 3A03, 3P03, 3P23
3 units from SOCIOL 3003, 3W03
12 units Level IV Sociology (See Note 2 above.)
12 units Level II or III IV Sociology
36 units courses specified for the other subject
6-9 units SOCIOL 2Z03 which must be completed by the end of 60 units, and SOCIOL 3H06 or, in combined programmes within the Faculty of Social Sciences, the six units Research Methods/Statistics course specified for the other subject.
3 units HUMAN 2C03. Students combining Honours Arts and Science with Sociology are exempt from this requirement.
6-9 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies. Students combining Sociology with Arts & Science, or with a Humanities subject, are exempt from this requirement.

B.A. in Sociology

ADMISSION
Completion of any Level I programme, with a Cumulative Average of at least 3.5 including a grade of at least C- in SOCIOL 1A06.

NOTES
1. Students enrolled in the B.A. Gerontology and Sociology programme should refer to Gerontological Studies in this section of this Calendar for programme requirements.
2. Students should check both this Calendar and the Departmental Handbook for prerequisites and course descriptions.

REQUIREMENTS
90 units total (Levels I to III), of which 42 units may be Level I
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
6 units SOCIOL 2S06
3 units SOCIOL 2203
15 units Level II or III Sociology
36 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.

Minor in Sociology

NOTES
1. Students who have already completed SOCIOL 2006 or 2S06 may use these units towards this requirement of the minor.
2. Students should check both this Calendar and the Departmental Handbook for prerequisites and course descriptions.

REQUIREMENTS
24 units total
6 units SOCIOL 1A06
6 units from SOCIOL 2C06, 2D06, 2R03 and 2RR3, 2V06 (See Note 1 above.)
12 units Level II or III Sociology

Minor in Gerontology

NOTES
1. Students enrolled in the B.A. Gerontology and Sociology programme should refer to Gerontological Studies in this section of this Calendar for programme requirements.
2. Students should check both this Calendar and the Departmental Handbook for prerequisites and course descriptions.

REQUIREMENTS
90 units total (Levels I to III), of which 42 units may be Level I
30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)
6 units SOCIOL 2S06
3 units SOCIOL 2203
15 units Level II or III Sociology
36 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.
COMBINED B.A. IN INDIGENOUS STUDIES AND ANOTHER SUBJECT

WEB ADDRESS: http://www.mcmaster.ca/indigenous/
Chester New Hall, Room 228 Ext. 27426

Director
D.J. Martin-Hill/B.A., M.A., Ph.D.
Aboriginal Student Counsellor
B. Freeman/B.A.

ACADEMIC REGULATIONS

The Combined B.A. Programme in Indigenous Studies is governed by the general Academic Regulations of the University and the regulations described below.

Combined B.A. Programme in Indigenous Studies and Another Subject

ADMISSION
Completion of any Level I programme, with a Cumulative Average of at least 3.5 including an average of at least 4.0 in six units from INDIG ST 1A03, 1AA3, CAYUGA 1Z03, MOHAWK 1Z03, OJIBWE 1Z03 or a grade of at least C in one of CAYUGA 1Z06, INDIG ST 1A06, MOHAWK 1Z06 or OJIBWE 1Z06 and satisfaction of admission requirements for the B.A. programme in the other subject.

NOTE
Three units of work in the other subject of the combined programme which are also in the Course List may be used to fulfill the requirements of both programme components.

COURSE LIST 1

<table>
<thead>
<tr>
<th>COURSE CODE</th>
<th>COURSE NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHROP 2B03, 2H03, 2V03, 3F03, 3Y03</td>
<td>6 units from ANTHROP 2B03, 2A06, 2AA3</td>
</tr>
<tr>
<td>POL SCI 3CC3</td>
<td>3 units from INDIG ST 2B03, 2E03, 3A03, 3B03, 3BB3, 3C03, 3CC3, 3D03, 3E03, 3F06, 3G03, 3H03, 3HH3, 3I03, 3J03, 3K03; CAYUGA 2Z03 (or 2Z06, 3Z06); MOHAWK 2Z03 (or 2Z06, 3Z06); OJIBWE 2Z03 (or 2Z06, 3Z06), or courses from Course List 1.</td>
</tr>
<tr>
<td>SOCIOL 4I03</td>
<td>3 units Level III Indigenous Studies or courses from Course List 1 (See Note above.)</td>
</tr>
<tr>
<td>24 units</td>
<td>12 units Electives</td>
</tr>
</tbody>
</table>

Minor in Indigenous Studies

NOTES
1. In order to qualify for the Indigenous Studies Minor, students must be registered in a four- or five-level programme.
2. No more than six of the 18 units from Course List 2 may be Level I courses.
3. At least 12 of the 18 units required for the Minor must be Indigenous Studies or Indigenous language courses.

COURSE LIST 2

<table>
<thead>
<tr>
<th>COURSE CODE</th>
<th>COURSE NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDIG ST 1A03</td>
<td>Introduction to Indigenous Studies</td>
</tr>
<tr>
<td>INDIG ST 1AA3</td>
<td>Introduction to Contemporary Indigenous Studies</td>
</tr>
<tr>
<td>INDIG ST 2A03</td>
<td>Introduction to Indigenous Peoples' Spirituality</td>
</tr>
<tr>
<td>INDIG ST 2AA3</td>
<td>Indigenous Knowledge and Methodology</td>
</tr>
<tr>
<td>INDIG ST 2B03</td>
<td>History Of Indigenous Peoples' Political Economy</td>
</tr>
<tr>
<td>INDIG ST 2C03</td>
<td>Contemporary Indigenous Societies and Issues</td>
</tr>
<tr>
<td>INDIG ST 2D03</td>
<td>Traditional Indigenous Ecological Knowledge</td>
</tr>
<tr>
<td>INDIG ST 2E03</td>
<td>Aboriginal Community and Economic Development</td>
</tr>
<tr>
<td>INDIG ST 3A03</td>
<td>The Spiritual Teachings of Elders</td>
</tr>
<tr>
<td>INDIG ST 3B03</td>
<td>History of the Eastern Woodland People</td>
</tr>
<tr>
<td>INDIG ST 3B03</td>
<td>History of Contemporary Indigenous Peoples</td>
</tr>
<tr>
<td>INDIG ST 3C03</td>
<td>Study Of Iroquois First Nations In Contemporary Times</td>
</tr>
<tr>
<td>INDIG ST 3D03</td>
<td>Contemporary Indigenous Societies: Selected Topics</td>
</tr>
<tr>
<td>INDIG ST 3E03</td>
<td>2001-2002: Aboriginal Identity and Popular Culture</td>
</tr>
<tr>
<td>INDIG ST 3F06</td>
<td>Contemporary Native Literature in Canada</td>
</tr>
<tr>
<td>INDIG ST 3G03</td>
<td>Contemporary Native Literature in the United States</td>
</tr>
<tr>
<td>INDIG ST 3H03</td>
<td>Indigenous Women's Issues</td>
</tr>
<tr>
<td>INDIG ST 3H03</td>
<td>Indigenous Creative Arts and Drama</td>
</tr>
<tr>
<td>INDIG ST 3H03</td>
<td>Traditional Approaches to Healing And Wellness I (Philosophy)</td>
</tr>
<tr>
<td>INDIG ST 3I03</td>
<td>Traditional Approaches to Healing And Wellness II (Practical)</td>
</tr>
<tr>
<td>INDIG ST 3J03</td>
<td>Indigenous Peoples and Social Policy</td>
</tr>
<tr>
<td>INDIG ST 3J03</td>
<td>Government and Politics of Indigenous Peoples</td>
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<tr>
<td>INDIG ST 3K03</td>
<td>Indigenous Human Rights</td>
</tr>
<tr>
<td>CAYUGA 1Z03</td>
<td>Introduction to Cayuga Language and Culture</td>
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<tr>
<td>CAYUGA 1Z06</td>
<td>Advanced Cayuga</td>
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<tr>
<td>CAYUGA 2Z06</td>
<td>Intermediate Cayuga</td>
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<tr>
<td>CAYUGA 2Z06</td>
<td>Intermediate Cayuga</td>
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<tr>
<td>CAYUGA 3Z06</td>
<td>Advanced Cayuga</td>
</tr>
<tr>
<td>MOHAWK 1Z03</td>
<td>Introduction to Mohawk Language and Culture</td>
</tr>
<tr>
<td>MOHAWK 1Z06</td>
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<tr>
<td>MOHAWK 2Z03</td>
<td>Intermediate Mohawk</td>
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<td>MOHAWK 3Z06</td>
<td>Advanced Mohawk</td>
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<tr>
<td>OJIBWE 1Z03</td>
<td>Introduction to Ojibwe Language and Culture</td>
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<tr>
<td>OJIBWE 1Z06</td>
<td>Introduction to Ojibwe Language and Culture</td>
</tr>
<tr>
<td>OJIBWE 2Z03</td>
<td>Intermediate Ojibwe</td>
</tr>
<tr>
<td>OJIBWE 2Z06</td>
<td>Intermediate Ojibwe</td>
</tr>
<tr>
<td>OJIBWE 3Z06</td>
<td>Advanced Ojibwe</td>
</tr>
<tr>
<td>ANTHROP 2B03</td>
<td>Indigenous Peoples of North America</td>
</tr>
<tr>
<td>ANTHROP 2H03</td>
<td>Environment and Culture</td>
</tr>
<tr>
<td>ANTHROP 2V03</td>
<td>Aztecs, Maya and Inka</td>
</tr>
<tr>
<td>ANTHROP 2A06</td>
<td>Contemporary Northern Peoples</td>
</tr>
<tr>
<td>ANTHROP 3F03</td>
<td>Aboriginal Community Health and Well-Being</td>
</tr>
<tr>
<td>ANTHROP 3Y03</td>
<td>Government and Politics of Indigenous Peoples</td>
</tr>
<tr>
<td>POL SCI 3C03</td>
<td>Social Work and Indigenous Peoples</td>
</tr>
<tr>
<td>SOCIOL 4I03</td>
<td>12 units Electives</td>
</tr>
</tbody>
</table>

REQUIREMENTS

6 units from INDIG ST 1A03, 1AA3 (or 1A06), CAYUGA 1Z03 (or 1Z06), MOHAWK 1Z03 (or 1Z06), OJIBWE 1Z03 (or 1Z06), or courses from Course List 2 (See Notes 2 and 3 above.)
THEME SCHOOLS

The concept of a Theme School was outlined in a key series of recommendations in the University's Strategic Plan. A Theme School is a centre of interdisciplinary learning in which a group of faculty members identifies a set of intellectual problems arising out of their research, establishes a programme of study focused on these problems, and gathers a group of students interested in learning about these problems. Students and faculty will form an intellectual community that will explore these problems through self-directed learning and independent study.

Theme Schools will be taken as a minor in conjunction with any four- or five-level programme. (See Minors in the General Academic Regulations section of this Calendar.)

It is anticipated that Theme Schools' life cycles will normally be five years. They will accept approximately 80 students a year for three years.

The subject area of Theme Schools will vary over time, depending on the interests of faculty and students.

Both the Theme School on Globalization, Social Change and the Human Experience and the Theme School in Science, Technology and Public Policy will not be admitting new students in September 2001. Currently, Theme Schools are being reviewed to determine if revisions to the concept should be implemented.

SCHEDULING OF COURSES

Students participating in Theme Schools should be aware that many Theme School courses will be held in the evenings. This is necessary to make Theme School courses available to students from a wide variety of programmes. The Theme Schools will arrange classes that meet the scheduling needs of their students; however, it may be necessary for students to change their optional courses to have conflict-free schedules.

ACADEMIC REGULATIONS

Theme School Minor programmes are governed by the General Academic Regulations of the University and the regulations described in each Theme School.

Normally, students will enter a Theme School in Level II and will complete a four- or five-year degree with a Theme School Minor. Continuation in the Theme School normally requires students to maintain standing in their programme.

THEME SCHOOL ON GLOBALIZATION, SOCIAL CHANGE AND THE HUMAN EXPERIENCE

WEB ADDRESS: http://www.humanities.mcmaster.ca/-global/global.htm

Director

William D. Coleman/B.A., A.M., Ph.D
Kenneth Taylor Hall, Room 529, ext. 27556

The term globalization is a rather new one in social, political, economic and cultural discourse. It speaks, in part, to a new intense phase of compression of space and time that has transformed, in turn, aspects of human contact, identity, and culture in societies around the world. Citizens and migrants in all states and territories have reacted, assimilated, accommodated or challenged these transformations in a myriad of ways. As a part of public discourse, the concept often lends itself to hyperbole and provides an umbrella under which shelter a rather diverse set of ideologies, social movements, and cultural and artistic creations. This theme school proposes to examine critically the phenomenon of globalization from a diverse number of disciplinary perspectives.

REQUIREMENTS

The last intake for this Theme School was September 1999.

Students not enrolled in the Theme School, but interested in taking Theme School courses as electives are welcome and can gain entry to the courses through permission of the Director or the instructor.

Students are required to take 24 units in order to obtain the Theme School Minor. In Level II, all students must take GSCH 2A06, the introductory course (last offered in 1999-2000). In Levels III and IV, students take an additional 18 units of theme school courses to obtain their minor.

See specific courses and their descriptions listed under Theme Schools in the Course Listings section in this Calendar.

THEME SCHOOL ON SCIENCE, TECHNOLOGY, AND PUBLIC POLICY

WEB ADDRESS: http://www.Eng.mcmaster.ca/stpp

Director

John Hodgins Engineering Bldg., Room 142, ext 22019

This Theme School is a response to the reality that the formation of public policy in our society requires not only scientific and technological knowledge, but also an awareness of the social and ethical implications of scientific and technological developments.

The foundational course in Level II is aimed to develop a basic understanding of the nature of science, technology and technological change, and of the interaction between science and technology on the one hand, and larger societal values and public policy on the other.

Some of the elective courses are interdisciplinary, in which instructors and students apply the perspectives of a variety of fields to the relationship between science, technology and our social life. Other elective courses bring the perspectives of a single discipline to these dynamic relations.

One of the key aims of the Theme School is to prepare students to participate in the formation of public policy as citizens and/or professionals with a particular sensitivity to the ethical dimension of the social and political debate concerning many current science/technology projects.

REQUIREMENTS

The last intake for this Theme School was September 1999.

Students not enrolled in the Theme School, but interested in taking Theme School courses as electives are welcome and can gain entry to the courses through permission of the Director.

Students are required to complete 24 units in order to obtain the Theme School minor; this includes six units of Level I work acceptable to the Director. In Level II all students must take STPP 2A06, the introductory course (last offered in 1999-2000). In Levels III and IV students may complete their minor by taking an additional 12 units of Theme School courses.

See specific courses and their descriptions listed under Theme Schools in the Course Listings section in this Calendar.
INTERDISCIPLINARY MINORS AND THEMATIC AREAS

INTERDISCIPLINARY MINORS

The following two listings constitute University-sanctioned Minors in Archaeology and Jewish Studies.

No degree is granted for these programmes of study, but students registered in four- or five-level programmes can receive a Minor designation on their transcripts following graduation if their chosen Minor programme is successfully completed. Please see the Minor subsection in the General Academic Regulations section of this Calendar for further information.

NOTE: Students should note that not all courses listed are available each year. As well, it is the student's responsibility to check carefully for prerequisites, corequisites and enrolment restrictions.

Archaeology

Coordinator
Aubrey Cannon (Anthropology)

Committee of Instruction
Laura Finsten (Anthropology)
Michele George (Classics)
Peter Ramsden (Anthropology)
Eduard Reinhardt (Geography and Geology)
W. Jack Rink (Geography and Geology)
Shelley Saunders (Anthropology)
Henry Schwarz (Geography and Geology)
Gretchen Unholtz (Classics)

The Interdisciplinary Minor in Archaeology is based on archaeology and archaeology-related courses offered in the School of Geography and Geology, and in the Departments of Classics and Anthropology. It requires students to gain knowledge and understanding of a broad range of arts and sciences relevant to the practice of archaeology, but also permits students the flexibility to specialize in topics of particular interest within related disciplines. Students planning a minor in Archaeology may wish to take CLASSICS 1L03 (History and Archaeology of the Ancient World I) and CLASSICS 1L13 (History and Archaeology of the Ancient World II).

COURSE LIST

ANTHROP 2F03 Human Skeletal Biology and Bioarchaeology
ANTHROP 2O03 North American Prehistory
ANTHROP 2V03 Aztecs, Maya and Inka
ANTHROP 3A03 Archaeology and Society
ANTHROP 3C06 Archaeological Field School
ANTHROP 3D03 Archaeology of Death
ANTHROP 3E03 Special Topics in Archaeology I
ANTHROP 3E03 Special Topics in Archaeology II
ANTHROP 3K03 Archaeological Interpretation
ANTHROP 3N03 Primate Evolution
ANTHROP 3P03 Paleopathology
ANTHROP 4F03 Archaeological Theory
ANTHROP 4H03 Archaeology of Hunters and Foragers
ANTHROP 4R03 Skeletal Biology of Earlier Human Populations
ANTHROP 4U03 Prehistory of the British Isles
CLASSICS 2B03 Greek Art
CLASSICS 2C03 Roman Art
CLASSICS 3A03 Greek Sanctuaries
CLASSICS 3B03 The Archaeology of the City of Rome and Roman Italy
CLASSICS 4B03 Seminar in Classical Archaeology
GEO 2B03 Soils and the Environment
GEO 2G03 Fluvial Environments, Processes and Landforms
GEO 2G33 The Shifting Earth
GEO 2I03 GIS and Digital Cartography
GEO 3B03 Environmental Change and the Biosphere
GEO 3D03 Geoarchaeology
GEO 3E03 Sedimentary Environments
GEO 3G03 Glacial Sediments and Environments
GEO 3I03 Applied GIS
GEO 4I03 Advanced GIS

REQUIREMENTS

24 units total
12 units ANTHROP 1B03 (formerly 1200), or 1Z03, if completed prior to 1999), 2PA3, CLASSICS 1A03 (formerly 2A03), ENVIR SC 1G03 (formerly GEO 1G03)
12 units from Course List (see above). At least nine of the 12 units must be selected from outside the student's own department.

Please see the Course Listings section for a detailed description of the above courses.

Health and Society

The Interdisciplinary Minor in Health and Society has been replaced with a Minor in Health Studies. The course list for the Minor in Health Studies includes courses previously listed for the Interdisciplinary Health and Society Minor. Please see the Minor in Health Studies section of the Health Studies, Faculty of Social Sciences section of the Calendar for further information.

Indigenous Studies

See Minor in Indigenous Studies in the Combined B.A. in Indigenous Studies and Another Subject section of this Calendar for requirements.

Jewish Studies

Jewish Studies is an international, multidisciplinary field devoted to the study of Judaism, Jewish history, thought, culture and community. The Minor in Jewish Studies is open to all students registered in a four- or five-level programme in any Faculty. Students will be required to complete a minimum of 24 units from the lists below. At least 12 of these units will be taken from List A, comprised of courses focusing directly on an area of Jewish Studies. Students are urged to take at least six units of Hebrew language as part of their List A requirements. A minimum of six units will be taken from List B, comprised of courses which provide crucial background for understanding important issues in Jewish Studies. Students taking List B courses as part of their minor are required to write assignments and research papers on topics directly related to Jewish Studies. Students are also encouraged to engage in a year of study in Israel, normally done in the third year of a four-year programme. Details are available through the Department of Religious Studies, University Hall, Room 104, ext. 24567, or the Office of International Affairs, Kenneth Taylor Hall, Room 239.

Students wishing to pursue a Minor in Jewish Studies may obtain more information from the Jewish Studies Minor Area Coordinator in the Department of Religious Studies, University Hall, Room 104.

LIST A

HEBREW 2A03 Introduction to Biblical Hebrew I
HEBREW 2B03 Introduction to Biblical Hebrew II
HEBREW 3A03 Intermediate Hebrew I
HEBREW 3B03 Intermediate Hebrew II
RELIG ST 2B03 Women in the Biblical Tradition
RELIG ST 2B03 The Bible and Film
RELIG ST 2E03 The Prophets
RELIG ST 2E03 The Five Books of Moses
RELIG ST 2V03 The Bible and Film
RELIG ST 3B03 Songs of David: Poetry in the Hebrew Bible
RELIG ST 3R03 Death and the Afterlife in Early Judaism and Christianity
RELIG ST 3Z03 Judaism, the Jewish People and the Birth of the Modern World
RELIG ST 3Z03 Judaism and the Jewish People in the Twentieth Century
LIST B

ANTHROP 3B03 Ethnology: Europe
ANTHROP 3G03 Comparative Mythology
ANTHROP 3H03 Anthropological Demography
HISTORY 2E3A3 Islam and Mediterranean Society, 600-1300
HISTORY 2E3B3 Islam in the World, 1300-1800
HISTORY 3A3A3 The Modern Middle East
HISTORY 3I03 The International Relations of the European Powers, 1914-1945
PHILOS 2A06 Ancient Greek Philosophy
PHILOS 2D03 Moral Issues
PHILOS 3A06 From Kant to Hegel
PHILOS 3H03 Philosophy of Religion
POL SCI 3AA3 International Politics in the Postwar Period
POL SCI 4D06 Human Rights and International Politics
SOC WORK 4C03 Race and Social Marginalization in Canadian Society
SOC WORK 4J03 Social Change: Social Movements and Advocacy
SOC WORK 4M03 International and Comparative Social Welfare
SOCIOL 2E06 Racial and Ethnic Group Relations
SOCIOL 3Z03 Ethnic Relations

Please see the Course Listings section for a detailed description of the above courses.

Peace Studies
See Minor in Peace Studies in the Peace Studies, Faculty of Humanities section of this Calendar for requirements.

THEMATIC AREAS

The following listing is designed to assist you in choosing courses in areas of study, in which there is currently no B.A. programme.

Asian Studies

While there is no B.A. programme in Asian Studies, students interested in concentrating in this area may choose from among the following courses offered by various departments. Those desiring further information on specific courses should consult the departmental listing in the Calendar. (Students interested in Japanese Studies should enquire about the Combined Honours program in Japanese Studies and Another Subject.)

Students wishing to pursue Asian Studies may obtain further information from Dr. D. Barrett, Chester New Hall, Room 625, ext. 24130, or Dr. K. Shinohara, University Hall, Room 126, ext. 23393.

COURSES DEALING STRICTLY WITH ASIAN MATERIAL

GEO 3HJ3 Geography of Japan
HISTORY 2E3A3 Islam and Mediterranean Society, 600-1300
HISTORY 2E3B3 Islam in the World, 1300-1800
HISTORY 2GG3 China: Historical Foundations
HISTORY 3A03 Imperial Islam: the Ottomans
HISTORY 3AA3 The Modern Middle East
HISTORY 3B03 Modern Japan
HISTORY 3GG3 China: The Revolutionary Century, 1895-1995
HISTORY 4B66 Special Topics in the History of Modern Japan
HISTORY 4G06 Special Topics in the History of Modern China
HISTORY 4GG6 Topics in Middle Eastern and Islamic History
RELIG ST 2E03 Engaged Buddhism
RELIG ST 2F03 Storytelling in East Asian Religions
RELIG ST 2I03 Storytelling in Indian Religion
RELIG ST 3L03 Life, Work and Teachings of Mahatma Gandhi
RELIG ST 2P06 Japanese Civilization
RELIG ST 3A03 Popular Religion in India
RELIG ST 3E03 Japanese Religion
RELIG ST 3L03 The Indian Religious Tradition
RELIG ST 3S03 The Chinese Religious Tradition
RELIG ST 3U03 The Buddhist Tradition in India
RELIG ST 3UJ3 Buddhism in East Asia
RELIG ST 3V03 Indian Philosophy
RELIG ST 4A03 Advanced Reading: Asian Religions

COURSES WITH SIGNIFICANT ASIAN CONTENT

ECON 2C03 Asian-Pacific Economies
POL SCI 4MM6 Topics in International Political Economy
RELIG ST 1B06 World Religions
RELIG ST 2B03 Images of the Divine Feminine
RELIG ST 2H03 Theory and Practice of Non-Violence
RELIG ST 2Q03 Cults in North America
RELIG ST 2S03 Women and Religion
RELIG ST 2W03 Health, Healing and Religion

LANGUAGE COURSES

CHINESE 2A03 Introductory Modern Chinese I
CHINESE 2AA3 Introductory Modern Chinese II
JAPANESE 1D03 Beginner's Intensive Japanese I
JAPANESE 1Z03 Beginner's Intensive Japanese II
JAPANESE 2203 Intermediate Intensive Japanese I
JAPANESE 22Z3 Intermediate Intensive Japanese II
JAPANESE 3A03 Advanced Intensive Japanese I
JAPANESE 3AA3 Advanced Intensive Japanese II
JAPANESE 3B03 Business Japanese
JAPANESE 4L03 Japanese Literature
JAPANESE 4203 Advanced Practice in Japanese
JAPANESE 4A06 Guided Reading in Japanese Studies
JAPAN ST 4B03 Guided Reading in Japanese Studies
SANSKRIT 3A06 Introduction to Sanskrit Grammar
SANSKRIT 4B06 Readings in Sanskrit Texts

Please see the Course Listings section for a detailed description of the above courses.

Canadian Studies

There is no B.A. in Canadian Studies, but students interested in this area may choose from among the following courses, subject to meeting the prerequisites.

HUMANITIES

ART HIST 3B03 Aspects of Canadian Art
ENGLISH 2C03 Contemporary Canadian Fiction
FRENCH 2E03 Literature of Quebec
FRENCH 3AA3 The Modern French-Canadian Novel
FRENCH 4J03 Topics in French-Canadian Literature
HISTORY 2J06 The History of Canada
HISTORY 3G03 Business History: the Canadian Experience in International Perspective
HISTORY 3K03 Canadian Political Development Since 1840
HISTORY 3N03 The History of the Canadian Working Class
HISTORY 3P03 Religion and Society in Canada
MUSIC 3T03 Canadian Music

SOCIAL SCIENCES

ANTHROP 3F03 Contemporary Northern Peoples
ANTHROP 3Y03 Aboriginal Community Health and Well-Being
ECON 2K03 Economic History of Canada
GEO 2H03 Canada
GEO 3HT3 Geography of Planning
GEO 4H23 The Landscape of Urban Housing
POL SCI 1G06 Politics and Government
POL SCI 3D03 Participation and Elitist Politics in Canada
POL SCI 3F03 Canadian Foreign Policy
POL SCI 3GG3 Federalism: Theoretical, Constitutional and Institutional Issues
POL SCI 3H03 Intergovernmental Policy Issues in Canada
POL SCI 3I03 Elections and Electoral Behaviour in Canada
POL SCI 3J03 Provincial Politics in Canada
POL SCI 4006 Canadian Public Policy
POL SCI 4S06 Canadian Political Theory

Please see the Course Listings section for a detailed description of the above courses.
PART-TIME DEGREE STUDIES

The University offers a broad range of educational opportunities if you wish to take degree studies on a part-time basis. In addition to the daytime offerings in the Fall/Winter there is a wide selection of evening classes available in the Fall/Winter and Spring/Summer sessions. There is a limited number of daytime classes scheduled for the Spring/Summer session.

If you take degree courses, you will associate with one of the undergraduate Faculties (Business, Health Sciences, Humanities, Science or Social Sciences). By so doing, you will have the opportunity to consult with the academic counsellors of your Faculty, and with the departments whose courses are of interest to you. If your interests change, it is often possible to transfer to another department or Faculty.

The courses which you take in the early stages of your education will form the basis for choosing your programme of study. The programmes of study which are available entirely through evening and summer courses are indicated on the Degrees by Programme chart in the Degrees and Programmes section of this Calendar. You should also familiarize yourself with the requirements and information found in the following sections: Admission Requirements, General Academic Regulations and Sessional Dates, as well as the programme descriptions found in the specific Faculty sections.

ADMISSION

Before you register for any degree course or programme, you must apply for admission.

- If you have already completed some university, college, or other post-secondary education, you will be required to submit official transcripts of this work in order to be considered for admission and possible credit towards your McMaster programme.
- If you satisfy the University’s normal admission requirements for full-time study, you may choose to register for part-time study in most programmes.
- If you do not satisfy these requirements, you may be admissible as a Mature Student and given the opportunity to show that you can deal successfully with university work. Initially, you may take only one course at a time.

See the Admission Requirements section in this Calendar for details concerning all avenues of admission to degree study.

AVAILABILITY OF COURSES

Although both daytime and evening courses are open to all students, as a part-time student, you may have other responsibilities which restrict you to the courses offered in the evenings, winter and summer. If you can arrange to take day courses in the Fall/Winter session, the options are greatly enlarged.

Normally, publications for part-time students are made available in March for the Spring/Summer session and in June for the Fall/Winter session.

INFORMATION AND COUNSELLING

WEB ADDRESS: http://www.mcmaster.ca/parttime

Interested students may telephone the Programme Coordinator, Part-time Degree Studies, Tina Horton at (905) 525-4600 for counselling and to discuss preparation and plans for degree study. The Office is located in Gilmour Hall, Room 108, and is open Monday, Tuesday, Thursday and Friday until 4:00 p.m. and Wednesday until 5:45 p.m.

More detailed information concerning programmes and courses is provided by the Academic Counsellors within each Faculty as follows:

- Business: ext. 23941
- Humanities: ext. 24926
- Science: ext. 27590
- Social Sciences: ext. 24904

Information about application procedures and admission regulations is available through the Office of the Registrar, Gilmour Hall, Room 108, (905) 525-4600.

Information about non-degree courses and programmes is available through the Centre for Continuing Education (905) 525-9140, ext. 24321.

MOHAWK/McMASTER EDUCATION INFORMATION CENTRE

The Mohawk/McMaster Education Information Centre in downtown Hamilton exists to provide information and maintain comprehensive collections of calendars and brochures concerning educational opportunities across Canada. The staff can help you to make contact with the appropriate persons at McMaster.

The Information Centre is at the Hamilton Public Library (Central Branch), 55 York Boulevard, Hamilton, just off Jackson Square, telephone (905) 522-3361.

MAPS

The McMaster Association of Part-time Students (MAPS) maintains an office and student lounge in Kenneth Taylor Hall, Room 102 (Effective Fall 2001: McMaster University Student Centre, Room 234), telephone (905) 525-9140, ext. 22021, and publishes a newsletter, The Link, which is sent to all part-time students. The office and lounge are open from Monday to Thursday, day and evening, and Friday during the day.

MAPS Executive Director, Jackie Osterman, is available during these hours to help students. All part-time students are invited to use these facilities and to assist their Association in its efforts to improve the quality and range of educational opportunities available to students who can only attend university on a part-time basis.

http://www.mcmaster.ca/parttime

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Information about non-degree courses and programmes is available through the Centre for Continuing Education (905) 525-9140, ext. 24321.
CERTIFICATE AND DIPLOMA PROGRAMMES

CENTRE FOR CONTINUING EDUCATION

Located in the Commons Building, Room 116, the Centre for Continuing Education offers Certificate and Diploma programmes. Short courses and workshops for personal and professional development are also available. The Centre offers registration in degree courses as a Listener. For details, please contact the Centre for Continuing Education at extension 24321 or http://www.mcmaster.ca/conted/

CERTIFICATE AND DIPLOMA PROGRAMMES APPROVED FOR ADVANCED CREDIT

All CCE Certificate and Diploma programmes have been approved by the Senate of McMaster University for advanced credit, as shown below. Information regarding advanced credit for degree study is outlined in Graduates of McMaster Certificate/Diploma Programmes in the Admission Requirements section of this Calendar.

ACCOUNTING, DIPLOMA IN

Maximum Advanced Credit - 24 units
This eleven-course programme is designed for individuals planning a career in managerial or financial accounting. All courses satisfy programme requirements for both the Society of Management Accountants of Ontario (SMA) and the Certified General Accountants Association (CGA).

ADDITIONS CARE WORKER, DIPLOMA IN

Maximum Advanced Credit - 24 units
The diploma requirements consist of 24 units of study organized in compulsory courses and skill and knowledge electives.

ADDITIONS STUDIES, CERTIFICATE IN

Maximum Advanced Credit - 15 units
This 15 unit programme is designed to provide elective studies in the field of addictions.

CASE MANAGEMENT, CERTIFICATE IN

Maximum Advanced Credit - 15 units
This six-course programme, designed to develop and/or enhance the ability of health and social service professionals to perform case management functions in a variety of practice settings.

FAMILY MEDIATION, CERTIFICATE/DIPLOMA IN

Maximum Advanced Credit - 15 units (Certificate) - 24 units (Diploma)
This five-course (Certificate)/eight-course (Diploma) programme offers a rewarding career opportunity for people in a variety of professions to either gain new or expand their skills and knowledge in the field of alternative dispute resolution.

GEOGRAPHICAL INFORMATION SYSTEMS SPECIALIST, MOHAWK-MCMASTER, CERTIFICATE IN

Maximum Advanced Credit - 18 units
This collaborative six-course programme is designed for those who have some experience in the field of GIS and who have some computer background.

HUMAN RESOURCES MANAGEMENT, DIPLOMA IN

Maximum Advanced Credit - 24 units
This eight-course programme covers concepts and practices, current issues and areas of specialization important to human resources management. All courses satisfy requirements for the Human Resources Professional Association of Ontario (HRPAO) designation.

INFORMATION TECHNOLOGY (INFOTECH), CERTIFICATE IN

Maximum Advanced Credit - 15 units
Designed to develop expertise in the new technologies entering the workplace, the programme consists of two levels of six courses each (Infotech Coach and Infotech Advisor). The emphasis is on computer knowledge and skills. Coach level courses are each three days (or six evenings), and Advisor courses are each four days (or eight evenings) in duration. Courses are limited enrolment.

MANAGEMENT STUDIES, DIPLOMA IN

Maximum Advanced Credit - 24 units
This eight course programme offered in association with the Michael G. DeGroote School of Business at McMaster is designed to develop and/or enhance the business management skills needed to function within a management position.

METALLURGY OF IRON AND STEEL, CERTIFICATE IN

Maximum Advanced Credit - 15 units
This six-course programme comprehensively covers metallurgical principles involved in the extraction, refining and manufacturing of ferrous products.

MICROCOMPUTER SYSTEMS, DIPLOMA IN

Advanced Credit - pending
This eight-course programme provides students with a thorough background in the fundamentals of computer science within the context of microcomputers.

MULTIMEDIA COMMUNICATIONS, DIPLOMA IN

Advanced Credit - pending
With a projected start date of September 2001, this programme will focus on technical, design and communication skills development in the multimedia field.

POLICE STUDIES, DIPLOMA IN

Maximum Advanced Credit - 24 units
This programme (24 units) is designed to develop a capacity for critical inquiry at the university level, while augmenting the training received by police and security personnel.

VISUAL ART FOUNDATION STUDIES, DIPLOMA IN

Maximum Advanced Credit - 24 units
This one year full-time programme is a joint partnership between McMaster University and the Dundas Valley School of Art. Offered fully on-site at DVSA, the programme provides a solid base for those seeking a foundation for further advanced study in the Visual Arts.

WRITING, CERTIFICATE IN

Maximum Advanced Credit - 15 units
This programme covers the fundamentals and advanced study of writing and publishing across many different genres. It has been developed in collaboration with the Faculty of Humanities and members of the local writing community.

PROFESSIONAL ASSOCIATIONS AND INSTITUTES

Many McMaster Certificate and Diploma credit courses are recognized as course equivalencies by the following external associations and institutes:

- Addiction Intervention Association (AIA)
- Association of Administrative Assistants (QAA)
- Canadian Institute of Certified Administrative Managers (CAM)
- Canadian Institute of Management (CIM)
- Certified General Accountants Association of Ontario (CGA)
- Credit Union Institute of Canada (CUIC)
- Credit Institute of Canada
- Human Resources Professionals Association of Ontario
- Institute of Canadian Bankers (ICB)
- Institute of Risk Management (CRM and FRM)
- Insurance Institute of Canada-Fellowship (IFIC)
- International Personnel Management Association (IPMA)
- Purchasing Management Association of Canada (PMAC)
- Society of Management Accountants of Ontario

Please contact the Centre for Continuing Education for details. For information concerning other Diploma programmes offered at the University, please see the Post-Professional Health Sciences Education Programmes in the Faculty of Health Sciences section as well as the Diploma in Music Performance in the Faculty of Humanities section of this Calendar.
The courses listed in this section include all courses approved for the undergraduate curriculum for the 2001-2002 academic year. Not all courses in the approved curriculum will be offered during the year. Students are advised to refer to the course timetables published annually in March, May and August to determine which specific courses will be offered in the upcoming sessions.

ANTHROPOLOGY

WEB ADDRESS: http://www.socsci.mcmaster.ca/anth

Chester New Hall, Room 524
Ext. 24423

Faculty as of January 15, 2001

Chair
D. Ann Herring

Professors
Matthew Cooper/B.A. (Brooklyn College), M.Phi., Ph.D. (Yale)
Harvey Fe/Ph.D. (Queens), M.A. Ph.D. (McGill)
Edward V. Glanville/B.A., Ph.D. (Dublin)
William L. Rodman/B.A. (Sydney), M.A. Ph.D. (Chicago)
Shelley Saunders/B.A., M.A., Ph.D. (Toronto)

Adjunct Professors
Regina Darmel/ (Western Ontario) B.A. (Bryn Mawr), M.A., Ph.D. (Pennsylvania) part-time
Michael Spence/ (Western Ontario) B.A., M.A., (Toronto), Ph.D. (Southern Illinois) part-time

Associate Professors
Ellen Badons/B.A., M.A. (Toronto), Ph.D. (California-Berkeley)
Aubrey Cannon/B.A. (Simon Fraser), Ph.D. (Cambridge)
Laura Finsten/B.A. (Western Ontario), M.A. (Calgary), Ph.D. (Purdue)
D. Ann Herring/B.A., M.A., Ph.D. (Toronto)
Trudy Nokes (Royal Ontario Museum) B.A., M.A., Ph.D. (Alberta) part-time
Peter G. Rasmussen/B.A. (Toronto), M.A. (Calgary), Ph.D. (Toronto)
Wayne Worry/B.A., M.A., M.C.(Master), Ph.D. (ANU)
Dennis Willms/B.A. (Waterloo), M.A. (McMaster), Ph.D. (British Columbia)

Adjunct Associate Professors
Christopher Ellis/ (Western Ontario) B.A. (Waterloo), M.A. (McMaster), Ph.D. (Simon Fraser) part-time
Dan W. Jorgenson/Western Ontario B.A. (California State), Ph.D. (British Columbia) part-time

Assistant Professors
Andrew Martinalda/B.A. (Toronto), M.A. (Trent), Ph.D. (Toronto)
Christina Moffat/Sc. (Toronto), B.A., Ph.D. (McMaster)
Peira Reihm/B.A. (Vienna), M.A. (Munich), Ph.D. (McGill)

Adjunct Assistant Professor
Robert W. Park/ (Waterloo) B.A. (Toronto), M.A. (McMaster), Ph.D. (Alberta)

Associate Members
Eduard G. Reinhardt/ (Geography and Geology) B.A., Ph.D. (Carleton)

Professors Emeriti
David R. Counts/B.A. (Texas), Ph.D. (Southern Illinois)
David J. Dumas/A.B. (Toledo), A.M., Ph.D. (Chicago)
Christopher Hellpike/B.Lit., M.A., D. Phil. D. Litt. (Oxford)
William G. Nobs/B.A. (Toronto), Ph.D. (Calgary)
Richard J. Preston/A.M., Ph.D. (North Carolina)
Richard Slobodin/B.A., M.S. (City College of New York), Ph.D. (Columbia)

Department Notes:

1. Not all Anthropology courses listed in this Calendar are taught every year. Students are advised to consult the department's handbook and the timetable which is published annually by the Registrar's Office to determine whether a course is offered.

2. Registration in all courses with a course code ending ** listed as selected topics and independent research require prior arrangement with the instructor; otherwise, no grade will be submitted for the course.

3. To identify Anthropology courses by subdiscipline, students should refer to the lists of courses under Anthropology Subfields in the section Faculty of Social Sciences, Department of Anthropology.

Courses

ANTHROP 1A03 INTRODUCTION TO ANTHROPOLOGY: CULTURE AND SOCIETY
A general introduction to the study of human culture and society in all of its aspects. Examples and illustrations will be drawn largely from non-Western societies.
Three hours (lectures and discussion); one term

ANTHROP 1B03 WORLD ARCHAEOLOGY
An overview of the chronology and diversity of human prehistory. Examples of archaeological evidence from around the world are used to illustrate the long-term processes of cultural history.
Three hours (lectures and discussion); one term

ANTHROP 1203 THE HUMAN SPECIES: BECOMING AND BEING HUMAN
The study of the interaction between biology and culture. Topics may include: human origins, non-human primate, the concept of race, disease, sex and gender.
Three hours (lectures and discussion); one term

ANTHROP 2A03 THE ANTHROPOLOGY OF FOOD AND NUTRITION
An anthropological perspective on nutrition at the population level. Prehistoric, historic, and contemporary human nutrition, emphasizing links with the environment.
Three hours (lectures and discussion); one term

ANTHROP 2B03 INDIGENOUS PEOPLES OF NORTH AMERICA
A comparative study of selected cultures of this continent, dealing with traditional and modern situations.
Three hours (lectures and discussion); one term

ANTHROP 2D03 PRIMATE BEHAVIOUR
A survey of current issues in primate behaviour, including taxonomy, demography, social structure, reproduction, play cognition and sociobiology. Students will conduct a zoo observation study.
Three hours (lecture and discussion); one term

Prerequisite: Six units of Level I Anthropology.

ANTHROP 2E03 HUMAN VARIATION AND EVOLUTIONARY CHANGE
An introduction to the study of human evolution and variability in living species of human and non-human primates.
Three hours (lectures and discussion); one term

Prerequisite: Six units of Level I Anthropology. ANTHROP 1203 is strongly recommended.

This course is required of all students registered in an Honours Programme in Anthropology, and is a prerequisite for advanced courses in Physical Anthropology.

ANTHROP 2F03 CULTURAL ANTHROPOLOGY
An introduction to concepts, theories, and current debates in cultural anthropology. This course is designed to prepare students for more advanced courses in social and cultural anthropology.
Three hours (lectures and discussion); one term

Prerequisite: Six units of Level I Anthropology. ANTHROP 1A03 is strongly recommended.

This course is required of all students registered in an Honours Programme in Anthropology.

ANTHROP 2F23 FORENSIC ANTHROPOLOGY IN THE FORENSIC SCIENCES
General introduction to anthropological methods used in the collection and analysis of legal evidence. Also examines the nature of evidence, professionalism, and human rights applications.
Three hours (lectures and discussion); one term

Prerequisite: Registration in Level II and above Offered in alternate years.
ANTHROP 2F3 HUMAN SKELETAL BIOLOGY AND BIOARCHAEOLOGY
Study of the human skeleton (bones and dentition) for application in archaeology and forensic anthropology. Includes determination of sex, age, stature and other individual characteristics.
Three hours (lectures, discussion and lab); one term
Prerequisite: Registration in an Honours Anthropology programme. Completion of ANTHR 1203 is strongly recommended. Enrolment is limited.

ANTHROP 2G03 READINGS IN MYTHOLOGY
This course will acquaint students with the myths of Ancient Greece, Ancient India, the Celts, and the Norse. Other traditions may also be examined.
Three hours (lectures and discussion); one term

ANTHROP 2H03 ENVIRONMENT AND CULTURE
Relationships between human societies and their environments are examined. A focus is how culture shapes our ideas of nature and the consequence of our actions. Case studies explore both environmental movements and aboriginal societies.
Three hours (lectures and discussion); one term

ANTHROP 2J03 HUMAN GROWTH AND CONSTITUTION
Variation in body form and composition examined in the context of normal growth and evolutionary development.
Three hours (lectures and discussion); one term

ANTHROP 2L03 PHONETICS
A study of the sounds of language and human articulate capabilities.
Three hours (lectures); one term
Prerequisite: Registration in Level II and above

ANTHROP 2LC3 LINGUISTICS AND CULTURE A: STRUCTURALISM
A study of the application of linguistic models, particularly structuralism, to sociocultural anthropology and related disciplines.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above
Antirequisite: ANTHR 2603/LINGUIST 2003, ANTHR 3LC3

ANTHROP 2LL3 INTRODUCTION TO LINGUISTIC TYPOLOGY
The study of the diversity of languages of the world, language universals and parameters of cross-linguistic analysis of grammatical systems.
Three hours (lectures and discussion); one term
Prerequisite: LINGUIST 1A03 and 1A04 (or 1A06) or permission of the Department.
Cross-list: LINGUIST 2LL3

ANTHROP 2LP3 LANGUAGE AND PREHISTORY
A survey of the language families of the world, emphasizing the historical implications of language distributions. Historical linguistic methods will be introduced and compared with archaeological findings for prehistoric Eurasia, Africa, Oceania and North America.
Three hours (lectures and discussion); one term

ANTHROP 2M03 PHONOLOGY
A study of the patterns of distinctive sounds in the world's languages.
Three hours (lectures); one term
Prerequisite: ANTHR 2L03 or LINGUIST 2L03

ANTHROP 2O03 NORTH AMERICAN PREHISTORY
An examination of the origins and development of the major indigenous cultural groups of prehistoric North America.
Three hours (lectures and discussion); one term
Prerequisite: Three units of Anthropology. One of ANTHR 1803 or 2P03 is strongly recommended.

ANTHROP 2P03 PEOPLES OF THE PACIFIC
An introduction to the ways of life and thought in Pacific island societies. The course will emphasize the material culture, networks of social relations, and systems of belief, of the peoples of Melanesia, Polynesia, and Micronesia.
Three hours (lectures and discussion); one term

ANTHROP 2PA3 INTRODUCTION TO PREHISTORIC ARCHAEOLOGY
An introduction to the goals and methods of archaeological research with a focus on specific problems in human prehistory.
Three hours (lectures and discussion); one term
Prerequisite: Three units of Level I Anthropology
This course is required of all students registered in an Honours Programme in Anthropology.

ANTHROP 2R03 RELIGION, MAGIC, AND WITCHCRAFT
An introduction to the cross-cultural study of the relationship between the natural and supernatural, and between ideology and social action.
Three hours (lectures and discussion); one term
Prerequisite: ANTHR 1A03 or 2F03

ANTHROP 2S03 PEOPLES OF RUSSIA
This survey course will examine the ethnology, languages and histories of the people that fail or once fell within the lands that make up or adjoin the territory that was once the Soviet Union. Where possible, discussion of present conflicts or future tensions will be couched in terms of historical influences.
Three hours (lectures); one term

ANTHROP 2U03 PLAGUES AND PEOPLE
A consideration of the role played by infectious disease in human evolution. The social and biological outcomes of major epidemics and pandemics, past and present, will be explored.
Two hours (lecture), one hour (tutorial); one term
Enrolment is limited.

ANTHROP 2V03 AZTECS, MAYA AND INKA
A survey of these three great prehistoric New World civilizations, using archaeological, ethnohistoric and colonial information. Topics will include religion, social structure, political and economic organization, as well as the similarities and differences among the Aztecs, Maya and Inka.
Three hours (lectures); one term
Enrolment is limited.

ANTHROP 2X03 VIOLENCE IN ANTHROPOLOGICAL PERSPECTIVE
The aim of the course is to assess the extent to which violence is both controlled by and an expression of society and culture.
Three hours (lectures and discussion); one term

ANTHROP 2X03 CONFLICT, CULTURE AND THE QUEST FOR PEACE
An interdisciplinary introduction to everyday violence, ethnic conflict, non-violence, war and peace-building, from the perspectives of Anthropology and Peace Studies.
Three hours (lectures and discussion); one term

ANTHROP 2Z03 INTRODUCTION TO SOCIAL RESEARCH
This course is designed to develop those skills necessary to pursue and understand research. Several general methods of sociological research will be examined.
Three hours (lectures and discussion); one term
Prerequisite: Registration in an Anthropology programme.
Cross-list: SOCIOL 2Z03
Antirequisite: GEO 2H03, GEERTONL 2003, HEALTH ST 2B03

ANTHROP 3A03 ARCHAEOLOGY AND SOCIETY
A critical examination of the history of archaeology and the social and political implications of our understanding of the ancient human past.
Three hours (lectures and discussion); one term
Prerequisite: Three units of Level I Anthropology

ANTHROP 3B03 ETHNOLOGY AND EUROPE
A comparative ethnological survey of selected societies in Europe.
Three hours (lectures and discussion); one term
Prerequisite: Six units of Social/Cultural Anthropology

ANTHROP 3C03 HEALTH AND ENVIRONMENT: ANTHROPOLOGICAL APPROACHES
Examination of the ways in which humans alter and cope with their environment. Topics include: health inequalities, nutrition, population, urbanization, resource utilization, and industrial pollution.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level III or IV of any programme. ANTHR 2E03 is highly recommended.

ANTHROP 3C06 ARCHAEOLOGICAL FIELD SCHOOL
Field instruction in the techniques used in the excavation of an archaeological site. The course includes hands-on instruction in manual excavation methods, mapping, field recording, and laboratory analysis.
Prerequisite: ANTHR 2P03 or an equivalent course in archaeological methods.
Not open to students with credit in an equivalent field school from another university.
Enrolment is limited.

ANTHROP 3C03 CULTURE AND NATIONALISM
An examination of the interplay of culture and nationalism as found in today's wars. Current conflicts in the Balkans and Caucasus will serve as case studies.
Three hours (lectures and discussion); one term
ANTHROP 3DD3 
**ARCHAEOLOGY OF DEATH**
Archaeological analysis and interpretation of burial practices and other death-rituals.
Three hours (lectures and discussion); one term
Prerequisite: ANTHROP 2FA3
Not open to students with credit in either ANTHROP 3E03 SPECIAL TOPICS IN ARCHAEOLOGY I or ANTHROP 3EE3 SPECIAL TOPICS IN ARCHAEOLOGY II if the topic was the Archaeology of Death.

ANTHROP 3E03 
**SPECIAL TOPICS IN ARCHAEOLOGY I**
The topic varies with each instructor (e.g. one class may examine Ancient Mesoamerican Cities and another focus on The Archaeology of Hierarchy). Three hours (lectures and discussion); one term
Prerequisite: ANTHROP 2FA3

ANTHROP 3EE3 
**SPECIAL TOPICS IN ARCHAEOLOGY II**
As per ANTHROP 3E03.
Three hours (lectures and discussion); one term
Prerequisite: ANTHROP 2FA3

ANTHROP 3F03 
**CONTEMPORARY NORTHERN PEOPLES**
An examination of current issues in relation to aboriginal peoples in selected northern regions of the world.
Three hours (lectures and discussion); one term
Prerequisite: ANTHROP 2G03 or permission of the instructor

ANTHROP 3G03 
**COMPARATIVE MYTHOLOGY**
The reconstruction of lost mythic traditions by means of comparative techniques drawn from historical linguistics. The Indo-European traditions of Eurasia will be examined.
Three hours (lectures and discussion); one term
Prerequisite: ANTHROP 2G03 or permission of the instructor

ANTHROP 3I03 
**ANTHROPOLOGICAL DEMOGRAPHY**
This course offers an introduction to the study of population dynamics (birth, death, migration) and population structure. It focuses on issues particularly pertinent to anthropological studies of past and present populations.
Three hours (lectures and discussion); one term
Prerequisite: ANTHROP 2E03

ANTHROP 3I03 
**SYNTAX**
A study of how words are organized into sentences. The emphasis will be on the Functional approach in comparison with other syntactic theories.
Three hours (lectures); one term
Prerequisite: ANTHROP 2L33 or LINGUIST 2LL3 or permission of the Department
Cross-list: LINGUIST 3I03
Offered in alternate years.

ANTHROP 3I3 
**SEMANTICS**
A study of patterns of meaning in language; a critical survey of current theories and issues.
Three hours (lectures); one term
Prerequisite: One of ANTHROP 3I03, 3M03, LINGUIST 3I03, 3M03 or permission of the Department
Cross-list: LINGUIST 3I3
Offered in alternate years.

ANTHROP 3K03 
**ARCHAEOLOGICAL INTERPRETATION**
Technique and methodology in the investigation of archaeological material.
Three hours (lectures and discussion); one term
Prerequisite: ANTHROP 2FA3
Enrolment is limited.

ANTHROP 3L03 
**HISTORY OF ANTHROPOLOGY**
Some of the major developments and personalities in the history of anthropology as a discipline, with emphasis upon the English-speaking world.
Three hours (lectures and discussion); one term
Prerequisite: Registration In Honours Anthropology
This course is required of all students registered in an Honours Programme in Anthropology.
Antirequisite: ANTHROP 2103

ANTHROP 3M03 
**MORPHOLOGY**
The study of word formation in languages of the world; a critical survey of current theories and issues.
Three hours (lectures); one term
Prerequisite: ANTHROP 2L33 or LINGUIST 2LL3 or permission of the Department
Cross-list: LINGUIST 3M03
Offered in alternate years.

ANTHROP 3N03 
**PRIMATE EVOLUTION**
Comparative anatomy and evolutionary development of humans and our nearest living relatives, the other primates.
Three hours (lectures and discussion); one term
Prerequisite: ANTHROP 2E03
Antirequisite: ANTHROP 3N3N

ANTHROP 3P03 
**RESEARCH METHODS IN CULTURAL ANTHROPOLOGY**
Methodologies and techniques of research, especially field study, in sociocultural anthropology.
Three hours (lectures and discussion); one term
Prerequisite: Registration in any programme in Anthropology

ANTHROP 3P03 
**PALEOPATHOLOGY**
The origins and evolution of human diseases and methods of identifying disease in ancient human remains.
Three hours (lectures, discussion and lab); one term
Prerequisite: ANTHROP 2F03
Enrolment is limited.

ANTHROP 3Q03 
**ANTHROPOLOGICAL APPROACHES TO THE STUDY OF AGING**
An examination of the contribution of anthropology to the study of aging with an emphasis on cross-cultural comparisons, and including an assessment of the anthropological literature relating to the biological basis of aging in modern and prehistoric populations.
Three hours (lectures and discussion); one term
Prerequisite: Six units of Social/Cultural Anthropology, or registration in any programme in Gerontology
Cross-list: GERONTOL 3Q03

ANTHROP 3R03 
**GENETICS IN ANTHROPOLOGY**
This course surveys genetic studies in anthropology and considers key issues in the field, such as the human genome diversity project.
Three hours (lectures); one term
Prerequisite: one of ANTHROP 1Z03, 2E03

ANTHROP 3R03 
**THE ANTHROPOLOGY OF GENDER**
Selected topics relating to the construction and practice of gender in various cultural contexts.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level III or IV of an Anthropology programme.

ANTHROP 3S03 
**CULTURAL PSYCHOLOGY**
An introduction to concepts and topics in the anthropology of affect and emotion. The course attends to wider issues of depression, violence, trance, and identity.
Three hours (lectures and discussion); one term
Prerequisite: ANTHROP 2F03

ANTHROP 3T03 
**POWER AND RESISTANCE**
A critical examination of power in post-colonial conflicts. Examines concepts and case studies of local resistance to economic globalization, the re-defining of nation-states, and the spread of universalizing cultures.
Three hours (lectures and discussion); one term
Prerequisite: Six units of Social/Cultural Anthropology

ANTHROP 3W03** 
**SPECIAL TOPICS IN ANTHROPOLOGY II**
Reading and discussion of selected topics in Anthropology. It is incumbent upon the student to secure arrangements with the supervising instructor prior to registration in this course; otherwise, no grade will be submitted.
One term
Prerequisite: Registration in any programme in Anthropology

ANTHROP 3W03** 
**SPECIAL TOPICS IN ANTHROPOLOGY II**
As per ANTHROP 3W03**.
One term
Prerequisite: Registration in any programme in Anthropology

ANTHROP 3Y03 
**ABORIGINAL COMMUNITY HEALTH AND WELL-BEING**
A critical examination of the determinants of health in Aboriginal communities, processes of community revitalization, and recent government policy initiatives.
Three hours (lecture and discussion); one term

ANTHROP 3Z03 
**MEDICAL ANTHROPOLOGY: THE BIOMEDICAL APPROACH**
Patterns of stress and disease with emphasis on the modern biomedical approach. Disease in the evolutionary context with emphasis on disease as a failure of adaptation and response.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level III or IV of any programme. ANTHROP 2E03 or 2F03 is highly recommended.
ANTHROP 3Z23 MEDICAL ANTHROPOLOGY: SYMBOLIC HEALING
An interdisciplinary approach to traditional systems of healing such as Greek humoral medicine, Chinese, Shamanic, etc. Emphasis will be on cultural and psychological parameters of healing.
Three hours (lecture and discussion); one term
Prerequisite: Registration in Level III or IV of any programme. ANTHROP 2E03 or 2F03 is highly recommended.

ANTHROP 4AE3 ANTHROPOLOGY AND ENVIRONMENT
This course examines the different and rapidly changing ways in which anthropologists study relationships between humans and their environments. It also considers the contributions which anthropologists are making to environmentalism and knowledge about current ecological issues.
Three hours (seminar); one term
Prerequisite: ANTHROP 2F03 and registration in an honours programme, or permission of the instructor

ANTHROP 4B03 CURRENT PROBLEMS IN ANTHROPOLOGY I
The topic varies with each instructor.
Three hours (seminar); one term
Prerequisite: Registration in Level IV Honours Anthropology or permission of the instructor

ANTHROP 4B03 CURRENT PROBLEMS IN ANTHROPOLOGY II
As per ANTHROP 4B03.
Three hours (seminar); one term
Prerequisite: Registration in Level IV Honours Anthropology

ANTHROP 4C03 COLONIAL HISTORIES, LIBERAL PRACTICES
This course examines issues of power and colonization, and the effects of decolonization and liberationist movements on the colonized.
Three hours (seminar); one term
Prerequisite: Registration in Level IV Honours Anthropology

ANTHROP 4D03 APPLIED ANTHROPOLOGY
An examination of how anthropology is applied to solve human problems. Includes discussion of how students can use their anthropological training in non-academic occupations.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level IV Honours Anthropology

ANTHROP 4F03 ARCHAEOLOGICAL THEORY
A seminar in current topics and issues in archaeological theory.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level IV Honours Anthropology

ANTHROP 4G03** INDEPENDENT RESEARCH I
Independent study of a research problem through published materials and/or fieldwork. Study may include museum internship, participation in faculty research, student-initiated practica or library research. Students will be required to write up the results of their inquiry in a scholarly form. It is incumbent upon the student to secure arrangements with the supervising instructor prior to registration in this course; otherwise, no grade will be submitted.
One term
Prerequisite: Registration in any programme in Anthropology

ANTHROP 4G03** INDEPENDENT RESEARCH II
As per ANTHROP 4G03**, but on a different topic.
One term
Prerequisite: Registration in Level IV Honours Anthropology

ANTHROP 4H03 ARCHAEOLOGY OF HUNTERS AND FORAGERS
Study of the prehistoric technologies and organizational strategies used in making a living from the natural environment, and examination of the cultural contexts of foraging economies.
Three hours (seminar); one term
Prerequisite: ANTHROP 2PA3

ANTHROP 4I03 CONTEMPORARY ANTHROPOLOGICAL THEORY
Seminar on selected recent developments in anthropological theory.
Three hours (seminar); one term
Prerequisite: Registration in Level IV Honours Anthropology
Enrollment is limited. Access will be provided to all Level IV Honours Anthropology students.

ANTHROP 4J03 ADVANCED TOPICS IN PHYSICAL ANTHROPOLOGY I
Study at an advanced level of selected topics within the subdiscipline. Topics may change from year to year.
Three hours (seminar); one term
Prerequisite: ANTHROP 2E03

ANTHROP 4J03 ADVANCED TOPICS IN PHYSICAL ANTHROPOLOGY II
As per ANTHROP 4J03
Three hours (seminar); one term
Prerequisite: ANTHROP 2E03

ANTHROP 4L03 STRUCTURE OF A LANGUAGE I
An in-depth examination of a language, usually one from the Caucasus, such as Circassian, Georgian, or Chechen. The phonetics, phonology, and morphology will be emphasized. The utility of current linguistic theory will be appraised.
Three hours (lectures and discussion); one term
Prerequisite: Nine units of Linguistics or Linguistic Anthropology Courses above Level I. (See Department of Anthropology in the Faculty of Social Sciences section in this Calendar.)
Cross-list: LINGUIST 4LA3
Antirequisite: ANTHROP 4LA3, LINGUIST 4LA3

ANTHROP 4L03 STRUCTURE OF A LANGUAGE II
An in-depth examination of a language, usually one from the Caucasus, such as Circassian, Georgian, or Chechen. The phonetics, phonology, and morphology will be emphasized. The utility of current linguistic theory will be appraised.
Three hours (lectures and discussion); one term
Prerequisite: Nine units of Linguistics or Linguistic Anthropology Courses above Level I. (See Department of Anthropology in the Faculty of Social Sciences section in this Calendar.)
Cross-list: LINGUIST 4LA3
Antirequisite: ANTHROP 4LA3, LINGUIST 4LA3

ANTHROP 4N03 ANTHROPOLOGY AND EDUCATION
A comparison of the formal and informal ways in which people learn within their cultural context, and a survey of the uses of anthropology in schools.
Three hours (seminar); one term
Prerequisite: Registration in an Honours programme in Social Sciences

ANTHROP 4P03 ANTHROPOLOGY OF SPACE AND PLACE
This course will consider recent research drawn from a number of disciplines concerned with the human environment as a social and cultural construction. Topics may include: experience and sense of place; the social construction of urban space; ideology and built form; spatial discourses. Three hours (seminar); one term
Prerequisite: Registration in Level IV Honours Anthropology or permission of the instructor

ANTHROP 4Q03 ANTHROPOLOGICAL PERSPECTIVES ON GLOBAL SYSTEMS
The seminar seeks: 1) to discern the linkages between some of the main processes at work in global systems; 2) to discuss in what ways these processes are global and in what ways they are systematic; 3) to develop hypotheses for the framework of global social theory.
Three hours (seminar); one term
Prerequisite: Registration in an Honours programme in Social Sciences

ANTHROP 4S03 SKELETAL BIOLOGY OF EARLIER HUMAN POPULATIONS
The analysis of human skeletal samples, including such topics as paleopathology, paleodemography, paleonutrition and biological distance analyses.
Three hours (seminar); one term
Prerequisite: Registration in an Honours programme in Social Sciences

ANTHROP 4T03 LINGUISTICS AND CULTURE B: GENERATIVE GRAMMAR
An examination at an advanced level of Chomsky's generative grammar as a paradigm for the study of minds and cultures.
Three hours (seminar); one term
Prerequisite: ANTHROP 3LC3
### ANTHROP 4U03  PREHISTORY OF THE BRITISH ISLES
A seminar course in the archaeology of Great Britain and Ireland from the Lower Paleolithic to the Bronze Age. Within these limits, chronology and topical emphasis may vary.
Three hours (seminar); one term  
Prerequisite: ANTHROP 2PA3

### ANTHROP 4XX3  ADVANCED TOPICS IN LINGUISTIC THEORY
Topics include: Issues in different aspects of Linguistic Theory and Advanced Philology.
Two hours (seminar); one term  
Prerequisite: one of ANTHROP 3/03, 3M03, LINGUIST 3/03, 3M03  
Cross-list: LINGUIST 4XX3  
ANTHROP 4XX3/LINGUIST 4XX3 may be repeated, if on a different topic, to a total of six units. Offered in alternated years.

### ANTHROP 4Y03  DEVELOPING SOCIETIES
Topics may include, for example, the meaning of development, innovation and technological change, urbanization and protest movements.  
Three hours (lectures and discussion); one term  
Prerequisite: Registration in Level III or IV Honours Anthropology  

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### ART

**WEB ADDRESS:**
http://www.humanities.mcmaster.ca/-sota/index.html

Togo Salmon Hall, Room 414  
Ext. 27671

Courses and programmes in Art are administered within the School of the Arts (formerly the School of Art, Drama and Music) of the Faculty of Humanities.

**Note:**
Art courses are open only to students registered in a programme in Honours Art.

### Courses

**ART 1F06  STUDIO PRACTICE**
An introduction to visual art fundamentals.  
Six hours; two terms  
Prerequisite: Permission of the School of the Arts based on a required portfolio interview. If you intend to take ART 1F05 which is required for entrance into any Honours Art programme, you must make an appointment with the School for a portfolio interview in February/March. The portfolio should contain a variety of original work in different media including work derived from both first-hand observation and the imagination. Aptitude in art and academic ability are both considered in the selection process. In exceptional circumstances where distance does not allow for an interview, portfolios may be submitted in the form of colour slides or photographs. Late applications will be considered subject to space availability and merit after the first allocations have been confirmed in June. Applicants for this course should use the MHA QUAC code.

**ART 2A06  PAINTING I**
A series of painting projects designed to provide a technical and conceptual foundation for individual creative production in the field of painting.  
Four hours studio lab; two hours independent study; two terms  
Prerequisite: ART 1F06

**ART 2B06  SCULPTURE I**
A series of three dimensional investigations designed to inform and expand the student's experience in producing sculptural works of art. Training in technical aspects of bronze casting, welding, fabrication and modelling are provided.  
Four hours studio lab; two hours independent study; two terms  
Prerequisite: ART 1F06

**ART 2C06  DRAWING I**
An exploration of a variety of approaches to drawing with an emphasis on the study of the figure and compositional concepts.  
Four hours studio lab; two hours independent study; two terms  
Prerequisite: ART 1F06  
Antirequisite: ART 2C03

**ART 2F06  PRINTMAKING I**
An introduction to printmaking techniques including monotypes, colotypes and editioned prints in intaglio, lithography and relief. Emphasis will be on developing personal images that relate to these techniques.  
Four hours studio lab; two hours independent study; two terms  
Prerequisite: ART 1F06

**ART 2G03  BASIC DRAWING**
Students will gain exposure to a broad range of drawing media and approaches by working through a series of foundation studio exercises. Designed for non-art majors, students will acquire an understanding of how ideas can be formed and developed through visual thinking and manipulation of materials.  
Three hours studio lab; one term  
Not open to studente with credit or registration in ART 1F06 or an Honours Art programme.  
Enrolment is limited to 25 students.

**ART 2H03  VISUAL INQUIRY**
This course will heighten perceptual skills and cultivate meaningful communication, both verbal and written, concerning visual matters. In addition to library research, students will fulfill sketchbook assignments and study in a museum context. No previous training in art required.  
Three hours studio lab; one term  
Enrolment is limited to 25 students.

**ART 3A03  ADVANCED PAINTING I**
A series of prescribed assignments and independent projects focused on improving skills and fostering personal direction in the field of painting.  
Three hours studio lab; two terms  
Prerequisite: ART 2A06

**ART 3B03  ADVANCED SCULPTURE**
A series of advanced workshops and projects designed to develop individual artistic direction in the field of sculpture.  
Three hours studio lab; two terms  
Prerequisite: ART 2B06

**ART 3C03  DRAWING II**
An exploration of drawing with an emphasis on refining skills and developing personal direction.  
Three hours studio lab; two terms  
Prerequisite: ART 2C03 or 2C06

**ART 3D03  PRACTICAL ISSUES IN STUDIO ART I**
This course integrates studio workshops and theme-based projects with required readings, discussion sessions, and lectures. It is designed to expose students to a wide range of art practices and issues involved in the field of art. This course is taught by a team of studio faculty.  
Three hours; one term  
Prerequisite: Registration in Level III Honours Art or Combined Programme with Honours Art

**ART 3D03  PRACTICAL ISSUES IN STUDIO ART II**
This course integrates studio workshops and theme-based projects with required readings, discussion sessions, and lectures. It is designed to expose students to multimedia and interdisciplinary approaches to art making. This course is taught by a team of studio faculty.  
Three hours; one term  
Prerequisite: Registration in Level III Honours Art or Combined Programme with Honours Art

**ART 3E06  STUDIO PRACTICE AND CRITICISM**
This course combines supervised self-directed study in studio art with self-assessment exercises. It provides opportunities for students working in diverse media and approaches to come together for critical discussion sessions with a team of studio faculty, peers from studio art and art history and visiting artists and art historians.  
76 hours scheduled activities: 52 hours critiques; 24 hours Visiting Artists' lectures  
Prerequisite: Registration in Level III Honours Art or Combined Programme with Honours Art and a grade of at least B- in a minimum of six units of Level II Art  
Antirequisite: ART 3G06

**ART 3P03  ADVANCED PRINTMAKING**
A series of projects designed to provide more advanced creative production in print-based media.  
Three hours studio lab; two terms  
Prerequisite: ART 2F06

**ART 4C06  MINOR STUDIO PROJECT**
This course combines advanced level studio production with self-assessment exercises. The course provides opportunities for students working in diverse media and approaches to come together for critical discussions. A team of faculty and visiting artists provide regular feedback on progress.
ART HISTORY

Courses and programmes in Art History are administered within the School of the Arts (formerly School of Art, Drama and Music) of the Faculty of Humanities.

Courses

ART HIST 1A03 INTRODUCTION TO THE STUDY OF ART
A course that introduces students to the visual arts through a consideration of principles and elements of painting, sculpture, and architecture, and a discussion of various genres. Two lectures, one tutorial; one term
Antirequisite: ART HIST 1A06

ART HIST 1AA3 INTRODUCTION TO THE HISTORY OF ART
A brief overview of the Western artistic tradition as embodied in the history of painting, sculpture, and architecture. Two lectures, one tutorial; one term
Antirequisite: ART HIST 1A06

ART HIST 2A03 VISUAL LITERACY
A course of lectures and discussions that explores the concept of visual literacy and examines the ways in which fine and popular arts structure our understanding through images. One lecture (two hours), one tutorial/discussion; one term
Prerequisite: Registration in Level II and above
Cross-list: CMST 2103

ART HIST 2B03 GREEK ART
The architecture, sculpture, and painting of the Greek and Hellenistic worlds. Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: CLASSICS 2B03
This course is administered by the Department of Classics.

ART HIST 2C03 ROMAN ART
The architecture, sculpture, and painting of the Roman world. Three lectures; one term
Prerequisite: ART HIST 2B03
Cross-list: CLASSICS 2C03
This course is administered by the Department of Classics.

ART HIST 2D03 19TH- AND 20TH-CENTURY ART
AND ARCHITECTURE
A study of the major movements and styles in painting and sculpture from c. 1750 to c. 1960. Three lectures; one term
Prerequisite: Registration in Level II and above

ART HIST 2E03 APPROACHES TO ART HISTORY
A study of the various approaches which art historians of the last 100 years have taken in investigating the art of the past. Three lectures; one term
Prerequisite: ART HIST 1A06 or 1A03 and 1AA3

ART HIST 2F03 THE HISTORY OF GRAPHIC DESIGN
An introduction to the history of graphic, two-dimensional design. The course demonstrates the admixture of high and popular culture that informs advertising, posters, book design and illustration, etc. Three lectures; one term
Prerequisite: Registration in Level II and above. Prior completion of ART HIST 1A06 or 1A03 and 1AA3 is recommended.
Cross-list: CMST 2N03, MMEDIA 2F03
This course is administered by the School of the Arts.

ART HIST 2H03 AESTHETICS
An introduction to some main theories of the nature of art, criticism, and the place of art in life and society. Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: CMST 2003, PHILOS 2H03
Offered in alternate years.
This course is administered by the Department of Philosophy.

ART HIST 2I03 RENAISSANCE AND BAROQUE ART
An introduction to the history of European art in the period 1400 to 1750. Three lectures; one term
Prerequisite: Registration in Level II and above
Antirequisite: ART HIST 2M03 and/or 2N03

ART HIST 3A03 CONTEMPORARY ART
An examination of major developments in painting, sculpture, and other media from World War II to the present together with a review of related critical theory. Three lectures; one term
Prerequisite: Registration in Level II and above. Prior completion of ART HIST 2003 is recommended.
Offered in alternate years.

ART HIST 3B03 ASPECTS OF CANADIAN ART
A survey of the visual arts in Canada from the earliest explorations and settlements to the present. Three lectures; one term
Prerequisite: Registration in Level III or IV of any programme
Alternates with ART HIST 3J03.

ART HIST 3D03 BAROQUE ART
An examination of European art emerging in the period 1650-1750 with a special emphasis on the continuing evolution of the classical tradition. Three lectures; one term
Prerequisite: Registration in Level II and above. Prior completion of ART HIST 2I03 is recommended.

ART HIST 3G03 LATE ANTIQUE AND EARLY CHRISTIAN ART
The art and architecture of the later Roman Empire, and the birth of Christian Art (A.D. 200-600). Three lectures; one term
Prerequisite: ART HIST 2C03
Cross-list: CLASSICS 3G03
Alternates with ART HIST 3H03.
This course is administered by the Department of Classics.

ART HIST 3H03 ARCHAIC GREEK ART
The formative period of Greek Art from its rebirth after the Dark Ages to the Persian Wars (c. 1000-480 B.C.) and its relationship to the art of the Near East. Three lectures; one term
Prerequisite: ART HIST 2B03
Cross-list: CLASSICS 3H03
Alternates with ART HIST 3G03.
This course is administered by the Department of Classics.

ART HIST 3I03 ITALIAN PAINTING AND SCULPTURE 1400-1560
An advanced level lecture course dealing with selected artists and works from the Early Renaissance to Manet. Three lectures; one term
Prerequisite: Registration in Level II and above. Prior completion of ART HIST 2I03 is recommended.
Alternates with ART HIST 3J03.

ART HIST 3J03 ISSUES IN 19TH CENTURY ART
An historical and critical investigation of selected issues and artists of the 19th century. Three lectures; one term
Prerequisite: Registration in Level II and above. Prior completion of ART HIST 2003 is recommended.
Antirequisite: ART HIST 3N03
Alternates with ART HIST 3K03.

ART HIST 3K03 ISSUES IN 20TH CENTURY ART
A study of the various approaches which art historians of the last 100 years have taken in investigating the art of the past. Three lectures; one term
Prerequisite: Registration in Level II and above. Prior completion of ART HIST 2003 is recommended.
Antirequisite: ART HIST 3N03
Alternates with ART HIST 3L03.

ART HIST 3L03 ISSUES IN 21ST CENTURY ART
A course that allows non-Art students to explore current studio practice and to investigate approaches to the evaluation of quality in contemporary art. Students taking this course are required to attend a preset number of Studio Critiques and Visiting Artists' Talks.
Seminar (two hours); one term
Prerequisite: Registration in Level III of an Art History or Multimedia programme.*
*Studio Art Critiques are regularly scheduled sessions during which the work of Art students is discussed by their peers, faculty members and visiting professionals from the art world. Visiting Artists' talks are held on weekday evenings on the same day as the Studio Critiques.

ART HIST 3M03 AESTHETICS
An introduction to some main theories of the nature of art, criticism, and the place of art in life and society. Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: CMST 2003, PHILOS 2H03
Offered in alternate years.
This course is administered by the Department of Philosophy.

ART HIST 3N03 CONTEMPORARY ART
An examination of major developments in painting, sculpture, and other media from World War II to the present together with a review of related critical theory. Three lectures; one term
Prerequisite: Registration in Level II and above. Prior completion of ART HIST 2003 is recommended.
Offered in alternate years.

ART HIST 3P03 ASPECTS OF CANADIAN ART
A survey of the visual arts in Canada from the earliest explorations and settlements to the present. Three lectures; one term
Prerequisite: Registration in Level III or IV of any programme
Alternates with ART HIST 3J03.

ART HIST 3Q03 BAROQUE ART
An examination of European art emerging in the period 1650-1750 with a special emphasis on the continuing evolution of the classical tradition. Three lectures; one term
Prerequisite: Registration in Level II and above. Prior completion of ART HIST 2I03 is recommended.

ART HIST 3R03 LATE ANTIQUE AND EARLY CHRISTIAN ART
The art and architecture of the later Roman Empire, and the birth of Christian Art (A.D. 200-600). Three lectures; one term
Prerequisite: ART HIST 2C03
Cross-list: CLASSICS 3R03
Alternates with ART HIST 3G03.
This course is administered by the Department of Classics.

ART HIST 3S03 ARCHAIC GREEK ART
The formative period of Greek Art from its rebirth after the Dark Ages to the Persian Wars (c. 1000-480 B.C.) and its relationship to the art of the Near East. Three lectures; one term
Prerequisite: ART HIST 2B03
Cross-list: CLASSICS 3S03
Alternates with ART HIST 3G03.
This course is administered by the Department of Classics.

ART HIST 3T03 ITALIAN PAINTING AND SCULPTURE 1400-1560
An advanced level lecture course dealing with selected artists and works from the Early Renaissance to Manet. Three lectures; one term
Prerequisite: Registration in Level II and above. Prior completion of ART HIST 2I03 is recommended.
Alternates with ART HIST 3J03.

ART HIST 3U03 ISSUES IN 19TH CENTURY ART
An historical and critical investigation of selected issues and artists of the 19th century. Three lectures; one term
Prerequisite: Registration in Level II and above. Prior completion of ART HIST 2003 is recommended.
Antirequisite: ART HIST 3N03
Alternates with ART HIST 3L03.

ART HIST 3V03 ISSUES IN 20TH CENTURY ART
A study of the various approaches which art historians of the last 100 years have taken in investigating the art of the past. Three lectures; one term
Prerequisite: Registration in Level II and above. Prior completion of ART HIST 2003 is recommended.
Antirequisite: ART HIST 3N03
Alternates with ART HIST 3L03.

ART HIST 3W03 ISSUES IN 21ST CENTURY ART
A course that allows non-Art students to explore current studio practice and to investigate approaches to the evaluation of quality in contemporary art. Students taking this course are required to attend a preset number of Studio Critiques and Visiting Artists' Talks.
Seminar (two hours); one term
Prerequisite: Registration in Level III of an Art History or Multimedia programme.*
*Studio Art Critiques are regularly scheduled sessions during which the work of Art students is discussed by their peers, faculty members and visiting professionals from the art world. Visiting Artists' talks are held on weekday evenings on the same day as the Studio Critiques.
This course examines historical and contemporary photographic images in the visual arts and considers the connections and distinctions between artistic and media uses of the medium.

Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above
Cross-list: CMST 3PP3

A study of Italian art and civilization in the age of transition between the Middle Ages and the Renaissance.

Three lectures; one term
Prerequisite: Registration in Level II and above. Prior completion of ART HIST 2103 is recommended.
Alternates with ART HIST 3103.

SPECIAL STUDIES IN CONTEMPORARY ART

An in-depth examination of one or more significant movements in contemporary art, theory and criticism from c. 1970 to the present. Topics will include such movements as Minimal Art, Conceptual Art, Earthworks, Body Art, Photo-Realism, Pattern and Decoration, Neo-Expressionism, etc.

Seminar (two hours); one term
Prerequisites: ART HIST 3AA3
Alternates with ART HIST 4H03.
Enrollment is limited.

SEMINAR IN ANCIENT ART

Consult the School of the Arts concerning the topic to be offered.

Seminar (two hours); one term
Prerequisite: ART HIST 2B03 and 2C03, and registration in Level III or IV of an Honours programme in Art History
Cross-list: CLASSICS 4BB3
ART HIST 4BB3 may be repeated, if on a different topic, to a total of six units.
Enrollment is limited.

This course is administered by the Department of Classics.

THE HIGH RENAISSANCE

A seminar devoted to consideration of selected themes relating to the High Renaissance in Italy.

Seminar (two hours); one term
Prerequisite: ART HIST 2M03 or 3103
Alternates with ART HIST 4E03.
Enrollment is limited.

TOPICS IN EUROPEAN ART (1300-1750)

A course of readings and discussions, under the guidance of a faculty member, concerning European art and artists from 1300 to 1750. Consult the School for the topic to be offered.

Seminar (two hours); one term
Prerequisite: Registration in Level III or IV of an Art History course. Required in an Art, Art History, or Media programme
Alternates with ART HIST 4C03.
ART HIST 4E03 may be repeated, if on a different topic, to a total of six units.
Enrollment is limited.

TOPICS IN MODERN ART (1750-PRESENT)

A course of readings and discussions, under the guidance of a faculty member, concerning nineteenth- and twentieth-century art and artists. Consult the School for the topic to be offered.

Seminar (two hours); one term
Prerequisite: ART HIST 2D03 and 3AA3
Alternates with ART HIST 4AA3.
ART HIST 4H03 may be repeated, if on a different topic, to a total of six units.
Enrollment is limited.

THESIS

Supervised study of a problem in the history of art of special interest to the student.

Tutorials; two terms
Prerequisite: Registration in Level IV of any Honours programme in Art History, and a grade of at least A- in a previous course in the chosen field, and permission of the School of the Arts

A seminar to introduce students to the history, theory, and practice of connoisseurship. Its focus will be to develop skills in confronting the single work of art.

Seminar (two hours); one term
Prerequisite: Registration in Level III or IV of a programme in Art or Art History or Multimedia
Cross-list: CMST 4F03
Alternates with ART HIST 4G03.
Enrolment is limited.
ARTS&SCI 1D06  CALCULUS
This course aims to provide a thorough understanding of the principles and major applications of differential and integral calculus of functions of one variable, as well as an introduction to multivariate calculus and differential equations.
ARTS&SCI 1D06 serves as a prerequisite for all upper level Mathematics, Statistics, Computer Science and Physics courses, for which MATH 1A06 or MATH 1A13 is a prerequisite.

ARTS&SCI 2A06  MODERN WESTERN CIVILIZATION
Development of political, economic, sociological and psychological thought in the writings of such major figures as Hobbes, Locke, Rousseau, Adam Smith, Burke, Toqueville, Marx, Mill, Weber, von Hayek, Polanyi, Nietzsche, Schopenhauer, Freud and Skinner.

ARTS&SCI 2D06  PHYSICS
This course explores many of the great concepts of physics in a quantitative way. Beginning with Newtonian mechanics, it moves into Einstein's relativity, wave phenomena, atomic physics, quantum mechanics and cosmology. Selected laboratory projects will be carried out.

ARTS&SCI 2R06  STATISTICS: MATHEMATICAL MODELS FOR CHANGE, CHANCE AND ERROR
Probability, distributions, measures of association, tests of significance, mathematical models, and other quantitative methods useful in the analysis of variable phenomena, are considered.

ARTS&SCI 3A06  LITERATURE
Literary works drawn from a variety of genres and periods will be examined. The course will focus on the ways in which great writers have treated enduring human concerns. It will attempt to show how literary creativity involves the matching of formal and stylistic mastery, on the one hand, with ethical awareness on the other.

ARTS&SCI 3B03  TECHNOLOGY AND SOCIETY
The Culture of Technology. Current technological practices and approaches are studied as a cultural activity with its own beliefs, values, social structures and institutions.
Arbitrator: S. S. K. Lin, 2A06

ARTS&SCI 3BB3  TECHNOLOGY AND SOCIETY II
The Social Control of Technology. The dominant mechanisms of the social control of technology will be studied. Includes an examination of assessment methods and the role of ethics.
Prerequisite: ARTS&SCI 3B03

ARTS&SCI 3CB6  INQUIRY TOPIC: ENVIRONMENTAL EDUCATION
Environmental crisis will be explored as a crisis of western culture's inability to live in a harmonious relationship with the earth. Intentional communities will be a focus of a residential field experience.

ARTS&SCI 3CD6  INQUIRY TOPIC: DISCOVERY: THE CONTEXT OF SCIENTIFIC RESEARCH
Using a problem-based approach, the antecedents and consequences of scientific discoveries will be explored. Issues discussed will include: organization of laboratories, funding, publications, priority disputes, rewards, frauds, academic-industry links, patents, experimental ethics.

ARTS&SCI 3CH6  INQUIRY TOPIC: DIVERSITY AND MULTICULTURALISM
The social and economic impact of factors such as gender, race, culture and demographics is examined in such spheres as employment, family, and media in Canada and selected countries.

ARTS&SCI 3L03  THE INDIAN RELIGIOUS TRADITION
Readings of Indian texts in translation will centre around themes such as the nature of human nature, free will and determinism; renunciation and social action; violence and non-violence; altruism and selfishness. Two lectures, one tutorial; one term.
Prerequisite: Registration in Level III and above
Cross-list: RELIG ST 3L03

ARTS&SCI 3S03  THE CHINESE RELIGIOUS TRADITION
Readings of East Asian texts in translation will centre around themes such as culture vs. nature, virtue vs. vice, personal cultivation, bookish learning vs. meditation. Two lectures; one tutorial; one term
Prerequisite: Registration in Level III and above
Cross-list: RELIG ST 3S03, JAPAN ST 3S03

ARTS&SCI 4A05  INDIVIDUAL STUDY
This course consists of study under the supervision of a McMaster faculty member. Proposal deadline is March 1; information package is available in the Program office.

ARTS&SCI 4A12  INDIVIDUAL STUDY
The same as ARTS&SCI 4A06 but based on more extensive study.
Courses

If no prerequisite is listed, the course is open.

**BIOCHEM 2A06 PRINCIPLES OF BIOCHEMISTRY**
An overview of biochemistry illustrated with examples from the structure and function of proteins and enzymes, replication and gene expression, metabolism and regulation.
Three lectures or tutorial; two terms
Prerequisite: BIOLOGY 1A03 and credit or registration in CHEM 2R03 or 2PA3 and 2PB3; and either CHEM 2O3 and 2OB3, or CHEM 2B3A and 2BB3
Antirequisite: BIOCHEM 2E03, 2EE3, 3G03, 3GG3

**BIOCHEM 2EE3 METABOLISM AND PHYSIOLOGICAL CHEMISTRY**
A brief introduction to proteins, enzymes and gene expression followed by a more detailed treatment of energy and intermediary metabolism with emphasis on physiological chemistry.
Three lectures; second term
Prerequisite: BIOLOGY 1A03 and one of CHEM 2B06, 2BA3, 2D03, 2E03, 2O06, 2OA3
Antirequisite: BIOCHEM 2AO6, 2E03, 3G03

**BIOCHEM 3B03 NUCLEIC ACID STRUCTURE AND FUNCTION**
Fundamental properties of DNA and RNA. Molecular mechanisms involved in the processing of genetic information. Related methods of investigation will be discussed.
Three lectures; first term
Prerequisite: One of BIOCHEM 2AO6, 3G03
Antirequisite: BIOCHEM 3AO5, BIOLOGY 3H03

**BIOCHEM 3B03 PROTEIN STRUCTURE AND ENZYME MECHANISM**
Fundamental aspects of protein structure including physical methods of investigation. Theoretical basis of enzyme catalysis and the experimental study of kinetics and mechanism.
Three lectures; second term
Prerequisite: One of BIOCHEM 2AO6, 3G03
Antirequisite: BIOCHEM 3AO3

**BIOCHEM 3C03 CELLULAR BIOCHEMISTRY**
Biochemical basis of complex cellular processes such as compartmentalization, vesicular traffic, movement and programmed cell death. Emphasis is placed on the principles of evaluation of current research literature.
Three lectures; first term
Prerequisite: BIOCHEM 2AO6, or both BIOCHEM 2EE3 and 3G03

**BIOCHEM 3G03 BIOCHEMISTRY OF MACROMOLECULES**
Chemical and conformational properties of proteins and relationships to their function including regulation of enzyme activity. Chemical and physical structure of DNA and RNA relevant to biological function.
Three lectures; first term
Prerequisite: BIOLOGY 1A03; and either CHEM 2OA3 and 2OB3, or CHEM 2BA3 and 2BB3, or a grade of at least B+ in CHEM 2D03 or 2E03
Antirequisite: BIOCHEM 2AO6, 2E03, 3A03, 3AA3

**BIOCHEM 3H03 CLINICAL BIOCHEMISTRY**
An outline of clinical chemistry; its relation to disease and relevance to health care.
Three lectures; one term
Prerequisite: BIOCHEM 2AO6, or both BIOCHEM 2EE3 and 3G03, or a grade of at least C+ in BIOCHEM 2EE3

**BIOCHEM 3L03 BIOCHEMISTRY LABORATORY I**
Illustration of fundamental principles and techniques of experimental biochemistry and molecular biology.
One lab (three hours), one tutorial (three hours); first term
Prerequisite: BIOCHEM 2AO6 and registration in an Honours Biochemistry programme or Honours Molecular Biology, or both BIOCHEM 2EE3 and 3G03, and registration in Honours Biological Chemistry
Antirequisite: BIOCHEM 3EO3

**BIOCHEM 3N03 NUTRITION AND METABOLISM**
Study of nutritional biochemistry and the regulation of metabolism; the role of specific nutrients in functional processes of the body in health and disease.
Three lectures; one term
Prerequisite: BIOCHEM 2AO6, or both BIOCHEM 2EE3 and 3G03, or a grade of at least C+ in BIOCHEM 2EE3

**BIOCHEM 3P03 BIOCHEMISTRY LABORATORY II**
A preparation for independent experimental work in molecular biology and biochemistry. Multiple techniques are used together to answer complex biochemical questions in both E.coli and Saccharomyces cerevisiae.
One lab (three hours), one tutorial (three hours); second term
Prerequisite: BIOCHEM 3L03 and either registration in Honours Biochemistry (Specialist), or Honours Biochemistry and Molecular Biology, or permission of the Department. Application for permission must be received by March 31 of the previous year.
Antirequisite: BIOLOGY 3V03
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

**BIOCHEM 4B06 SENIOR PROJECT IN BIOCHEMISTRY**
An extended biochemical research project supervised by a member or associate member of the Department of Biochemistry. It provides a suitable experience for graduate school or industry. Assessment is based on laboratory work, a poster presentation and a final report.
Three labs (three hours); two terms
Prerequisite: BIOCHEM 3P03, and registration in Honours Biochemistry (normally only open to students in the Specialist Option). Students must have a CA of at least 6.0.
Permission of the Department is required by March 31.
Antirequisite: BIOCHEM 4BB6, 4F09, 4G03, 4L03, 4P03
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

**BIOCHEM 4BB6 SENIOR PROJECT IN MOLECULAR BIOLOGY**
An extended research project involving a molecular biological approach supervised by a member or associate member of the Department of Biochemistry. It provides a suitable experience for graduate school or industry. Assessment is based on laboratory work, a poster presentation and a final report.
Three labs (three hours); two terms
Prerequisite: BIOCHEM 3P03, and registration in Honours Biochemistry (normally only open to students in the Biotechnology and Genetic Engineering Option) or in the Honours Biochemistry and Molecular Biology programme. Students must have a CA of at least 6.0.
Permission of the Department is required by March 31.
Antirequisite: BIOCHEM 4BB6, 4F09, 4G03, 4L03, 4P03
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

**BIOCHEM 4C03 INQUIRY IN BIOCHEMISTRY**
Broader aspects of biochemistry such as those relating to food, drugs, health and environment discussed in small groups. Group and individual projects, seminars and lectures as appropriate to the subject matter.
Three hours; one term
Prerequisite: Registration in Level IV of Honours Biochemistry (Comprehensive Studies Option)
Antirequisite: HTH SCI 3H03, 4A09, 4B06

**BIOCHEM 4D03 BIOTECHNOLOGY AND GENETIC ENGINEERING**
Theory, methods and applications in genetic engineering and biotechnology including gene cloning and expression, protein engineering, molecular diagnostics, genomics and gene therapy.
Three lectures; first term
Prerequisite: One of BIOCHEM 3B03, BIOLOGY 3H03 and one of BIOCHEM 2AO6, 3G03

**BIOCHEM 4E03 GENE EXPRESSION I**
Current concepts and strategies of molecular mechanisms of eukaryotic gene expression and regulation at the transcriptional, post-transcriptional, translational and post-translational levels.
Three lectures; first term
Prerequisite: One of BIOCHEM 3A03, 3B03, BIOLOGY 3H03 and one of BIOCHEM 2AO6, 3G03

**BIOCHEM 4E03 GENE EXPRESSION II**
Mechanism of gene expression and regulation with emphasis on integrative strategies in complex systems relating to physiological homeostasis in normal and disease states.
Three lectures; second term
Prerequisite: BIOCHEM 3E03

**BIOCHEM 4F09 SENIOR THESIS IN BIOCHEMISTRY AND MOLECULAR BIOLOGY**
A thesis based on a major research project supervised by a member or associate member of the Department of Biochemistry. The results will also be presented to the department in a seminar or as part of a poster session.
Lab (12-14 hours); two terms
Prerequisite: BIOCHEM 3P03 and registration in an Honours Biochemistry programme. Permission of the department is required by March 31 and students are expected to have a C.A. of at least 9.5
Antirequisite: BIOCHEM 4B06, 4BB6, 4G03, 4L03, 4P03

**BIOCHEM 4G03 GENE EXPRESSION II**
Mechanism of gene expression and regulation with emphasis on integrative strategies in complex systems relating to physiological homeostasis in normal and disease states.
Three lectures; second term
Prerequisite: BIOCHEM 3E03
BIOCHEM 4G03 BIOTECHNOLOGY AND GENETIC ENGINEERING LABORATORY
This lab is complementary to BIOCHEM 4D03. Experiments may involve cloning, engineered mutagenesis, DNA sequencing, expression of cloned genes and fermentation.
Two labs (four hours); second term
Prerequisite: BIOCHEM 3P03, one of BIOCHEM 3A03, 3B03 and registration in an Honours Biochemistry programme.
Permission of the Department is required by March 31.
Antirequisite: BIOCHEM 4B06, 4B07, 4F07, 4L03
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.
BIOCHEM 4H03 BIOTECHNOLOGY AND DRUG DISCOVERY
Application of principles in biochemistry, molecular biology, enzymology, structural biology, bioinformatics and functional genomics to modern pharmaceutical and biopharmaceutical research.
Three lectures; second term
Prerequisite: BIOCHEM 3BB3
Antirequisite: BIOCHEM 4D03
BIOCHEM 4J03 BIOCHEMICAL IMMUNOLOGY
This advanced course applies small-group-based learning to immunological problems. Topics concern development of immunosassays, response to infection and immunity in health and disease.
One session (two hours), one tutorial; one term
Prerequisite: One of BIOLOGY 3X03, 4103 and one of BIOLOGY 3H03, BIOCHEM 3A03, 3B03, 3G03
Cross-list: HTH SCI 4J03, MOL BIOL 4J03
BIOCHEM 4L03 ADVANCED BIOCHEMISTRY LABORATORY
Fundamental principles of experimental biochemistry with emphasis on modern methods in enzymology and molecular biology.
Two labs (four hours); first term
Prerequisite: BIOCHEM 3L03 and either BIOCHEM 3A03 or BIOCHEM 3B03 and one of BIOCHEM 3B03, BIOLOGY 3H03
Antirequisite: BIOCHEM 4B06, 4B07, 4F07, 4G03, MOL BIOL 4R09
BIOCHEM 4M03 BIOLOGICAL MEMBRANES
The properties of the constituents of biological membranes and their assembly into functional structures. Molecular basis of the biological activity of membranes.
Three lectures; first term
Prerequisite: Registration in Level IV of an Honours Biochemistry or Honours Molecular Biology programme or Year 4 of the Honours Biochemistry Co-op programme or both BIOCHEM 2EE3 and 3G03
BIOCHEM 4P03 RESEARCH PROJECT IN BIOCHEMISTRY
A project supervised by a member or associate member of the Department of Biochemistry. Assessment is based on laboratory work and a final report.
Three labs (three hours); may be taken first or second term
Prerequisite: BIOCHEM 3B03, 3BB3, one of BIOCHEM 3P03, BIOLOGY 3V03 and registration in an Honours Biochemistry or Molecular Biology programme
Permission of the Department is required by March 31.
Antirequisite: BIOCHEM 4B06, 4B07, 4F09, HTH SCI 3H03, 4A09, 4B06, MOL BIOL 4P09
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.
BIOCHEM 4Q03 BIOCHEMICAL PHARMACOLOGY
The pharmacological and biochemical basis of drug absorption, distribution, metabolism, biotransformation, toxicity and susceptibility. Chemical carcinogenesis and mechanism of action and cellular resistance to antibacterial and anticancer drugs.
Three lectures; first term
Prerequisite: BIOCHEM 3BB3
Courses

If no prerequisite is listed, the course is open.

BIOL 1A03  CELLULAR AND MOLECULAR BIOLOGY
Structure, molecular composition and function in sub-cellular and cellular systems.
Three lectures, one lab (three hours); one term
Prerequisite: OAC Biology, Registration in one of Science I, Arts & Science I, Health Sciences I, Kinesiology I, any programme above Level I; or a grade of at least 80% in OAC Biology. Registration in or completion of CHEM 1A03, 1A06 (or 1A06) is strongly recommended. CHEM 1A03, 1A06 (or 1A06) are prerequisites for many Biology courses in Level II, III, and IV.
Corequisite: SCIENCE 1A00
Antirequisite: BIOLOGY 1A06

Students in non-Science programs should consider registering in BIOLOGY 1K03 and SCIENCE 2G03, 2H03 and 2K03 which do not require laboratories.

BIOL 1A03  BIODIVERSITY, EVOLUTION AND ECOLOGY
Fundamental evolutionary and ecological concepts with particular reference to the diversity of life.
Three lectures, one lab (three hours); one term
Prerequisite: OAC Biology. Registration in one of Science I, Arts & Science I, Health Sciences I, Kinesiology I, any programme above Level I; or a grade of at least 80% in OAC Biology. Registration in or completion of CHEM 1A03, 1A06 (or 1A06) is strongly recommended. CHEM 1A03, 1A06 (or 1A06) are prerequisites for many Biology courses in Level II, III, and IV.
Corequisite: SCIENCE 1A00
Antirequisite: BIOLOGY 1A06

Not open to students registered in Science I or in any Biology, Biochemistry, Health Sciences or Molecular Biology programme.

BIOL 1J03  HUMAN PHYSIOLOGY
Principles of homeostasis; physiology of respiration, circulation, kidney function, metabolism and nutrition in the human body.
Three lectures, one tutorial; one term
Prerequisite: OAC Biology, Registration in one of Science I, Arts & Science I, Health Sciences I, Kinesiology I, any programme above Level I; or a grade of at least 80% in OAC Biology. Registration in or completion of CHEM 1A03, 1A06 (or 1A06) is strongly recommended. CHEM 1A03, 1A06 (or 1A06) are prerequisites for many Biology courses in Level II, III, and IV.
Corequisite: SCIENCE 1A00
Antirequisite: BIOLOGY 1A06

Not open to students registered in Science I or in any Biology, Biochemistry, Health Sciences or Molecular Biology programme.

BIOL 1K03  BIOLOGY FOR THE HUMANITIES AND SOCIAL SCIENCES
Principles spanning the realms of biology with a particular emphasis towards the understanding of the human species.
Three lectures; or two lectures and one tutorial; one term
Not open to students registered in a programme in the Faculty of Science. BIOLOGY 1K03 is not a prerequisite for further courses in Biology.

BIOL 2A03  INTEGRATIVE PHYSIOLOGY OF ANIMALS
Fundamental principles of animal physiology, including: cellular energetics, diffusion, osmosis, membrane transport, excitability and contractility, gas exchange, fluid dynamics, electrolyte balance.
Three lectures; or two lectures, one lab (three hours); or two lectures, one tutorial; one term
Prerequisite: BIOLOGY 1A03, 1A06 (or 1A06) or registration in a programme in Kinesiology
Antirequisite: BIOLOGY 1J03, ENGINEER 4X03, ENG PHYS 3X03, HTH SCI 1H03, 1H06, 2F03, 2FF3
Not open to students with credit or registration in BIOLOGY 3P03, 3L03, 3U03.

BIOL 2B03  CELL BIOLOGY
Basic treatment of cell structure and function, including transport and chemical signals; adaptation of structure and function in specialized cells.
Three lectures, one lab (three hours); or two lectures, one tutorial; one term
Prerequisite: BIOLOGY 1A03, 1A06 (or 1A06), CHEM 1A03 (or 1A06)
Antirequisite: HTH SCI 2K03

BIOL 2C03  GENETICS
Structure, function and transmission of genes; chromosomal basis of inheritance; mono- and dihybrid crosses; sequential steps in gene function; linkage maps; sex chromosome inheritance.
Three lectures and one tutorial (three hours); one term
Prerequisite: BIOLOGY 1A03, 1A06 (or 1A06), CHEM 1A03 (or 1A06) and registration in a programme in the Faculty of Science, Health Sciences, or a programme in Arts & Science or Kinesiology.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar. Students who require this course for completion of their programme are guaranteed admission.

BIOL 2D03  THE PLANT KINGDOM
An introduction to the major groups of green plants. Growth and development of vegetative parts and mechanisms of reproduction will be emphasized.
Two lectures, one lab (three hours); one term
Prerequisite: BIOLOGY 1A03, 1A06 (or 1A06) or CHEM 1A03 (or GEO) 1A03, 1B03, or 1G03

BIOL 2F03  FUNDAMENTALS OF ECOLOGY
A broad overview of ecology at the level of organisms, populations and communities.
Three lectures, one lab (three hours); one term
Prerequisite: BIOLOGY 1A03 (or 1A06) or ENVIR SC (or GEO) 1A03, 1B03, or 1G03

BIOL 3A03  FUNDAMENTAL CONCEPTS OF PHARMACOLOGY
Drug interactions with living organisms; absorption and elimination of drugs, variations in drug action, drug toxicity, receptor structure and function, and signal transduction pathways.
Three lectures, one lab (three hours); one term
Prerequisite: CREDIT (or registration in one of BIOLOGY 3P03, 3L03, or 3U03, and credit in one of BIOCHEM 2A06, 2E03, 3A03 or 3G03.
Not open to students with registration in Honours Biology and Pharmacology.

BIOL 3B03  PLANT PHYSIOLOGY
Principles of physiology and plant cell metabolism. Topics include: photosynthesis, photosynthesis, mineral nutrition, water relations and transpiration.
Two lectures, one lab (three hours); one term
Prerequisite: BIOLOGY 2B03 and 2D03

BIOL 3BB3  ULTRASTRUCTURE, DEVELOPMENT AND FUNCTION OF PLANT CELLS
Cells and tissues will be studied. Students will use photomicrographs and electron micrographs.
Two lectures, one lab (three hours); one term
Prerequisite: BIOLOGY 2B03 and 2D03

BIOL 3C03  MICROBIAL PHYSIOLOGY AND REGULATION
Study of prokaryotic cellular functions including regulation of metabolism, basic energy-yielding pathways, morphogenesis and reproduction.
Three lectures; or two lectures, one tutorial; one term
Prerequisite: BIOLOGY 3E03 Not offered in 2001-2002.

BIOL 3E03  INTRODUCTORY MICROBIOLOGY
Biological of the prokaryotic cell including structure-function relationships, antimicrobial agents and bacterial taxonomy. Use of microorganisms in biotechnology.
Two lectures, one lab (three hours); one term
Prerequisite: BIOLOGY 2B03, 2C03, one of BIOCHEM 2A06 or 2E03 and one of CHEM 2D03, 2E03, 2B03 or 2O06. BIOCHEM 3G03 or equivalent is strongly recommended.

BIOL 3F03  VERTEBRATE ANATOMY
An introduction to the development of structure and function in vertebrates.
Three lectures, one lab (three hours); one term
Prerequisite: BIOLOGY 2B03 or 2B03. BIOLOGY 2C03 is highly recommended. Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOL 3FF3  EVOLUTION
Introduction to the major concepts and empirical findings in micro- and macroevolution.
Three lectures, one tutorial; one term
Prerequisite: BIOLOGY 2C03. BIOLOGY 3J03 is highly recommended.

BIOL 3H03  MOLECULAR BIOLOGY OF THE NUCLEUS
Structure of the nucleus and of chromatin; organization of DNA sequences; DNA replication, transcription, gene expression; some relevant techniques.
Three lectures, one lab (three hours); one term
Prerequisite: BIOLOGY 2B03
Antirequisite: BIOCHEM 3B03
Biology 3H03 Organization of the Cytoplasm
A detailed examination of the molecular organization and function of cytoplasmic structures in metazoans, with particular focus on the differentiation and specialization of the cell surface and the cytoskeleton.
Three lectures, one tutorial; one term
Prerequisite: Biology 2B03

Biology 3I03 Eukaryotic Genetics
The genetics of eukaryotic organisms. Experimental problems in gene transmission, interaction and polymorphism. Linkage, recombination and chromosome structure; sex determination.
Three lectures, one lab (three hours); one term
Prerequisite: Biology 2B03 and 2C03

Biology 3J03 Population Genetics
Conceptual foundations of evolutionary theory and principles of population genetics.
Three lectures or two lectures, one tutorial; one term
Prerequisite: Biology 2C03

Biology 3K03 Animal Histology
The structure, function, and organization of cells, tissues, organs and organ systems.
Three lectures, one lab (three hours); one term
Prerequisite: Biology 2E03 or 2B03. Biology 2A03 is highly recommended.
Antirequisite: HTH Sci 3F03, 3FF3

Biology 3M03 Fundamental Concepts of Development
Recent advances using genetic and molecular approaches will be discussed in the context of classical experiments. Various model systems (mice, fruitflies, worms) will be examined.
Two lectures, one tutorial or lab (three hours); one term
Prerequisite: Biology 2B03 and 2C03
Antirequisite: Biology 3N03

Biology 3M03 Invertebrate Form and Function
Analysis of sensory reception, nervous control systems, feeding, skeletal support, locomotion, excretion, respiration, and reproduction in selected invertebrates.
Two lectures, one lab/tutorial (three hours); one term
Prerequisite: Biology 2E03 or 2A03

Biology 3N03 Molecular Genetic Mechanisms of Development
The molecular genetic mechanisms of determination of cell identity and pattern formation are examined with a focus upon primary research literature.
Three lectures, one tutorial; one term
Prerequisite: Biology 2B03, 2C03. Biology 3M03 or 3N03 are strongly recommended.

Biology 3O03 Microbial Genetics
The genetics of bacteriophages, bacteria and fungi. Special emphasis will be placed on relationships between microbial genetics and general problems in genetics.
Three lectures, one tutorial; one term
Prerequisite: Biology 2C03. Biology 3E03 and one course in Biochemistry are strongly recommended.

Biology 3P03 Cellular Physiology
Analysis of cell function with an emphasis on electrical properties, ionic transport proteins, signaling via second messengers, mechanisms of cell homeostasis, and epithelial transport.
Two lectures, one tutorial; one term
Prerequisite: Biology 2A03; credit or registration in Biochemistry 2A06 or 3G03

Biology 3Q03 Field Biology I
Field work plus written assignments chosen from an assortment of modules offered by faculty from McMaster and other Ontario Universities' Biology Departments. Available modules are posted in January each year. Content and schedules vary annually. Students enrolling in this course must pay both the incidental fees, as prescribed by the Department, and the regular tuition fees.
Prerequisite: Biology 1A03 and 1AA3 (or 1A06) or one of ENVR SC (or GEO) 1A03, 1B03, or 1G03 and permission of the module instructor and course coordinator. Permission must be obtained by March 31st.
Enrollment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

Biology 3S03 Population Ecology
Population structure and dynamics. Natural selection and regulation of organisms by environmental and biological factors. An evolutionary view of predation, competition, life history schedules.
Three lectures, one tutorial; one term
Prerequisite: Biology 2F03 and one of Biology 1AA3, ENVIR SC (or GEO) 1A03, 1B03, or 1G03

Med Phys 3T03 Radioactivity and Radiation Interactions
Formerly: Physics 3T03
Radioactivity and radiation phenomenology: interaction of radiations with matter, dosimetry, radiation in medicine, biological effects, radiation levels and regulations, radiation protection.
Three lectures; one term
Prerequisite: One of Physics 1B43, 1BB3 or permission of the instructor.
Antirequisite: Biology 3L03, Physics 3T03

Biology 3T03 Community Ecology
Community structure; succession; patterns of diversity and their relevance to conservation; elements of biological control; energy flow; nutrient cycling and climatic influences.
Two lectures, one lab (three hours); one term
Prerequisite: Biology 2F03. Biology 2D03 and Stats 1CC3 are recommended.

Biology 3U03 Animal Physiology - Homeostasis
Respiration, circulation, acid-base balance and renal function.
Two lectures, one lab/tutorial (three hours); one term
Prerequisite: Biology 2A03 and permission of the instructor. Application for permission must be received by March 31st of the previous year.
Biochemistry 2E03 and 3G03 are recommended.
Antirequisite: Engineer 4X03, HTH Sci 2F03, 2FF3
Enrollment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

Biology 3V03 Animal Physiology - Control Systems
Nervous function, endocrinology, muscle function, metabolism and gastro-intestinal physiology.
Two lectures, one lab/tutorial (three hours); one term
Prerequisite: Biology 2A03 and permission of the instructor. Application for permission must be received by March 31st of the previous year.
Biochemistry 2E03 and 3G03 are recommended.
Antirequisite: Engineer 4X03, HTH Sci 2F03, 2FF3
Enrollment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

Biology 3W03 Techniques in Molecular Genetics
A laboratory course involving basic experiments in Molecular Genetics. One lecture, two labs (three hours each); one term
Prerequisite: Credit or registration in Biology 3G03 and permission of the instructor. Application for permission must be received by March 31st of the previous year prior to registration.
Antirequisite: Biochemistry 3P03
Enrollment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

Biology 3X03 Introductory Immunology
An introduction to humoral and cellular immunity. The molecular and cellular basis of immunity, and an introduction to immunological techniques.
Two lectures, one tutorial (two hours); one term
Prerequisite: Biology 2B03 and 2C03
Cross-list: HTH Sci 3G03

Biology 3Y03 Plant Responses to the Environment
Plants display many modifications in their development in response to their environment. This course will examine these phenotypic responses from metabolic, ecological and evolutionary perspectives.
Three lectures; one term
Prerequisite: Biology 2B03, 2C03 and 2D03. Biology 3BB3 is recommended
Antirequisite: Biology 4H03

Biology 4A03 Advanced Topics in Ecology
Examination of current topics in ecology including ecosystem and landscape ecology, evolutionary ecology and behavioural ecology.
Two lectures, one tutorial (three hours); one term
Prerequisite: One of Biology 3J03, SS33 or 3TT3

Biology 4AA3 Conservation Biology
Examination of how biological principles, mainly from population biology and genetics, can be applied to conserving diversity in the natural world.
Two lectures, one tutorial (three hours); one term
Prerequisite: Biology 2C03 and one of Biology 3J03, SS33 or 3TT3
BIOLOGY 4B03 PLANT METABOLISM AND MOLECULAR BIOLOGY
Analysis of plant cell metabolism and the regulation of metabolism at the biochemical and molecular genetic level.
Three lectures; one term
Prerequisite: BIOCHEM 2A06 or 3G03. BIOLOGY 3B03 and 3H03 are recommended.
Offered in alternate years.
Offered in 2001-2002.

BIOLOGY 4C09 SENIOR THESIS
A thesis based upon a research project in an area of biology carried out under the direction of a member of the Faculty.
Prerequisite: Registration in Level IV of any course Biology programme and permission of the Chair. Arrangements to take BIOLOGY 4C09, including agreement of the supervisor and co-supervisor, should be made according to Departmental Guidelines before the end of March in Level III.
Antirequisite: BIOLOGY 4F06, 4FF3, HTH SCI 3H03, 4A09, 4B05, MOL BIOL 4R03, PHARMAC 4F09, PSYCH 4D06
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOLOGY 4D03 INTEGRATIVE BIOLOGY OF MAMMALS
Evolutionary interpretation of major mammalian functional features and their integration (e.g., growth, feeding, reproduction, aging, stress), spanning the ecological, physiological, and molecular realms.
Two lectures, one tutorial; one term
Prerequisite: BIOLOGY 2A03, 2C03 and 3S3S
Offered in alternate years.

BIOLOGY 4D33 MOLECULAR EVOLUTION
The study of how molecules change over time within and between species. The experimental data, techniques and theories will be examined.
Three lectures, or two lectures, one tutorial; one term
Prerequisite: BIOLOGY 3J03
Offered in alternate years.

BIOLOGY 4E03 HUMAN DIVERSITY AND HUMAN NATURE
The nature of genetic diversity in humans; the nature versus nurture debate phylogenetic reconstruction.
Two lectures, two tutorials; one term
Prerequisite: BIOLOGY 2A03, 2C03 and 3S3S
Offered in alternate years.

BIOLOGY 4F06 SENIOR PROJECT
Students undertake an experimental or library project in a specialized area of biology under the direction of a member of the Faculty.
Prerequisite: Registration in a Level IV Biology or Molecular Biology programme and permission of the Chair. Arrangements to take BIOLOGY 4F06, including the agreement of the supervisor and co-supervisor, should be made according to Departmental Guidelines before the end of March in Level III.
Antirequisite: BIOLOGY 4C09, 4FF3, HTH SCI 3H03, 4A09, 4B05, MOL BIOL 4R03, PHARMAC 4F09 or PSYCH 4D06
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOLOGY 4F03 INQUIRY IN BIOLOGY
This course provides an opportunity to explore a specialized area of Biology in a small group setting. Several different modules are available in Terms I and II. Lectures, seminars and discussions (three hours): one term
Prerequisite: Registration in Level IV Honours Biology (Complementary Studies Option) and permission of the course coordinator
Antirequisite: BIOLOGY 4C09, 4F06, HTH SCI 3H03, 4A09, 4B06
Enrolment is limited. Module topics are posted in the Life Sciences Building before the beginning of each term. Permission of the Course Coordinator should be obtained by the end of March in Level III.
See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOLOGY 4G06 HUMAN ANATOMY
A study of the human body by dissection, self-teaching modules and videotapes. Two labs (two and one half hours); two terms
Prerequisite: A grade of at least B+ in BIOLOGY 3F03 or 3K03, or enrollment in BIOLOGY 3F03 or 3K03 and permission of the instructor. Application for permission must be received by March 31st of the previous year. These are minimum requirements, and final selection by the Chair of the Department of Biology will be based on academic merit.

Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOLOGY 4H03 GENETIC ANALYSIS OF BEHAVIOUR
Selected topics in behaviour will be examined at the genetic and molecular level. Topics will include circadian rhythms, courtship behaviour, twin studies, learning and memory.
Two lectures, one tutorial; one term
Prerequisite: BIOLOGY 3I03 or both 2B03 and 2C03, PSYCH 2F03, 3R3S, and BIOLOGY 3H03 are recommended.
Offered in alternate years.
Offered in 2001-2002.

BIOLOGY 4I03 ADVANCED TOPICS IN IMMUNOLOGY
This course will build on previous knowledge of the immune system and cover selected topics such as allergy, autoimmunity, tumor, reproductive and viral immunity, and AIDS.
Two lectures, one tutorial (two hours); one term
Prerequisite: BIOLOGY 3X03
Cross-list: HTH SCI 3I13

BIOLOGY 4J03 FIELD BIOLOGY II
A second field module chosen from those offered by faculty from McMaster and other Ontario Universities' Biology Departments. This module must differ from any completed for credit in BIOLOGY 3F03. Available modules are posted in January of each year. Content and schedules vary annually. Students enrolling in this course must pay both the incidental fees, as prescribed by the Department, and the regular tuition fees. Prerequisite: BIOLOGY 1A03, 1A5 (or 1A05) or one of ENVIR SC (or GEO) 1A03, 1B03, or 1G03 and permission of the module instructor and course coordinator. Permission must be obtained by March 31 of the academic year prior to registration.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOLOGY 4K03 AN INTRODUCTION TO BIOINFORMATICS
This course introduces the techniques and methods of basic computer analysis of sequence data, including alignment, databases, and phylogenetic reconstruction.
Two lectures, one computer laboratory; one term
Prerequisite: BIOLOGY 2C03 and permission of the instructor. Application for permission must be received by March 31 of the academic year prior to registration. BIOLOGY 3J03 and a Level II course in Mathematics or Statistics are recommended.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOLOGY 4L03 MEDICAL MICROBIOLOGY
Bacterial diseases: Identification, epidemiology and treatment.
Three lectures, or two lectures, one tutorial; one term
Prerequisite: BIOLOGY 3E03
Offered in alternate years.
Offered in 2001-2002.

BIOLOGY 4M03 ENVIRONMENTAL MICROBIOLOGY
Study of interaction of microorganisms with their environment with emphasis on topics of ecological significance including plant-microbe interactions, nutrient cycling and waste treatment.
Three lectures, or two lectures, one lab/tutorial (three hours); one term
Prerequisite: BIOLOGY 3E03
Offered in alternate years.

BIOLOGY 4N03 HUMAN GENETICS
The human genome and genetic medicine. Topics include normal and pathological cytology; the human genome project; gene mapping, linkage and therapy.
Two lectures, one tutorial (two hours); one term
Prerequisite: BIOLOGY 2B03, 2C03, 3I03

BIOLOGY 4S03 TOXICOLOGY OF AQUATIC ENVIRONMENTS
Chemistry, mechanisms of toxicity, and ecotoxicology of environmental pollutants in aquatic environments.
Two lectures, one lab (three hours); one term
Prerequisite: Permission of the instructor. Application for permission must be received by March 31 of the academic year prior to registration.

BIOLOGY 4T03 AN INTRODUCTION TO BIOINFORMATICS
This course introduces the techniques and methods of basic computer analysis of sequence data, including alignment, databases, and phylogenetic reconstruction.
Two lectures, one computer laboratory; one term
Prerequisite: BIOLOGY 2C03 and permission of the instructor. Application for permission must be received by March 31 of the academic year prior to registration. BIOLOGY 3J03 and a Level II course in Mathematics or Statistics are recommended.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOLOGY 4U03 MEDICAL MICROBIOLOGY
Bacterial diseases: Identification, epidemiology and treatment.
Three lectures, or two lectures, one tutorial; one term
Prerequisite: BIOLOGY 3E03
Offered in alternate years.
Offered in 2001-2002.

BIOLOGY 4V03 ENVIRONMENTAL MICROBIOLOGY
Study of interaction of microorganisms with their environment with emphasis on topics of ecological significance including plant-microbe interactions, nutrient cycling and waste treatment.
Three lectures, or two lectures, one lab/tutorial (three hours); one term
Prerequisite: BIOLOGY 3E03
Offered in alternate years.

BIOLOGY 4W03 HUMAN GENETICS
The human genome and genetic medicine. Topics include normal and pathological cytology; the human genome project; gene mapping, linkage and therapy.
Two lectures, one tutorial (two hours); one term
Prerequisite: BIOLOGY 2B03, 2C03, 3I03

BIOLOGY 4X03 TOXICOLOGY OF AQUATIC ENVIRONMENTS
Chemistry, mechanisms of toxicity, and ecotoxicology of environmental pollutants in aquatic environments.
Two lectures, one lab (three hours); one term
Prerequisite: Permission of the instructor. Application for permission must be received by March 31 of the academic year prior to registration.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

Offered in alternate years.


BIOLOGY 4T03  NEUROBIOLOGY
Selected topics in neurobiology at the molecular and cellular level including growth factors and neuronal development, ion channels, neurotransmitter functions, learning and memory, and neurological disorders.
Two (or one) lecture(s), one (or two) tutorial(s); one term
Prerequisite: BIOLOGY 3P03; or permission of the instructor. One or more of BIOLOGY 3H03, 3H3, 3U3, PSYCH 2F03, 3FA3 are also recommended.

Cross-list: HTH SCI 4R03
Offered in alternate years.

BIOLOGY 4U03  RADIATION BIOLOGY
The effects of radiation on biological material at the molecular, cellular, tissue and whole organism level.
Three lectures; or two lectures and one tutorial; one term
Prerequisite: BIOLOGY 2B03 or 2C03; or registration in Year 4 of Medical Health and Physics Co-op; or permission of the Instructor. One of BIOLOGY 3L03, MED PHYS 3T03 or PHYSICS 3T03 is strongly recommended.

BIOLOGY 4V03  VIROLOGY
The viruses of animals, bacteria, and plants, with emphasis on the molecular biology of virus replication and the diversity of virus-cell interactions.
Three lectures; one tutorial (two hours); one term
Prerequisite: BIOCHEM 3B03 or 3G03 or BIOLOGY 3H03

BIOLOGY 4X03  ENVIRONMENTAL PHYSIOLOGY
The influence of environmental factors on the physiology of animals and the adaptation of animals to diverse environments in the context of biodiversity.
Three lectures; or two lectures, one tutorial; one term
Prerequisite: One of BIOLOGY 3M03, 3P03, 3U3, 3UU3 and permission of the instructor. Application for permission must be received by March 31 of the academic year prior to registration.

Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.
Offered in alternate years.
Offered in 2001-2002.

BIOLOGY 4Y03  ECOLOGY OF INLAND WATERS
Physical, chemical and biological interrelationships of inland waters, including aspects of pollution.
Two lectures, one lab (three hours); one term
Prerequisite: BIOLOGY 2F03, one of BIOLOGY 2D03 or 2E03, and one of BIOLOGY 3SS3 or 3TT3

PHARMAC 4B03  DRUGS AND BEHAVIOUR
Behavioural measures to study drug action and the use of drugs to study the organization and physiochemical mechanisms in normal and abnormal behaviour.
One tutorial (three hours); one term
Prerequisite: PHARMAC 3A06 or BIOLOGY 3AA3 and permission of the instructor. Application for permission must be received by March 31 of the previous year.

Cross-list: HTH SCI 4Q03

Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BUSINESS

SEE COMMERCE

CANADIAN STUDIES

SEE INTERDISCIPLINARY MINORS AND THEMATIC AREAS

CATALAN

SEE MODERN LANGUAGES AND LINGUISTICS, CATALAN

CAYUGA

SEE INDIGENOUS STUDIES, CAYUGA

CHEMICAL ENGINEERING

WEB ADDRESS: http://www.chemeng.mcmaster.ca
John Hodgins Engineering Building, Room 374
Ext. 24957

Faculty as of January 1, 2001

Chair
A. N. Hrymak

Professors
James M. Dickson/B.A.Sc., M.A.Sc. (Waterloo), Ph.D. (Virginia Tech.)
Thomas E. Marlin/B.S. (SUNY), M.S. (Dayton), Ph.D. (Massachusetts)
Robert H. Pellow/B.Sc., M.Sc. (Guelph), Ph.D. (Bristol)
Paul A. Taylor/B.Sc., Ph.D. (Univ. of Wales), P.Eng.

Adjunct Professors
Przemyslaw Pruszyinski/M.Sc., Ph.D. (Adam Mickiewicz, Poland)

Associate Professors
Christopher L. E. Swartz/B.Sc. (Cape Town), Ph.D. (Wisconsin-Madison)
Shipling (Stephen) Zhu/B.Eng. (Zhejiang), Ph.D. (McMaster), P.Eng.

Adjunct Associate Professor
Theodora Kouri/Dipl. Eng. (Chemical) (Aristotle), Ph.D. (McMaster)

Assistant Professor
Heather Sheardown/B.Eng. (McMaster), Ph.D. (Toronto), P.Eng.

Professors Emeriti
Cameron M. Crowe/B.Eng. (McGill), Ph.D. (Cambridge), F.C.I.C.
Irwin A. Feuerstein/B.Chem.Eng. (City College of New York), M.S. (Newark College of Engineering), Ph.D. (Massachusetts)
Donald R. Woods/B.Sc. (Queen's), M.S., Ph.D. (Wisconsin), D.Sc. (Queen's), F.C.I.C., F.A.I.Ch.E., P. Eng.

Department Note:
All Chemical Engineering courses are open to students registered in a Chemical Engineering programme, subject to prerequisite requirements. Prior permission of the Department is necessary for students from other Engineering departments and other faculties.

Courses

CHEM ENG 2A04  HEAT TRANSFER
Heat transfer in chemical engineering systems. Steady and unsteady state conduction, natural and forced convection, radiant heat transfer, condensation of vapour and boiling.
Three lectures, one tutorial (two hours); second term
Corequisite: CHEM ENG 2F04 or 2B04 or MATL 2T06 or 2C04 and registration in a Chemical Engineering or Materials Engineering programme

CHEM ENG 2G02  TECHNICAL COMMUNICATIONS AND MEASUREMENTS
How to obtain, interpret, store, retrieve, manipulate and communicate information. T.V. taping to improve verbal communication, searching the literature, organization, laboratory measurements and treatment of data.
One lecture, first term; one lab (three hours), both terms, alternate weeks
Prerequisite: Registration in Level II Chemical Engineering or Chemical Engineering and Management or Chemical Engineering and Society
CHEM ENG 2D04  CHEMICAL ENGINEERING PRINCIPLES I
Steady-state mass balances in chemical processes and the first law of thermodynamics. The behaviour of gases and liquids, and their physical equilibria. Recycle in steady state operation.
Three lectures, one tutorial (three hours); first term
Prerequisite: Registration in Level II Chemical Engineering or Chemical Engineering and Management or Chemical Engineering and Society or Honours Applied Chemistry
CHEM ENG 2F04  CHEMICAL ENGINEERING PRINCIPLES II
Combined mass and energy balances in the steady and unsteady state. The second law of thermodynamics and physical chemical equilibria. Introduction of process simulation packages.
Three lectures, one tutorial (three hours); second term
Prerequisite: CHEM ENG 2D04
CHEM ENG 2G02  PROBLEM SOLVING
Developing awareness, strategies, creativity, analysis and interpersonal skills in the context of solving homework problems and projects.
Two tutorials; first term
Corequisite: CHEM ENG 2C02, 2D04
CHEM ENG 3D03  CHEMICAL ENGINEERING THERMODYNAMICS
Review of the total energy balance, mechanical energy balance and thermodynamics of one component system. Chemical reaction and phase equilibria of multicomponent systems, with emphasis on non-idealities.
Two lectures, one tutorial (two hours); first term
Prerequisite: CHEM ENG 2F04
CHEM ENG 3E04  PROCESS MODEL FORMULATION AND SOLUTION
Formulation of models for various chemical processing units in the steady and unsteady states. Techniques for numerical solution of model equations, including algebraic and ordinary differential equations, both linear and non-linear.
Three lectures; one tutorial (one hour), every week; first term
Prerequisite: CHEM ENG 2F04, MATH 2M06
CHEM ENG 3G03  SIMULATION, MODELLING AND PROBLEM SOLVING
Chemical process simulation including models for heat exchangers, separators and reactors. Group skills, decision-making and self-directed, problem-based learning.
One lecture, two tutorials (two hours); second term
Prerequisite: CHEM ENG 2G02 and registration or credit in CHEM ENG 2A04, 3D03, 3E04, 3K04, 3M04
CHEM ENG 3K04  INTRODUCTION TO REACTOR DESIGN
Stoichiometry of multiple reactions, kinetics of homogeneous reactions, interpretation of batch data, design of ideal and non-ideal CSTR and plug flow reactors.
Three lectures; one tutorial (two hours); second term
Prerequisite: Registration or credit in CHEM ENG 3D03 or registration in Level IV Honours Applied Chemistry
CHEM ENG 3L02  INTERMEDIATE LABORATORY SKILLS
Experiments and projects in heat transfer, thermodynamics, mass transfer and fluid mechanics with appropriate data analysis and report writing.
One lecture, one lab (three hours); second term
Prerequisite: CHEM ENG 3D03, 3M04, 3P03 and registration or credit in CHEM ENG 2A04
CHEM ENG 3M04  MASS TRANSFER AND STAGEWISE OPERATIONS
Stagewise operations, diffusion, mass transfer coefficients, distillation, differential contacting and absorption.
Three lectures, one tutorial (two hours); first term
Prerequisite: CHEM ENG 2F04
CHEM ENG 3N04  FLUID MECHANICS
The laws of statics and dynamics in both compressible and incompressible fluids. Equations of conservation and modern turbulence and boundary layer theory applied to submerged and conduit flow. Similarity, unsteady flow, measuring devices and fluid machinery.
Three lectures, one tutorial (three hours); first term
Prerequisite: MATH 2M05 or MATH 2P04 and 2N04, any of which may be taken concurrently and registration in a Chemical Engineering or Materials Engineering programme.
CHEM ENG 3P03  PROCESS CONTROL
Transient behaviour of chemical processes. Theory and practice of automatic control. Introduction to computer process control.
Two lectures, one tutorial (two hours); second term
Prerequisite: MATH 2M05, and registration or credit in CHEM ENG 2A04, 3E04, 3G03 3K04, 3M04
CHEM ENG 3Q03  INTRODUCTION TO POLYMER SCIENCE
An overview of important synthetic and natural polymers with emphasis on polymer structure, the chemistry of polymer formation. An introduction to polymer characterization.
Three lectures; second term
Prerequisite: One of CHEM 2B06, 2D03, 2E03, 2K04, 3W04
CHEM ENG 4B03  POLYMER REACTION ENGINEERING
Three lectures; first term
Prerequisite: CHEM ENG 3K04 and 3Q03
CHEM ENG 4C03  STATISTICS FOR ENGINEERS
Linear regression analysis in matrix form, non-linear regression, multi-response estimation, design of experiments including factorial and optimal designs. Special emphasis on methods appropriate to engineering problems.
Three lectures; one term
Prerequisite: One term
Prerequisite: STATS 3N03 or COMMERCE 2G03
CHEM ENG 4E03  MODELLING AND CONTROL OF CHEMICAL PROCESSES
Modelling, simulation and control of complex process structures (series, parallel, recycle, staged and multivariable) with consideration to applying control, including model-based algorithms, via digital computation.
Three lectures; first term
Prerequisite: CHEM ENG 3E04, 3G03, 3K04, 3M04, 3P03
CHEM ENG 4K03  REACTOR DESIGN FOR HETEROGENEOUS SYSTEMS
Catalytic kinetics, mass transfer limitations, packed and fluidized bed reactors, two phase reactors.
Three lectures; second term
Prerequisite: CHEM ENG 3K04
CHEM ENG 4L02  ADVANCED LABORATORY SKILLS
Experiments and projects in transport phenomena, reaction kinetics, reactor design and process control with appropriate data analysis and report writing.
One lab (three hours), one lecture; first term
Prerequisite: CHEM ENG 3L02, and registration in Level IV Chemical Engineering or Chemical Engineering and Management or Chemical Engineering and Society
CHEM ENG 4M03  SEPARATIONS
Distillation column design; transport phenomena, laminar, turbulent and unsteady state mass transfer; analogues; absorption, extraction, adsorption, ion exchange, drying, humidification, crystallization.
Three lectures; first term
Prerequisite: CHEM ENG 2A04, 3M04, 3P04
CHEM ENG 4N04  ENGINEERING ECONOMICS AND PROBLEM SOLVING
Engineering economics, capital and operating cost estimation, selection or sizing process equipment, optimization. Ethics, with problem solving components. Self assessment and self-directed learning.
Three lectures; second term
Prerequisite: CHEM ENG 3G03, 3M04, 3P03
Antirequisite: ENGINEER 2B03 or 4B03
CHEM ENG 4T03  APPLICATIONS OF CHEMICAL ENGINEERING IN MEDICINE
Applications of chemical engineering principles to biological systems and medical problems including examples from hemodynamics, blood oxygenation, artificial kidney systems, controlled drug release, biosensors and biomaterials.
Three lectures; second term
Prerequisite: CHEM ENG 3N04 or MECH ENG 3N04 or ENG PHYS 3N03
CHEM ENG 4W04  CHEMICAL PLANT DESIGN AND SIMULATION
Projects, often in cooperation with industry, usually involve steady-state computer simulation of an existing process or design of a new process. Plant equipment may be tested to develop simulation models.
Two lectures and two tutorials (two hours); second term
Prerequisite: Registration in Level IV Chemical Engineering or Level V Chemical Engineering and Management or Level V Chemical Engineering and Society
Faculty as of January 15, 2001

Chair
W.J. Leigh

Associate Chair
J. Baribier

Professors
Alexander D. Bain/B.Sc. (Toronto), M.Sc. (British Columbia), Ph.D. (Cambridge)
Jacques Barbier/M.Sc. (Toronto), Ph.D. (ANU)
Michael A. Brook/B.Sc. (Toronto), Ph.D. (McGill)
Ronald F. Childs/B.Sc. (Bath University), Ph.D., D.Sc. (Nottingham)
Peter T. Dawson/B.Sc. (Brock), Ph.D. (Cambridge)
John E. Greedan/B.A. (Bucknell), Ph.D., F.C.I.C.
Adam P. Hitchcock/B.Sc. (McMaster), Ph.D. (British Columbia), F.C.I.C.
Joseph D. Laposa/B.Sc. (St. Louis), M.Sc. (Chicago), Ph.D. (Loyola)

Undergraduate Advisor
William J. Leigh/B.Sc., M.Sc., Ph.D. (Western Ontario), F.C.I.C.
Brian E. McCurry/B.Sc. (British Columbia), Ph.D. (Stanford), F.C.I.C.,
Stephen A. Jariisoway Chair in Environment and Health
Michael J. McGlinchey/B.Sc., Ph.D. (Manchester), F.C.I.C.
Gary J. Schrobilgen/B.Sc. (Loras College, Iowa), M.Sc. (Brock), Ph.D. (McMaster), F.R.S.C
Harald D.H. Stover/B.Sc. (Darmstadt), Ph.D. (Ottawa), NSERC/ISM Industrial Research Chair in Polymers for Advanced Materials
Johann K. Stover/B.Sc., M.Sc., Ph.D. (Utrecht)
Nick H. Westrell/B.Sc. (Alberta), M.A., Ph.D. (Johns Hopkins), F.C.I.C.

Adjunct Professor
Christopher R. Page/B.Sc. (London), M.Sc. (Brock), Ph.D. (McMaster)

Associate Professors
Randall S. Durnon/B.Sc. (Western Ontario), M.Sc. (Brock), Ph.D. (McMaster)

Assistant Professors
Paul J. Berli/B.Sc. (Waterloo), M.Sc. (Ottawa), Ph.D. (McGill)
John D. Brennan/B.Sc., M.Sc., Ph.D. (Toronto)
Yingfu Li/B.Sc. (Anhui U., China), M.Sc. (Beijing Agr. U.), Ph.D. (Simon Fraser)
Allyson Perrott/B.Sc., Ph.D. (Dalhousie), B.Ed. (Acadia)
Vilang S. T. Pham/B.Sc., M.Sc., Ph.D. (McMaster)
John F. Valliant/B.Sc., Ph.D. (McMaster)
Ignacio Vargas-Baca/B.Sc., M.Sc. (UNAM), Ph.D. (Calgary)

Associate Members
Raman Chirikali/Radiology/B.Sc. (Kerala, India), M.Sc. (Brock), Ph.D. (McMaster)
Richard M. Espani/(Biochemistry)/AB (Johns Hopkins), Ph.D. (Columbia)
Robert H. Pelton/(Chemical Engineering)/M.Sc. (Guelph), Ph.D. (Brisco)
Gerald D. Wright/(Biochemistry)/B.Sc., Ph.D. (Waterloo)
Daniel S.C. Yang/(Biochemistry)/B.Sc., M.Sc. (Alberta), Ph.D. (Pittsburgh)
Shiping (Stephen) Zhu/(Chemical Engineering/Materials Science)/B.Eng. (Zhejiang), Ph.D. (McMaster)

Lecturer
Maggie Austen/B.Sc. (Dalhousie)

Professors Emeriti
Russell N. Bell/B.Sc. (Wellinglon), M.S. (Wisconsin), Ph.D. (Stanford), F.C.I.C.
Arthur A. Bourns/O.C., B.Sc., D.Sc.(Acadia), Ph.D. (McGill), D.Sc. (Acadia,
McGill, University of New Brunswick, Mcmaster), LL.D. (Brock), F.R.S.C., F.C.I.C.
Donald R. Eaton/M.A., D.Phil. (Oxford)
Ronald J. Gillespie/B.Sc., Ph.D., D.Sc. (London), F.R.S., F.R.S.C.,
F.R.S. (U.K.), F.C.I.C.
Orville E. Hillman, Jr.B.S.Ed. (Bowling Green State), Ph.D. (Case Insti­
tute of Technology), F.C.I.C.
David A. Humphreys/B.Sc., M.Sc. (London), Ph.D. (McMaster), F.C.I.C.
C.Chem. (UK), F.C.I.C.
David B. MacLean/B.Sc. (Acadia), Ph.D. (McGill), F.C.I.C.
David P. Santry/B.Sc., Ph.D. (London)
Iain D. Spencer/B.Sc. (Birmingham), Ph.D., D.Sc. (London), F.R.S.C.,
F.R.S.C. (U.K.), F.C.I.C.
Richard H. Tomlinson/B.Sc. (Bishops), Ph.D. (McGill), F.C.I.C.
John Warkentin/B.Sc., M.Sc. (Manitoba), Ph.D. (Iowa State), F.C.I.C.

Department Notes:
1. Course codes ending with * indicate that course is not necessarily offered every session.
2. Students not in a Science program should note that CHEM 1A03 is a prerequisite for CHEM 2E03 and CHEM 2E03 is a prerequisite for BIOCHEM 2E03.

Courses

CHEM 1A03 INTRODUCTORY CHEMISTRY I
An introduction to chemical principles, including bonding, structure, energetics and electrochemistry. A laboratory provides experience in experimental techniques and accurate measurement.
Three lectures, one tutorial, one lab (three hours) every other week; first term
Prerequisite: OAC Chemistry and either registration in one of Science I, Engineering I, Arts & Science I, Health Science I, Kinesiology I, any programme above Level I; or a grade of at least 80% in OAC Chemistry; or CHEM 1R03
Corequisite: SCIENCE 1A00
Antirequisite: CHEM 1A06, 1E03

CHEM 1A03 INTRODUCTORY CHEMISTRY II
An introduction to equilibrium, chemical kinetics and organic chemistry.
Three lectures, one tutorial, one lab (three hours) every other week; second term
Prerequisite: CHEM 1A03 or 1E03
Antirequisite: CHEM 1A06, 1F03

CHEM 1E03 GENERAL CHEMISTRY FOR ENGINEERING I
An introduction to chemical principles for Engineering students, including reactivity, bonding, structure, energetics and electrochemistry.
Three lectures, one tutorial (one hour), one lab (three hours) every other week; first term
Prerequisite: Registration in an Engineering programme
Antirequisite: CHEM 1A03, 1A06

CHEM 1R03 GENERAL CHEMISTRY
A general introduction to chemistry, suitable for students without OAC chemistry.
Three lectures; first term
Prerequisite: Grade 12 Chemistry (Advanced)
Not open to students with 80% or higher in OAC Chemistry.
Not open to students with credit or registration in CHEM 1A03.
Students in the Faculty of Science do not receive credit for this course.

CHEM 2A03 ANALYTICAL CHEMISTRY I
An introduction to the basic principles of analytical chemistry, with particular emphasis on solution equilibria and classical methods of analysis.
Two lectures, one lab (three hours); first term
Prerequisite: Credit or registration in CHEM 2P06 or 2R03 or 2P3, or registration in a Chemical Engineering programme
Antirequisite: CHEM 2N03
CHEM 3Z23*  PROPERTIES OF MATERIALS
Familiar material properties - optical, thermal, electromagnetic and mechanical - and their exploitation in commercial applications, are investigated in terms of the physical chemistry toolkit of quantum mechanics, spectroscopy and introductory statistical mechanics.
Three lectures; one term
Prerequisite: CHEM 2P06 or 2PB3 and registration or credit in CHEM 3B03 or 3BA3
Antirequisite: CHEM 3Z03

CHEM 4A03*  ADVANCED ORGANIC CHEMISTRY
An introduction to the principles of physical organic chemistry and the elucidation of organic reaction mechanisms, and to pericyclic reactions in the ground and excited electronic states of organic molecules.
Two lectures; one term
Prerequisite: CHEM 3D03 or 3F03

CHEM 4B03  CHEMICAL APPLICATIONS OF SPECTROSCOPY
Aspects of molecular spectroscopies and their application to the solution of chemical problems.
Two lectures; one term
Prerequisite: CHEM 3E06 or 3Q03

CHEM 4D03*  ORGANIC STRUCTURE AND SYNTHESIS
Application of spectroscopic methods to structure determination. Synthetic methodology in organic chemistry.
Two lectures; one term
Prerequisite: CHEM 3D03 or 3F03

CHEM 4D03  MAIN GROUP CHEMISTRY
A selection from the following topics: chemistry of selected main group elements, electron deficient compounds, Mossbauer spectroscopy, theory and application of nuclear and radiation chemistry.
Two lectures; one term
Prerequisite: CHEM 3E06 or 3Q03

CHEM 4TA3  INSTRUMENTATION
Instrumentation and molecular structure determination.
Two lectures, one lab (three hours); one term
Prerequisite: CHEM 3A03 or registration in Level IV of Honours Applied Chemistry

CHINESE
(SEE MODERN LANGUAGES AND LINGUISTICS, CHINESE)

CIVIL ENGINEERING

WEB ADDRESS: http://www.eng.mcmaster.ca/civil/
John Hodgins Engineering Building, Room 329/A

Faculty as of January 15, 2001

Chair
D.F.E. Stolle

Professors
Brian Baetz/B.A.Sc., M.A.Sc. (Toronto), Ph.D. (Duke), P.Eng.
Robert G. Drysdale/B.Sc.(Manitoba), M.A.Sc., Ph.D. (Toronto), F.C.S.C.E., P.Eng., Martinhi, Mascarin and George Chair in Masonry Design
Ahmed Ghabarai/B.Sc. (Cairo), M.Eng., Ph.D. (McMaster), P.Eng.
Frederick L. Hall/B.A. (Amherst), M.Sc. (M.I.T.), Ph.D. (Chicago)
Stan Pietruszczak/B.Sc., M.Sc. (Warsaw), Ph.D. (Polish Acad. Sci.)

Associate Professors

Adjunct Assistant Professor
Syed Moin/B.S. (Osmania), M.S. (NevaDa), Ph.D. (McMaster), P.Eng.

Professors Emeriti
Gunhard, AE, Oravas/B.Eng., M.S., Ph.D. (Michigan)

Department Note:
All civil engineering courses are open to students registered in a civil engineering programme, subject to prerequisite requirements. Prior permission of the Department is necessary for students from other engineering departments and other faculties.

Courses

CIV ENG 2A02  SURVEYING AND MEASUREMENT
Introduction to measurement and computational techniques of surveying, the theory of measurement and errors, adjustment of observations.
One lecture, one tutorial (two hours); one lab (four hours); second term

CIV ENG 2C04  STRUCTURAL MECHANICS
Mechanics of materials; plastic deformations and residual stresses due to axial loading and bending; torsion of noncircular and thin-walled sections; unsymmetric bending and eccentric axial loading, shear stresses...
and unsymmetric loading of thin-walled members; transformation of stress and strain; yield and fracture criteria; energy methods; stability of columns. Three lectures, one lab (three hours); second term
Prerequisite: Credit or registration in ENGINEER 2P04

CIV ENG 2E03 COMPUTER APPLICATIONS IN CIVIL ENGINEERING

Numerical techniques, including error analysis, root finding, linear algebraic equations, curve fitting, integration and differentiation, ordinary differential equations; sensitivity analysis; use of several software packages for numerical analysis; civil engineering applications. Two lectures, one tutorial (three hours); first term
Prerequisite: ENGINEER 1D04, and PHYSICS 1D03, and credit or registration in ENGINEER 2P04

CIV ENG 2I03 COMMUNICATIONS IN CIVIL ENGINEERING

Oral and written communication in context of civil engineering activity. A professional liaison programme involving site visits. Two lectures, one lab or one tutorial; first term

CIV ENG 2J04 ECOLOGICAL AND GEOLOGICAL ASPECTS OF CIVIL ENGINEERING

The relationship between humans and their earth environment. Composition of "earth"; processes that operate on or beneath the surface. Global interactions of the atmosphere, hydrosphere, lithosphere and the biosphere. Principles of ecological systems. Man's perturbations on the biosphere. Three lectures, one tutorial or lab; second term

CIV ENG 2K04 FLUID MECHANICS

Fluid properties; hydrostatics; continuity, momentum and energy equations; potential flow; laminar and turbulent flow; flow in closed conduits, transients, open channel flow; hydraulic cross-sections. Three lectures, one tutorial or lab; second term
Prerequisite: Credit or registration in ENGINEER 2P04 and MATH 2M06

CIV ENG 3A03 GEOTECHNICAL ENGINEERING I

Composition of soils, soil identification and classification; compaction; seepage theory; effective stress concept; stress and displacements using elastic solutions; consolidation theory; numerical solutions. Two lectures, one lab (three hours) or one tutorial (two hours) every other week; first term
Prerequisite: CIV ENG 2003 or 2004; and 2J04

CIV ENG 3B03 GEOTECHNICAL ENGINEERING II

Shear strength characteristics and failure criteria for soils; direct shear, triaxial, plane strain and field tests; earth pressure theory; bearing capacity theory; slope stability and embankment analysis. Two lectures, one lab (three hours) or one tutorial (two hours), every other week; second term
Prerequisite: Credit or registration in CIV ENG 3A03

CIV ENG 3C03 ENGINEERING SYSTEMS

Mathematical models and systems; economic comparison of projects; optimization; linear, nonlinear and dynamic programming; simulation modelling. Two lectures, one tutorial (two hours); second term
Prerequisite: CIV ENG 2E03 and credit or registration in MATH 3J04
Antirequisite: CIV ENG 4B03

CIV ENG 3G03 STRUCTURAL ANALYSIS

Structural analysis and modelling of linear elastic structures; stress resultants and deformations of statically determinate trusses, beams, and frames; force and displacement methods for analysis of indeterminate beams and frames; introduction to stiffness matrix method; analysis of cables and arches. Two lectures, one lab (three hours); first term
Prerequisite: CIV ENG 2C04

CIV ENG 3J04 REINFORCED CONCRETE DESIGN

Introduction to concrete technology; design by limit states methods to ensure adequate capacities for bending moment, shear and diagonal tension, axial force, bond and anchorage; and design to satisfy serviceability requirements for deflection and cracking; practical design requirements; interpretation of building code for behaviour of structures. Three lectures, one lab (three hours); second term
Prerequisite: CIV ENG 2E03

CIV ENG 3K03 INTRODUCTION TO TRANSPORTATION ENGINEERING

A transportation impact study serves as the focus for group projects, and provides the context for application of material on traffic flow characteristics, capacity and control for signalized and unsignalized intersections, and travel demand forecasting. Safety; social impacts. Two lectures, one tutorial (two hours); first term

CIV ENG 3L04 MUNICIPAL HYDRAULICS AND INTRODUCTION TO WATER QUALITY

Analysis/design of water distribution networks; analysis and design of wastewater collection systems; pumps; water quality standards; water quality modelling of physical systems. Three lectures, one tutorial or lab; second term
Prerequisite: CIV ENG 2003 or 2004 and credit or registration in MATH 3J04

CIV ENG 3M03 STEEL STRUCTURES

Introduction to design in steel, tension and compression members, plate buckling aspects, beam instability, beam design, beam-columns, bolted and welded connections. Applications employing steel structures building code. Two lectures, one tutorial (two hours); second term
Prerequisite: Credit or registration in CIV ENG 3G03

CIV ENG 3N03 ENGINEERING HYDROLOGY

Hydrologic cycle; climate; hydrologic processes, precipitation; unit hydrograph; hydrologic statistics, hydrologic routing; groundwater flow. Three lectures, one tutorial (three hours); first term
Prerequisite: CIV ENG 3M04

CIV ENG 4C03 ENVIRONMENTAL IMPACT AND SUSTAINABILITY

Natural and urban ecosystems; environmental impact/assessment/legislation; energy and environmental audits; life cycle analysis; solid and hazardous wastes; sustainability and infrastructure design. Two lectures, one tutorial (two hours); first term

CIV ENG 4D04 GEOMETRIC HIGHWAY DESIGN

Design of various types and classes of streets and highways. Theory and practice in design of intersections, interchanges, arterial highways, and freeways. Design and traffic safety concepts. Three lectures, one lab (two hours); first term
Prerequisite: CIV ENG 3G03

CIV ENG 4G03 PAVEMENT MATERIALS AND DESIGN

Components of highway pavements; ground water and drainage for highway facilities; soil compaction and stabilization; aggregates; bituminous and concrete materials, flexible pavement design; concrete pavement design; interlocking pavement structures. Two lectures, one lab (three hours); first term
Prerequisite: CIV ENG 3G03

CIV ENG 4H03 LAND USE AND TRANSPORTATION

Methods for the analysis and prediction of transportation and land use patterns in cities, with application to urban planning and pollution problems. Three lectures; second term
Prerequisite: MATH 3J04
Cross-list: GEO 4D03

CIV ENG 4K04 MODERN METHODS OF STRUCTURAL ANALYSIS

Stiffness method; development and applications in structural analysis. Introduction to finite element method. Influence lines, elastic stability analysis of frames with and without sway effects. Application of finite element programs. Three lectures, one tutorial (two hours); first term
Prerequisite: CIV ENG 3G03 and MATH 3J04

CIV ENG 4L04 DESIGN OF WATER RESOURCES SYSTEMS

Investigation, planning, analysis and design of water resources systems. Introduction to GIS tools. Frequency analysis, design storms, urban drainage and analysis, floodplain analysis and flood control. Two lectures, one tutorial, one lab (three hours); second term
Prerequisite: CIV ENG 3M04

CIV ENG 4R04 STRUCTURAL SYNTHESIS

Structural design process, gravity and lateral loading requirements, structural performance criteria, choice of structural systems. Approximate analysis of different structural systems, such as frames and shear walls and slabs. Analysis of actual buildings. Three lectures, one lab (three hours); first term
Prerequisite: CIV ENG 3G03, 3J04, 3S03

CIV ENG 4S04 FOUNDATION ENGINEERING

Principles of foundation design; bearing capacity, settlement and location, footings, deep foundations, piles, pile groups and drilled piers; geotechnical techniques and case histories. Three lectures, one tutorial (two hours); first term
Prerequisite: CIV ENG 3G03

CIV ENG 4T04 DESIGN OF LOW RISE BUILDINGS

Structural systems and load distribution, design of masonry, wood, and cold-formed steel. Introduction to building envelope design. Three lectures, one tutorial (two hours); second term
Prerequisite: CIV ENG 3G03, 3J04, 3S03
Bridge loads and analysis for load effects. Design of reinforced concrete solid-slab, T-beam type bridges, composite floor system and plate girders. Stresses, ultimate strength, and design of pre-stressed concrete structures.

**Fatigue Design**

Three lectures, one lab (three hours) or one tutorial (two hours); second term

**Prerequisites:** CIV ENG 3G03, 3J04, 3S03

**CIV ENG 4204 INDEPENDENT STUDY**

An experimental and/or analytical investigation related to any branch of civil engineering, under the direction of a faculty member. Students may choose a project for study from a list of department approved projects, which will be circulated in February. The student may be required to present a seminar, and will submit a final written report on the project before April 1.

Two labs (three hours); both terms. The hours assigned can be freely scheduled to suit those involved in a particular project and may include, computation classes, laboratory work, discussion or individual study.

**Prerequisite:** Registration in a final level of a Civil Engineering programme, and a SA of at least 5.5.

**Enrolment is limited.**

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**CLASSICS WEB ADDRESS:**

http://www.humanities.mcmaster.ca/-classics/classhome.htm

Togo Salmon Hall, Room 706

Ext. 24311

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**Faculty as of January 15, 2001**

**Chair**

Howard Jones

**Professors**

Katherine M. D. Dunbabin/M.A., D. Phil. (Oxford)
Howard Jones/B.A. (London), M.A., Ph.D. (Indiana)
William J. Slater/M.A., Ph.D. (St. Andrews)

**Associate Professors**

Michele G. George/B.A. (Toronto), M.A., Ph.D. (McMaster)
Evan Haley/A.B. (Dartmouth), Ph.D. (Columbia)
Peter Kingston/S.A., Ph.D. (London)

**Assistant Professors**

Claude Eliers/B.A. (Sask.), M.A. (McMaster), D. Phil. (Oxford)
Gretchen Umloltz/A.B. (Bryn Mawr), M.A. (Buffalo), Ph.D. (California-Berkeley)

**Associate Member**

D. Geagren/(History) A.B., Ph.D. (Johns Hopkins)

**Professors Emeriti**

George M. Paul/M.A., Ph.D. (London)
Donald M. Shepherd/M.A. (Queen's), Ph.D. (Chicago)

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**Department Note:**

The following courses are available as electives to qualified students in any programme:

- a) **Classical Archaeology and Art History**
  - CLASSICS 1A03, 2A03, 2B03, 3A03, 3B03, 3A03, 3B03, 3S03

- b) **Ancient History and Society**
  - CLASSICS 2K03, 2L03, 2LL3, 2Z03, 3C03, 3CC3, 3E03, 3EE3, 3LL3, 3S03

- c) **Ancient Philosophy**
  - CLASSICS 2P06, 4K03

- d) **Classical Literature in Translation**
  - CLASSICS 2D03, 2E03, 2H03, 3E03, 3S03, CLASSICS 3I3, 3J03

- e) **Greek Language and Literature**
  - GREEK 1Z03, 1ZZ3, 2A03, 2AA3, 3A03, 3B03, 3B03, 4B03, 4BB3, 4C03

- f) **Latin Language and Literature**
  - LATIN 1Z03, 1ZZ3, 2A03, 2AA3, 3A03, 3B03, 4A03, 4B03, 4BB3

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**CLASSICS 1A03 INTRODUCTION TO CLASSICAL ARCHAEOLOGY**

A study of the history and methodology of Greek and Roman archaeology illustrated with materials from excavated sites.

Three lectures; one term

**Antirequisite:** CLASSICS 2A03

**CLASSICS 1B03 MYTHOLOGY AND LITERATURE OF GREECE AND ROME I**

A study of Greek and Roman mythology and literature with emphasis on the heroes and heroines of the Trojan War. Homer's Odyssey and Vergil's Aeneid will be read in translation.

Two lectures, one tutorial; one term

**Antirequisite:** CLASSICS 1B06

**CLASSICS 1B03 MYTHOLOGY AND LITERATURE OF GREECE AND ROME II**

A study of the main themes of Classical mythology through the reading of Greek and Roman authors. Attention will also be given to mythological themes in post-classical writers and artists.

Two lectures, one tutorial; one term

**Antirequisite:** CLASSICS 1B06

**CLASSICS 1L03 HISTORY AND ARCHAEOLOGY OF THE ANCIENT WORLD I**

The history of the Ancient Near East and Greece down to the end of the 5th century B.C. based on documentary sources and archaeological evidence.

Two lectures, one tutorial; one term

**Cross-list: HISTORY 1L03**

**Antirequisite:** CLASSICS 1L06, HISTORY 1L06

**CLASSICS 1L03 HISTORY AND ARCHAEOLOGY OF THE ANCIENT WORLD II**

The history of Greece and Rome from the 4th century B.C. to the fall of Rome based on documentary sources and archaeological evidence.

Two lectures, one tutorial; one term

**Cross-list: HISTORY 1L03**

**Antirequisite:** CLASSICS 1L06, HISTORY 1L06

**CLASSICS 2B03 GREEK ART**

The architecture, sculpture and painting of the Greek and Hellenistic world.

Three lectures; one term

**Prerequisite:** Registration in Level II and above

**Cross-list: ART HIST 2B03**

**CLASSICS 2C03 ROMAN ART**

The architecture, sculpture, and painting of the Roman world.

Three lectures; one term

**Prerequisite:** CLASSICS 2C03

**Cross-list: ART HIST 2C03**

**CLASSICS 2D03 GREEK AND ROMAN MYTHOLOGY**

A study of the myths of Greek and Roman gods and heroines, their explanation according to theories on the nature of myths, and their use by Greek and Roman authors, particularly Homer and Vergil.

Three lectures; one term

**Prerequisite:** Registration in Level II and above

**Cross-list: COMP LIT 2D03**

**CLASSICS 2E03 THE ANCIENT WORLD IN FILM**

The emphasis is on myth (Amazons, Hercules) and history (slave revolts, banquets, decadent emperors), studied via Greek and Latin accounts (in translation) and cinematic versions (e.g. Electra, Medea, Mighty Aphrodite, Apocalypse Now, Spartacus, I Claudius).

Three lectures; one term

**Prerequisite:** Registration in Level II and above

**Cross-list: CMST 2Y03**

**CLASSICS 2H03 GREEK AND ROMAN DRAMA**

Selected Greek and Roman Tragedies and Comedies will be read in translation. The course will concentrate on characterization and the philosophical and religious aspects of ancient drama.

Three lectures; one term

**Prerequisite:** Registration in Level II and above

**Cross-list: COMP LIT 2H03**

**Antirequisite:** CLASSICS 2H06
CLASSICS 2K03  THE SOCIETY OF GREECE AND ROME
A description and analysis of selected aspects of the social life of Greece and Rome. Attention will be given to subjects such as work and leisure, war and the warrior, slavery, marriage and family, and the role of women. Three lectures; one term.
Prerequisite: Registration in Level II and above
Cross-list: HISTORY 2K03

CLASSICS 2L03  HISTORY OF CLASSICAL GREECE
Greek from the rise of the city-states to Alexander, with particular attention to political, social and cultural development in the light of literary and archaeological evidence (No Greek or Latin required). Three lectures; one term.
Prerequisite: Registration in Level II and above
Cross-list: HISTORY 2L03
This course is administered by the Department of History.

CLASSICS 2LL3  HISTORY OF CLASSICAL ROME
Rome from the middle Republic through the Empire, with particular attention to the political, military and social developments in the light of literary and archaeological evidence. (No Greek or Latin required.) Three lectures; one term.
Prerequisite: Registration in Level II and above
Cross-list: HISTORY 2LL3
This course is administered by the Department of History.

CLASSICS 2P06  ANCIENT GREEK PHILOSOPHY
A study of Western philosophical thought from its earliest beginnings to late Roman times, with emphasis on Plato and Aristotle. Three lectures; two terms.
Prerequisite: Registration in Level II and above
Cross-list: PHILOS 2A08
This course is administered by the Department of Philosophy.

CLASSICS 2Z03  GREEK AND ROMAN RELIGION
A study of the role of religion in Greek and Roman public and private life. Three lectures; one term.
Prerequisite: Registration in Level II and above
Cross-list: RELIG ST 2Z03

CLASSICS 3C03  THE LATE REPUBLIC
An examination and analysis of major themes in the political, social, and economic history of Rome from the middle-second century B.C. to the assassination of Caesar. Three lectures; one term.
Prerequisite: Six units of Classics, and registration in Level III and above
Cross-list: HISTORY 3C03
Not open to students with credit in CLASSICS 3MM3 if the topic was The Late Republic.
Alternates with CLASSICS 3CC3.

CLASSICS 3CC3  THE EARLY EMPIRE
An examination and analysis of major themes in the political, social, and administrative history of Rome under the early emperors. Three lectures; one term.
Prerequisite: Six units of Classics, and registration in Level III and above
Cross-list: HISTORY 3CC3
Not open to students with credit in CLASSICS 3MM3 if the topic was The Late Republic.
Alternates with CLASSICS 3C03.

CLASSICS 3E03  THE ROMAN FAMILY
The ancient Roman family, including social, economic and legal aspects. Three lectures; one term.
Prerequisite: One of CLASSICS 1L08, 1L3, 2K03, 2LL3, 3C03, 3CC3 and registration in Level III and above
Cross-list: HISTORY 3E03
Alternates with CLASSICS 3EE3.

CLASSICS 3EE3  THE GREEK HISTORIANS
The study in translation of Herodotus, Thucydides, and other Greek historical writers, with consideration of the evolution of their genre and their contributions to the development of historiography. Three lectures; one term.
Prerequisite: Registration in Level III and above
Cross-list: HISTORY 3EE3
Alternates with CLASSICS 3E03.

CLASSICS 3G03  LATE ANTIQUE AND EARLY CHRISTIAN ART
The art and architecture of the later Roman Empire, and the birth of Christian art (A.D. 200-600). Three lectures; one term.
Prerequisite: CLASSICS 2C03 or ART HIST 2G03
Cross-list: ART HIST 3G03
Alternates with CLASSICS 3H03.

CLASSICS 3H03  ARCHAIC GREEK ART
The formative period of Greek Art, from its rebirth after the Dark Ages to the Persian Wars (c. 1000-480 B.C.), and its relationship to the art of the Near East. Three lectures; one term.
Prerequisite: CLASSICS 2G03
Cross-list: ART HIST 3H03
Alternates with CLASSICS 3G03.

CLASSICS 3I03  TOPICS IN GREEK AND ROMAN LITERATURE I
Previous topics include: Greek and Roman Epic, Greek and Roman Elegiac and Lyric Poetry, The Legend of the Trojan War, Crime and Punishment, Satire, The Poet and Society. Consult the Department concerning the topic to be offered. Three lectures; one term.
Prerequisite: Six units of Classics
Cross-list: COMP LIT 3I03
CLASSICS 3I03 may be repeated, if on a different topic, to a total of six units.

CLASSICS 3L03  THE HELLENISTIC AGE
The successors of Alexander, the world of the monarchies and their absorption into the Roman Empire. Political, cultural and social achievements in the light of modern historical research will be emphasized. Three hours (lectures and discussion groups); one term.
Prerequisite: CLASSICS 2L03 or six units of Classics
Cross-list: HISTORY 3L03
This course is administered by the Department of History.

CLASSICS 3Q03  GREEK SANCTUARIES
Ancient Greek sanctuaries and their social and political context. Topics will include architecture and art, as well as activities such as sacrifice, athletic games, healing, and oracular consultation. Three lectures; one term.
Prerequisite: CLASSICS 2A03 or 2B03
Alternates with CLASSICS 3S03.

CLASSICS 3R03  THE ARCHAEOLOGY OF THE CITY OF ROME AND ROMAN ITALY
The growth of the city of Rome, from its origins to the triumph of Christianity, and an examination of the archaeological remains of Pompeii, Ostia and other cities of Roman Italy. Three lectures; one term.
Prerequisite: CLASSICS 2A03 or 2C03
Alternates with CLASSICS 3S03.

CLASSICS 3T03  THE THEATRE OF GREECE AND ROME
The history of theatres and theatrical production in Greece and Rome with consideration of the social significance of drama in antiquity. The course will also include archaeological material. Three lectures; one term.
Prerequisite: CLASSICS 2H03 or six units of Classics
Cross-list: COMP LIT 3T03
Antirequisite: CLASSICS 2H06

CLASSICS 4B03  SEMINAR IN CLASSICAL ARCHAEOLOGY
Consult the Department concerning the topic to be offered. Seminar (two hours); one term.
Prerequisite: Six units from CLASSICS 2A03, 3C03, 3R03, 3S03, and registration in Level III or IV of an Honours programme in Classics (A)
CLASSICS 4B03 may be repeated, if on a different topic, to a total of six units. Enrolment is limited.

CLASSICS 4BB3  SEMINAR IN ANCIENT ART
Consult the Department concerning the topic to be offered. Seminar (two hours); one term.
Prerequisite: Six units from CLASSICS 2A03, 3C03, 3R03, 3S03, and registration in Level III or IV of an Honours programme in Classics (A)
Cross-list: ART HIST 4BB3
CLASSICS 4BB3 may be repeated, if on a different topic, to a total of six units. Enrolment is limited.

CLASSICS 4D06  SPECIAL TOPICS IN GREEK HISTORY
Investigations into Greek social history and its interpretation. Seminar (two hours); two terms.
Prerequisite: Six units from CLASSICS 2K03, 2L03, 3EE3, 3LL3, CLASSICS 3JJ3, and registration in Level III or IV of any Honours programme in Classics
Cross-list: HISTORY 4D06
Enrolment is limited.
This course is administered by the Department of History.
CLASSICS 4K03 ANCEINT PHILOSOPHY
A critical study of one or more ancient Greek philosophers such as Parmenides, Plato, Aristotle.
Seminar (two hours); one term
Prerequisite: CLASSICS 2P06, and registration in Level III or IV of any programme.
Cross-list: PHILOS 4K03
Antirequisite: CLASSICS 4C03, 4J03
Offered in alternate years.
This course is administered by the Department of Philosophy.

CLASSICS 4T03 INDEPENDENT STUDY
Reading and research in Classics, supervised by a department member and culminating in a major paper to be evaluated by the supervisor, with confirmation by a second reader. See Department for more detailed guidelines.
Tutorials; two terms
Prerequisite: Registration in Level IV of any Honours programme in Classics with a Cumulative Average of at least 9.5, and permission of the Department.

GREEK ...

Notes:
1. Students should note that the Department has classified its Greek language courses under the following categories:
   Introductory Level Language Course
   GREEK 1Z03, 1Z23
   Intermediate Level Language Courses
   GREEK 2A03, 2A04
2. Students with OAC Ancient Greek should normally register in GREEK 2A03, but with special permission, may register in either GREEK 1Z03 or 1Z23.

Courses  If no prerequisite is listed, the course is open.
GREEK 1Z03 BEGINNER’S INTENSIVE GREEK I
A rapid introduction to the basic grammar of Ancient Greek.
Five hours (lectures and tutorials); one term
Prerequisite: Open except to graduates of OAC Ancient Greek, who must have special permission to register in the course
Antirequisite: GREEK 1Z06
GREEK 1Z23 BEGINNER’S INTENSIVE GREEK II
This course continues the study of the grammar of Ancient Greek begun in GREEK 1Z03 and introduces students to the reading of passages from Greek authors.
Five hours (lectures and tutorials); one term
Prerequisite: GREEK 1Z03; students with OAC Ancient Greek, must obtain special permission to register in the course
Antirequisite: GREEK 1Z06
This course, with a grade of at least B-, is accepted as a prerequisite for admission to any Honours programme in Classics, or, with a grade of at least C-, for admission to the B.A. programme in Classics.
GREEK 2A03 INTERMEDIATE GREEK I
A study of selected passages from Greek authors designed to develop a student’s proficiency in reading Greek. The course will also include grammatical exercises.
Three lectures; one term
Prerequisite: OAC Ancient Greek or GREEK 1Z06 or 1Z23. Students using this course as a Humanities I requirement will register for GREEK 2A03 and 2A04
GREEK 2A03 INTERMEDIATE GREEK II
A study of selected passages from Greek authors designed to develop further the student’s proficiency in reading Greek.
Three lectures; one term
Prerequisite: GREEK 2A03
GREEK 3A03 GREEK HISTORIANS
Selected readings from Greek historical authors, such as Herodotus and Thucydides. The course will also include grammatical exercises.
Three lectures; one term
Prerequisite: Six units of Level II Greek
Alternates with GREEK 4C03.
GREEK 3B03 HOMER
Selected readings from Homer’s Iliad or Odyssey.
Three lectures; one term
Prerequisite: Six units of Level II Greek
Alternates with GREEK 4B03.
GREEK 4B03 GREEK TRAGEDY
Selected readings from Sophocles, Euripides, or Aeschylus.
Three lectures; one term
Prerequisite: Six units of Level II Greek
Alternates with GREEK 3B03.
GREEK 4BB3 TOPICS IN GREEK LITERATURE II
Consult the Department for the topic to be offered.
Three lectures; one term
Prerequisite: Six units of Level II Greek
GREEK 4BB3 may be repeated, if on a different topic, to a total of six units.
Alternates with LATIN 4BB3.
GREEK 4C03 PLATO
Selected readings from the dialogues of Plato. The course will also include grammatical exercises.
Three lectures; one term
Prerequisite: Six units of Level II Greek
Alternates with GREEK 3A03.
GREEK 4K03 GUIDED READING IN GREEK AUTHORS
Selected readings from Greek authors supervised by a member of the Department.
Tutorials; one term
Prerequisite: Six units of Level II Greek and registration in Level III or IV of any Honours programme in Classics, and permission of the Department.
GREEK 4K03 may be repeated, if on a different topic, to a total of six units.

LATIN ...

Notes:
1. Students should note that the Department has classified its Latin language courses under the following categories:
   Introductory Level Language Course
   LATIN 1Z03, 1Z23
   Intermediate Level Language Courses
   LATIN 2A03, 2A04
2. Students with OAC Latin should normally register in LATIN 2A03, but with special permission, may register in either LATIN 1Z03, 1Z23.

Courses  If no prerequisite is listed, the course is open.
LATIN 1Z03 BEGINNER’S INTENSIVE LATIN I
A rapid introduction to the basic grammar of Classical Latin.
Five hours (lectures and tutorials); one term
Prerequisite: Open except to graduates of OAC Latin who must obtain special permission to register in the course
Antirequisite: LATIN 1Z06
This course, with a grade of at least B-, is accepted as a prerequisite for admission to any Honours programme in Classics, or, with a grade of at least C-, for admission to the B.A. programme in Classics.
LATIN 1Z23 BEGINNER’S INTENSIVE LATIN II
This course continues the study of Latin grammar begun in LATIN 1Z03 and introduces students to the reading of simple passages from Latin authors.
Five hours (lectures and tutorials); one term
Prerequisite: LATIN 1Z03; students with OAC Latin must obtain special permission to register in the course
Antirequisite: LATIN 1Z06
This course, with a grade of at least B-, is accepted as a prerequisite for admission to any Honours programme in Classics, or, with a grade of at least C-, for admission to the B.A. programme in Classics.
LATIN 2A03 INTERMEDIATE LATIN I
A study of selected passages designed to develop the student’s proficiency in reading Latin. The course will also include grammatical study.
Three lectures; one term
Prerequisite: OAC Latin or LATIN 1Z06 or 1Z23. Students using this course as a Humanities I requirement will register for LATIN 2A03 and 2A04.
LATIN 2A03 INTERMEDIATE LATIN II
A study of selected passages designed to develop further the student’s proficiency in reading Latin. Attention will be given to grammar and techniques of literary criticism.
Three lectures; one term
Prerequisite: LATIN 2A03
LATIN 3A03 LATIN HISTORIANS
Readings in selected Latin historians such as Sallust, Livy, and Tacitus. The course will also include grammatical exercises.
Three lectures; one term
Prerequisite: LATIN 2A03 and 2A04
Alternates with LATIN 4A03.
LATIN 3B03 VERGIL
Readings from Vergil's Aeneid, Georgics or Eclogues.
Three lectures; one term
Prerequisite: LATIN 2A03 and 2A03
Alternates with LATIN 4B03.

LATIN 4A03 CICERO
Readings from the works of Cicero. The course will also include grammatical exercises.
Three lectures; one term
Prerequisite: LATIN 2A03 and 2A03
Alternates with LATIN 3A03.

LATIN 4B03 LATIN LOVE POETRY
Readings in Latin Love Poetry.
Three lectures; one term
Prerequisite: LATIN 2A03 and 2A03
Alternates with LATIN 3B03.

LATIN 4BB3 TOPICS IN LATIN LITERATURE II
Consult the Department for the topic to be offered.
Three lectures; one term
Prerequisite: Six units of Level II Latin
LATIN 4BB3 may be repeated, if on a different topic, to a total of six units.
Alternates with GREEK 4BB3.

LATIN 4K03 GUIDED READING IN LATIN AUTHORS
Selected readings from Latin authors supervised by a member of the Department.
Tutorials; one term
Prerequisite: Six units of Level II Latin, and registration in Level III or IV of any Honours programme in Classics, and permission of the Department
LATIN 4K03 may be repeated, if on a different topic, to a total of six units.

COMMERCE
WEB ADDRESS: http://www.business.mcmaster.ca
M.G. DeGroote Building, Room 104
Ext. 23914

Faculty as of January 15, 2001
Chair, Marketing, International Business and Business Policy Area
Kenneth R. Deal

Chair, Finance and Business Economics Area
Dean Mountain

Chair, Accounting Area
Y.C. Lilian Chan

Chair, Human Resources and Management Area
Wilis Wiesner

Chair, Management Science and Information Systems Area
Prakash L. Abad

Professors
Prakash L. Abad/B.Tech. (Indian Institute of Technology), M.S., M.B.A., Ph.D. (Cincinnati)/(Management Science)/Chair, Management Science and Information Systems Area
Naresh C. Agarwal/B.A., M.A. (Delhi), Ph.D. (Minnesota)/(Human Resources)/Coordinator, Ph.D. Programme (Human Resources)
Norman P. Archer/B.Sc. (Alberta), Ph.D. (McMaster), M.S. (New York)/(Management Science and Information Systems)/Wayne C. Fox Chair in Business Innovation
Vishwanath Baba/B.Eng. (Madras), M.B.A. (Western Illinois), Ph.D. (British Columbia)/(Organizational Behaviour), Dean
Christopher K. Bart/B.A., M.B.A. (York), Ph.D. (Western Ontario), C.A./Business Policy)/Director of the Management of Innovation and Technology Programme
Min S. Basadur/B.A.Sc. (Toronto), M.B.A. (Xavier), Ph.D. (Cincinnati), P.Eng.(Organizational Behaviour)
Trevor W. Chamberlain/B.Sc. (California-Berkeley), M.B.A. (McGill), Ph.D. (Toronto), C.A./Finance)/Director, Undergraduate Programmes
M.W. Luke Chan/B.Sc. (Prince Edward Island), M.A., Ph.D. (McMaster) (Finance and Business Economics)/Executive Director, Office of International Affairs
C. Sherman Cheung/B.S. (Louisiana State), M.S., Ph.D. (Illinois)/(Finance and Business Economics)
Robert G. Cooper/B.Eng., M.Eng. (McGill), M.B.A., Ph.D. (Western Ontario)/(Marketing)
Rick D. Hackett/B.Sc. (Toronto), M.A. (Windsor), Ph.D. (Bowling Green State)/(Human Resources)
Harish C. Jain/B.Com. (Delhi), M.B.A. (Indiana), Ph.D. (Wisconsin)/(Human Resources and Labour Relations)
Elko J. Klenischmidt/Dip. Ing. (Staatliche Ingenieurschule, Hannover), M.B.A., Ph.D. (McGill)/(Marketing and International Business)/Director, Engineering and Management Programmes
Clarence C.Y. Kwan/Ph.D. (Ottawa), M.B.A. (McMaster), Ph.D. (Toronto), P.Eng./(Finance)
G. John Miltenburg/B.Eng.,M.Gt., M.B.A. (McMaster), M.Eng. (Toronto), Ph.D. (Waterloo)/(Production and Management Science)
Dean C. Mountain/B.A. (McMaster), M.A., Ph.D. (Western Ontario)/(Finance and Business Economics)/Chair, Finance and Business Economics Area
Mahmut Parlar/B.Sc., M.Sc. (Middle Eastern Technical University), Ph.D. (Waterloo)/(Management Science)
Joseph B. Rose/B.B.A. (Adelphi), M.B.A. (California, Ph.D. (SUNY-Buffalo) (Industrial Relations)
George Steiner/M.Sc. (Budapest), Ph.D. (Waterloo)/(Production and Management Science)/Coordinator, Ph.D. Programme (Management Science)/Systems
George O. Wesołowska/B.A.Sc. (Toronto), M.B.A. (Western Ontario), Ph.D. (Wisconsin)/(Management Science)
Yufei Yuan/B.S. (Fudan), Ph.D. (Michigan)/(Information Systems)
F. Iliek Zeytinoglu/B.A., M.A. (Bogaziçi), M.S., Ph.D. (Pennsylvania) (Management and Industrial Relations)

Associate Professors
Y.C. Lilian Chan/B.B.A. (Chinese Univ. of Hong Kong), Ph.D. (Virginia Polytechnic Institute and State University)/(Accounting)/Chair, Accounting Area
Kenneth R. Deal/B.S., M.B.A., Ph.D. (SUNY-Buffalo)/(Marketing and Management Science)/Chair, Marketing, International Business and Business Policy Area
Richard W. Deaves/B.A., M.A., Ph.D. (Toronto)/(Finance and Business Economics)
Scott J. Edgebet/B.B.A. (Prince Edward Island), M.B.A. (McMaster), Ph.D. (Bradford)/(Marketing)
Dwaker Gupta/B.Tech. (Indian Institute of Technology) M.Sc. (Windsor), Ph.D. (Waterloo)/(Production and Management Science)
Khaled Hassanien/B.Sc. (Kuwait), M.A.Sc. (Toronto), Ph.D. (Waterloo), M.B.A. (Wilfrid Laurier)/(Information Systems)
Bernadette E. Lynn/B.A. (Carlow College), M.A. (Pittsburgh), Ph.D., M.B.A. (McMaster), C.M.A./(Accounting)
John W. Medcof/B.A. (New Brunswick), M.A., Ph.D. (Toronto)/(Organizational Behaviour)/Associate Dean (Academic)
Ali R. Montazeri/H.N.D. (Teeside Polytechnic), M.Sc. (Southampton), Ph.D. (Waterloo)/(Information Systems)
S.M. Khalid Neiner, B.A., M.A. (Delhi), Ph.D. (Florida)/(Accounting)
Mohamed M. Shehata/B.Com. (Tanta), M.S. ( Ain-Shams), M.B.A. (North Texas State), Ph.D. (Florida)/(Accounting)/Coordinator, M.B.A. Programmes
D. Wayne Taylor/B.A. (Toronto), M.P.A., Ph.D. (York)/(Business and Public Policy)/Director, Health Services Management Programme
Hugh A.L. Thomas/B.A. (Alberta), M.B.A. (Hong Kong), Ph.D. (New York)/(Finance)
Willis Wiesner B.A. (Wilfrid Laurier), M.A.Sc., Ph.D. (Waterloo)/(Human Resources)/Chair, Human Resources and Management Area

Assistant Professors
Peter Boey/B.E., M.Eng., Ph.D. (Canfield School of Management)/(Management Science and Information Systems)
Nick Bonnis/B.A., Ph.D. (Western Ontario)/(Marketing, International Business and Policy)
Narat Charurat/B.A. (Thammasat), M.B.A. (Drexel), Ph.D. (York)/(Finance)
Tim DeGroot/B.S., M.B.A., Ph.D. (Florida State)/(Human Resources and Labour Relations)
Brian Detlor/B.Sc. (Western Ontario), M.S., Ph.D. (Toronto)/(Information Systems)
Horng-Tzu Hao/B.B.A. Finance (Tamkang University)
James H. Tiessen/B.Sc. (Alberta), M.Sc. (Guelph), Ph.D. (York)/(International Business)
Viswanath Trivedi/B.Sc. (Andhra), Ph.D. (Arizona State)/(Accounting)
Lecturers
Marilyn Adams/B.Sc. (Carnegie-Mellon), M.Ed. (Pennsylvania State), C.A./(Accounting)
Rita Cossa/B.A. Admin. (Wilfrid Laurier), M.B.A. (McMaster)/(Marketing)
Teal McLaughlin/Early/B.Com. (Queen's), M.I.R., Ph.D. (Toronto)/(Marketing and Business Policy)
Anand Malik/B.A. (Chandigarh), P.G. Diploma in Mgt (Delhi), M.A. (Cambridge)
Manvir G. Ryden/B.B., B.Sc. (Carleton), M.B.A. (McMaster)/(Marketing and Business Policy)/(Assistant Vice-President, Information Services and Information Systems)
Tina Salisbury/B.Com., M.B.A. (McMaster)/(Management Science and Information Systems)
Terry Seawright/B.A.Sc. (Toronto), M.B.A. (McMaster)/(Marketing)
Linda Stockton/M.B.A. (McMaster)/(Marketing)

Professors Emeriti
Roy J. Adams/B.A. (Pennsylvania State), M.A., Ph.D. (Wisconsin)/(Industrial Relations)
Peter M. Banting/B.A., M.B.A. (McMaster), Ph.D. (Michigan State)/(Marketing)
Robert F. Love/B.A.Sc. (Toronto), M.B.A. (Western Ontario), Ph.D. (Stanford), P.Eng/(Management Science)

Faculty Notes:
1. Upper Level Commerce courses are not open to Business I students.
2. The Commerce courses for the Business Minor are open to students registered in any four- or five-level McMaster degree programme. For these students, enrolment will be limited to 40 spaces per course on a first-come, first-served basis in the following courses: COMMERCE 2A03, 2A03, 2A03, 2B03, 2A03, 2A03, 2B03, 3B03, 5A03, 5M03. Please note that all prerequisites for these courses must also be satisfied. Students registered in a McMaster Commerce, Engineering Management or Labour Studies programme (where applicable) will be guaranteed enrolment in these courses. See Minor in Business in the Faculty of Business section of this Calendar.
3. Graduates of McMaster's Commerce programmes or one of the Engineering and Management programmes may take, as part-time students, Level III and IV Commerce courses not previously taken, to a maximum of 18 units, excluding COMMERCE 4AG3, 4AH3, 4AI3, with the permission of the Academic Programmes Office. Such permission will be given only if normal prerequisites are satisfied and if space permits after meeting the requirements of in-course students. Registrations will be approved after classes start. (See the Admission Requirements section of this Calendar under the heading Continuing Students.)
4. Level II and Level III Commerce courses are generally scheduled for three one-hour lectures per week; one term. Level IV Commerce courses are scheduled for two lectures per week (a two-hour lecture and a one-hour lecture); one term.
5. Level IV Commerce requirements: the six units of Level III or IV Commerce courses noted in the School of Business section of this Calendar can only be taken by Level IV Commerce students in their final year.

Courses
COMMERCE 1B03 INTRODUCTION TO BUSINESS
Broad integrative course covering all functional areas of business; finance, human resources, management sciences and information systems, accounting and marketing. Relationships among business, government and society considered.
Prerequisite: Registration in Business I or Engineering I

COMMERCE 2A03 FINANCIAL ACCOUNTING I
This is an introduction to the basic principles and practices of financial accounting, which includes an examination of the income measurement and asset and liability valuation of an understanding of financial accounting information and the ethics of financial reporting.
Prerequisite: ECON 1A06 or 1B03 and registration in a Commerce or Engineering and Management Programme; or ECON 1A06 or 1B03 with a grade of at least B- and registration in a four or five-level non-Commerce Programme
Enrolment is limited. (See Note 2 above.)

COMMERCE 2A03 MANAGERIAL ACCOUNTING I
An introduction to concepts underlying the use of cost accounting information for managerial control and for inventory valuation. The natural and analysis of costs and the usefulness and limitations of accounting data for decision-making, including ethical considerations, will be discussed.
Prerequisite: COMMERCE 2A03 and registration in a Commerce or Engineering and Management Programme or any four or five-level non-Commerce Programme
Enrolment is limited. (See Note 2 above.)

COMMERCE 2A03 ORGANIZATIONAL BEHAVIOUR AND HUMAN RESOURCES
This course provides an overview of the field. Topics include: creativity, problem solving, decision-making, systems approaches, organizational effectiveness, motivation, work reorganization and organizational structures.
Prerequisite: Registration in a Commerce, Engineering and Management or Labour Studies programme or any four or five-level non-Commerce programme
Antirequisite: KINESIOL 3L03
Enrolment is limited. (See Note 2 above.)

COMMERCE 2F03 INTRODUCTION TO FINANCE
This course introduces the main instruments and institutions in the Canadian financial system. The basic concepts and models of modern financial theory are introduced through lectures and "hands-on" problem solving. Topics include: the time value of money, capital budgeting, the trade-off between risk and return and security valuation.
Prerequisite: ECON 1A06 or 1B03, MATH 1A03, 1M03, or 1N03 and COMMERCE 2A03 and registration in a Commerce or Engineering and Management programme; or registration in a four or five-level non-Commerce programme. Students in a four- or five-level non-Commerce programme must have at least B- in ECON 1A06 or 1B03.
Enrolment is limited. (See Note 2 above.)

COMMERCE 2F03 INTRODUCTION TO MARKETING
This course introduces the conceptual underpinnings and operational facets of marketing with a primarily consumer (as opposed to industrial) focus.
Prerequisite: ECON 1A06 or 1B03 and registration in a Commerce or Engineering and Management Programme; or ECON 1A06 or 1B03 with a grade of at least B- and registration in a four or five-level non-Commerce Programme
Enrolment is limited. (See Note 2 above.)

COMMERCE 2G03 COMPUTER-AUGMENTED STATISTICAL ANALYSIS
An introduction to the application of statistical analysis in managerial decision-making. The concepts of statistical analysis are applied to a variety of topics, including decision-making, estimation by sampling, hypothesis testing, analysis of variance, simple linear and multiple regression and forecasting.
Prerequisite: OAC FINITE MATH or STATS 1L03 and registration in a Commerce or Engineering and Management Programme or any four or five-level non-Commerce Programme
Antirequisite: STATS 1F03, STATS 1CC3
Enrolment is limited. (See Note 2 above.)

COMMERCE 2G03 INFORMATION SYSTEMS IN MANAGEMENT
This course emphasizes the strategic role of information systems in modern business. Topics include: the technical foundations of information systems, the impact of information systems on business operations and decision-making, and the processes that are required for successful implementation of business information systems.
Prerequisite: One of COMP SCI 1B03, 1C03, 1S03, 1T03, 1Z03, ENGINEER 1D04, MMEDIA 1A03 and registration in a Commerce or Engineering and Management Programme or any four or five-level non-Commerce Programme
Antirequisite: COMMERCE 3D03
Enrolment is limited. (See Note 2 above.)
COMMERC 2S03 COMMUNICATION, THINKING AND GROUP SKILLS
Students will be introduced to the effective use of written and oral communication skills; thinking skills including convergent, divergent and creative thinking as well as logic and metoric; and group and interpersonal skills including leadership. Students practice these skills in exercises concerned with current business issues.
Prerequisite: Registration in a Commerce programme

COMMERC 3AB3 FINANCIAL ACCOUNTING II
A first course in intermediate financial accounting dealing with the theory and practice of financial statement preparation and reporting. The emphasis will be on asset valuation and the related impact on income measurement.
Prerequisite: COMMERC 2A3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)
Antirequisite: COMMERC 4AB3

COMMERC 3AC3 FINANCIAL ACCOUNTING II
A second course in intermediate financial accounting dealing with reporting issues that relate to liabilities and owners' equity. In particular, the concepts of recognition, measurement and disclosure of such items as bonds, taxes, leases and pensions as well as the phenomenon of off-balance sheet financing are examined.
Prerequisite: COMMERC 3AB3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)
Antirequisite: COMMERC 4AB3

COMMERC 3BC3 HUMAN RESOURCE MANAGEMENT AND LABOUR RELATIONS
This course builds on COMMERC 2B3, focusing on human resource management and labour relations issues and practices from a general management education perspective.
Prerequisite: COMMERC 2B3 or KINESIOL 3L03 and registration in a Commerce, Labour Studies, or Engineering and Management programme or a four or five-level non-Commerce programme.
Antirequisite: COMMERC 3B3, 3BB3
Enrolment is limited. (See Note 2 above.)

COMMERC 3FA3 MANAGERIAL FINANCE
This course examines various aspects of the financial management of the firm including the sources and methods of financing, capital structure, dividend policy, leasing, mergers and acquisitions, working capital management, effects of taxation on financial decisions and international aspects of finance.
Prerequisite: COMMERC 2FA3 and registration in a Commerce or Engineering and Management programme or any four or five-level non-Commerce programme.
Enrolment is limited. (See Note 2 above.)

COMMERC 3FB3 SECURITIES ANALYSIS
This course is concerned with the analysis of marketable securities, especially common stocks. Topics include: the institutional characteristics and operation of financial markets, securities analysis and valuation, investment characteristics and strategies to increase return.
Prerequisite: COMMERC 2FA3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)
Not open to students with credit or registration in ECON 2103.

COMMERC 3FC3 INTERNATIONAL FINANCE
This course provides a framework for examining financial management decisions in an international setting. Issues examined include: foreign exchange risk management, multinational working capital management, foreign investment analysis and financing foreign operations.
Prerequisite: COMMERC 3FA3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERC 3IN0 COMMERCE INTERNSHIP PROGRAMME
Career development; job strategies; skills assessment; resume/application form preparation; interview/presentation skills; orientation to the workplace. Successful completion of an eight, twelve or sixteen month internship, employer evaluation and work term report.
Lecture/workshop (six sessions); first term or second term
Prerequisite: Successful completion of all required Level III Commerce courses before embarking on work place opportunity

COMMERC 3MA3 COMPETITIVE AND MARKET INTELLIGENCE
This course covers the effective obtaining, communicating and using of competitive and market intelligence. Students work in groups with a company or public organization and receive training and experience in making business presentations.
Prerequisite: COMMERC 2MA3 and 2OA3 or STATS 3Y03 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERC 3MB3 CONSUMER BEHAVIOUR
This course examines why people buy, ways of satisfying consumer needs more effectively, and the creation of communications that will influence consumer behaviour.
Prerequisite: COMMERC 2MA3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERC 3MC3 APPLIED MARKETING MANAGEMENT
This course builds upon material in COMMERC 2MA3 but is more applied in nature and covers the 4 Ps in greater depth. It also has a heavier industrial and service sector component, and relies more on practical, real world cases. A major field project (student teams working with companies) is a critical part of the course.
Prerequisite: COMMERC 2MA3 and registration in a Commerce or Engineering and Management programme, or any four or five-level non-Commerce programme.
Enrolment is limited. (See Note 2 above.)

COMMERC 3QA3 MANAGEMENT SCIENCE FOR BUSINESS
This course is a study of analytical approaches that assist managerial decision-making; it provides coverage of decision theory and an introduction to optimization methods, computer simulation and the general approach of management science.
Prerequisite: COMMERC 2QA3 and registration in a Commerce or Engineering and Management programme.

COMMERC 3QC3 PRODUCT DESIGN AND OPERATIONS MANAGEMENT
An introduction to the product operations function with emphasis on the use of quantitative analysis to assist decision-making. Topics include: layout of facilities, aggregate planning, scheduling, inventory control and quality control.
Prerequisite: COMMERC 3QA3 and registration in a Commerce programme; or registration in an Engineering and Management, Mechanical Engineering or Manufacturing Engineering programme.
Antirequisite: COMMERC 4QA3, MENG 4C03

COMMERC 3QA3 MANAGERIAL ACCOUNTING II
A consideration of advanced topics in management planning and control including cost behaviour determination, production planning, innovation in costing, cost allocations, variance analysis and performance evaluation for responsibility centres.
Prerequisite: COMMERC 2B3 or 3A3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERC 4AC3 FINANCIAL ACCOUNTING IV
An advanced accounting course considering specific problems of accounting for the corporate entity, such as, business combinations, intercorporate investments, consolidated financial statements, accounting for foreign operations and foreign currency transactions, segment reporting.
Prerequisite: Credit or registration in COMMERC 3AC3 or 4AB3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERC 4AD3 INTRODUCTION TO AUDITING
An examination of the attestation function in accounting including ethical, legal, and statutory influences in the development of auditing standards. Control structure and audit evidence will be examined.
Prerequisite: COMMERC 3AB3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERC 4AE3 ACCOUNTING INFORMATION SYSTEMS
This course emphasizes the understanding of the roles of accounting information and information technology in managerial decision-making, operational support, stewardship, and organizational competitiveness. Applications of concepts will be emphasized.
Prerequisite: COMMERC 3AB3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERC 4AF3 ACCOUNTING THEORY
A review of accounting theory as a background for applying underlying concepts to current accounting problems. The course emphasizes current literature.
Prerequisite: Credit or registration in COMMERC 3AC3 or 4AB3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERC 4AG3 ADVANCED ACCOUNTING TOPICS
This course extends the knowledge base of earlier accounting courses and deals with specific advanced accounting topics, such as the conceptual framework, standard setting, not-for-profit accounting and fiduciary accounting.
Prerequisite: COMMERCE 4AC3, 4AF3 and registration in a Commerce or Engineering and Management programme or graduation from a Commerce programme. (B.Com. students - see Note 5 above.)
Available Summers 1999-2002 subject to sufficient enrolments and availability of qualified instructors.
(Continuing Students - see Note 3 above.)

COMMERCE 4AH3 ADVANCED AUDITING
This course considers a number of advanced topics concerning both the auditor and the audit profession. It builds on the knowledge of the audit task derived in earlier courses as well as on the technical skills and breadth of knowledge obtained in earlier accounting courses.
Prerequisite: COMMERCE 4AC3, 4AD3 and registration in a Commerce or an Engineering and Management programme or graduation from a Commerce programme. (B.Com. students - see Note 5 above.)
Available Summers 1999-2002 subject to sufficient enrolments and availability of qualified instructors.
(Continuing Students - see Note 3 above.)

COMMERCE 4AI3 COMPUTER CONTROL AND AUDITING
This course introduces the student to the field of EDP auditing through lectures, readings and hands-on experience with EDP audit software.
Prerequisite: COMMERCE 4AC3, 4AD3 and registration in a Commerce or an Engineering and Management programme or graduation from a Commerce programme. (B.Com. students - see Note 5 above.)
Available Summers 1999-2002 subject to sufficient enrolments and availability of qualified instructors.
(Continuing Students - see Note 3 above.)

COMMERCE 4AX3 SPECIAL TOPICS IN ACCOUNTING
Various topics in Accounting are considered. They will vary depending upon recent developments in the field and upon the research interests of the instructor. The topics to be included are announced at the time of the course offering.
Prerequisite: Announced at the time of offering
For information on course offerings, please refer to the website at http://www.business.mcmaster.ca/program/commerce/courses.htm and click on Special Topics, or contact the Academic Programmes Office, MGD 104.
COMMERCE 4AX3 may be repeated, if on a different topic, to a total of six units

COMMERCE 4BA3 BEHAVIOURAL ISSUES IN MANAGEMENT
Detailed analysis of employee motivation and reward systems; organizational structure; leadership and decision-making; group processes; and management of conflict and change.
Prerequisite: Registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERCE 4BB3 PERSONNEL SELECTION
This course exposes students to staffing issues in the Canadian context. Topics include: job analysis, methods of recruitment and selection, human rights legislation and decision-making strategies.
Prerequisite: COMMERCE 3BB3 or 3BC3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERCE 4BC3 COLLECTIVE BARGAINING
A survey of the nature, determinants, and impact of collective bargaining in Canada. Both the procedural and substantive aspects of collective bargaining will be studied.
Prerequisite: COMMERCE 3BA3 or 3BC3, or LABR ST 2A03 or 2A06; and registration in a Commerce programme or a programme in Engineering and Management or Labour Studies. (B.Com. students - see Note 5 above.)

COMMERCE 4BD3 SETTLEMENT OF INDUSTRIAL DISPUTES
The nature and the role of industrial conflict as well as the techniques which have been developed to control the incidence of conflict in union-management situations.
Prerequisite: COMMERCE 3BA3 or 3BC3, or LABR ST 2A03 or 2A06; and registration in a Commerce programme or a programme in Engineering and Management or Labour Studies. COMMERCE 4BC3 is recommended. (B.Com. students - see Note 5 above.)

COMMERCE 4BE3 COMPENSATION/REWARD SYSTEMS
Key issues in designing effective pay systems are discussed. Topics include: job evaluation, market pay surveys, pay structures, performance incentives, knowledge pay and employee benefits.
Prerequisite: COMMERCE 3BB3 or 3BC3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERCE 4BF3 LABOUR LAW AND POLICY
An analysis of the concepts and fundamentals of Canadian labour law and analysis of Canadian labour policy.
Prerequisite: COMMERCE 3BA3 or 3BC3, and registration in a Commerce or an Engineering and Management programme and subject to space availability. (B.Com. students - see Note 5 above.)
Cross-list: LABR ST 3C03

COMMERCE 4BG3 PUBLIC SECTOR COLLECTIVE BARGAINING
This course examines unionization and collective bargaining for employees in the public sector. Topics include: bargaining issues, bargaining outcomes and impasse resolution.
Prerequisite: COMMERCE 4BC3 and registration in a Commerce or Engineering and Management programme and subject to space availability. (B.Com. students - see Note 5 above.)
Cross-list: LABR ST 4D03

COMMERCE 4BH3 COMPARATIVE INDUSTRIAL RELATIONS
A discussion of international relations policies and practices in selected countries. Topics will include: the development, structure, objectives and strategies of labour and management organizations.
Prerequisite: COMMERCE 3BA3 or 3BC3 and registration in a Commerce or Engineering and Management programme and subject to space availability. (B.Com. students - see Note 5 above.)
Cross-list: LABR ST 4D03

COMMERCE 4BI3 TRAINING AND DEVELOPMENT
This course provides a framework for establishing, revising and examining training programs in organizations. Topics include: needs assessment, development of training objectives, planning and delivery of instruction, learning principles and evaluation of training.
Prerequisite: COMMERCE 3BB3 or 3BC3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERCE 4BJ3 GENDER ISSUES IN BUSINESS
This course discusses the successes and challenges of women in business in an international context, across various professions and as entrepreneurs and business owners.
Prerequisite: Registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)
Cross-list: WOMEN ST 4B93
Not open to students with credit in COMMERCE 4SX3, SPECIAL TOPICS IN BUSINESS, if taken in January 1998.

COMMERCE 4BK3 THE MANAGEMENT OF TECHNOLOGY
An introduction to the innovative management of technology including the integration of the firm and technology strategy, external sourcing of technology and the internationalization of technology management.
Prerequisite: COMMERCE 2BA3 registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)
Not open to students with credit in COMMERCE 4BX3, SPECIAL TOPICS IN HUMAN RESOURCES/LABOUR RELATIONS, if taken in January 1998 or 1999.

COMMERCE 4BX3 SPECIAL TOPICS IN HUMAN RESOURCES/ LABOUR RELATIONS
Various topics in Human Resources/Labour Relations are considered. They will vary depending upon recent developments in the field and upon the research interests of the instructor. The topics to be included are announced at the time of the course offering.
Prerequisite: Announced at the time of offering
For information on course offerings, please refer to the website at http://www.business.mcmaster.ca/program/commerce/courses.htm and click on Special Topics, or contact the Academic Programmes Office, MGD 104.
COMMERCE 4BX3 may be repeated, if on a different topic, to a total of six units.

COMMERCE 4FA3 CASES IN MANAGERIAL FINANCE
This course covers the application of basic financial theory and analysis, from a managerial point of view, to specific cases. Consideration is given to the strategic, marketing, operational and personal factors which interact with financial factors.
Prerequisite: COMMERCE 3FA3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)
COMMERCE 4FD3  FINANCIAL INSTITUTIONS
This course examines, from a managerial perspective, the major types of financial institutions in Canada: chartered banks, trust companies, insurance companies, investment banks and other institutional investors. Prerequisite: COMMERCE 3FA3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERCE 4FE3  OPTIONS AND FUTURES
This course provides an integrated approach to understanding the relations between options, futures, and their underlying assets. The theory of pricing of options and futures and the application of the theory to instruments currently traded in financial markets are considered. Prerequisite: COMMERCE 3FA3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERCE 4FF3  PORTFOLIO THEORY AND MANAGEMENT
This course offers an advanced treatment of investment decision-making and the role of financial markets in pricing securities. Topics include: portfolio selection models, the institutional environment of investment decisions, and investment and asset pricing theory. Prerequisite: COMMERCE 3FA3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERCE 4FG3  FINANCIAL THEORY
This course explores the theoretical foundations of finance and their applications to corporate finance policy. Topics covered include rational investment decisions, asset pricing, efficient markets, financial decisions and the role of Information in financial decision-making. Prerequisite: COMMERCE 3FA3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERCE 4FH3  MERGERS, ACQUISITIONS AND CORPORATE CONTROL
This course examines the processes by which mergers and other types of corporate control transactions take place, and the role of restructuring shifts in resource allocation by corporations. Prerequisite: COMMERCE 3FA3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERCE 4FI3  TRADING IN FINANCIAL MARKETS
This course attempts to develop practical skills in trading financial securities - fixed income, equities, futures and options - focusing on trading strategies based on market analysis and risk measurement. Prerequisite: COMMERCE 4FE3 and registration in an Honours Commerce or Engineering and Management programme or permission of the instructor. Enrolment is limited. Selection is by application only. Applications available in November in MGD 104.

COMMERCE 4FJ3  SPECIAL TOPICS IN FINANCE
Various topics in Finance are considered. They will vary depending upon recent developments in the field and upon the research interests of the instructor. The topics to be included are announced at the time of the course offering. Prerequisite: Announced at time of offering. Please refer to the School of Business website at http://www.business.mcmaster.ca/program/commerce/courses.htm and click on Special Topics, or contact the Academic Programmes Office, MGD 104.

COMMERCE 4FK3  may be repeated, if on a different topic, to a total of six units.

COMMERCE 4MC3  NEW PRODUCT MARKETING
This course covers the management of new products from the idea stage through to product launch with a strong practical orientation. A field project is a major component of the course. Prerequisite: COMMERCE 3MC3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERCE 4MD3  BUSINESS MARKETING
An overview of business marketing including: derived demand, vendor analysis, the multiple buying unit, value analysis, competitive bidding, industrial design, key accounts, and trade shows. Prerequisite: COMMERCE 3MC3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERCE 4ME3  SALES MANAGEMENT
Cases, presentations, field work, library research, role playing and group exercises help to understand customers, the selling process, sales presentations, negotiation, legal and ethical responsibilities, self and team management. Prerequisite: COMMERCE 2MA3 and 3MC3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERCE 4MF3  BUSINESS POLICY: STRATEGIC MANAGEMENT
As the capstone to the programme, this case course is designed to unify the student's learning experience by exploring the formulation and implementation of corporate strategy. Prerequisite: COMMERCE 3MC3 and registration in an Engineering and Management programme.

COMMERCE 4MG3  ANALYSIS OF PRODUCTION/OPERATIONS PROBLEMS
An examination of analytical approaches to problems in the field of production/operations. The course will provide in-depth coverage of a limited number of topics. These topics may be selected from among: layout and location of facilities, scheduling, inventory control and materials handling.

COMMERCE 4MH3  MANAGEMENT SUPPORT SYSTEMS
This course is designed to introduce the basic concepts of database design, implementation, and management. Students will gain hands on experience through assignments and a term project.

COMMERCE 4MJ3  TELECOMMUNICATION AND ELECTRONIC COMMERCE
The new trends and issues on telecommunication networks and their business applications including: wireless telecommunication, Web technology, Electronic commerce, Network security, Smart cards, Intelligent agents and the use of Intranet and Extranet.

COMMERCE 4MM3  PROJECT MANAGEMENT
Topics include: project selection, project organization structures, life cycles, planning, estimation, budgeting, resource allocation, contracting, project management software, reporting and controlling issues and conflict management.

COMMERCE 4MN3  TOTAL QUALITY MANAGEMENT
TQM topics include: strategic quality planning, quality in design and processes, tools for quality improvement and control, and standards such as ISO 9000.

Note 5: Not open to students with credit or registration in COMMERCE 4MX3, SPECIAL TOPICS IN MARKETING, POLICY AND INTERNATIONAL BUSINESS if the topic was Sales Management.

Not open to students with credit in COMMERCE 4MX3, SPECIAL TOPICS IN MARKETING, POLICY AND INTERNATIONAL BUSINESS

Various topics in Marketing, Policy and International Business are considered. They will vary depending upon recent developments in the field and upon the research interests of the instructor.

Prerequisite: Announced at time of offering. For information on course offerings, please refer to the School of Business website at http://www.business.mcmaster.ca/program/commerce/courses.htm and click on Special Topics, or contact the Academic Programmes Office, MGD 104.
### COMMERCE 40H3 MANAGEMENT ISSUES IN ELECTRONIC COMMERCE

This course will cover the issues that the modern business manager must deal with in making strategic decisions concerning the choice, implementation, and execution of electronic commerce solutions.

Prerequisite: COMMERCE 20B3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

### COMMERCE 40X3 SPECIAL TOPICS IN MANAGEMENT SCIENCE AND INFORMATION SYSTEMS

Various topics in Management Science and Information Systems are considered. They will vary depending upon recent developments in the field and upon the research interests of the Instructor. The topics to be included are announced at the time of the course offering.

Prerequisite: Announced at time of offering

For information on course offerings, please refer to the School of Business website at http://www.business.mcmaster.ca/program/commerce/courses.htm and click on "Special Topics," or contact the Academic Programmes Office, MGD 104.

COMMERCE 40X3 may be repeated, if on a different topic, to a total of six units.

### COMMERCE 4SA3 INTERNATIONAL BUSINESS

The key features of, and trends in, the global business environment. The implications of cultural and political differences. Comparative operational practices and multinational management.

Prerequisite: COMMERCE 3MC3 and registration in Level IV of a Commerce programme or Level V of Engineering and Management programme

Antirequisite: COMMERCE 4PE3

### COMMERCE 4SB3 INTRODUCTION TO CANADIAN TAXATION

The principles of Canadian federal income taxation are examined in detail, emphasizing the application of both statute and common law to individuals' and businesses' situations.

Prerequisite: COMMERCE 3AB3 and 3FA3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

Antirequisite: COMMERCE 4PB3

### COMMERCE 4SC3 ADVANCED CANADIAN TAXATION

This course continues the study of Canadian federal income taxation with an in-depth coverage of selected provisions of the Income Tax Act pertaining to business activities, particularly the activities of corporations.

Prerequisite: COMMERCE 4SB3 or 4PB3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

Antirequisite: COMMERCE 4PC3

### COMMERCE 4SD3 COMMERCIAL LAW

This course emphasizes those areas of law which are most relevant to business activity. Particular attention is given to the law relating to contracts and business organizations. Other areas of study include: sources of law, the judicial process, real and personal property, torts, agency, credit and negotiable instruments.

Prerequisite: Registration in a Commerce or Engineering and Management programme.

(B.Com. students - see above.)

Antirequisite: COMMERCE 4PD3

### COMMERCE 4SE3 ENTREPRENEURSHIP

The problems and experiences encountered in starting and developing new enterprises will be studied. A cornerstone of the course is the development of a detailed business plan for a local entrepreneur.

Prerequisite: COMMERCE 3FA3 and one of COMMERCE 3MA3, 3MC3 and registration in a Commerce or Engineering and Management programme. (B.Com. students - see above.)

Antirequisite: COMMERCE 4PD3

### COMMERCE 4SY3 INDEPENDENT STUDY IN BUSINESS

Faculty supervised project. A supervising faculty member must be arranged, and authorization of the Associate Dean secured, in the term preceding the term of this course.

Prerequisite: To be determined by the supervising faculty member and registration in a Commerce or Engineering and Management programme.

Project forms are available from MGD-245. (B.Com. students - see Note 5 above.)

### COMMUNICATION STUDIES

WEB ADDRESS: http://www.humanities.mcmaster.ca/~cmst

#### Courses

If no prerequisite is listed, the course is open.

**CMST 1A03 INTRODUCTION TO COMMUNICATION**

An introduction to key fundamental concepts in communication studies and exploration of how social and cultural practices are constituted through various modes of communication such as artistic productions, mass media and the Internet.

Three hours (lectures and tutorials); one term

First offered in 2001-2002.

**CMST 1B03 HISTORY OF COMMUNICATION**

A survey of human communication throughout history and across cultures. This course will include discussion of orality and literacy; manuscript, print and electronic media; and human communication through visual and pictorial arts.

Three hours (lectures and tutorials); one term

First offered in 2001-2002.

**CMST 2A03 QUANTITATIVE METHODS IN COMMUNICATION RESEARCH**

An introduction to the basic approaches and principles for gathering and analyzing quantitative data in communication studies. Topics include sampling techniques, interviewing, questionnaire construction, focus groups, content analysis, and the fundamentals of inferential analysis and inference.

Three hours (lectures and tutorials); one term

Prerequisite: Registration in a programme in Communication Studies


**CMST 2B03 QUALITATIVE METHODS IN COMMUNICATIONS RESEARCH**

An introduction to the qualitative research in communication studies. Topics may include research ethics, discourse analysis, textual analysis, ethnography, structuralist and poststructuralist approaches to the study of communication.

Three hours (lectures and tutorials); one term

Prerequisite: Registration in a programme in Communication Studies


**CMST 2C03 COMMUNICATION THEORY I: FUNDAMENTAL PERSPECTIVES**

An introduction to various theories on the organization, use and manipulation of language, such as semiotics, sociolinguistics, interpersonal communication, group communication and performance.

Three lectures; one term

Prerequisite: Three units of Communication Studies and registration in Level II and above


**CMST 2D03 COMMUNICATION THEORY II: THE INFORMATION SOCIETY AND ITS IMPLICATIONS**

An introduction to various theories on the organization, use and manipulation of information in a global context, and its impact on the corporate economy and the development of the individual and society.

Three lectures; one term

Prerequisite: CMST 2C03


**CMST 2E03 FUNCTIONAL STYLISTICS**

Introduction to a detailed and systematic study of the language of texts. Application of the model of differentiation of the basic functions of the standard language and different functional styles, such as conversational style, journalistic style, scientific style or poetic/literary style.

Three hours (lectures and discussion); one term

Prerequisite: Registration in Level II and above

Cross-list: LINGUIST 2E03

This course is administered by the Department of Modern Languages and Linguistics.


**CMST 2F03 ADVANCED COMPOSITION IN THE ELECTRONIC AGE**

This course involves readings of model essays demonstrating various rhetorical patterns of exposition and writing assignments based on these patterns. Students will produce a comparison/contrast essay, a classification essay, and a persuasive essay. Students in this course will participate in a writing clinic practicum.
Three hours (lectures and discussion); one term
Prerequisite: MMEDIA 1C03 or registration in Level II and above in a
programme in Communication Studies
CMST 2G03  PERFORMANCE AND PERFORMATIVITY
An introduction to the study of performative modes of communication such as
storytelling, gesture, movement, dress. Students will learn to analyze the
relationship between cultural performances, such as games, garage
bands, group facilitation, or live theatre and social structures.
Three hours (lectures and discussion); one term
Prerequisite: Three units of Communication Studies and registration in
Level II and above
CMST 2H03  GENDER AND PERFORMANCE
An examination of gender as identities performed or constructed in complex
social, historical and cultural processes and conditions, including how gender
gives meaning to different performance texts, as well as to a range of
performance practices in daily life.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above
CMST 2I03  VISUAL LITERACY
A course of lectures and discussions that explores the concept of visual
literacy and examines the ways in which fine and popular art structures
our understanding through images.
One lecture (two hours), one tutorial/discussion; one term
Prerequisite: Registration in Level II and above
Cross-list: ART HIST 2A03
This course is administered by the School of the Arts.
CMST 2J03  CONTEMPORARY POPULAR CULTURE
Drawing on models of analysis from the field of cultural studies, this course
will introduce students to methods of critically analyzing selected forms of
popular culture. Areas of investigation may include: television, magazines,
advertising, computer culture, film, popular fiction.
Three hours; one term
Prerequisite: Registration in Level II and above
Cross-list: ENGLISH 2J03
This course is administered by the Department of English.
CMST 2K03  POLITICAL ECONOMY OF THE MEDIA
A comparative examination of changes in patterns of ownership and control of
the mass media in light of globalization, technological change, government
policy, market re-structurings, and corporate consolidations.
Three lectures; one term
Prerequisite: Registration in Level II and above
CMST 2L03  MEDIA ORGANIZATIONS
An examination of the organizational structure and production processes of
the mass media, television, and radio. Topics include: newsgathering, television
and radio programme production and the relationship between media
production and management.
Three lectures; one term
Prerequisite: Registration in Level II and above
CMST 2M03  THE CONCEPT OF CULTURE
An analysis of the development of the concept of culture from the
Enlightenment to the present. Theoretical readings combined with
the analysis of specific cultural texts, objects, forms, and practices
will allow students to trace historical and contemporary debates
concerning culture.
Three hours; one term
Prerequisite: Registration in a programme in Communication Studies, Com-
parative Literature or English or permission of the English Departmental
Counsellor
Cross-list: COMP LIT 2E03, ENGLISH 2M03
This course is administered by the Department of English.
CMST 2N03  THE HISTORY OF GRAPHIC DESIGN
An introduction to the history of graphic, two-dimensional design. The course
demonstrates the admixture of high and popular culture that informs
advertising, posters, book design and illustration, etc.
Three lectures; one term
Prerequisite: Registration in Level II and above. Prior completion of 1A03
and 1A05 (or 1A03) recommended.
Cross-list: ART HIST 2F03, MMEDIA 2F03
This course is administered by the School of the Arts.
CMST 2P03  DRAMATIC FORMS
Different performance techniques and conventions demand particular forms
of dramatic narrative. By comparing the ways similar stories are told in
different media and genres, students identify the structuring elements of
dramatic texts written for live performances, film television and music theatre.
Three hours (lectures and group presentations); one term
Prerequisite: DRAMA 1A03 and 1A06
Cross-list: DRAMA 2C03
Antirequisite: DRAMA 2A06
This course is administered by the School of the Arts.
CMST 2Q03  MUSIC OF THE WORLD'S CULTURES
A survey of music traditions of non-European cultures, e.g., far Eastern,
Indian, African.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: MUSIC 2A03
Antirequisite: MUSIC 4X03
Offered in alternate years.
This course is administered by the School of the Arts.
CMST 2R03  POPULAR MUSIC
A study of 20th-century popular music from the late 1940's to the present.
Topics include: rhythm and blues (Chuck Berry), hard rock (Led Zeppelin),
and punk (Sex Pistols).
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: MUSIC 2A03
This course is administered by the School of the Arts.
CMST 2S03  NEW MEDIA AND PERFORMANCE
This course will explore ways in which the proliferation of new media has affected
the ways we create and interpret both live and recorded performances, the
ways performance reaches audiences and our methods of analyzing and
archiving performance.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above
Cross-list: DRAMA 2B03
This course is administered by the School of the Arts.
CMST 2T03  MUSIC FOR FILM AND TELEVISION
An examination of how music functions to help create meanings in film
and television programmes. Examples will be drawn from throughout the
history of film and television.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: MUSIC 2F03
This course is administered by the School of the Arts.
CMST 2U03  THE MAKING OF THE EUROPEAN LINGUISTIC LANDSCAPE
The history of language use in Europe from antiquity to the present day.
The course will illustrate the different functions of language in social life
and the growth of national, standardized idioms. It will also serve as an
introduction to the history of linguistics as a discipline.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: LINGUIST 2A03
Antirequisite: ANTHROP 2A03
This course is administered by the Department of Modern Languages and Linguistics.
CMST 2W03  
**CONFLICT TRANSFORMATION: THEORY AND PRACTICE**

An examination of ways of preventing, resolving and transforming conflicts in everyday life, in our own culture and others, and in the arenas of family, business, the law, schools and large-scale political conflicts.

Three hours (lectures and discussion); one term

Prerequisite: Registration in Level I and above or permission of the Director of Peace Studies

Cross-list: PEACE ST 2A03

This course is administered by Peace Studies.

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CMST 2W03  
**CRITICAL THINKING**

This course aims to improve skills in analyzing and evaluating arguments and presentations found in everyday life and academic contexts, and to improve critical judgement.

Two lectures, one tutorial; one term

Prerequisite: Registration in Level II and above

Cross-list: HUMAN 2C03

Antirequisite: ARTS & SCI 1B06, PHILOS 2R03

This course is administered by the Department of Philosophy.

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CMST 2X06  
**THE ART OF FILM**

An introduction to film style and technique through a detailed critical analysis of major works from the silent period to the present day.

Two lectures, plus one weekly film screening; two terms

Prerequisite: Six units from the Faculty of Humanities and registration in Level II and above

Cross-list: DRAMA 2X06

This course is administered by the School of the Arts.

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CMST 2X03  
**THE ANCIENT WORLD IN FILM**

The emphasis is on myth (Amazons, Hercules) and history (slave revolts, banquets, decadent emperors) studied via Greek and Latin accounts (in translation) and cinematic versions (e.g. Electra, Medea, Mighty Aphrodite, Apocalypse Now, Spartacus, I Claudius).

Three lectures; one term

Prerequisite: Registration in Level II and above

Cross-list: CLASSICS 2E03

This course is administered by the Department of Classics.

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CMST 3A03  
**TOPICS IN COMMUNICATION**

The study of specific issues in communication such as sport and the media, racism and anti-racism, democracy and the public sphere, gender and identity, and discourse, and subcultural media practices.

Three hours (lectures and discussion); one term

Prerequisite: One of CMST 1A03, 1B03 or 2C03


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CMST 3B03  
**COMMUNICATION PRACTICUM**

The application of communication skills and theories to the production of an original, creative project. Undertaken following successful completion of relevant courses in the appropriate stream. Entry is by application to the Committee of Instruction during the term before the practicum is to be done.

Seminar (three hours); one term

Prerequisite: Registration in Level III or IV of a programme in Communication Studies


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CMST 3C03  
**MEDIA AND SOCIAL ISSUES**

Media representations of social problems such as homelessness and violence are examined comparatively in light of journalistic ethics and ideology, the relations between media and sources, and the constraints on objectivity.

Three lectures; one term

Prerequisite: Three units of Communication Studies and registration in Level II and above


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CMST 3C03  
**LITERATURE AND FILM**

An examination of the particular characteristics of both literature and film and the relationships between them through a detailed study of selected novels, short stories and plays, and the films that have been based on them.

Three hours, plus one weekly film screening; one term

Prerequisite: Registration in Level III or IV of a programme in Communication Studies, Drama, Comparative Literature or Art History. It is recommended that students should already have taken CMST 2X06.

Cross-list: COMP LIT 3L03, DRAMA 3H03, ENGLISH 3CC9

This course is administered by the Department of English.

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CMST 3D03  
**POLITICAL COMMUNICATION**

The relationship between politics and the media is analyzed in terms of issues such as political news coverage, electioneering, political marketing, policy formation and publicity, and agenda-setting and public opinion.

Three lectures; one term

Prerequisite: Three units of Communication Studies and registration in Level II and above


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CMST 3E03  
**ARGUMENTATION THEORY**

The theory of argumentation is central to any sort of social or dialectical approach to the theory of knowledge. The theoretical issues discussed in this course would include the concept of an argument, the analysis of arguments and the evaluation of arguments.

Three hours (lectures and discussion); one term

Prerequisite: CMST 2W03 and registration in Level II and above


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CMST 3F03  
**TOPICS IN VISUAL CULTURE**

This course will examine a variety of topics in the critical study of visual culture, including gender and spectatorship, consumerism and the arts, and visual literacy in the 21st century.

Three hours (lectures and discussion); one term

Prerequisite: Registration in Level II and above

Cross-list: SCTA 3C03

This course is administered by the School of the Arts.

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CMST 3G03  
**SOCIOLINGUISTICS**

An introduction to sociolinguistics with emphasis on the social situation of the major European languages. Topics covered include linguistic variation (geographic, social, situational), social and ethical issues (language and sex/gender, language and disadvantage/power), and pragmatics.

Three lectures; one term

Prerequisite: LINGUIST 1A03 and 1AA3 or permission of the Department of Modern Languages and Linguistics

Cross-list: LINGUIST 3X03

Antirequisite: ANTHROP 2X03

This course is administered by the Department of Modern Languages and Linguistics.

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CMST 3H03  
**CREATING CEREMONIES**

An examination of the performative aspects of ceremonies and rituals such as weddings, funerals, political inaugurations, parades, mass, festivities around such religious celebrations as Christmas and Hanukkah, and the rituals associated with theatre and concert going.

Three hours (lectures and discussion); one term

Prerequisite: Registration in Level III and above


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CMST 3I03  
**COMMUNICATION POLICY AND LAW**

An examination of the role of government policy, regulation, and law on the structure and functioning of the mass media. Topics include cultural policy, communication technology policy, free speech, and privacy rights.

Three lectures; one term

Prerequisite: Three units of Communication Studies and registration in Level II and above


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CMST 3J03  
**TOPICS IN FILM**

Previous topics include: Genre Studies, Film Comedy. Consult the School of the Arts concerning topic to be offered.

Two lectures, plus one weekly film screening; one term

Prerequisite: CMST 2X06

Cross-list: DRAMA 3J03

CMST 3J03 may be repeated, if on a different topic, to a total of six units.

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CMST 3K03  
**MEDIA AUDIENCES AND EFFECTS**

An examination of the media/audience relationship in light of different theories of media effects including social learning, agenda-setting, uses and gratifications, active audiences and cultivation analysis.

Three lectures; one term

Prerequisite: Three units of Communication Studies and registration in Level II and above


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CMST 3L03  
**THEATRE AND COMMUNITY DEVELOPMENT**

Students will explore the different approaches to community-based theatre generated in a range of social and cultural milieus and will analyze the sense of community implicit in a variety of popular and community-based theatre projects.

Three hours (lectures and discussion); one term

Prerequisite: Registration in Level II and above

Cross-list: DRAMA 3M03

This course is administered by the School of the Arts.
CMST 3P03 HISTORICAL PHOTOGRAPHY
This course examines historical and contemporary photographic images in the visual arts and considers the connections and distinctions between artistic and media uses of the medium.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above
Cross-list: ART HIST 3PP3
This course is administered by the School of the Arts.

CMST 3R03 THE AMERICAN CINEMA I
A survey of some of the predominant features of the American Cinema from its beginning to 1950. Emphasis will be placed both on the artistic value of the films and on their social significance and impact.
Two lectures, plus one weekly film screening; one term
Prerequisite: CMST 2X06; or permission of the School of the Arts
Cross-list: DRAMA 3R03
This course is administered by the School of the Arts.

CMST 3R03 THE AMERICAN CINEMA II
A survey of some of the predominant features of the American Cinema from 1950 to the present day. Emphasis will be placed both on the artistic value of the films and on their social significance and impact.
Two lectures, plus one weekly film screening; one term
Prerequisite: CMST 2X06; or permission of the School of the Arts
Cross-list: DRAMA 3R03
This course is administered by the School of the Arts.

CMST 3T03 TOPICS IN NATIONAL CINEMAS I
Previous topics include: Soviet and East European Cinema. Consult the School of the Arts concerning topic to be offered.
Two lectures, plus one weekly film screening; one term
Prerequisite: CMST 2X06
Cross-list: COMP LIT 3V03, DRAMA 3T03
CMST 3T03 may be repeated, if on a different topic, to a total of six units.
This course is administered by the School of the Arts.

CMST 3T03 TOPICS IN NATIONAL CINEMAS II
Previous topics include: Canadian Cinema, French Cinema and Japanese Cinema. Consult the School of the Arts concerning topic to be offered.
Two lectures, plus one weekly film screening; one term
Prerequisite: CMST 2X06
Cross-list: COMP LIT 3V03, DRAMA 3T03
CMST 3T03 may be repeated, if on a different topic, to a total of six units.
This course is administered by the School of the Arts.

CMST 3U03 PERFORMANCE ART
This course will examine historical and contemporary concerns related to performance art including the relevance of traditional categories of artistic production, the roles of the audience, the institution and market, and the body as artistic medium.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above
Cross-list: SOTA 3B03
This course is administered by the School of the Arts.

CMST 3V03 PRAGMATICS AND DISCUSSION
A discussion of the problems confronting the linguist in the study of text and discourse at the level beyond the sentence. The course will deal with the interaction between grammar and situational factors.
Prerequisite: LINGUIST 1A03 and 1AA3 (or 1A06); or FRENCH 2H03; or permission of the Department of Modern Languages and Linguistics
Cross-list: LINGUIST 3P03
Antirequisite: ANTHROP 3P33
Offered in alternate years.
This course is administered by the Department of Modern Languages and Linguistics.

CMST 3W03 WOMEN IN CROSS-CULTURAL PERSPECTIVE
An interdisciplinary exploration of the experiences of women in different cultures through examination of social and historical conditions, and symbolic systems. Topics may include women and development, women's rights, reproductive freedom, women and religion.
Three hours (seminar and discussion); one term
Prerequisite: Registration in Level II and above. WOMEN ST 1A06 is recommended.
Cross-list: WOMEN ST 3D03
Antirequisite: WOMEN ST 3D06
This course is administered by Women's Studies.

CMST 3W03 WOMEN IN A MULTICULTURAL SOCIETY
An interdisciplinary exploration of the experiences of women in different subcultures within a multicultural society, through an examination of social and historical conditions, policies, and personal narratives. Topics may include immigration, voice, mobility, identity, hybridity.
Three hours (seminar and discussion); one term
Prerequisite: Registration in Level II and above. WOMEN ST 1A06 is recommended.
Cross-list: WOMEN ST 3DD3
Antirequisite: WOMEN ST 3D06
This course is administered by Women's Studies.

CMST 3X03 TOPICS IN WOMEN AND THE ARTS
This course explores the roles of women in any one of the following fields: music, visual arts, film or theatre, whether as subjects or creators. Approaches may be practical, historical and/or theoretical, and interrelationships between the fields will be examined where appropriate.
Three hours (seminar and discussion); one term
Prerequisite: Registration in Level II and above. WOMEN ST 1A06 is recommended.
Cross-list: WOMEN ST 3B03
CMST 3W03 may be repeated, if on a different topic, to a total of six units.
This course is administered by Women's Studies.

CMST 3Y03 PHILOSOPHY OF LANGUAGE
A survey of philosophical problems concerning language. Topics to be considered include reference, synonymy, truth, and linguistic knowledge.
Three lectures; one term
Prerequisite: At least six units of Philosophy, and registration in Level III or IV of any programme
Cross-list: PHILOS 3E03
Offered in alternate years.
This course is administered by the Department of Philosophy.

CMST 4A03 THESIS PROJECT
Students will develop and execute their own research project, in consultation with a faculty advisor. Involves regular meetings with the advisor and a final public presentation of research endeavours.
Prerequisite: Registration in Level IV of a programme in Communication Studies
Enrolment is limited.
Not offered in 2001-2002

CMST 4B03 ADVANCED COMMUNICATION PRACTICUM
Students will apply communication skills and theories to the production of an advanced, original, creative project. The practicum will be undertaken following successful completion of relevant courses in the appropriate stream. Entry is by application to the Committee of Instruction during the term before the practicum is to be done.
Prerequisite: Registration in Level IV of a programme in Communication Studies
Enrolment is limited.
Not offered in 2001-2002

CMST 4C03 ISSUES IN PERFORMANCE STUDIES
This course serves to synthesize and expand students' engagement with issues studied in performance studies courses through the examination of writings that draw on anthropology, phenomenology, materialist analysis, psychoanalysis, gender theory, postmodernism, postcolonialism and intercultural reception.
Three hours (lecture and discussion); one term
Prerequisite: Registration in Levels III or IV of a programme in Communication Studies

CMST 4D03 INTERNATIONAL COMMUNICATION
The relationship between globalization and the media is examined in light of the debates over cultural imperialism, information and technology flow, cultural hybridization, and the media's impact on socio-economic development.
Seminar (two hours); one term
Prerequisite: Registration in Levels III or IV of a programme in Communication Studies
Enrolment is limited.

CMST 4E03 MEDIA AND PROMOTIONALISM
An examination of the media's role in the promotion of different interests, values, and patterns of behaviour. Topics include advertising, public relations, social activism, and public information campaigns.
Seminar (two hours); one term
Prerequisite: Registration in Levels II or IV of a programme in Communication Studies
Enrolment is limited.
166 COMMUNICATION STUDIES

CMST 4F03  THE STUDY, CRITICISM AND EVALUATION OF ART
A seminar to introduce students to the history, theory, and practice of connoisseurship. Its focus will be to develop skills in confronting the single work of art.
Seminar (two hours); one term
Prerequisite: Registration in Level III or IV of a programme in Communication Studies
Cross-list: ART HIST 4V03
Alternates with ART HIST 4CC03.
Enrolment is limited.
This course is administered by the School of the Arts.

CMST 4FF3  STUDIES IN FILM
Senior seminar: An examination of selected films.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of a programme in Communication Studies, CMST 2X06 is recommended.
Cross-list: DRAMA 4FF3
Enrolment is limited.
This course is administered by the School of the Arts.
Offered in alternate years.

CMST 4G03  APPLIED LINGUISTICS
The course acquaints the student with the contributions that the linguist, psycholinguist, sociolinguist can make to the planning, organization and implementation of a language-teaching methodology. CAI/CALL will be one of the methodologies investigated with particular emphasis.
Three lectures; one term
Prerequisite: Registration in Level III or IV of a programme in Communication Studies, or permission of the Department of Modern Languages and Linguistics
Cross-list: LINGUIST 4BB3
Anthropo: ANTHROP 4BL3
Alternates with CMST 4H03.
This course is administered by the Department of Modern Languages and Linguistics.

CMST 4H03  TOPICS IN THE APPLICATION OF LINGUISTICS
This seminar course looks at how linguistics is applied in fields other than language learning. Possible topics include: translation theory; forensic linguistics; ecologies of languages.
Seminar (two hours), one practicum per week; one term
Prerequisite: Registration in Level III or IV of a programme in Communication Studies, or permission of the Department of Modern Languages and Linguistics
Cross-list: LINGUIST 4BB3
Alternates with CMST 4G03.
This course is administered by the Department of Modern Languages and Linguistics.

CMST 4I03  COMPUTERS AND LINGUISTIC ANALYSIS
This course studies the linguistic applications of computer technology in general, and language processing in particular, including parsers and machine translation.
Two lectures, one lab; one term
Prerequisite: Registration in Level III or IV of a programme in Communication Studies or permission of the Department of Modern Languages and Linguistics
Cross-list: LINGUIST 4D03
Offered in alternate years.
This course is administered by the Department of Modern Languages and Linguistics.

CMST 4J03  TOPICS IN SOCIOLINGUISTICS
Topics include: Languages in Contact; Standard Languages; Gender and Language.
Seminar (two hours); one term
Prerequisite: CMST 3G03 or LINGUIST 3X03
Cross-list: LINGUIST 4X03
CMST 4J03 may be repeated, if on a different topic, to a total of six units.
Offered in alternate years.
This course is administered by the Department of Modern Languages and Linguistics.

COMPARATIVE LITERATURE

WEB ADDRESS: http://www.humanities.mcmaster.ca/~complit

Courses and programmes in Comparative Literature are administered within the Office of Interdisciplinary Studies of the Faculty of Humanities. For information and counselling, please contact the Director of Comparative Literature (Ext. 24091).

Acting Director
Jean Wilson (Modern Languages and Linguistics) B.A. (McMaster), B.Ed., M.A., Ph.D. (Toronto)

Notes:
1. No language other than English is required for courses listed under Comparative Literature.
2. Not all courses are offered on an annual basis. Students should consult the timetable for available courses.

Courses

COMP LIT 1A03  THE EUROPEAN LITERARY TRADITION I
An introduction to the Western literary tradition from texts of antiquity to the beginnings of modern literature, through the study of representative texts. Considerable attention is given to the development of critical skills in reading and writing.
Two lectures, one tutorial; one term
Antirequisite: COMP LIT 1A06

COMP LIT 1A03  THE EUROPEAN LITERARY TRADITION II
An introduction to the Western literary tradition from the beginnings of modern literature to more recent works, through the study of representative texts. Considerable attention is given to the development of critical skills in reading and writing.
Two lectures, one tutorial; one term
Antirequisite: COMP LIT 1A06

COMP LIT 2A03  MODERN EUROPEAN LITERATURE I
A study of the central themes and ideas shaping the Enlightenment and Romanticism through the reading of representative works.
Three lectures; one term
Prerequisite: One of COMP LIT 1A03, 1A06 or 1AA3

COMP LIT 2A03  MODERN EUROPEAN LITERATURE II
A study of the central themes and forms of major literary movements from Romanticism to Postmodernism through the reading of representative works.
Three lectures; one term
Prerequisite: One of COMP LIT 1A03, 1A06 or 1AA3

COMP LIT 2C03  INTRODUCTION TO LITERARY STUDIES
An examination of the fundamental questions about the nature of literature and the purpose and methodology of literary studies, focusing on the inter-disciplinary and cultural aspects of literature.
Three lectures; one term
Prerequisite: Registration in Level II and above
Antirequisite: MOD LANG 2A03

COMP LIT 2E03  THE CONCEPT OF CULTURE
An analysis of the development of the concept of culture from the Enlightenment to the present. Theoretical readings combined with the analysis of specific cultural texts, objects, forms and practices will allow students to trace historical and contemporary debates concerning culture.
Three hours; one term
Prerequisite: Registration in a programme in Communication Studies, Comparative Literature or English or permission of the Departmental Counsellor for English.
Cross-list: CMST 2X03, ENGLISH 2X03
This course is administered by the Department of English.

COMP LIT 2E03  MODERN COUNTERCULTURES
An exploration of a variety of cultural forms (e.g. literature, art, photography, film, music) produced by avant-garde and counter-cultural groups from the mid-19th century to the present. Areas of investigation may include surrealism, futurism, the beats, the sixties, situationism and punk.
Three hours; one term
Prerequisite: Registration in a programme in Communication Studies, Comparative Literature or English or permission of the Department Councilor for English
Cross-list: CMST 2MM3, ENGLISH 2MM3
This course is administered by the Department of English.

COMP LIT 2G03 THE LITERATURE OF THE DELINQUENT
A study of the picaresque mode in European literature from 1550 to 1800
Three lectures; one term
Prerequisite: Registration in Level II and above
Antirequisite: MOD LANG 3J03

COMP LIT 3C03 MODERN EUROPEAN DRAMA FROM IBSEN TO PIRANDELLO
A study of representative plays by eight major dramatists, including Strindberg, Chekhov, Gorki, Wedekind and Kaiser.
Seminars (two hours), plus play readings; one term
Prerequisite: Registration in Level III or IV of a Comparative Literature programme
Cross-list: DRAMA 3C03
This course is administered by the School of the Arts.

COMP LIT 3F03 THE METAMORPHOSES OF DON JUAN
The development of the myth of Don Juan from its origins to the present.
Three lectures; one term
Prerequisite: Registration in Level II and above
Antirequisite: MOD LANG 3J03

COMP LIT 3G03 GERMAN DRAMA
A study of representative plays by major dramatists of the German-speaking world, from the 18th century to the present.
Three lectures; one term
Prerequisite: Registration in Level II and above
Antirequisite: MOD LANG 3G03

COMP LIT 3H03 BIBLICAL TRADITIONS IN LITERATURE
A study of the influence of the Bible on Western literature, especially English. Approaches may include the examination of symbolism, imagery, typology, doctrinal themes and narrative structures.
Three hours; one term
Prerequisite: Registration in Level II and above
Antirequisite: ENGLISH 3S03

This course is administered by the Department of English.

COMP LIT 3J03 TOPICS IN GREEK AND ROMAN LITERATURE I
Previous topics include: The Poet and Society, Greek and Roman Elegiac and Lyric Poetry, The Legend of the Trojan War, Satire. Consult the Department concerning topic to be offered.
Three lectures; one term
Prerequisite: Registration in Level III or IV of a Comparative Literature programme
Cross-list: ENGLISH 3S03

This course is administered by the Department of English.

COMP LIT 3K03 STUDIES IN SIXTEENTH-CENTURY LITERATURE
A critical study of the literature of the 1500s in England, particularly the second half of the century. The influence of continental writers will also be examined, and special attention will be paid to Spenser.
Three hours; two terms
Prerequisite: Registration in a programme in Comparative Literature
Cross-list: ENGLISH 3K03

Antirequisite: COMP LIT 3J03, ENGLISH 3G03 or 3T03

This course is administered by the Department of English.

COMP LIT 3K03 20TH-CENTURY RUSSIAN LITERATURE
A study of Russian literature of the 1920s and 1930s with special attention to Akhmatova, Bulgakov and Sholokhov.
Three lectures; one term
Prerequisite: Registration in Level II and above
Antirequisite: MOD LANG 3K03

COMP LIT 3K03 CONTEMPORARY RUSSIAN LITERATURE
A study of contemporary Russian literature since 1955, with special attention to Pasternak, Solzhenitsyn and Yevtushenko.
Three lectures; one term
Prerequisite: Registration in Level II and above
Antirequisite: MOD LANG 3K03

COMP LIT 3L03 LITERATURE AND FILM
An examination of the particular characteristics of both literature and film and the relationships between them through a detailed study of selected novels, short stories and plays and the films that have been based on them.
Three hours, plus one weekly film screening; one term
Prerequisite: Registration in Level III or IV of a Comparative Literature programme
Cross-list: CMST 3CC3, DRAMA 3H03, ENGLISH 3CC3
This course is administered by the Department of English.
COMPARATIVE LITERATURE

COMP LIT 3LL3 SURVEY OF SPANISH THEATRE
A study of the development of Spanish drama and stage from Lope to Lorca.
Three lectures; one term
Prerequisite: Registration in Level II and above
Antirequisite: MOD LANG 3L03

COMP LIT 3P03 LITERATURE AND POLITICS IN SPANISH AMERICA
An exploration of the ways in which politics and aesthetics combine in Spanish American literature. Emphasis will be on the 20th-century works, but writings from previous centuries will also be included.
Three lectures; one term
Prerequisite: Registration in Level II and above
Antirequisite: MOD LANG 3P03

COMP LIT 3Q03 THE HISTORY AND THEORY OF CRITICISM
A survey of the main developments in the theory and practice of literary criticism from Plato to the early 20th century.
Three lectures; one term
Prerequisite: Registration in Level III or IV of a Comparative Literature programme
Cross-list: ENGLISH 3Q03
This course is administered by the Department of English.

COMP LIT 3QQ3 MODERN CRITICAL THEORY
The theory and practice of literary criticism from Eliot to the present.
Three lectures; one term
Prerequisite: Registration in Level III or IV of a Comparative Literature programme
Cross-list: ENGLISH 3QQ3
This course is administered by the Department of English.

COMP LIT 3R06 POSTCOLONIAL LITERATURES: THEORY AND PRACTICE
A study of postcolonial literary theory and practice. Texts written in English from a variety of formerly colonized regions will be studied, including Africa, the Caribbean, South and Southeast Asia, Australia and New Zealand. The focus will be on such topics as imperialism, race, gender, ethnicity, nation, language, and representation.
Three hours; two terms
Prerequisite: Registration in Level III or IV of a Comparative Literature programme
Cross-list: ENGLISH 3R06, PEACE ST 3E06
This course is administered by the Department of English.

COMP LIT 3S03 19TH-CENTURY RUSSIAN LITERATURE I
A study of the major prose of Gogol and Turgenev.
Three lectures; one term
Prerequisite: Registration in Level II and above
Antirequisite: MOD LANG 3S03

COMP LIT 3SS3 19TH-CENTURY RUSSIAN LITERATURE II
A study of the major novels by Dostoevsky and Tolstoy.
Three lectures; one term
Prerequisite: Registration in Level II and above
Antirequisite: MOD LANG 3SS3

COMP LIT 3T03 THE THEATRE OF GREECE AND ROME
The history of theatre and theatrical production in Greece and Rome with consideration of the social significance of drama in antiquity. The course will also include archaeological material.
Three lectures; one term
Prerequisite: COMP LIT 2H03 or six units of Classics
Cross-list: CLASSICS 3T03
Antirequisite: COMP LIT 3H06
This course is administered by the Department of Classics.

COMP LIT 3V03 TOPICS IN NATIONAL CINEMAS I
Previous topics include: Soviet and East European Cinema. Consult the School of the Arts concerning the topic to be offered.
Two lectures, plus one weekly film screening; one term
Prerequisite: DRAMA 2X06
Cross-list: CMST 3T03, DRAMA 3T03
Antirequisite: MOD LANG 3T03
COMP LIT 3V03 may be repeated, if on a different topic, to a total of six units.
This course is administered by the School of the Arts.

COMP LIT 3V03 TOPICS IN NATIONAL CINEMAS II
Previous topics include: Canadian Cinema, French Cinema and Japanese Cinema. Consult the School of the Arts concerning the topic to be offered.
Two lectures, plus one weekly film screening; one term
Prerequisite: DRAMA 2X06
Cross-list: CMST 3T03, DRAMA 3T03
Antirequisite: MOD LANG 3T03
COMP LIT 3V03 may be repeated, if on a different topic, to a total of six units.
This course is administered by the School of the Arts.

COMP LIT 3W03 GERMAN WOMEN WRITERS
A study of selected works by German women writers from the eighteenth century to the present.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: WOMEN ST 3W03
Antirequisite: MOD LANG 3W03

COMP LIT 4A03 TOPICS IN LITERARY MOVEMENTS
Previous topics include: European Romanticism. Consult the Department concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: Registration in Level III or IV of a Comparative Literature programme
COMP LIT 4A03 may be repeated, if on a different topic, to a total of six units.

COMP LIT 4B03 TOPICS IN LITERARY METHODOLOGY
Previous topics include: Narrative and Psychoanalysis, Feminist Theory, Formalism and Structuralism, Semiotics. Consult the Department concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: Registration in Level III or IV of a Comparative Literature programme
COMP LIT 4B03 may be repeated, if on a different topic, to a total of six units.

COMP LIT 4C03 LITERATURE AND OTHER DISCIPLINES
Previous topics include: Literature and Philosophy, Literature and Politics. Consult the Department concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: Registration in Level III or IV of a Comparative Literature programme
COMP LIT 4C03 may be repeated, if on a different topic, to a total of six units.

COMP LIT 4D03 TOPICS IN COMPARATIVE LITERATURE
Previous topics include: Twentieth-Century Women Writers, Literature and Ideology. Consult the Department concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: Registration in Level III or IV of a Comparative Literature programme
COMP LIT 4D03 may be repeated, if on a different topic, to a total of six units.

COMP LIT 4803 INDEPENDENT STUDY
The student will prepare, under the supervision of a faculty member, a research paper involving independent study of an approved topic.
Prerequisite: Registration in Level IV of a Comparative Literature programme and permission of the Director of Comparative Literature
COMP LIT 4T03 SPECIAL TOPICS
Consult the Department concerning the topic to be offered.
Seminar (two hours); one term
Prerequisite: Registration in Level II and above
Antirequisite: MOD LANG 4T03
COMP LIT 4T03 may be repeated, if on a different topic, to a total of six units.

COMPUTER ENGINEERING

(SEE ELECTRICAL AND COMPUTER ENGINEERING)

COMPUTER SCIENCE

(SEE COMPUTING AND SOFTWARE)

COMPETING AND SOFTWARE

WEB ADDRESS: http://www.cas.mcmaster.ca

John Hodgins Engineering Building, Room 301
Ext. 24614

Faculty as of January 15, 2001

Chair
Paul A. Taylor

Professors
Courses If no prerequisite is listed, the course is open.

COMP SCI 1B03 INTRODUCTION TO COMPUTING AND COMPUTER USE FOR BUSINESS
Organization of microcomputers and introduction to computer communications; introduction to operating systems; basics of word processing/desktop publishing and information exchange using the Internet; problem solving using electronic spreadsheets; elementary database concepts.
Three lectures, one tutorial; one term
Prerequisite: Registration in the School of Business and one OAC Mathematics credit, or one of MATH 1K03, 1M03, STATS 1L03
Antirequisite: MMDA 1A03

COMP SCI 1M03 COMPUTER SCIENCE I
Essentials of Computer Science: machine architecture, data structures, operating systems, problem solving and programming paradigms; programming language features; software design; artificial intelligence.
Three lectures, one tutorial; one term
Prerequisite: MATH 1K03 or OAC Calculus
Antirequisite: COMP SCI 1MA3, ENGINEER 1D04

COMP SCI 1M04 COMPUTER SCIENCE II
A second course in Computer Science; abstract data models and data structures; virtual memory and memory allocation; advanced programming paradigms; recursion, functional programming, communication protocols; logic, finite-state machines, and complexity.
Three lectures, one tutorial; one term
Prerequisite: Credit or registration in one of MATH 1A03, 1B03, 1H03, 1H04, 1H05, 1M03, 1M05, ARTS & SCI 1D06 and either COMP SCI 1M03, ENGINEER 1D04, or a grade of at least B- in COMP SCI 1SA3
Antirequisite: COMP SCI 1M03

COMP SCI 1SA3 COMPUTER SCIENCE 1A03 COMPUTING FUNDAMENTALS
Overview of the computer as a tool for problem solving; organization of microcomputers (hardware and operating systems); introduction to programming concepts: communications and networks; the Internet and Web pages; application packages.
Three lectures, one tutorial; one term
Prerequisite: MATH 1K03 or OAC Calculus
Not open to students with credit or registration in COMP SCI 1MC3 or 1A03 or 1B03 or 1F03 or ENGINEER 1D04.

COMP SCI 1TA3 ELEMENTARY COMPUTING AND COMPUTER USE
Organization of microcomputers (hardware and operating systems) and overview of computer communications; introduction to information exchange using word processing/desktop, the Internet and Web pages; problem solving using electronic spreadsheets and elementary database concepts.
Three lectures, one tutorial; one term
Antirequisite: MMDA 1A03
Not open to students with credit or registration in COMP SCI 1MC3 or 1A03 or 1B03 or 1F03 or HUMAN 2E03 or ENGINEER 1D04.

COMP SCI 2MF3 INTRODUCTION TO COMPUTER ARCHITECTURE
A first course in computer-systems architecture; the functional organization of the CPU; memory and input/output subsystems; an introduction to programming in assembler language and debugging; elements of digital circuits.
Two lectures, one lab (two hours); one term
Prerequisite: COMP SCI 1M03 or PHYSICS 1P03 (or at least 60% in OAC Physics)
Antirequisite: COMP ENG 2D04, SFWR ENG 2D04

COMP SCI 2M03 DISCRETE STRUCTURES
Three lectures; one term
Prerequisite: One of MATH 1H03, 1H04, 1H05, 1M03, 1M05, 1M06, 1M07, 1M08, 1M09, 1M10, ARTS & SCI 1D06

COMP SCI 2SC3 DESIGN AND IMPLEMENTATION OF C PROGRAMS
Data types, arithmetic/logical expressions, iterative constructs, pointers and pointer arithmetic. Modularization. Linked data structures and their applications. Program development and testing, programming style.
Three lectures, one tutorial; one term
Prerequisite: One of COMP SCI 1MC3, 1SA3, ENGINEER 1D04 and credit in one of MATH 1A03, 1B03, 1H03, 1H04, 1H05, 1M03, 1M05, 1M06, or ARTS & SCI 1D06

COMPSCI 2S03 INTRODUCTION TO DATA STRUCTURES AND ALGORITHMS
Commonly used abstract data types such as lists, stacks, queues, sets, and trees and their applications and efficient implementations; fast sorting, matching, and graph algorithms and complexity; emphasis on theoretical analysis.
Three lectures, one term
Prerequisite: COMP SCI 1M03
Antirequisite: COMP SCI 2D04, SFWR ENG 2D04

COMPSCI 2S05 SOFTWARE DESIGN I
Verification of sequential programs; abstraction in program development, modularization, implementation according to specifications, testing, software development and maintenance, requirements analysis, software documentation.
Three lectures; one term
Prerequisite: COMP SCI 2M03, 2M04
Antirequisite: SFWR ENG 2A04

COMPSCI 2S06 SOFTWARE DESIGN II
Program construction and testing; systematic handling of errors; debugging techniques.
Three lectures; one term
Prerequisite: COMP SCI 2M03
Antirequisite: SFWR ENG 2A04

COMPSCI 2S07 SOFTWARE DESIGN III
Computer systems software; computer science and software engineering; software management; software quality assurance.
Three lectures, one lab (three hours); one term
Prerequisite: COMP SCI 2M03, 2M04
Antirequisite: SFWR ENG 2A04

COMPSCI 2S08 SOFTWARE DESIGN IV
Software project management; software project planning; software project evaluation.
Three lectures; one term
Prerequisite: COMP SCI 2M03, 2M04
Antirequisite: SFWR ENG 2A04

COMPSCI 2S09 SOFTWARE DESIGN V
Software project management; software project planning; software project evaluation.
Three lectures, one term
Prerequisite: COMP SCI 2M03, 2M04
Antirequisite: SFWR ENG 2A04

COMPSCI 2S0A SOFTWARE DESIGN VI
Software project management; software project planning; software project evaluation.
Three lectures, one term
Prerequisite: COMP SCI 2M03, 2M04
Antirequisite: SFWR ENG 2A04

COMPSCI 2S0B SOFTWARE DESIGN VII
Software project management; software project planning; software project evaluation.
Three lectures, one term
Prerequisite: COMP SCI 2M03, 2M04
Antirequisite: SFWR ENG 2A04

COMPSCI 2S0C SOFTWARE DESIGN VIII
Software project management; software project planning; software project evaluation.
Three lectures, one term
Prerequisite: COMP SCI 2M03, 2M04
Antirequisite: SFWR ENG 2A04

COMPSCI 2S0D SOFTWARE DESIGN IX
Software project management; software project planning; software project evaluation.
Three lectures; one term
Prerequisite: COMP SCI 2M03, 2M04
Antirequisite: SFWR ENG 2A04

COMPSCI 2S0E SOFTWARE DESIGN X
Software project management; software project planning; software project evaluation.
Three lectures; one term
Prerequisite: COMP SCI 2M03, 2M04
Antirequisite: SFWR ENG 2A04

COMPSCI 2S0F SOFTWARE DESIGN XI
Software project management; software project planning; software project evaluation.
Three lectures; one term
Prerequisite: COMP SCI 2M03, 2M04
Antirequisite: SFWR ENG 2A04

COMPSCI 2S0G SOFTWARE DESIGN XII
Software project management; software project planning; software project evaluation.
Three lectures; one term
Prerequisite: COMP SCI 2M03, 2M04
Antirequisite: SFWR ENG 2A04

COMPSCI 2S0H SOFTWARE DESIGN XIII
Software project management; software project planning; software project evaluation.
Three lectures; one term
Prerequisite: COMP SCI 2M03, 2M04
Antirequisite: SFWR ENG 2A04
### COMP SCI 3CB3 \ SYSTEM ARCHITECTURE FOR INTERACTIVE APPLICATIONS

A second course in computer architecture with special emphasis on the implementation of virtual-machine language processors (e.g. Forth, Java) and their use for implementing server-client software architecture.

Three lectures; one term

Prerequisite: COMP SCI 2MF3 and registration in Level III or above of a Computer Science programme or B.Sc. Mathematical Science

**Antirequisite:** SFWR ENG 3G03

### COMP SCI 3EA3 \ SOFTWARE DESIGN II

Object-oriented modeling, design and implementation, fault tolerance and reliability, embedded software, configuration management.

Three lectures; one term

Prerequisite: COMP SCI 2ME3

Antirequisite: SFWR ENG 2B03, 2B04, 4K04

### COMP SCI 3GA3 \ INTRODUCTION TO COMPUTER GRAPHICS

Principles of computer graphics. Data structures and algorithms, hardware and software systems for graphics. Object modelling and display techniques: visual realism, perspective, visibility and shading.

Three lectures; one term

Prerequisite: COMP SCI 2MD3 and either one of MATH 2M06, 2Q04 or 2R03

### COMP SCI 3IA3 \ SYMBOLIC PROCESSING AND LOGIC PROGRAMMING

Methodologies, and data control) structures for symbolic processing: symbolic expressions, lists, list processing functions, backtracking, matching procedures; resolution principle; elements of logic programming (Prolog).

Three lectures; one term

Prerequisite: COMP SCI 2MD3

### COMP SCI 3MG3 \ COMPUTER SYSTEM ARCHITECTURE

Major components of a computer and their design issues; instruction set, data path, control, memory, and I/O. Principles of computer arithmetic, pipelining, memory hierarchy, and virtual memory.

Three lectures; one term

Prerequisite: COMP SCI 2MD3, 2MF3

Antirequisite: SFWR ENG 3G03

### COMP SCI 3MH3 \ PRINCIPLES OF OPERATING SYSTEMS

Concepts of operating systems; process coordination, memory management, file systems; introduction to distributed systems and computer networks. Involves group projects.

Three lectures; one term

Prerequisite: COMP SCI 3MG3

Antirequisite: COMP SCI 4SH3

### COMP SCI 3MI3 \ ORGANIZATION OF PROGRAMMING LANGUAGES

A comparative study of programming languages, emphasizing functional languages. Introduction to formal methods of language definition.

Three lectures; one term

Prerequisite: COMP SCI 2MD3

### COMP SCI 3SD3 \ COMPUTER SIMULATION TECHNIQUES

Techniques for the application of computer simulation software to scientific and engineering problems, especially queuing and network problems.

Three lectures; one term

Prerequisite: COMP SCI 1MD3

*Not offered in 2001-2002.*

### COMP SCI 3SE3 \ DESIGN OF VISUAL PROGRAMMING ENVIRONMENTS

A study of visual programming environments: events, procedures, objects and attributes; paradigms: event-driven, object-oriented; applications: graphical user interfaces, human factors, visualization techniques.

Three lectures; one term

Prerequisite: COMP SCI 2MD3, 2SC3

### COMP SCI 3TA3 \ AUTOMATA, COMPUTATION AND LANGUAGES

Automata, transition systems and machines. Grammars and rewriting systems. Languages, their classification and properties. The bound of computability, Computational Complexity. Elements of recursion theory.

Three lectures; one term

Prerequisite: COMP SCI 2MD3; COMP SCI 2MJ3 or permission of the Instructor

Antirequisite: SFWR ENG 4103

### COMP SCI 4B3 \ SUPERCOMPUTING SYSTEM ARCHITECTURES

Traditional performance enhancement techniques: pipelining, RISC, VLIW, prefetch, cache; modern high performance systems: mini-, micro-, mainframe supercomputers, array processors; parallelization considerations and vectorization methods.

Two lectures; one lab; one term

Prerequisite: COMP SCI 3MG3 or credit or registration in PHYSICS 4D06 or 4D3A, 4D3B

### COMP SCI 4CC3 \ ADVANCED OPERATING SYSTEMS

Modern operating systems: large-scale distributed to small real-time operating systems; microcomputer/mainframe interconnections; message passing techniques; networks; distributed deadlocks and shared memory models; extended file systems and shared resources.

Two lectures; one lab; one term

Prerequisite: COMP SCI 3MH3

*Offered in alternate years.*

### COMP SCI 4D3 \ DISTRIBUTED SYSTEM ARCHITECTURES

Distributed systems: real-time, agent-oriented, heterogeneous, multi-computer, multi-processor; coupling schemes: loose, tight; networking, ATM, frame relay, clustering, software protocols; communication strategies, client/server approaches.

Two lectures; one lab; one term

Prerequisite: COMP SCI 3MG3 or credit or registration in PHYSICS 4D06 or 4D3A, 4D3B

### COMP SCI 4EB3 \ DATABASE MANAGEMENT SYSTEM DESIGN

Concepts and structures for the design of database management systems. Topics include: data models, data normalization, data-description languages, query facilities, file organization and security.

Three lectures; one term

Prerequisite: COMP SCI 2MD3

### COMP SCI 4EC3 \ OBJECT-ORIENTED SOFTWARE DESIGN

Advanced software development in the business/industrial environment. Comparative analysis of alternatives to structured design, especially object-oriented techniques.

Three lectures; one term

Prerequisite: COMP SCI 3EA3 and registration in Level IV of a Computer Science programme

*Not offered in 2001-2002.*

### COMP SCI 4EG3 \ SOFTWARE REQUIREMENTS ACTIVITIES

Software requirements gathering and verification techniques. Suing requirements for software testing. Software requirements management.

Three lectures; one term

Prerequisite: COMP SCI 3EA3 or SFWR ENG 3B04

Cross-list: SFWR ENG 4EF3

### COMP SCI 4G3 \ ORGANIZATION AND MANAGEMENT OF COMPUTING ACTIVITIES

Strategic planning of computing and data resources in an organization; system management, estimating techniques, productivity issues; project management, quality assurance, configuration management.

Four hours (lectures and tutorials); one term

Prerequisite: COMP SCI 3EA3

*Not offered in 2001-2002.*

### COMP SCI 4GB3 \ COMPUTATIONAL GEOMETRY

Discrete geometry from an algorithmic point of view. Search, subdivision, proximity and intersection. Applications to problems in object modelling, computer graphics, and computer vision.

Three lectures; one term

Prerequisite: COMP SCI 2MD3 or permission of the Instructor

### COMP SCI 4IB3 \ ARTIFICIAL INTELLIGENCE AND KNOWLEDGE-BASED SYSTEMS

AI disciplines: perception, pattern recognition, machine learning, neural nets, image processing, scene analysis, speech processing, problem solving, production systems, backtracking, graph search techniques, planning; PROLOG. Architectures and applications of expert systems.

Three lectures; one term

Prerequisite: COMP SCI 2MD3
COMP SCI 4K03 PROVING PROPERTIES OF SPECIFICATIONS
Discrete mathematical structures, the Z specification language, identification of proof obligations, proofs, resolution theorem proving, the Otter theorem prover; usable list, set-of-support, paramodulation.
Three lectures, one lab; one term
Prerequisite: Registration in Level III or IV of an Honours Computer Science programme
Cross-list: SFWR ENG 4K03

COMP SCI 4L03 MATHEMATICALLY RIGOROUS SOFTWARE DESIGN
Mathematical model of a programme and its execution, preconditions, postconditions, partial, semi-total and total correctness, proof rules and their practical application both to verifying and to designing programmes.
Three lectures; one term
Prerequisite: Registration in Level IV of an Honours Computer Science programme
Cross-list: SFWR ENG 4L03

COMP SCI 4MN3 INTRODUCTION TO SCIENTIFIC COMPUTING
Principles of floating point computing; Computer number systems, floating-point arithmetic, and computational errors. Computer methods and software for scientific and engineering applications: Solving linear and nonlinear systems, data fitting, solving differential equations, and continuous optimization.
Three lectures; one term
Prerequisite: MATH 2A03, 2R03, COMP SCI 3MG3
Antirequisite: SFWR ENG 3X03

COMP SCI 4T83 OPERATING SYSTEM CONCEPTS
Design principles of major components of an operating system: Management of processes, threads, memory, files, and I/O systems; network communication protocols, security, and command Interpreter systems.
Three lectures and small projects; one term
Prerequisite: COMP ENG 3S0A, 4DM4
Antirequisite: COMP ENG 4SN4, COMP SCI 3MH3

COMP SCI 4TB3 COMPILER CONSTRUCTION
Lexical analysis; syntax analysis; type checking; syntax-directed translation; Implications of computer architecture; mapping of programming language concepts; intermediate code generation; code generation and optimization.
Three lectures; one term
Prerequisite: COMP SCI 3TA3 and credit or registration in 3MG3 or, for those students registered in a Computer Science programme prior to September 2000, registration in Level IV of and Honours Computer Science programme

COMP SCI 4TD3 DESIGN AND ANALYSIS OF ALGORITHMS
Techniques for the design and analysis of algorithms, especially divide-and-conquer, greedy and dynamic programming algorithms. An introduction to computational complexity. Analysis of particular algorithms of practical or theoretical importance in computer science.
Three lectures; one term
Prerequisite: COMP SCI 2MD3, 2MJ3 and one of MATH 2004, 2R03.

COMP SCI 4TE3 CONTINUOUS OPTIMIZATION ALGORITHMS
Fundamental algorithms and duality concepts of continuous optimization. Motivation, applicability, information requirements and computational cost of the algorithms is discussed. Practical problems will illustrate the power of continuous optimization techniques.
Three lectures; one term
Prerequisite: MATH 2M06; MATH 2Q04 or 2R03 or equivalent
Cross-list: SFWR ENG 4TE3

COMP SCI 4Z03 DIRECTED READINGS
Directed readings in an area of computer science of interest to the student and the instructor.
Prerequisite: Permission of the Chair of the Department and registration in Level IV of an Honours programme in Computer Science. Application for permission must be received by March 31st of the previous year.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

COMP SCI 4ZP6 PROJECT
Under the supervision of a faculty member, teams of two to four students implement, write up and defend a substantial project in an area of computer science.
Occasional tutorials, no lectures; two terms
Prerequisite: Registration in Level IV of Honours Computer Science. Completion of COMP SCI 3EA3 is strongly recommended.
Antirequisite: COMP SCI 4MP6

SOFTWARE ENGINEERING...

Note:
All software engineering courses are open to students registered in a software engineering programme, subject to prerequisite requirements. Prior permission of the Department is necessary for other students.

Courses

SFWR ENG 2A04 SOFTWARE DESIGN I
Software development with precise specifications. Implementation, inspection, integration, and testing of programs specified sequential modules and programs. Assembly of software from independent modules; incremental design.
Three lectures, one lab (three hours); first term
Prerequisite: Registration in Level II of a Software Engineering programme
Corequisite: SFWR ENG 2E03 or 2E04; 2F03 or 2F04
Antirequisite: COMP SCI 2ME3

SFWR ENG 2B03 SOFTWARE DESIGN II
Software system design, documentation, implementation, inspection and testing. Requirements documentation. Designing large sequential programs including precise documentation. Modularisation, module interface design. Hierarchical structures; project organization.
Three lectures, one lab (three hours); second term
Prerequisite: SFWR ENG 2A04, 2E03 or 2E04; 2F03 or 2F04
Corequisite: SFWR ENG 2C04
Antirequisite: COMP SCI 3EA3, SFWR ENG 2B04

SFWR ENG 2C04 DESIGN AND SELECTION OF COMPUTER ALGORITHMS AND DATA STRUCTURES
Data structures: queues, stacks, lists, heaps, trees, graphs, data abstraction; graph algorithms. Sorting, searching, parsing, pattern matching, resource utilization, finding and choosing algorithms.
Three lectures, one tutorial (two hours); second term
Prerequisite: SFWR ENG 2A04, 2E03 or 2E04
Corequisite: SFWR ENG 2B03 or 2B04
Antirequisite: COMP SCI 2SI4, COMP SCI 2MD3

SFWR ENG 2D04 DIGITAL SYSTEM PRINCIPLES AND LOGIC DESIGN FOR SOFTWARE ENGINEERS
Systematic design processes; combinatorial circuit design, design of sequential machines, error detection, correction; redundancy, number representations, organization of large logic circuits. Use of logic simulators.
Three lectures, one lab (three hours); second term
Prerequisite: SFWR ENG 2A04, 2F03 or 2F04
Antirequisite: COMP SCI 2D04, COMP SCI 2MF3

SFWR ENG 2E03 APPLICATIONS OF DISCRETE MATHEMATICS IN SOFTWARE ENGINEERING
Three lectures, one lab (three hours); first term
Prerequisite: ENGINEER 1004
Corequisite: SFWR ENG 2A04, 2F03 or 2F04
Antirequisite: COMP SCI 2MI3, SFWR ENG 2E04

SFWR ENG 2F04 APPLICATIONS OF MATHEMATICAL LOGIC FOR SOFTWARE ENGINEERING
Foundations of propositional, predicate, higher-order, multiple-value logic; normal forms; deduction systems, models. Describing software states; verifying program properties; automated theorem-proving systems.
Three lectures, one lab (three hours); first term
Prerequisite: Registration in Level II of a Software Engineering programme
Corequisite: SFWR ENG 2A04, 2E03 or 2E04
Antirequisite: SFWR ENG 2F03

SFWR ENG 3B04 SOFTWARE DESIGN III
Three lectures, one lab (three hours); second term
Prerequisite: SFWR ENG 3F03, 3G03

SFWR ENG 3C03 DISCRETE OPTIMIZATION METHODS AND GRAPH THEORETIC MODELS
Linear and non-linear programming; integer programming. Search techniques. Use of directed graphs in engineering problems, scheduling techniques, network optimization, route design.
Three lectures, one tutorial (two hours) every other week; second term
Prerequisite: SFWR ENG 2C04, 2E03 or 2E04, 2F03 or 2F04 and 3X03
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>SFWR ENG 3E03</td>
<td>DESIGN AND SELECTION OF SEQUENTIAL PROGRAMMING LANGUAGES</td>
<td>Program construction tools, especially programming languages. Primitive programs and program constructors. Special purpose program generators. Selection criteria. Historical developments. Survey of current tools. Two lectures; one lab; one tutorial. Prerequisite: SFWR ENG 2B03 or 2B04, 2C04.</td>
</tr>
<tr>
<td>SFWR ENG 3F03</td>
<td>MACHINE-LEVEL COMPUTER PROGRAMMING</td>
<td>Use of assembler language. I/O and storage devices. Hardware fault diagnosis. Highly optimized code. Low level representation of control and data structures. Documentation and inspection. Two lectures; one lab (three hours); first term. Prerequisite: SFWR ENG 2B03 or 2B04, 2C04, 2D04.</td>
</tr>
<tr>
<td>SFWR ENG 3H03</td>
<td>DATA MANAGEMENT TECHNIQUES</td>
<td>Computer systems with large amounts of data. Use of mass storage devices. File structures. Relational and other database systems. Compression, information retrieval. Assorted applications. Three lectures, one lab (three hours) every other week; second term. Prerequisite: SFWR ENG 3F03, 3G03.</td>
</tr>
<tr>
<td>SFWR ENG 3I03</td>
<td>SOFTWARE AND SOCIAL RESPONSIBILITY</td>
<td>Historical development of engineers' social responsibility and ethical codes. Societal control of technological change. Social effects of automation. Information security and privacy. Software in safety-critical applications and law enforcement. Two lectures, one seminar (two hours); first term. Prerequisite: Registration in Level III of a Software Engineering programme.</td>
</tr>
<tr>
<td>SFWR ENG 4K03</td>
<td>PERFORMANCE ANALYSIS OF COMPUTER SYSTEMS</td>
<td>Use of queuing models and simulation to predict computer system performance and find bottle necks in a system. Types of models, distributions. Markov models. Modelling storage and network behaviour, locks, critical sections, concurrency. Three lectures, one tutorial (two hours) every other week; first term. Prerequisite: SFWR ENG 3B04, 3C03, 3D03.</td>
</tr>
<tr>
<td>SFWR ENG 4L03</td>
<td>SOFTWARE REQUIREMENTS ACTIVITIES</td>
<td>Software requirements gathering and verification techniques. Using requirements for software testing. Software requirements management. Three lectures; second term. Prerequisite: SFWR ENG 3B04.</td>
</tr>
<tr>
<td>SFWR ENG 4M03</td>
<td>DESIGN OF PARALLEL/DISTRIBUTED COMPUTER SYSTEMS AND COMPUTATIONS</td>
<td>Design of multi-computer systems for computation-intensive applications and high-reliability applications, array processing systems. Application of multi-computer systems to finite element methods, simulators, optimization problems. Three lectures; second term. Prerequisite: SFWR ENG 3X03, 4A03, 4E03.</td>
</tr>
<tr>
<td>SFWR ENG 4N03</td>
<td>SENIOR THESIS I</td>
<td>Capstone Course: Design and Documentation of Software Systems. A supervised team software design experience. Students design a product, taking economic health, safety and marketing factors into account. Prepare complete set of design documents and test plans. One tutorial (three hours); first term. Prerequisite: Completion of Level III of any Software Engineering programme.</td>
</tr>
<tr>
<td>SFWR ENG 4O03</td>
<td>SENIOR THESIS II</td>
<td>A supervised team software design experience. Students implement the design completed in SFWR ENG 4G03 and update the documentation produced in that course. Students must demonstrate a working system and provide convincing test results. One tutorial (three hours); second term. Prerequisite: SFWR ENG 4G03.</td>
</tr>
</tbody>
</table>
Models of computers and their implications. Theoretical capabilities of computers. Compatibility, complexity. Language classifications and relations to automata. Limitations of schemes such as neural networks or fuzzy logic.

Three lectures; first term
Prerequisite: SFWR ENG 2C04, 2E03 or 2E04, 2F04
Antirequisite: COMP SCI 3T03

Fundamental communications concepts: information, entropy, channel capacity, codes, data compression, adaptive channel equalizers, modulation/demodulation of signals, tracking, Kalman filtering, use of specialized signal processing hardware. Software in communication systems.

Three lectures; second term
Prerequisite: SFWR ENG 4A03, 4E03

Introduction to resolution theorem proving, OTTER theorem prover and Z machinery, the organization of production, the training and preparation of training, and the organization of production.

Three lectures; first term
Prerequisite: Registration in Level IV of a Software Engineering Programme
Cross-list: COMP SCI 4K03

Mathematical model of a program and its execution, preconditions, post-conditions, partial semi-total and total correctness, proof rules and their application to verifying and to designing programs.

Three lectures; first term
Prerequisite: Registration in the final year of a Software Engineering programme
Cross-list: COMP SCI 4L03

Fundamental algorithms and general duality concepts of continuous optimization. Special attention will be paid to the applicability of the algorithms, their information requirements and computational costs. Practical engineering problems will illustrate the power of continuous optimization techniques.

Three lectures; first term
Prerequisite: MATH 2M06 or 2Q04
Cross-list: COMP SCI 4TE3

Three hours (lectures and group presentations); one term
Prerequisite: Registration in Level II and above
Cross-list: CMST 2S03

This course will explore ways in which the proliferation of new media has affected the ways we create and interpret both live and recorded performances, the ways performance reaches audiences and our methods of analyzing and archiving performance.

Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above
Cross-list: CMST 2P03
Antirequisite: DRAMA 2D06

A survey of the traditions of Western theatre production from Classical Greece to the Eighteenth Century, including architecture, design, stage machinery, the organization of production, the training and preparation of actors, and audience reception.

Three lectures; one term
Prerequisite: DRAMA 1A03 and 1A03 (or 1A03)
Antirequisite: DRAMA 2M03, 2M06, 3G03

An introduction to film style and technique through a detailed critical analysis of major works from the silent period to the present day.

Two lectures, plus one weekly film screening; two terms
Prerequisite: Six units from the Faculty of Humanities and registration in Level II and above
Cross-list: CMST 2X06

An exploration of the theory and methods that inform the actor's art, focusing on a specific historical period or creative model, through the study and performance of dramatic texts. Previous topics include Italian Physical Theatre, Realism and Farce.

Two studies; one term
Prerequisite: DRAMA 2A06

Drama 3A03 may be repeated, if on a different topic, to a total of six units. Priority is given to students enrolled in Drama programmes.

Enrolment is limited.

The study and performance of scenes from the works of William Shakespeare. Extension of acting skills through specific voice, body and language techniques.

Two studies; one term
Prerequisite: DRAMA 2A06

Enrolment is limited. Priority is given to students enrolled in Drama programmes.

This course is reserved for students with a strong academic record and the demonstrated ability to work independently. Students must submit a written proposal to the Academic Counsellor for Drama no later than the first day of classes.

Prerequisite: Registration in an Honours programme in Drama with a Cumulative Average of at least 9.0 and permission of the School of the Arts

A study of representative plays by eight major dramatists, including Strindberg, Chekhov, Goek, Weeskind and Kaiser.

One seminar (two hours), plus play readings; one term
Prerequisite: Six units of Level II Drama
Cross-list: COMP LIT 3E03
Offered in alternate years.
DRAMA 3C03  MODERN EUROPEAN DRAMA FROM BRECHT TO THE PRESENT
A study of representative plays by ten major dramatists, including Garcia Lorca, Cocteau, Frisch, Sarret, Weiss, Genet, Dario Fo. One seminar (two hours); plus one weekly play reading; one term
Prerequisite: Six units of Level II Drama
Offered in alternate years.

DRAMA 3D03  THEATRE PRODUCTIONS
A survey of the theory and practice of all the technical skills involved in a theatrical production: stage management, set design, set construction, lighting, sound, carpentry, properties, costumes. Technical assistance with Drama productions.
Two hours, first term; one hour (workshop), second term
Prerequisite: Registration in a programme in Drama
Students wishing to take this course must complete an application form in the School of the Arts before March 31 to guarantee consideration. (Enrolment limited)

DRAMA 3E03  DEVELOPMENT OF CANADIAN THEATRE
A study of the development of theatrical performance in English Canadian, Quebecois, First Nations and culturally diverse communities, with an emphasis on the period since 1967.
Three hours (lecture and discussion); one term
Prerequisite: Six units of Level II Drama
Offered in alternate years.

DRAMA 3G03  COMPARATIVE THEATRE
A comparison of two or more theatrical traditions.
Three lectures; one term
Prerequisite: Six units of Level II Drama
Offered in alternate years.

DRAMA 3H03  LITERATURE AND FILM
An examination of the particular characteristics of both literature and film and the relationships between them through a detailed study of selected novels, short stories and plays and the films that have been based on them.
Three lectures, plus one weekly film screening; one term
Prerequisite: Registration in Level III or IV of a programme in Drama or Literature or History. DRAMA 2X06 is recommended.
Cross-list: CMST 3C03, COMP LIT 3C03
Offered in alternate years.

This course is administered by the Department of English.

DRAMA 3J03  TOPICS IN FILM
Previous topics include: Genre Studies, Film Comedy. Consult the School of the Arts concerning topic to be offered.
Two lectures, plus one weekly film screening; one term
Prerequisite: DRAMA 2X06
Cross-list: CMST 3J03

DRAMA 3L03  MODERN EUROPEAN THEATRE HISTORY
A study of the major influences that have shaped the growth of modern theatre movements in Europe from the late nineteenth century to the present.
One seminar (two hours); one term
Prerequisite: Six units of Level II Drama
Offered in alternate years.

DRAMA 3M03  THEATRE AND COMMUNITY DEVELOPMENT
Students will explore the different approaches to community-based theatre generated in a range of social and cultural milieus and will analyze the sense of community implicit in a variety of popular and community-based theatre projects.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above
Cross-list: CMST 3M03

DRAMA 3P06  PLAYS IN PERFORMANCE
This course is offered in conjunction with the McMaster Stratford Seminars. In addition to regular evening classes, students are required to spend five full-time days in Stratford participating in seminars, research, and attending performance of the set plays.
Two lectures/seminars (two hours) weekly (Summer only)
Prerequisite: Registration in Level II and above
DRAMA 3P06 may be repeated, if on a different topic, to a total of 12 units.

DRAMA 3R03  THE AMERICAN CINEMA I
A survey of some of the predominant features of the American Cinema from 1950 to the present day. Emphasis will be placed both on the artistic value of the films and on their social significance and impact.
Two lectures, plus one weekly film screening; one term
Prerequisite: DRAMA 2X06; or permission of the School of the Arts
Cross-list: CMST 3R03

DRAMA 3RR3  THE AMERICAN CINEMA II
A survey of some of the predominant features of the American Cinema from 1950 to the present day. Emphasis will be placed both on the artistic value of the films and on their social significance and impact.
Two lectures, plus one weekly film screening; one term
Prerequisite: DRAMA 2X06; or permission of the School of the Arts
Cross-list: CMST 3RR3

DRAMA 3T03  TOPICS IN NATIONAL CINEMAS I
Previous topics include: Soviet and East European Cinema. Consult School of the Arts concerning topic to be offered.
Two lectures, plus one weekly film screening; one term
Prerequisite: DRAMA 2X06
Cross-list: CMST 3T03, COMP LIT 3V03
DRAMA 3T03 may be repeated, if on a different topic, to a total of six units.

DRAMA 3TT3  TOPICS IN NATIONAL CINEMAS II
Previous topics include: Canadian Cinema, French Cinema and Japanese Cinema. Consult the School of the Arts concerning topic to be offered.
Two lectures, plus one weekly film screening; one term
Prerequisite: DRAMA 2X06
Cross-list: CMST 3TT3, COMP LIT 3V03
DRAMA 3TT3 may be repeated, if on a different topic, to a total of six units.

DRAMA 3Z03  INDEPENDENT STUDY IN PRACTICAL THEATRE
This course is reserved for students with a strong academic record and the demonstrated ability to work independently. Students must submit a written proposal to the Academic Counsellor for Drama no later than the first day of classes.
Prerequisite: Registration in an Honours programme in Drama with a cumulative Average of at least 8.0 and permission of the School of the Arts
Cross-list: CMST 4A03

DRAMA 4A03  PRINCIPLES OF STAGE DIRECTING
Theory of directing a play; play analysis; rehearsal techniques; technical stagework. Direction of a play under the supervision of an instructor.
Two lectures and practical exercises, plus rehearsals; two terms
Prerequisite: Registration in Level IV of an Honours programme in Drama and DRAMA 2A06 or 2D06 (or 2D03) or DRAMA 2M06 (or 2L03 or 2M03), and one of DRAMA 3A03, 3A05, 3D03, and permission of the School of the Arts
Antirequisite: DRAMA 4A03
Enrolment is limited. Admission to DRAMA 4A03 will be based primarily on academic standing. In addition, students must complete a written application on a form provided by the School of the Arts, which must be submitted in March of the academic year prior to registration. Final selection will be made by a School committee.

DRAMA 4B03  INDEPENDENT STUDY IN DRAMA II
This course is reserved for Honours Drama students with the demonstrated ability to work independently. Students must submit a written proposal to the Academic Counsellor for Drama no later than the first day of classes.
Prerequisite: Registration in an Honours programme in Drama with a Cumulative Average of at least 9.0 and permission of the School of the Arts

DRAMA 4C03  STUDIES IN THEATRE AND FILM
Senior seminar: A comparative examination of the performance, visual, and narrative techniques of theatre and film, including specific examples of adaptation.
Seminar (two hours), plus weekly film screening; one term
Prerequisite: Registration in Level IV of an Honours programme in Drama
Offered In alternate years.
Enrolment is limited.

DRAMA 4CC3  STUDIES IN THE THEORY AND PRACTICE OF DRAMA
Senior seminar: A close examination of a selected text, or selected texts, from the textual, historical and theatrical points of view, leading to a workshop production of that play by members of the seminar.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in Drama
Offered In alternate years.
Enrolment is limited.

DRAMA 4E03  STUDIES IN THE THEORY OF DRAMATIC PERFORMANCE
Senior seminar: An examination of theoretical documents, with an emphasis on contemporary theories of the nature of dramatic performance.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in Drama
Offered In alternate years.
Enrolment is limited.
DRAMA 4EE3 STUDIES IN CONTEMPORARY DRAMA
Senior seminar: An examination of selected plays from western drama written since 1956.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in Drama
Offered in alternate years.
Enrolment is limited.

DRAMA 4FF3 STUDIES IN FILM
Senior seminar: An examination of selected films.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in Drama.
DRAMA 2X06 is recommended.
Cross-list: CMST 4FF3
Offered in alternate years.
Enrolment is limited.

The following courses, offered by other departments, directly pertain to the study of Drama. These are recommended as electives. Up to nine units of courses from this list may be available as substitutes for Drama courses, and counted toward the fulfillment of a programme in Drama. Students are advised that there may be restrictions on enrolment in these courses.

CLASSICS 2E03 The Ancient World in Film
CLASSICS 2H03 Greek and Roman Drama
CLASSICS 3T03 The Theatre of Greece and Rome
COMP LIT 3B03 Russian Drama Since 1800
COMP LIT 3F03 The Metamorphoses of Don Juan
COMP LIT 3G03 German Drama
ENGLISH 2806 The Development of English Drama
ENGLISH 3K06 Shakespeare
ENGLISH 3P03 Modern Drama in English
ENGLISH 3X03 Topics in Drama
FRENCH 3003 17th-Century French Literature I
KINESIO 4L03 Dance in Contemporary Society
WOMEN ST 3B03 Images of Women: Reading, Art, Media, and Popular Culture

ECONOMICS

WEB ADDRESS: http://socserv2.socsci.mcmaster.ca/~econ/
Kenneth Taylor Hall, Room 426
Ext. 22765

Faculty as of January 15, 2001

Chair
Stuart Mestelman
Associate Chair
William M. Scarth

Professors
John B. Burbidge/B.A., Ph.D. (McGill)
Kenneth S. Charr/Ph.D. (Toronto), M.A., Ph.D. (Brown)
Martin Dooley/B.A., M.S., Ph.D. (Wisconsin-Madison)
Peter J. George/B.A., M.A., Ph.D. (Toronto), D.U., C.M. (Ottawa)
Alan Harrison/B.A., M.A., Ph.D. (Essex)
Jeremiah E. Hurley/B.A., M.A., Ph.D. (Wisconsin-Madison)
AIt A. Kubursi/B.A., M.A., Ph.D. (Wisconsin-Madison)
John E. Leach/B.A. (Alberta), M.A., Ph.D. (Queen's)
Wayne Lewchuk/B.A. (Toronto), Ph.D. (Cambridge)
Lonnie J. Magee/B.A., M.A., Ph.D. (Waterloo), Ph.D. (Western Ontario)
Stuart Mestelman/B.A. (Burlington), M.A., Ph.D. (Purdue)
Michael St. Andrew Muller/B.A., M.A., Ph.D. (Toronto)
Yorgos Y. Papageorgiou/Dipl. Arch. Eng. (National Technical Athens), M.C.P., Ph.D. (Ohio State), D.Sc. (Louvain)
A. Leslie Roberts/B.A., M.A. (British Columbia), Ph.D. (Essex)
William M. Scarth/B.A., M.A. (Queen's), Ph.D. (Essex), Ph.D. (Toronto)
Ronald G. Spencer/B.A., M.D. (Queen's), Ph.D. (Rice)

Assistant Professors
David W. Butterfield/B.S., M.S. (Calif. Inst. of Tech.), A.B., M.A., Ph.D. (California-Berkeley)
Donald A. Dawson/A.M. (Chicago), Ph.D. (Western Ontario), N.D.C.
Katherine Cuff/F.M.A. (York), B.A., Ph.D. (Queen's)
Alok John/B.A. (Delhi), M.A. (Delhi School of Economics), Ph.D. (Boston)
Marc-Andre Letendre/B.A. (HEC Montreal), M.A., Ph.D. (Queen's)
Peter J. McCaig/B.A. (Boston College), Ph.D. (Northwestern)

Associate Professors
M. Luke Chan (Business)/B.Sc. (Prince Edward Island), M.A., Ph.D. (McMaster)
Paul Grootendorst (Clinical Epidemiology and Biostatistics)/B.A. (Victoria), M.A. (Queen's), Ph.D. (McMaster)
D.C. Mountain (Business)/B.A., M.A., Ph.D. (Western Ontario)
Gregory L. Stoddart (Clinical Epidemiology and Biostatistics)/B.A. (Western Ontario), Ph.D. (British Columbia)

Professors Emeriti
Syed Ahmad/M.A., LL.B. (Aligarh), M.Sc., D.Sc. (London)
James A. Johnson/M.A., Ph.D. (Minnesota)
Ernest H. Okusun/A.M. (Michigan), B.A., Ph.D. (Queen's)
William R. Scammell/B.Comm.Sc. (Queen's, Belfast), Ph.D. (Wales)
Robert W. Thompson/B.A., M.A. (Queen's), Ph.D. (London)
James R. Williams/M.A., Ph.D. (Minnesota)

Department Notes:
1. Not all the Economics courses listed in this Calendar are taught every year. Students are advised to consult the timetable published by the Office of the Registrar, or the Department handbook for information on current offerings.
2. Students with strong academic records, particularly those from other departments, may be permitted to enrol in courses for which they have not completed all prerequisites. In cases where prerequisites are incomplete, consultation with a departmental counselor is required. If approval is granted, the counsellor will arrange for permission from the Department Chair.
3. Students with credit in ECON 2X03 who transfer into Economics from other programmes may substitute ECON 2X03 for ECON 2A03.
4. Students who transfer into Economics from other programmes may substitute ECON 1B03 and 1BB3 for ECON 1A06.
5. Students who complete ECON 2A03 are well placed to enrol in the Canadian Securities Course (a correspondence course operated by the Canadian Securities Institute which represents the licensing requirement for individuals training to become investment advisors).
6. ECON 2CC3 and 2L03 may not be used to satisfy Economics unit requirements by students in Economics programmes or a minor in Economics, but may be used as an elective by students in Economics programmes.

Courses

ECON 1A06 INTRODUCTORY ECONOMICS
An introduction to the method and theory of economics, and their application to the analysis of contemporary economic problems.
Three lectures; two terms
Antirequisite: ECON 1B03 and 1BB3

ECON 1BB3 INTRODUCTORY MICROECONOMICS
An introduction to the method and theory of microeconomics for Engineering, Kinesiology and Science students. The analysis will involve mathematics and will be applied to contemporary problems.
Three lectures; one term
Antirequisite: Registration in a Bachelor of Health Sciences (Honours), Engineering, Kinesiology or Science programme

ECON 1A06 INTRODUCTORY MACROECONOMICS
An introduction to the method and theory of macroeconomics for Engineering, Kinesiology and Science students. The analysis will involve mathematics and will be applied to contemporary problems.
Three lectures; one term
Antirequisite: Registration in a Bachelor of Health Sciences (Honours), Engineering, Kinesiology or Science programme

ECON 2B05 ECONOMICS OF LABOUR-MARKET ISSUES
This course applies economic analysis to issues of importance in the labour market. Topics vary and include: women in the Canadian labour market; discrimination in hiring and promotion; unemployment; job loss and workplace closing; work sharing.
ECON 2BC3 ANALYSIS OF ECONOMIC DATA I
Application of statistical concepts to the analysis of economic data, with attention to Canadian sources. Regression analysis and the use of spreadsheets are included. Topics may also include index numbers.
Three lectures; one term
Prerequisite: ECON 1A06 or 1B03 and 1BB3
Cross-list: LABR ST 3A03
Enrolment is limited.

ECON 2CC3 INTRODUCTION TO APPLICATIONS
the rate of interest and the price level; introduction to open economy.
Theory of consumer choice and applications to intertemporal choice and
Prerequisite: National income accounting, determinants of national income, employment, the rate of interest and the price level; introduction to open economy.
Three lectures; one term
Prerequisite: ECON 1A06 or 1B03 and 1BB3 and MATH 1K03 (or OAC Calculus) and one of STATS 1L03 or 2D03 (or OAC Finlite Math)
Antirequisite: COMMERCE 2Q03, ECON 3006, GEO 2S03, POL SCI 3N06, PSYCH 2Q03, 2R03, 2R53, SOC SCI 2J03, SOC SCI 2K03
Not open to students with credit or registration in CHEM ENG 3P06, COMM 2QA3, ECON 3006, GEO 2S03, POL SCI 3N06, or if COMMERCE 2Q03 is a programme requirement.

ECON 2C03 ASIAN-PACIFIC ECONOMIES
Economic conditions and factors influencing economic growth in selected countries in the Asian-Pacific region. Topics include government policies related to exchange rates and trade and development, as well as the Japanese style of management, the bonus system and job tenure.
Three lectures; one term
Prerequisite: ECON 1A06 or 1B03 and 1BB3
Cross-list: JAPAN ST 2C03

ECON 2CC3 INTRODUCTION TO HEALTH ECONOMICS
Economic analysis of health and health care, with a special emphasis on policy issues in the Canadian health care system.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II or above
Cross-list: HEALTHST 2C03
Not open to students with credit or registration in ECON 3Z03.
(See Note 6 above.)

ECON 2D03 ECONOMIC ISSUES
Applications of economics to important public issues, from a general interest perspective. Since topics vary from year to year, interested students should consult the Economics Department for further details.
Three lectures; one term
Prerequisite: ECON 1A06 or 1B03 and 1BB3

ECON 2E03 CANADA'S EXPERIENCE WITH MACROECONOMIC POLICY
Topics may include control of deficits and debt, the role and implementation of monetary policy, structural labour market policies, tax reform, and distribution of income.
Three lectures; one term
Prerequisite: ECON 1A06 or 1B03 and 1BB3

ECON 2F03 THE POLITICAL ECONOMY OF DEVELOPMENT
Topics include trade and economic protection, financial development and investment, income distribution, and the role of globalization and international political competition.
Three lectures; one term
Prerequisite: ECON 1A06 or 1B03 and 1BB3

ECON 2G03 INTERMEDIATE MICROECONOMICS I
Elements of production and cost; price and output determination under competitive and non-competitive market structures; the role of taxes and subsidies.
Three lectures; one term
Prerequisite: ECON 1A06 or 1B03, and OAC Calculus or MATH 1K03 or equivalent. Students without credit in MATH 1M03 or equivalent are strongly advised to take it concurrently with ECON 2G03.
Antirequisite: ECON 2L06 or 2X03

ECON 2GG3 INTERMEDIATE MICROECONOMICS II
Theory of consumer choice and applications to intertemporal choice and labour supply decisions; theory of exchange, welfare economics and general equilibrium analysis.
Three lectures; one term
Prerequisite: ECON 2G03 or 2X03
Antirequisite: ECON 2L06

ECON 2H03 INTERMEDIATE INCOME AND EMPLOYMENT THEORY I
National income accounting, determinants of national income, employment, the rate of interest and the price level; introduction to open economy.
Three lectures; one term
Prerequisite: ECON 1A06 or 1BB3 and OAC Calculus or MATH 1K03 or equivalent. Students without credit in MATH 1M03 or equivalent are strongly advised to take it concurrently with ECON 2H03.
Antirequisite: ECON 2M06

ECON 2HH3 INTERMEDIATE INCOME AND EMPLOYMENT THEORY II
Selected topics from macroeconomics policies, issues in unemployment and inflation in open and closed economies, components of aggregate demand and supply and economic growth.
Three lectures; one term
Prerequisite: ECON 2H03
Antirequisite: ECON 2M06

ECON 2J03 FINANCIAL ECONOMICS
Detailed investigation of the financial sector. Topics include the role of capital markets in facilitating investment and growth, bond markets, stock markets, financial statements and taxation.
Three lectures; one term
Prerequisite: ECON 1A06 or 1B03 and 1BB3
Antirequisite: COMMERCE 3FB3

ECON 2K03 ECONOMIC HISTORY OF CANADA
A survey of the changing structure of the Canadian economy from the colonial period to the present; early significance of primary production for export markets; emerging domestic markets and industrialization; government's role in promoting the development of the national economy.
Three lectures; one term
Prerequisite: ECON 1A06 or 1B03 and 1BB3

ECON 2L03 PEACE, HUMAN SECURITY AND ECONOMIC DEVELOPMENT
The methods and concepts of economic analysis applied to economic development, human security, human rights and peace and conflict resolution.
Three lectures; one term
Prerequisite: Registration in Level II or above
(See Note 6 above.)

ECON 2M03 PUBLIC POLICY TOWARD BUSINESS
The economic effects of federal competition policy and the regulation of business by all levels of government. The impacts of government ownership and bailout activity on the Canadian business environment are also analyzed.
Three lectures; one term
Prerequisite: ECON 1A06 or 1B03 and 1BB3
Antirequisite: ECON 3N03

ECON 2P03 ECONOMICS OF PROFESSIONAL SPORTS
The application of economic principles to team and individual professional sports. Theory of sports leagues, demand for sports, the market for athletes, broadcasting rights, competition policy issues, the public finance aspects of stadium financing.
Three lectures; one term
Prerequisite: ECON 1A06 or 1BB3

ECON 2T03 ECONOMICS OF TRADE UNIONISM AND LABOUR
Topics include the economics of the labour market, of trade unionism, of work, the impact of trade unions on the labour market, economic theories of strikes and trade unions and the state.
Three lectures; one term
Prerequisite: ECON 1A06 or 1B03 and 1BB3
Cross-list: LABR ST 3B03

ECON 2X03 APPLIED BUSINESS ECONOMICS
The economic analysis of the strategy of managerial decision-making. The role of technology, costs, government intervention and market structure on output and pricing decisions.
Three lectures; one term
Prerequisite: ECON 1A06 or 1B03 and OAC Calculus or MATH 1K03 or equivalent. Students without credit in MATH 1M03 are strongly advised to take it concurrently with ECON 2X03
Antirequisite: ECON 2G03 or 2L06
Not open to students registered in Economics programmes.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 3A03</td>
<td>ADVANCED ECONOMIC THEORY I</td>
<td>Mathematically oriented approaches to the analysis of the behaviour of individual consumers, workers and firms. Three lectures; one term. Prerequisite: MATH 1M03 and an average of at least 7.0 in ECON 2G03 or 2X03, 2GG3 (or 2L06), 2H03, 2HH3 (or 2M06) and ECON 3G03. Offered in alternate years. Not offered in 2001-2002.</td>
</tr>
<tr>
<td>ECON 3A03</td>
<td>ADVANCED ECONOMIC THEORY II</td>
<td>Analysis of dynamic macroeconomic models, including models of endogenous growth and other selected topics. Three lectures; one term. Prerequisite: MATH 1M03 and an average of at least 7.0 in ECON 2G03 or 2X03, 2GG3 (or 2L06), 2H03, 2HH3 (or 2M06) and ECON 3G03. Offered in alternate years. Offered in 2001-2002.</td>
</tr>
<tr>
<td>ECON 3B03</td>
<td>PUBLIC SECTOR ECONOMICS: EXPENDITURES</td>
<td>Theory and practice of public finance. Topics are selected from growth of the public sector, market failure, theory of public goods, incentive mechanisms, logic of group decisions and the political process, theory of benefit-cost analysis, intergovernmental fiscal relations, government budgeting. Three lectures; one term. Prerequisite: One of ECON 2G03, 2X03, 2L06. Antirequisite: ECON 3C06.</td>
</tr>
<tr>
<td>ECON 3C03</td>
<td>PUBLIC SECTOR ECONOMICS: TAXATION</td>
<td>Theory and practice of public finance: analysis and comparison of the efficiency, equity and distribution effects of the taxation of income, wealth and expenditure, analysis of social insurance, intergovernmental fiscal relations. Three lectures; one term. Prerequisite: One of ECON 2G03, 2X03, 2L06. Antirequisite: ECON 3C06.</td>
</tr>
<tr>
<td>ECON 3D03</td>
<td>LABOUR ECONOMICS</td>
<td>Introduction to the economics of the labour market; demand for labour by the firm and industry; supply of labour by the individual; investment in human capital. Three lectures; one term. Prerequisite: One of ECON 2G03, 2X03, 2L06.</td>
</tr>
<tr>
<td>ECON 3F03</td>
<td>METHODS OF INQUIRY IN ECONOMICS</td>
<td>This course develops skills for investigating a research question in economics, through workshops (eg, writing, library, Internet, data), and the subsequent application of the skills to an economic issue. Three hours; one term. Prerequisite: Registration in Level III or Level IV of an Honours Economics programme.</td>
</tr>
<tr>
<td>ECON 3G03</td>
<td>INTRODUCTION TO ADVANCED ECONOMIC THEORY</td>
<td>An introduction to the application of mathematics in economic theory. Three lectures; one term. Prerequisite: One of OAC Finite Math, MATH 1B03, or STATS 1L03; MATH 1M03 or equivalent; and an average of at least 7.0 in ECON 2G03 or 2X03, 2GG3 (or 2L06), 2H03, 2HH3 (or 2M06).</td>
</tr>
<tr>
<td>ECON 3H03</td>
<td>INTERNATIONAL MONETARY ECONOMICS</td>
<td>Balance of payments and economic problems of an open economy with special reference to Canada; the international financial system and proposals for its reform. Three hours (lectures and seminars); one term. Prerequisite: ECON 2H03 or 2M06.</td>
</tr>
<tr>
<td>ECON 3H03</td>
<td>INTERNATIONAL TRADE</td>
<td>Real theory of international trade; interregional and international specialization; effect of commercial and industrial policies. Three lectures; one term. Prerequisite: One of ECON 2G03, 2X03, 2L06.</td>
</tr>
<tr>
<td>ECON 3I03</td>
<td>ECONOMIC HISTORY OF THE UNITED STATES</td>
<td>Economic analysis of the development of the U.S. economy. Topics include the colonial economy, slavery, transportation, income distribution, foreign trade, technical and institutional change and the Great Depression. Three lectures; one term. Prerequisite: One of ECON 2G03, 2X03, 2L06. ECON 2H03 or 2M06 is recommended.</td>
</tr>
<tr>
<td>ECON 3K03</td>
<td>TOPICS IN MONETARY ECONOMICS</td>
<td>Analysis of monetary theory and policy. Topics include money demand and supply, money and inflation, rational expectations, monetary policy and asset market analysis. Three lectures; one term. Prerequisite: One of ECON 2G03, 2X03, 2L06; and ECON 2H03 or 2M06.</td>
</tr>
<tr>
<td>ECON 3L03</td>
<td>HISTORY OF ECONOMIC THEORY</td>
<td>Economic thought from earliest times, with emphasis on the major schools from Adam Smith to Alfred Marshall, selected modern trends and controversies. Three lectures; one term. Prerequisite: One of ECON 2G03, 2X03, 2L06; and ECON 2H03 or 2M06.</td>
</tr>
<tr>
<td>ECON 3M03</td>
<td>INTRODUCTION TO GAME THEORY</td>
<td>An introduction to the theory of games, including strategic, extensive and coalition games. Applications in economics, political science and evolutionary biology are discussed. Three lectures; one term. Prerequisite: ECON 1A06 or 1B03 and MATH 1K03 (or equivalent) Not open to students with credit in ECON 3Y03 SELECTED TOPICS I, if the topic was Introduction to Game Theory.</td>
</tr>
<tr>
<td>ECON 3N03</td>
<td>LINEAR ECONOMIC MODELS</td>
<td>Application and interpretation in economics of linear programming, game theory and inter-industry analysis. Three lectures; one term. Prerequisite: One of OAC Finite Math, MATH 1B03, or STATS 1L03; ECON 2G03 or 2X03 and 2H03; MATH 1A03, MATH 1N03 or a grade of at least C- in MATH 1M03.</td>
</tr>
<tr>
<td>ECON 3Q03</td>
<td>THE ECONOMICS OF AGING</td>
<td>Topics include the macroeconomics of population aging and its impact on national pension and health plans and the microeconomics of retirement and income security. Three lectures; one term. Prerequisite: One of ECON 2G03, 2X03, 2L06; and ECON 2H03 or 2M06.</td>
</tr>
<tr>
<td>ECON 3R03</td>
<td>INDUSTRIAL ORGANIZATION</td>
<td>A study of the structure, conduct and performance of industrial markets. Three lectures; one term. Prerequisite: One of ECON 2G03, 2X03, 2L06. Antirequisite: ECON 3N06.</td>
</tr>
<tr>
<td>ECON 3T03</td>
<td>TOPICS IN ECONOMIC DEVELOPMENT</td>
<td>Topics may include the measurement of structural change, dual economies, agriculture and production, technical and institutional change, and health and nutrition. Three lectures; one term. Prerequisite: One of ECON 2G03, 2X03, 2L06; and ECON 2H03 or 2M06. Antirequisite: ECON 3J06.</td>
</tr>
<tr>
<td>ECON 3U03</td>
<td>ANALYSIS OF ECONOMIC DATA I</td>
<td>Elaboration of regression techniques developed in ECON 2B03. Problems of inference and interpretation in the analysis of economic data. Introduction to forecasting in economics. Three lectures; one term. Prerequisite: One of ECON 2G03, 2X03, 2L06; and ECON 2H03 or 2M06. Permission of the instructor.</td>
</tr>
<tr>
<td>ECON 3W03</td>
<td>NATURAL RESOURCES</td>
<td>Competitive and socially optimal management of nonrenewable resources; market failure as illustrated by mineral cartels, fisheries and forestry, including analysis of bioeconomic models. Three hours [lectures and seminars]; one term. Prerequisite: MATH 1M03 and one of ECON 2G03, 2J03, 2X03, 2L06 or permission of the instructor.</td>
</tr>
<tr>
<td>ECON 3X03</td>
<td>URBAN MODELS AND POLICY ANALYSIS I</td>
<td>A survey of modern literature on urban social structure. Topics include morphology, adjustments to change, and such phenomena as sudden urban growth and the decline of central cities. Two lectures (one hour), one tutorial (two hours); one term. Prerequisite: One of ECON 2G03, 2X03, 2L06, or GEO 2HB3 (formerly GEOG 2B03). Cross-list: GEO 3H03.</td>
</tr>
<tr>
<td>ECON 3Y03</td>
<td>SELECTED TOPICS I</td>
<td>Topics will vary from year to year depending on student interests and faculty availability. Students should consult the Department on topics to be offered. Three hours; one term. Prerequisite: Permission of the Department.</td>
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</tbody>
</table>
ECON 3203  HEALTH ECONOMICS
Analysis of allocation of resources in health care. Topics include markets for health care, insurance, biomedical research, technology assessment, organization and public policy.
Three lectures; one term
Prerequisite: One of ECON 2XX3/HEALTH 2XX3, ECON 2XX3, 2XX5, 2L06, ECON 2B03 or another course in economics is recommended.

ECON 4A03  HONOURS SEMINAR IN ECONOMICS
Students prepare, present and discuss papers under supervision of a faculty member. Several sections will normally be offered. Topics for each section will be announced in January.
Three hours (seminar); one term
Prerequisite: ECON 2G63, 2H63, 3F03, 3U03 or 3O06

ECON 4G03  SELECTED TOPICS II
Topics will vary from year to year depending on student interests and faculty availability. Students should consult the Department on topics to be offered.
Three hours; one term
Prerequisite: Permission of the Department

ECON 4G03  ECONOMETRICS I
Development of regression models appropriate to economics. Illustrations from applied micro- and macroeconomics.
Three lectures; one term
Prerequisite: ECON 2G63 or 2X63 (or 2L06), and ECON 2H63 (or 2M65), and at least six in ECON 3O6 or 3X03 or STAT 2D03 and 2MB3 (or 2M03)

ECON 4M06  DIRECTED RESEARCH I
A reading and/or research program supervised by a Department member. A major paper is required. Interested students should consult the Department concerning admission.
Prerequisite: Permission of the Department

ECON 4N03  DIRECTED RESEARCH II
As per ECON 4M06. Prerequisite: Permission of the Department

ECON 4X03  URBAN MODELS AND POLICY ANALYSIS II
A survey of modern literature on urban issues. Topics include welfare criteria, externalities, public goods and fiscal policies.
Two lectures (one hour), one tutorial (two hours); one term
Prerequisite: ECON 3X03 or GEO 3HX3
Cross-list: GEO 4F3X

ELECTRICAL AND COMPUTER ENGINEERING

WEB ADDRESS: http://www.ece.mcmaster.ca
Communications Research Laboratory, Room 101
Ext. 24347

Faculty as of January 15, 2001

Chair
Tom (Z-Q.) Luo

Associate Chair (Undergraduate Programmes)
David W. Capson

Associate Chair (Graduate Studies)
M. Jamal Deen

University Professor

Professors
David W. Capson/B.Sc, Eng. (New Brunswick), M.Eng., Ph.D. (McMaster), P.Eng.
David R. Conn/B.Sc., M.Sc., Ph.D. (Queen's), P.Eng.
M. Jamal Deen/B.Sc. (Guyana), M.S., Ph.D. (Case Western Reserve)
Raymond D. Findlay/B.Sc., M.A.Sc., Ph.D. (Toronto), P.Eng.
Wei-Ping Huang/B.S. (Shandong), M.S. (Science and Technology of China), Ph.D. (M.I.T.)
Tom (Z-Q.) Luo/B.Sc. (Peking), Ph.D. (M.I.T.)

Adjunct Professors
Radek M. Biernacki/M.Sc., Ph.D. (Warsaw)

Associate Professors
Hubert deBruin/(Medicine), M.Eng., Ph.D. (McMaster), P.Eng.
Alex B. Gershman/M.Eng., Sc., Ph.D. (Nizhny Novgorod)

Adjunct Associate Professors
Eloi Bosse/B.Sc.A., M.Sc. (Laval), Ph.D. (Carleton, Ottawa, Laval)
Chandra M. Kudalia/B.Sc. (Delhi), M.Eng. (McMaster), Ph.D. (Concordia), P.Eng.
Ke-Li Wu/B.Sc., M.Sc. (East China Institute of Technology), Ph.D. (Laval)
Qi-in Zhang/B.Eng. (East China Engineering Inst.), Ph.D. (McMaster)

Assistant Professors
T. Davidson/B.Eng. (Western Australia), D. Phil. (Oxford)
N. Georgieva/Dipl. (Tech. University of Varna), Ph.D. (University of Electrcommunications, Tokyo)
X. Li/B.S. (Shandong), M.S. (Wuhan Research Inst. of Posts & Telecommunications), Ph.D. (Northern Jiaotong)
Nicola Nicolli/B.Eng. (Technical University Timisoara), Ph.D. (Southampton)
S. Shifrani/B.Sc., (Isfahan University of Technology), M.Sc. (Amirkabir University of Technology), Ph.D. (British Columbia)

Adjunct Assistant Professors
Youssef H. Dabieh/B.Sc, Eng., M.Sc, Eng. (New Brunswick), Ph.D. (McMaster), P.Eng.
Robert D. Dony/B.A.Sc., M.A.Sc. (Waterloo), Ph.D. (McMaster), part-time
Qu Jin/B.Eng., M.Eng. (Dalain Maritime), Ph.D. (McMaster)

Associate Members
G. Bone/(Mechanical Engineering), B.Sc.,App.Sc. (Queen's), M.Eng., Ph.D. (McMaster)
D.T. Cassidy/(Engineering Physics), B.Eng. (McMaster), M.Sc. (Queen's), Ph.D. (McMaster)
D. Down/(Computing and Software), B.Sc., M.Sc. (Toronto), Ph.D. (Illinois-Urbana)
Jan Dirk Huizinga/(Biomedical Sciences), B.Sc., M.Sc., Ph.D. (Groningen)
Ryezard Janicki/(Computing and Software), M.Sc. ( Warsaw), Ph.D., D. Hab. (Polish Acad. Sci.)
Paul E. Jasscop/(Engineering Physics), B.Sc. (Watahoo), M.A., Ph.D. (Harvard)
Mark A. Kamati/(Medicine), M.S., Ph.D. (Indian Inst. of Tech., Madras), Ph.D. (McMaster)
R. Khedi/(Computing and Software), B. Eng. (Tunis), M.Sc., Ph.D. (Laval)
Stavros G. Kollopoulos/(Computing and Software), Dipl. Eng. (Patras), M.S., Ph.D. (Dartmouth)
M. Lawson/(Computing and Software), B.Sc. (Queen's), M.A.Sc., Ph.D. (Toronto)
Claude Nahmias/(Nuclear Medicine), B.Sc., ( Cairo), Ph.D. (Surrey)
David L. Parnas/(Computing and Software) B.S., M.S., Ph.D. (Carnegie), Dr.h.c. (ETH-Zurich), Dr.h.c. (Louvain), F.R.S.C., F.A.C.M., NSERC/Bell Industrial Research Chair in Software Engineering, P.Eng.
Skipper Poehlman/(Computing and Software), B.Sc. (Niagara), B.Sc. (Brock), M.Sc., Ph.D. (McMaster), P.Eng.
Sanzheng Qiao/(Computing and Software), B.S., M.S. (Shanghai Teacher's College), M.S., Ph.D. (Cornell)
Emil Sekercinik/(Computing and Software) Dipl.Inf., Ph.D. (Karlsruhe)
Tania Telkay/(Computing and Software), M.Sc., Ph.D. (Lorand Eotvos)
David A. Thompson/(Engineering Physics), B.Sc., Ph.D. (Reading)
Electrical and computer engineering

Martin von Mohrenschildt (Computing and Software), Dipl. Math., Dr., Math. (ETH-Zürich)
Patrick C. Yip (Mathematics and Statistics), B.Sc., (Memorial), Ph.D. (McMaster)
Y. Yuan (Business), B.Sc. (Fudan), Ph.D. (Michigan)

Professors Emeriti

Charles R. Carter/B.Sc., M.A. Sc. (British Columbia), Ph.D. (McMaster), P. Eng.
Arthur S. Gladwin/D.Sc. (Glasgow), Ph.D. (London)
Reuven Kivali/M.Sc., D.Sc. (Witwatersrand), F.I.E.E.
John Liva/B.Sc. (British Columbia), M.Sc., Ph.D. (Western Ontario)

Computer Engineering...

Department Note:

Computer Engineering is a multi-disciplinary programme that includes a combination of Computer Engineering, Electrical Engineering and Software Engineering courses. In their senior year, students have the opportunity to customize their programme by selecting from a wide range of technical electives.

All Electrical and Computer Engineering courses are open to students registered in an Electrical or Computer Engineering programme, subject to prerequisite requirements. Prior permission of the Department is necessary for students from other Engineering departments or faculties.

Courses

COMP ENG 2D4 INTRODUCTION TO COMPUTER ENGINEERING

Three lectures, one tutorial, one lab every other week; first term

Antirequisite: COMP ENG 2A4, COMP SCI 2MF3, SFWR ENG 2D04

COMP ENG 2S4 DATA STRUCTURES, ALGORITHMS AND DISCRETE MATHEMATICS

Three lectures, one tutorial (two hours); first year

Prerequisite: ENGINEER 1D04

Antirequisite: COMP ENG 2Y3, COMP SCI 2MD3, SFWR ENG 2C04

COMP ENG 3D4 DIGITAL SYSTEMS DESIGN

Three lectures, one tutorial, one lab every other week; second term

Prerequisite: One of COMP ENG 2D4 or 2H4

Antirequisite: COMP ENG 3H83, 3HC3, PHYSICS 4D06, 4DA3, SFWR ENG 3F03

COMP ENG 3SK4 COMPUTER-AIDED ENGINEERING

Three lectures, one tutorial, one lab every other week; second term

Prerequisite: COMP ENG 3H83, 3HC3 or MATH 3K03

Antirequisite: COMP ENG 3K83, SFWR ENG 3X03

COMP ENG 4D4K COMPUTER COMMUNICATION NETWORKS

Two lectures, one tutorial, one lab every other week; first term

Prerequisite: One of ELEC ENG 3D83, 3T4J or 3TQ4

Antirequisite: COMP ENG 4MA3

COMP ENG 4DL4 REAL-TIME AND DISTRIBUTED COMPUTING SYSTEMS

Three lectures, one tutorial, one lab every other week; second term

Prerequisite: COMP ENG 3D4J or 3H83 and 3HC3

Antirequisite: COMP ENG 4HE3

COMP ENG 4DM4 COMPUTER ARCHITECTURE

Two lectures, one tutorial, one lab every other week; first term

Prerequisite: ELEC ENG 3C4J or 3F03 and 3FC3

Antirequisite: ELEC ENG 4E23, 4DF3

COMP ENG 4DR4 ENGINEERING DESIGN

Three lectures, one tutorial, one lab every other week; second term

Prerequisite: Registration in Level IV or V of any Electrical or Computer Engineering programme

Antirequisite: ELEC ENG 4J04

COMP ENG 4JO5 RESEARCH PROJECT

Two lectures, one tutorial, one lab every other week; second term

Prerequisite: Registration in Level IV or V of any Electrical or Computer Engineering programme

Antirequisite: ELEC ENG 4J04, 4JO3, 4JA4

COMP ENG 4TL4 DIGITAL SIGNAL PROCESSING

Three lectures, one tutorial, one lab every other week; first term

Prerequisite: One of ELEC ENG 3D83, 3T4J or 3TQ4

Antirequisite: ELEC ENG 4EA3, 4TL4

COMP ENG 4TN3 IMAGE PROCESSING

Two lectures, one tutorial, one lab every other week; second term

Prerequisite: ELEC ENG 3T4J or 3TQ4

Electrical Engineering...

Department Note:

All students in the Electrical Engineering programme initially follow a common curriculum consisting of a combination of Electrical Engineering and Computer Engineering courses. In their senior year, students select either the Systems Option or the Telecommunications Option and are given the opportunity to customize their programme by selecting from a wide range of technical electives.

All Electrical and Computer Engineering courses are open to students registered in an Electrical or Computer Engineering programme, subject to prerequisite requirements. Prior permission of the Department is necessary for students from other Engineering departments or faculties.
Courses

ELEC ENG 2C14 INTRODUCTION TO ELECTRICAL ENGINEERING
Electric and magnetic fields; current, potential difference; Kirchhoff's laws; Ohm's Law; circuit elements; single time constant circuits; complex arithmetic; phasors; impedance and admittance; semiconductor devices; single-stage transistor amplifiers.
Three lectures, one tutorial, one lab every other week; first term
Prerequisite: Registration in a Computer Engineering or Electrical Engineering programme
Antirequisite: ELEC ENG 2BA3

ELEC ENG 2C14 CIRCUITS AND SYSTEMS
Mesh/nodal analysis of electrical circuits; Laplace transforms with applications; responses of linear systems; coupled circuits; power relationships; dependent sources; magnetic and nonlinear circuits.
Three lectures, one tutorial (two hours); second term
Prerequisite: ELEC ENG 2BA3 or 2C14
Antirequisite: ELEC ENG 2DA3

ELEC ENG 2E14 ELECTRONIC DEVICES AND CIRCUITS I
Semiconductor devices and electronic circuits; electrical characteristics, principles of operation, circuit models of diodes, field-effect and bipolar transistors, and operational amplifiers; analysis and design of basic application circuits.
Three lectures, one tutorial, one lab every other week; second term
Prerequisites: ELEC ENG 2BA3 or 2C14
Corequisite: ELEC ENG 2CF4
Antirequisite: ELEC ENG 2FA3

ELEC ENG 3E14 ELECTRONIC DEVICES AND CIRCUITS II
Analog and digital electronics; operational amplifier circuits; multistage amplifier oscillators; analog and digital integrated circuits; data converters; amplifier frequency response, feedback and stability; computer aids to analysis and design.
Three lectures, one tutorial, one lab every other week; second term
Prerequisite: One of ELEC ENG 2C14 or 2E14 or 2FA3
Antirequisite: ELEC ENG 3FB3, SF3C

ELEC ENG 3F14 ELECTROMAGNETIC FIELDS
Electromagnetic phenomena; Maxwell's equations; plane and spherical waves; wave and intrinsic impedance; phase and group velocity; energy; Poynting's theorem; propagation and reflection.
Three lectures, one tutorial, one lab every other week; second term
Prerequisite: ELEC ENG 2C14
Antirequisite: ELEC ENG 3BB3

ELEC ENG 3P14 POWER DEVICES AND SYSTEMS
Power circuits; transformers; magnetic circuits; three phase connections; single phase motors; polyphase machines; synchronous generators and motors, induction motors; dc motors; design of industrial systems.
Three lectures, one tutorial, one lab every other week; second term
Prerequisite: ELEC ENG 2C14 or 2DA3
Antirequisite: ELEC ENG 3NA3, SS3A

ELEC ENG 3T14 SIGNALS AND SYSTEMS
Time and frequency domain descriptions of continuous-time and discrete-time signals and linear systems, including convolution; Fourier transforms, impulse response and frequency response; applications to control and communication systems.
Three lectures, one tutorial, one lab every other week; first term
Prerequisite: ELEC ENG 2C14
Corequisite: MATH 3K03
Antirequisite: ELEC ENG 3AA3, 3CK4

ELEC ENG 3T04 PROBABILITY AND RANDOM PROCESSES IN ELECTRICAL ENGINEERING
Probability theory, random variables, expectations; random processes, autocorrelation, power spectral densities; filtering of random processes; noise in communication systems.
Three lectures, one tutorial, one lab every other week; first term
Prerequisite: ELEC ENG 2C14, MATH 2P04, 2Q04
Antirequisite: ELEC ENG 3DB3, 3TJ4

ELEC ENG 3TR4 COMMUNICATION SYSTEMS
Review of continuous-time signals and systems; analysis and implementation of amplitude modulation (including DSB-SC and SSB), phase and frequency modulation schemes; performance of these schemes in noise.
Three lectures, one tutorial, one lab every other week; second term
Prerequisite: ELEC ENG 2C14 or 2DA3
Corequisite: MATH 3K03
Antirequisite: ELEC ENG 3AA3, 3TJ4

ELEC ENG 4C14 CONTROL SYSTEM DESIGN
Design of linear control systems using classical and state-space techniques; performance limitation; sampled-data control; nonlinear systems; multi-input multi-output control systems.
Three lectures, one tutorial, one lab every other week; second term
Prerequisite: ELEC ENG 3C04 or 3TP4

ELEC ENG 4E13 BIOMEDICAL ELECTRONIC INSTRUMENTATION
Generation and nature of bioelectric potentials; electrodes and other transducers; principles of instrumentation; electrical safety; neuromuscular and cardiovascular instrumentation; ultrasound and other medical imaging.
Two lectures, one tutorial, one lab every other week; second term
Prerequisite: ELEC ENG 3E14 or 3FB3 and 3FC3, ENGINEER 3N03 or PHYSICS 3B06
Antirequisite: ELEC ENG 4UA3

ELEC ENG 4E13 PHOTONIC DEVICES AND SYSTEMS
Two lectures, one tutorial, one lab every other week; second term
Prerequisite: ELEC ENG 3E14

ELEC ENG 4F14 MICROELECTRONIC ENGINEERING
Principles of transmission lines, impedance matching and Smith charts; scattering parameters; waveguides and resonant cavities; stripline and microstrip; antenna radiation; radio-wave propagation.
Three lectures, one tutorial, one lab every other week; second term
Prerequisite: ELEC ENG 3BB3 or 3F14
Antirequisite: ELEC ENG 4BB3

ELEC ENG 4H13 COMMUNICATION SKILLS
Organisational behaviour; conflict resolution; barriers to communications; oral communications; interpersonal, group and team skills; technical writing; public presentations.
Two lectures, one tutorial (three hours) per week; first term
Prerequisite: Registration in Level IV Electrical or Computer Engineering Antirequisite: ELEC ENG 4A01, registration in Engineering and Management, or Engineering and Society

ELEC ENG 4H13 HEALTH AND SAFETY, LAW AND ETHICS
The Engineering Act; principles of ethics and ethical dilemmas; health and safety in the workplace; safety hazards in the workplace; electrical shock hazards; safety in the software industry.
Eight seminars (one hour); first term
Prerequisite: Registration in Level IV or V of any Electrical or Computer Engineering programme
Antirequisite: ELEC ENG 4A01

ELEC ENG 4O14 ENGINEERING DESIGN
The design process; establishing objectives; preliminary design; planning; scheduling; decision matrices; modeling tools; economic impact; optimization methods; reliability; safety; a term project composed of small teams of students.
Three lectures, two tutorials, capstone project; first and second term
Prerequisite: Registration in Level IV or V of any Electrical or Computer Engineering programme
Antirequisite: COMP ENG 4O14

ELEC ENG 4O13 RESEARCH PROJECT
A research-oriented project under the direct supervision of a faculty member to foster initiative and independent creativity while working on an advanced topic.
First term and second term
Prerequisite: Prior arrangement with an Electrical and Computer Engineering faculty member, inclusion on the Dean's Honour List, registration in Level IV or V or permission of the instructor
Antirequisite: COMP ENG 4O13, 4J14, ELEC ENG 4J14

ELEC ENG 4P13 ROTATING MACHINES
Design considerations for electric machines; polyphase stator windings; harmonics; slotting; saturation; losses; reactance; saliency; equivalent circuits; synchronous, asynchronous and permanent magnet machines.
Two lectures, one tutorial, one lab every other week; first term
Prerequisite: ELEC ENG 3NA3 and 3S3A or 3P14

ELEC ENG 4P14 POWER ELECTRONICS
Power circuits with switches; basic rectifier circuits; commutation; choppers; inverters; harmonic suppression techniques; generation and control of rotating fields; variable speed drives; system design.
Three lectures, one tutorial, one lab every other week; first term
Prerequisite: ELEC ENG 3CA3, 3CK4 or 3TP4; 3E14 or 3FB3 and 3FC3
Antirequisite: ELEC ENG 4SB3
ELEC ENG 4P14 ENERGY SYSTEMS AND MANAGEMENT
Elements of generation, transmission, and distribution systems; system-wide energy flow and control; modeling and simulation; economics and management; fault prediction and management.
Three lectures; one tutorial; one lab every other week; first term
Prerequisite: ELEC ENG 3P14
Antirequisite: ELEC ENG 4NB3

ELEC ENG 4T14 DIGITAL COMMUNICATIONS SYSTEMS
Digital modulation systems, Intermodulation interference, equalization, synchronization; ASK, FSK, PSK, MSK, optimal receiver, noncoherent detection; introduction to information theory; entropy, source coding, mutual information, channel capacity.
Three lectures; one tutorial; one lab every other week; first term
Prerequisite: One of ELEC ENG 3DB3, 3T14, 3T4
Antirequisite: ELEC ENG 3AA3

ENGINEERING (GENERAL)

WEB ADDRESS: http://www.eng.mcmaster.ca/

Department Note:
Enrolment in these courses by students in programmes other than Engineering, Engineering and Society or Engineering and Management may be limited.

Courses
If no prerequisite is listed, the course is open.

ENGINEER 1A00 SAFETY TRAINING
Introduction to safety guidelines at McMaster University, acceptable safety conduct and positive safety attitudes and practices in laboratories and Workplace Hazardous Materials Information System (WHMIS).
One hour, first week; first term
Prerequisite: Registration in an Engineering programme
This course must be successfully completed before registering in Level II Engineering.

ENGINEER 1C04 ENGINEERING DESIGN AND COMMUNICATION
Graphical, written and oral communication in the context of engineering design. The designer and society. Design projects by individuals and groups, design skills workshops.
Two lectures, one graphics lab (three hours), one design lab (two hours); first term
Prerequisite: Registration in an Engineering programme

ENGINEER 1D04 ENGINEERING COMPUTATION
Disciplined design of sequential programs for engineering applications. Development, analysis, testing, and documentation of trustworthy programs.
Use of the state concept and abstraction in programming.
Three lectures, one tutorial (two hours); second term
Prerequisite: Registration in an Engineering programme
Antirequisite: COMP SCI 1APA, 1ABP or 1ASA

ENGINEER 2B03 ENGINEERING ECONOMICS
Two lectures, one tutorial; second term
Prerequisite: Registration in a Computer Engineering or Electrical Engineering programme
Antirequisite: CHEM ENG 4N04, ENGINEER 4B03
Not open to students registered in an Engineering and Management programme.

ENGINEER 2C03 ELECTRICITY, THERMOPHYSICS AND ENERGY
An exposure of electrical and thermophysics fundamentals having civil engineering applications. Topics: electrostatics, electric currents, circuits and transients, electrical power engineering, energy efficiency, heat transfer mechanisms.
Two lectures, one tutorial (two hours); second term
Prerequisite: PHYSICS 1C03, and registration in MATH 2M06

ENGINEER 2E03 STRUCTURE AND PROPERTIES OF ENGINEERING MATERIALS I
Bonding, crystal structure, defects and diffusion; mechanical and electrical properties; semiconductor device fabrication; optical magnetic and superconductor properties.
Three lectures, one tutorial; first term
Prerequisite: Completion of at least 12 units of Level I Chemistry, Mathematics or Physics
Antirequisites: ENGINEER 2003, 2004, 3P03, MATLS 1A03, 2003

ENGINEER 2H03 THERMODYNAMICS
An introduction to thermodynamics and its statistical basis at the microscopic level, with applications to problems originating in a modern laboratory or engineering environment.
Three lectures; second term
Prerequisite: Registration in Level II or above of any Engineering programme except Engineering Physics
Antirequisite: ENGINEER 2V04, ENG PHYS 2H04, MECH ENG 2W04, PHYSICS 2H04

ENGINEER 2M03 ELECTRICAL CIRCUITS AND POWER
Fundamentals of electromechanical energy conversion. Motors and generators, transformers, single and polyphase power circuits, synchronous and induction machines, power measurements.
Two lectures and one lab or tutorial; first term or second term
Prerequisite: PHYSICS 1C03, and registration in MATH 2M06, or MATH 2P04 and 2004
Antirequisite: ENGINEER 3M03

ENGINEER 2O03 STRUCTURE AND PROPERTIES OF ENGINEERING MATERIALS II
Structure of materials as the basis of mechanical, thermal, electrical, magnetic and chemical properties. Basic approaches to selection of materials in engineering design.
Two lectures and one tutorial; first term
Prerequisite: Completion of at least 12 units of Level I Chemistry, Mathematics or Physics
Antirequisites: ENGINEER 2E03, 2004, 3P03, MATLS 1A03, 2003

ENGINEER 2P04 ENGINEERING MECHANICS 'A'
Principles of statics as applied to deformable solid bodies. Stress and strain, elastic behaviour of simple members under axial force, bending and torsion. Principal stresses; deflection of beams; static indeterminacy.
Three lectures, plus one unit comprising tutorials or lectures devoted to applications, at the discretion of the instructor; first term
Prerequisite: PHYSICS 1D03

ENGINEER 2Q04 ENGINEERING MECHANICS 'B'
Kinematics and dynamics of particles and rigid bodies. Motion with respect to a rotating frame of reference. Work, energy and momentum principles. Free, damped and forced vibrations of single degree of freedom systems.
Three lectures, plus one unit comprising tutorials or lectures devoted to applications, at the discretion of the instructor; first or second term
Prerequisite: Credit or registration in ENGINEER 2P04

ENGINEER 3D01 LEADERSHIP: PRINCIPLES AND PRACTICE I
Instruction and practice in basic skills of leadership through workshops and practicum in undergraduate engineering courses.
Three to four hours practicum; first or second term
Prerequisite: Registration in Level III or above of an engineering programme.

ENGINEER 3NO CO-OPERATIVE INDUSTRIAL INTERNSHIP
Orientation to the workplace, career planning, job search skills, application and presentation skills. Successful completion of a minimum of 12-months internship, work term report and workplace evaluation. Instructional/clinic sessions one evening per week for six weeks; first or second term
12-16 months internship
Prerequisite: Completion of a 12-16 month internship

ENGINEER 3K03 INTRODUCTION TO THERMODYNAMICS AND HEAT TRANSFER
Fundamentals of thermodynamics. Principles of conductive, radiant and convective heat transfer. Examples from chemical, mechanical and electrical systems.
Three lectures; one term
Prerequisite: Completion of Level II of any Software Engineering programme

ENGINEER 3L03 DYNAMICS AND CONTROL OF PHYSICAL SYSTEMS
Mathematical models of physical systems involving the principles of statics, kinematics, vibrational and stability analysis. Fundamentals of control theory.
Three lectures; one term
Prerequisite: Completion of Level II in any Software Engineering programme

ENGINEER 3N03 ELECTRONICS AND INSTRUMENTATION
Two lectures, one tutorial (two hours) or one lab (three hours); second term
Prerequisite: ENGINEER 2M04 or 2MM3 or 3M03
ENGINEER 3P03 MECHANICAL BEHAVIOUR OF MATERIALS
Three lectures, two 3-hour lab periods for concrete project; first term
Prerequisite: MATH 2M06, or MATH 2P04 and 2Q04, and ENGINEER 2P04
Antirequisite: ENGINEER 2E03, 2003, 2004, 3P03, MATLS 3M03, 3P03

ENGINEER 4A03 ENGINEERING AND SOCIAL RESPONSIBILITY
The historical development of the engineering profession's concern for social responsibility. Engineering as a cultural activity. The scope and limitations of engineering ethics. The role of the engineering profession in the social control of technological change.
One lecture, one tutorial; one seminar; second term
Prerequisite: Registration in Level III or above in any Engineering programme except Engineering and Society
Antirequisite: ENGINEER 4H03, ENG PHYS 4C03

ENGINEER 4B03 ENGINEERING ECONOMICS
Two lectures, one tutorial; second term
Prerequisite: Registration in final level of an Engineering programme
Antirequisite: CHEM ENG 4N04, ENGINEER 2B03
Not open to students registered in an Engineering and Management programme.

ENGINEER 4H03 ENGINEERING: ITS HISTORY, PHILOSOPHY AND ITS WORKINGS
Three lectures; first term
Prerequisite: Registration in Level III, IV, or V of any Engineering programme except Engineering and Society
Antirequisite: ENGINEER 4A03, ENG PHYS 4C03

ENGINEER 4J03 MATERIALS FABRICATION
Offered jointly by the Departments of Mechanical Engineering and Materials Science and Engineering. Processing methods for a wide range of materials, including metals, ceramics and plastics. The analytical basis for understanding and optimizing materials processes. Exercises in mathematical modelling and the use of software packages to optimize processes.
Three lectures; first term
Prerequisite: MECH ENG 3A03 or MATLS 3M03 or 3P03

ENGINEER 4U03 UNIT OPERATIONS AND PROCESSES IN ENVIRONMENTAL ENGINEERING
The process capabilities, hardware and design equations, of the physical, chemical and biological processes used to improve water. Emphasis on processes such as bio-oxidation, clarification, coagulation, sludge dewatering and disinfection.
Two lectures, one tutorial (two hours); second term
Prerequisite: CHEM ENG 3004 or CIV ENG 3M04, or MECH ENG 3N04, and registration in Level IV or above of any Engineering programme

ENGINEER 4X03 CONCEPTS IN BIOMEDICAL ENGINEERING
Engineering and physical science approach to human physiological systems; cardiovascular system, with specific organ circulations, respiratory systems, overall integration and control.
Three lectures; first term
Prerequisite: Registration in Level III or above of an Engineering programme or any Honours programme in the Faculty of Science
Antirequisite: BIOLOGY 2A03, 3U03

ENGINEERING AND MANAGEMENT
WEB ADDRESS: http://www.eng.mcmaster.ca/engandmgmt/
John Hodgins Engineering Building, Room 345
Ext. 27009

The Engineering and Management Programmes are described in the Faculty of Engineering section in this Calendar. These programmes lead to the B.Eng. Society degree.

Programme Director
E.J. Kleinschmidt
Associate Director
K. Paul Rome

Courses If no prerequisite is listed, the course is open.

ENGIN MGT 2A2 COMMUNICATION SKILLS
Writing and speaking; interpersonal communications and skills, team-work, brainstorming, writing memoranda and business letters, organizational strategies, visual elements, formal reports, oral communications, technical skills.
One lecture, one tutorial (two hours); first term
Prerequisite: Registration in an Engineering and Management Programme

ENGIN MGT 3A1 ISSUES IN TECHNOLOGY MANAGEMENT
Introduction to the field of Technology Management; the skills of writing position papers, presenting to a small group, and facilitating seminars are developed. One seminar/class; one term
Prerequisite: Registration in an Engineering and Management Programme

ENGIN MGT 4A01 ENGINEERING AND MANAGEMENT REPORT
A written report and oral presentation based on summer work experience and written assessments of communications are required. Guidelines and procedures must be obtained from the Programme Director before the end of Level III.
One seminar, alternate weeks; both terms
Prerequisite: Registration in Level IV of an Engineering and Management programme

ENGIN MGT 5B03 ENGINEERING AND MANAGEMENT PROJECTS
Projects that integrate the engineering and business disciplines, employing case studies provided by the members of the Industrial Advisory Council, or by industry.
One lecture, two tutorials (two hours); first or second term
Prerequisite: Registration in the final year of an Engineering and Management programme

ENGINEERING AND SOCIETY
WEB ADDRESS: http://www.eng.mcmaster.ca/engandmgt/
John Hodgins Engineering Building, Room 123
Ext. 27679

The Engineering and Society Programmes are described in the Faculty of Engineering section in this Calendar. These programmes lead to the B.Eng. Society degree.

Programme Director
R.C. Hudpshire

Operating Committee, as of July 1, 2000:
M. Shoukri (Dean of Engineering)
P.E. Wood (Associate Dean of Engineering)
B.L. Allen (Civil Engineering)
G. Bone (Mechanical Engineering)
W. Brillinger (Mechanical Engineering and Society, Student)
J.S. Chang (Engineering Physics)
K. Garay (Women's Studies)
X. Li (Electrical and Computer Engineering)
T.E. Martin (Chemical Engineering)
C. O'Grady (Mechanical Engineering Student)
D.L. Parmas (Computing and Software)
G.R. Purdy (Materials Science and Engineering)
J. Quirt (Engineering Physics and Society, Student)
W. White (Civil Engineering and Society, Student)

Courses If no prerequisite is listed, the course is open.

ENGSOCYT 2X03 INQUIRY IN AN ENGINEERING CONTEXT
Inquiry is a non-disciplinary approach to the study of issues of public concern. In terms of the design process, inquiry focuses on the problem definition stage, in which formulating questions, researching underlying issues, and analyzing opposing arguments are essential. The first course involves teaching how to use the university and community resources in research, how to write a research paper, and how to express ideas orally. The theme for 2001-2002 is sustainability.
Three hours (lectures, discussion, group work); first term
Prerequisite: Registration in an Engineering and Society programme
Under the supervision of a faculty member, students write an inquiry paper.

Three hours (lectures, discussion, group projects); second term

Prerequisite: Registration in an Engineering and Society programme

ENGSOCTY 2X03 INQUIRY IN AN ENGINEERING CONTEXT II

This inquiry course builds on the skills developed in previous courses, focusing on a specific issue related to the role of engineering and technology in society. The course is devoted to the study of one topic such as: automation and employment, technology and the quality of life, the deteriorating environment, or the information society.

Three hours (lectures, discussion, group presentations); first term

Prerequisite: ENGSOCTY 2X03

ENGSOCTY 3Y03 THE CULTURE OF TECHNOLOGY

A study of the nature and structure of technology, the nature of culture, and the role and place of different groups, including engineers, in a culture dominated by technology.

Three hours (lectures, discussion, group work, seminars); first term

Prerequisite: ENGSOCTY 2Y03

ENGSOCTY 3Z03 PREVENTIVE ENGINEERING: ENVIRONMENTAL PERSPECTIVES

The basic concepts of preventive engineering are studied and applied to specific case studies. The focus is on sustainability and the natural environment.

Three hours (lectures, discussion, group projects); second term

Prerequisite: Registration in Level III or IV of an Engineering and Society programme or the Honours Environmental Science (B.Sc.) Programme

ENGSOCTY 4X03 INQUIRY IN AN ENGINEERING CONTEXT III

Under the supervision of a faculty member, students write an inquiry paper and present their findings. Topics for inquiry must be on the relation of technology to society and have implications for the practising engineer.

Prerequisite: ENGSOCTY 3X03

ENGSOCTY 4Z03 THE SOCIAL CONTROL OF TECHNOLOGY

The dominant mechanisms of the social control of technology are studied, with a specific emphasis on the role of the engineering profession. Includes an examination of assessment methods and the role of ethics as one approach to social responsibility in engineering.

Three hours (lectures, discussion, group projects, seminars); first term

Prerequisite: Registration in Level V of an Engineering and Society programme

ENGINEERING PHYSICS

WEB ADDRESS: http://engphys.mcmaster.ca/

John Hodgins Engineering Building, Room A325 Ext. 24545

Faculty as of January 15, 2001

Chair
P. Mascher

Professors
Alexander A. Berezin/B.Sc., M.Sc., Ph.D. (Leningrad State)
Daniel T. Cassidy/B.Eng., M.Sc. (Queen's), Ph.D. (McMaster), P.Eng.
Jen-Shih Chang/B.Ed., B.Eng., M.Eng. (Musashino Inst. of Tech.), Ph.D. (York)
Harold K. Haugen/B.Eng., B.Sc. (Acadia), M.Sc. (McGill), Ph.D. (Aarhus)
Paul E. Jessop/B.Sc. (Waterloo), M.A., Ph.D. (Harvard)
Adrian H. Kita/B.Eng., M.Sc. (Cornell), Ph.D., P.Eng.
Peter Mascher/M.Eng., Ph.D. (Technical University of Graz), P.Eng.
David A. Thompson/B.Sc., Ph.D. (Reading) C.Eng.

Adjunct Professors
Denis J. Corr/B.Sc., Ph.D. (Queen's, Belfast)
Douglas R. Dykaar/B.Sc. (Brown), M.S., Ph.D. (Rochester)
James S. Forster/B.Eng., Ph.D. (Liverpool)
David P. Jackson/B.Sc., M.A., M.A.Sc., Ph.D. (Toronto)
Krish V.S. Krishnan/B. Tech. (Macras), M.Sc., Ph.D. (Rochester)
Nicolette K. Popov/B.Eng. (Keff and Methodol), M.Sc. (Belgrade), Ph.D. (Zagreb)

Adjoint Assistant Professor
Glenn D. Harvel/B.Eng., M.Eng., Ph.D. (McMaster)

Associate Members
David R. Conn/Electrical and Computer Engineering, B.Sc., M.Sc., Ph.D. (Queen's), P.Eng.
Jan Dirk Huizinga/Medicine, B.Sc., M.Sc., Ph.D. (Groningen)
Mamdouh Shoukri/Mechanical Engineering, B.Sc. (Cairo), M.Eng., Ph.D. (McMaster), P.Eng.

Professors Emeriti
Edward A. Ballik/B.Sc. (Queen's), D. Phil. (Oxford), P.Eng.
Terence J. Kennett/B.Sc., M.Sc., Ph.D. (McMaster)

Courses
If no prerequisite is listed, the course is open.

ENG PHYS 2A03 ELECTRICAL SCIENCE 1

An introduction to electricity and magnetism for Engineering Physics students. Two lectures, one tutorial, one lab (three hours), every other week; first term Prerequisite: PHYSICS 1E03, and credit or registration in MATH 2P04

ENG PHYS 2E04 ELECTRICAL SCIENCE 2

DC, AC, and transient analysis of electrical circuits. Topics include methods of circuit analysis, circuit theorems, power, controlled sources, frequency response, rectifiers and filters, and transformers. Three lectures, one lab (three hours); second term Prerequisite: ENG PHYS 2A03

ENG PHYS 2H04 THERMODYNAMICS

An introduction to thermodynamics and its statistical basis at the microscopic level, with applications to problems originating in a modern laboratory or engineering environment. Three lectures, one tutorial; one lab every other week; second term Prerequisite: Registration in Level II Engineering Physics Cross-list: PHYSICS 2H04 Antirequisite: ENGINEER 2H03, 2V04

ENG PHYS 3C03 COMMUNICATIONS AND MEDIA

Communications in organizations. Designing, supporting and delivering messages in written and visual form. Mass communication and public perception of engineering. Dealing with media. Three lectures; first term Prerequisite: Registration in Level III Engineering Physics

ENG PHYS 3D03 PRINCIPLES OF NUCLEAR ENGINEERING

Introduction to fission and fusion energy systems. Energies of nuclear reactions, interactions of radiation with matter, radioactivity, design and operating principles of fission and fusion reactors. Three lectures, (including demonstration experiments); first term Prerequisite: Registration in Level III or above of any programme in Engineering or Physics

ENG PHYS 3E03 FUNDAMENTALS OF PHYSICAL OPTICS

Reflection and refraction; geometrical optics; interference and diffraction; optical constants of media; optical design software; introduction to design of optical systems. Two lectures, one tutorial, one lab (three hours), every other week; first term Prerequisite: ENG PHYS 2A03 and 2E04

ENG PHYS 3F03 FUNDAMENTALS OF SOLID STATE ELECTRONICS

Electrons in solids, with emphasis on semiconductors. Electron band model. Metals, dielectrics and semiconductors. Electron and hole behaviour in electric and magnetic fields. Optical properties of solids. Doped semiconductors. Two lectures, one tutorial, one lab (three hours) every other week; second term Prerequisite: ENG PHYS 2A03 and 2E04 or PHYSICS 1E03 and either MATH 2M06 or MATH 2P04 and 2Q04; or PHYSICS 2B06

ENG PHYS 3G03 INTRODUCTION TO FLUID MECHANICS AND HEAT TRANSFER

Fluid properties and statics are introduced. Basic equations of continuity, energy and momentum for internal and external flows are discussed. Similitude, dimensional analysis, measuring devices, fluid machinery and electromagnetic flow. Conduction and convection heat transfer. Two lectures, one tutorial, one lab (three hours) every other week; second term Prerequisite: Credit or registration in MATH 2M06, or MATH 2P04 and 2Q04
ENG PHYS 3W04 ACQUISITION AND ANALYSIS OF EXPERIMENTAL INFORMATION

A systems approach to measurement in which synthesis of topics such as Fourier transforms, signal processing and enhancement, data reduction, modelling and simulation is undertaken.

Two lectures; both terms
Prerequisite: Registration in Level III or above of any Engineering or Science programme

ENG PHYS 3X03 HUMAN PHYSIOLOGY

Basic introduction and working knowledge of the human body. Includes study of the cellular level of organization.

Three lectures; second term
Prerequisite: Completion of a minimum of 30 units above Level 1 in any Engineering programme
Anti-requisite: BIOLOGY 2A03, 3U03, 3U06, 3U13, 4G06

ENG PHYS 4A04 DESIGN AND SYNTHESIS PROJECT

Design and synthesis projects supervised by a faculty member in the Department of Engineering Physics.

Two labs (three hours); both terms
Prerequisite: Registration in final level of an Engineering Physics programme

ENG PHYS 4C03 INTEGRATIVE ENGINEERING

Aspects of engineering theory and practice, systems failure and catastrophe avoidance, population/resource dynamics and interactive driven systems. The seminar part of the course will involve case studies of emerging technology issues. A term paper is required.

Three lectures; first term
Prerequisite: Registration in Level IV or above in any Engineering programme
Anti-requisite: ENGINEER 4A03, 4H03

ENG PHYS 4D03 NUCLEAR REACTOR ANALYSIS

Introduction to nuclear energy; nuclear physics and chain reactions; reactor statics and kinetics; multigroup analysis, core thermal hydraulics; reactor design.

Three lectures (including field trip); first term
Prerequisite: ENG PHYS 3D03

ENG PHYS 4E03 SOLID STATE DEVICES I

Electronic properties of semiconductors, contact phenomena; p-n junctions; Schottky diodes, photodiodes, bipolar transistors, field effect transistors.

Three lectures; first term
Prerequisite: ENGINEER 3003 or ENG PHYS 3F03

ENG PHYS 4F03 SOLID STATE DEVICES II

Physical principles underlying operation of selected devices, and their characteristics; optical devices, avalanche devices, Gunn Effect devices, Read diodes, charge coupled devices, integrated circuits, Josephson junctions.

Three lectures; second term
Prerequisite: Credit or registration in ENG PHYS 4E03

ENG PHYS 4G03 OPTICAL INSTRUMENTATION

Design of optical equipment (including reflective and refractive optical systems, interferometers and spectrometers). Optical sources and power measurements. Detectors (photographic, photoelectric, etc.), including use in the infrared and ultraviolet, and at low intensity levels.

Three lectures; first term
Prerequisite: ENG PHYS 3E03 or PHYSICS 3N03

ENG PHYS 4H04 SPECIAL STUDIES IN ENGINEERING PHYSICS

A special programme of studies to be arranged by mutual consent of a professor and the student with approval of the department chair, to carry out experiments and/or theoretical investigations. A written report and oral defence are required.

Two tutorials, one lab (three hours); both terms
Prerequisite: Registration in final level of an Engineering Physics programme and a CGA of at least 8.6

ENG PHYS 4K03 OPTICAL COMMUNICATIONS SYSTEMS


Three lectures; second term
Prerequisite: Registration in Level IV or V of any programme in Engineering or Physics

ENG PHYS 4L03 INDUSTRIAL MONITORING AND DETECTION TECHNIQUES

Single and two-phase flow diagnostics and monitoring techniques for industrial and power plant operations; radiation monitoring; pollutant monitoring and analyses; nuclear instrumentation for industrial processes.

Two lectures, one lab; second term
Prerequisite: ENG PHYS 3C03 and 3W04

ENG PHYS 4N03 PRINCIPLES OF FUSION ENERGY

Fusion phenomena and the plasma state; reaction analysis; Coulomb scattering; field effect trajectories; magnetic field configurations; particle transport; energy viability; burn cycles; inertial confinement; muon catalyzed fusion.

Three lectures; second term
Prerequisite: ENG PHYS 3D03

ENG PHYS 4S04 LASERS AND ELECTRO-OPTICS


Two lectures; both terms
Prerequisite: ENG PHYS 3E03 or PHYSICS 3N03

ENG PHYS 4U04 MODERN AND APPLIED PHYSICS LABORATORY

Selected advanced experiments in two areas of applied physics, chosen from among: lasers and optical communications; microelectronic devices; computer systems; nuclear engineering.

Two labs (three hours); both terms
Prerequisite: ENG PHYS 3W04 and PHYSICS 3E06

ENGINEERING TECHNOLOGY (GENERAL)

Note:

Engineering Technology courses are open only to students registered in the Bachelor of Technology Degree Programme in Manufacturing Engineering Technology and are subject to prerequisite requirements.

Courses

ENG TECH 1MA3 MATHEMATICS I
Ordinary and partial differential equations; Laplace transforms; Fourier series; vector calculus; integral theorems, with engineering applications. Lecture (1.5 hours) each week; two terms

ENG TECH 1ML3 STRENGTH OF MATERIALS
Stresses under combined loads, generalized Hookes Law; two and three dimensional stresses, stress transformation, principal stresses, Mohrs circle; deflections by integration; energy methods, Castaglions theorem; columns; yield criteria.

Three lectures; one term
Corequisite: ENG TECH 1MA3

ENG TECH 1PG3 PROGRAMMING
An overview of C, C++ programming; variables, constants and operators; program control statements: arrays and strings; pointers; classes; virtual functions; I/O system, preprocessor.

One lecture, one tutorial; one term

ENG TECH 2CT3 SYSTEM AND CONTROLS
Mathematical foundation: differential equations, Laplace transforms, transform by partial-fraction expansion; transfer functions; modelling of physical systems; stability, Routh criteria; time and frequency domain; Root locus technique; design of control systems.

Three lectures; one term
Prerequisite: ENG TECH 1PG3
Corequisite: ENG TECH 1MA3

ENG TECH 2FE3 FINITE ELEMENT ANALYSIS
Matrix techniques; eigenvalue problem; equations of elasticity; plane stress, plane strain, 3D problems; variational methods; element types, element stiffness, mass matrices and load vector; assemblage of elements, boundary conditions.

Two lectures, one tutorial; one term
Prerequisite: ENG TECH 1MA3
Corequisite: ENG TECH 1ML3

ENG TECH 2MN3 MODELLING AND NUMERICAL SOLUTIONS
Number systems and errors; the solution of nonlinear equations; interpolation by polynomial, matrices and systems of linear equations; differentiation and integration; the solution of differential equations; applications to mechanical systems.

Three lectures; one term
Prerequisite: ENG TECH 1MA3 and 1PG3
Faculty as of January 15, 2001

Chair
Donald Goellnicht

University Professor
James King/B.A. (Toronto), M.A., Ph.D. (Princeton), F.R.S.C.

Professors
Joseph Adamson/B.A. (Trent), M.A., Ph.D. (Toronto)
Alan G. Bishop/B.A. (Rhodes, South Africa), M.A., D. Phil. (Oxford)
David Blevett/B.A., M.A. (Manitoba), Ph.D. (Toronto)
Anthony S. Brennan/B.A. (Oxford), M.A., Ph.D. (McMaster)
David L. Clark/B.A., M.A., Ph.D. (Western Ontario)
Donald C. Goellnicht/B.A. (Queen's), M.A., Ph.D. (McMaster)
Lorraine M. York/B.A., M.A., (McMaster)

Associate Professors
Sylvia Bowerbank/B.A. (McMaster), B.Ed. (Toronto), M.A. (Simon Fraser), Ph.D. (McMaster)
Jeffery Donaldson/B.A., M.A., Ph.D. (Toronto)
Ronald Granofsky/B.A. (Trent), M.A. (Canterbury), Ph.D. (Queen's)
Mary E. O'Connor/B.A. (McGill), M.A., Ph.D. (Toronto)
Helen M. Ostovich/B.A., M.A., Ph.D. (Toronto)
Anne Savage/B.A. (Calgary), Ph.D. (London)
Mary Silcox/B.A. (Western Ontario), M.A., Ph.D. (Queen's)
Peter Walmsey/B.A., M.A. (Toronto), Ph.D. (Cambridge)

Assistant Professors
Daniel Coleman/B.Ed., M.A. (Regina), Ph.D. (Alberta)
Catherine Gris/B.A. (Trent), M.A., Ph.D. (Western Ontario)
Nicholas Halimi/B.A. (Cornell), M.A., Ph.D. (Toronto)
Roger L. Hyman/B.A. (York), M.A., Ph.D. (Toronto)
Grace Kehler/B.A. (Regina), M.A., Ph.D. (Western Ontario)
Susie O'Brien/B.A. (Queen's), M.A. (Queenland), Ph.D. (Queen's)
Imre Szeman/B.A. (Queen's), M.A., Ph.D. (Duke)

Professors Emeriti
Carl P.A. Balistad/B.A., M.A. (Western Ontario), Ph.D. (London)
Alwyn Barland/M.A. (Chicago), M.Litt. (Cambridge)
Andrew W. Brink/B.A., M.A. (Toronto), Ph.D. (London)
Thomas H. Cairn/B.A., M.A. (Toronto), Ph.D. (Wisconsin)
Benners A.W. Jackson/B.A. (McMaster), D. Phil. (Oxford)
Alvin A. Lee/B.A., M.Div., M.A., Ph.D., L.Litt. (Toronto), L.Litt. (McMaster)
Laurel A. Means/B.A., M.A. (Arkansas), Ph.D. (Toronto)
Richard E. Morton/B.A. (Wales), B.Litt. (Oxford)
W.J.B. Owen/M.A. (New Zealand and Oxford), Ph.D. (Wales), D.Litt. (McMaster), F.R.S.C.
Graham Petrie/M.A. (St. Andrews), B.Litt. (Oxford)
W. Graham Roebuck/B.A. (Durham), M.A. (McMaster), Ph.D. (London)
F. Norman Shrive/C.D., B.A. (McMaster), M.A. (Toronto), Ph.D. (Queen's)
Ronald W. Vince/B.A. (McMaster), M.A. (Rice), Ph.D. (Northwestern)
Chauncey D. Wood/A.B. (Union College), M.A., Ph.D. (Princeton)

Department Notes:
1. The following are courses open as electives to students registered in Level II and above of any university programme.
   - ENGLISH 2C03 Contemporary Canadian Fiction
   - ENGLISH 2E03 Twentieth-Century British Literature
   - ENGLISH 2F03 Studies in American Literature
   - ENGLISH 2J03 Contemporary Popular Culture
   - ENGLISH 2L03 Shakespeare: Selected Plays
   - ENGLISH 3B03 Psychoanalytic Approaches to Literary Texts
   - ENGLISH 3I13 Topics In Prose
   - ENGLISH 3P03 Modern Drama in English
   - ENGLISH 3W03 Contemporary Native Literature in English
   - ENGLISH 3X03 Contemporary Native Literature In The United States
   - ENGLISH 3X03 Topics in Drama

   Please note that the Department is able to offer only a selection of elective courses each year.

2. Courses restricted to students registered in programmes in English may be available to qualified students in other programmes if space permits. Students interested in such courses should request permission from the departmental counselor.

3. Level IV seminars are open only to Honours students registered in Level IV of an English programme. Enrolment will be limited to 15 students per seminar. A list of seminars to be offered will be available prior to registration.

Courses

If no prerequisite is listed, the course is open.

ENGLISH 1A03 LITERATURE IN ENGLISH: SHORTER GENRES
A selection of shorter literary texts (short stories, poems, essays) will be studied. Students will be introduced to the elements of various genres and to a variety of interpretive approaches. Considerable emphasis will be placed on the development of critical skills in reading and writing.
Two lectures, one tutorial; one term
Antirequisite: ENGLISH 1D06

ENGLISH 1A33 LITERATURE IN ENGLISH: LONGER GENRES
A selection of longer literary texts - novels and plays - will be studied. Students will be introduced to the elements of various genres and to a variety of interpretive approaches. Considerable emphasis will be placed on the development of critical skills in reading and writing.
Two lectures, one tutorial; one term
Antirequisite: ENGLISH 1D06

ENGLISH 1B03 CULTURAL STUDIES AND VISUAL CULTURE
An introduction to cultural studies focusing on the critical and conceptual tools for the analysis of various forms of visual culture (e.g., photography, film, television, advertising, new media technologies). Considerable emphasis is placed on the development of effective writing skills.
Two lectures, one tutorial; one term

ENGLISH 1B03 CULTURAL STUDIES: HISTORY, THEORY, PRACTICE
An overview of the development of cultural studies as an inter-disciplinary field of academic inquiry and an exploration of the proliferation of cultural practices and technologies over the last fifty years. Considerable emphasis will be placed on the development of critical skills in reading and writing.
Two lectures, one tutorial; one term

ENGLISH 1C06 A HISTORY OF ENGLISH LITERATURE
A survey centering on the history of English literature from its origins to the present and providing a grounding in literary historical periods, genres, and critical approaches to works by canonical and non-canonical authors. Emphasis will be placed on critical skills in reading and writing.
Two lectures, one tutorial; two terms

ENGLISH 2B05 THE DEVELOPMENT OF ENGLISH DRAMA
English drama from the medieval period to the close of the 18th century (excluding Shakespeare).
Three hours; two terms
Prerequisite: Registration in a programme in English or permission of the Department Counsellor

ENGLISH 2C03 CONTEMPORARY CANADIAN FICTION
A study of the themes and structure of the contemporary Canadian novel, usually with emphasis upon the relationship of Canada's cultural patterns and its literature.
Three hours; one term
Prerequisite: Registration in Level II and above

ENGLISH 2003 CREATIVE WRITING INQUIRY
A creative writing seminar and workshop based on the inquiry model of self-directed research and collaboration. Students will exercise their creative talents in a variety of genres and work independently and in groups to develop critical skills and problem solving techniques.
Three seminars; one term
Prerequisite: Registration in a programme in English. Students wishing to take this course must complete an application form in the English Department before March 31 to guarantee consideration for the following year. Enrolment is limited. Department permission is required.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH 2E03</td>
<td>TWENTIETH-CENTURY BRITISH LITERATURE</td>
<td>A study of selected works of twentieth-century British Literature with an emphasis on the historical, intellectual, ideological and aesthetic contexts. Three hours; one term</td>
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<td>Prerequisite: Registration in Level II and above. Not open to students with credit or registration in ENGLISH 2I06.</td>
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<tr>
<td>ENGLISH 2F03</td>
<td>STUDIES IN AMERICAN LITERATURE</td>
<td>A study of some of the most important writers who developed American literature as a distinctive mode of writing in English. Three hours; one term.</td>
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<td>Prerequisite: Registration in Level II and above. Not open to students with credit or registration in ENGLISH 2H06.</td>
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<tr>
<td>ENGLISH 2G06</td>
<td>CANADIAN LITERATURE</td>
<td>Major aspects of the development of Canadian literature from the late 18th century to the mid-20th century. French-Canadian work in translation will be used for comparative purposes. Three hours; two terms.</td>
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<td>Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor.</td>
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<tr>
<td>ENGLISH 2H06</td>
<td>AMERICAN LITERATURE</td>
<td>A survey of significant American writers from the 17th century to the present, which emphasizes the interrelationship between the literature and its philosophical and historical background. Three hours; two terms.</td>
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<td>Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor.</td>
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<tr>
<td>ENGLISH 2I06</td>
<td>MODERN BRITISH LITERATURE</td>
<td>A study of representative literature by British writers of the 20th century. Through criticism of poems, plays and fiction, an attempt is made to relate modern British literature to its social, intellectual and cultural context. Three hours; two terms.</td>
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<td>Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor.</td>
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<tr>
<td>ENGLISH 2J03</td>
<td>CONTEMPORARY POPULAR CULTURE</td>
<td>Drawing on models of analysis from the field of cultural studies, this course will introduce students to methods of critically analyzing selected forms of popular culture. Areas of investigation may include: television, magazines, advertising, computer culture, film, popular fiction. Three hours; one term.</td>
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<td>Prerequisite: Registration in Level II and above. Cross-list: CMST 2J03.</td>
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<tr>
<td>ENGLISH 2K06</td>
<td>STUDIES IN WOMEN WRITERS</td>
<td>A closely focused course on women's writing in English. The topic for the course varies, sometimes concentrating on specific issues, sometimes on an historical period or national literature. Relevant feminist theory will be a component of the course. Three hours; two terms.</td>
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<td>Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor. Cross-list: WOMEN ST 2K06.</td>
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<tr>
<td>ENGLISH 2L03</td>
<td>SHAKESPEARE: SELECTED PLAYS</td>
<td>A study of a representative selection of plays. Three hours; one term.</td>
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<td>Prerequisite: Registration in Level II and above. Not open to students with credit or registration in ENGLISH 3K06.</td>
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<tr>
<td>ENGLISH 2M03</td>
<td>THE CONCEPT OF CULTURE</td>
<td>An analysis of the development of the concept of culture from the Enlightenment to the present. Theoretical readings combined with the analysis of specific cultural texts, objects, forms and practices will allow students to trace historical and contemporary debates concerning culture. Three hours; one term.</td>
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<td>Prerequisite: Registration in a programme in Communication Studies, Comparative Literature or English or permission of the Departmental Counsellor. Cross-list: CMST 2M03, COMP LIT 2E03.</td>
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<tr>
<td>ENGLISH 2M33</td>
<td>MODERN COUNTERCULTURES</td>
<td>An exploration of a variety of cultural forms (e.g. literature, art, photography, film, music) produced by avant-gardes and counter-cultural groups from the mid-19th century to the present. Areas of Investigation may include surrealism, futurism, the beats, the sixties, situationism and punk. Three hours; one term.</td>
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<td>Prerequisite: Registration in a programme in Communication Studies, Comparative Literature or English or permission of the Departmental Counsellor. Cross-list: CMST 2M33, COMP LIT 2EE3.</td>
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<tr>
<td>ENGLISH 3B03</td>
<td>PSYCHOANALYTIC APPROACHES TO LITERARY TEXTS</td>
<td>The basic assumptions and methods of psychoanalytic criticism will be studied with reference to selected texts in drama, fiction, and poetry from Shakespeare to the present. Three hours; one term.</td>
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<td>Prerequisite: Registration in Level II and above. Cross-list: SOCIOL 2X03.</td>
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<tr>
<td>ENGLISH 3C06</td>
<td>MIDDLE ENGLISH LITERATURE</td>
<td>This course covers a broad range of medieval English literature from the 13th to the 15th centuries. The course will focus on Chaucer, Langland and the anonymous Gawain-poet. Other texts such as lyric, saints' lives, devotional works, court books and romances will also be studied. Three hours; two terms.</td>
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<td>Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor.</td>
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<tr>
<td>ENGLISH 3C3</td>
<td>LITERATURE AND FILM</td>
<td>An examination of the particular characteristics of both literature and film and the relationships between them through a detailed study of selected novels, short stories and plays, and the films that have been based on them. Three hours, plus one weekly film screening; one term.</td>
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<td>Prerequisite: Registration in Level III or IV of a programme in Drama or Literature or Art History. It is recommended that students should already have taken DRAMA 2X06. Cross-list: CMST 3CC3, COMP LIT 3L03, DRAMA 3H03.</td>
</tr>
<tr>
<td>ENGLISH 3G06</td>
<td>ENGLISH LITERATURE (1660-1800)</td>
<td>A study of English literature during the period 1660-1800, with special attention to works by Dryden, Swift, Pope and Johnson. Three hours; two terms.</td>
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<td>Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor.</td>
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<tr>
<td>ENGLISH 3I06</td>
<td>STUDIES IN SIXTEENTH-CENTURY LITERATURE</td>
<td>A critical study of the literature of the 1500s in England, particularly the second half of the century. The influence of continental writers will also be examined, and special attention will be paid to Spenser. Three hours; two terms.</td>
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<td>Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor. Cross-list: COMP LIT 3J06.</td>
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<tr>
<td>ENGLISH 3I13</td>
<td>TOPICS IN PROSE</td>
<td>Previous topics include: Jane Austen, African American Fiction, Science Fiction. Consult the Department concerning topic to be offered. Three hours; one term.</td>
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<td>Prerequisite: Registration in Level II and above. ENGLISH 3I13 may be repeated, if on a different topic, to a total of six units.</td>
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<td>ENGLISH 3J06</td>
<td>THE ENGLISH LANGUAGE</td>
<td>An analysis of the way the English language works, with particular reference to syntactic patterns. The following areas will be considered: English phonology, historical linguistics, morphology, transformational-generative grammar, vocabulary and word formation. Three hours; two terms.</td>
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<td>Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor. Antirequisite: LINGUIST 1A06.</td>
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<tr>
<td>ENGLISH 3K06</td>
<td>SHAKESPEARE</td>
<td>An extensive critical reading and discussion of selected plays. Three hours; two terms.</td>
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<td>Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor.</td>
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<tr>
<td>ENGLISH 3L06</td>
<td>OLD ENGLISH LANGUAGE AND LITERATURE</td>
<td>The course will focus on the evolution from the beginner's level to a level at which students can read Old English poetry with the help of a glossary only. The introduction to Old English grammar will be by means of paradigms, dilets and the translation of simple prose. Grammars will be complemented by classes on Anglo-Saxon cultural history and critical approaches. Three hours; two terms.</td>
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<td>Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor.</td>
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</table>
Three hours; two terms
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor

Antirequisite: ENGLISH 3M03, 3MM3

ENGLISH 3N06 THE BRITISH NOVEL
This course, in assessing and analyzing approximately 12 novels, will trace the history of English fiction to the 20th century. The course focuses on the varieties of narrative forms, while also exploring the intellectual, cultural and psychological contexts of fiction.

Three hours; two terms
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor

ENGLISH 3P03 MODERN DRAMA IN ENGLISH
A representational selection of plays by modern British, Irish and North American dramatists will be examined in order to study the relationship between drama and society in our age, as well as conventions and experiments in the contemporary theatre.

Three hours; one term
Prerequisite: Registration in Level II and above

ENGLISH 3Q03 THE HISTORY AND THEORY OF CRITICISM
A survey of the main developments in the theory and practice of literary criticism from Plato to the early 20th century.

Three hours; one term
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor

Cross-list: COMP LIT 3Q03

ENGLISH 3R03 MODERN CRITICAL THEORY
The theory and practice of literary criticism from Eliot to the present.

Three hours; one term
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor. English 3Q03 is recommended.

Cross-list: COMP LIT 3Q03

ENGLISH 3R06 POSTCOLONIAL LITERATURES: THEORY AND PRACTICE
A study of postcolonial literary theory and practice. Texts written in English from a variety of formerly colonized regions will be studied; including Africa, the Caribbean, South and Southeast Asia, Australia and New Zealand. The focus will be on such topics as imperialism, race, gender, ethnicity, nation, language and representation.

Three hours; one term
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor

Cross-list: COMP LIT 3R06, PEACE ST 3E06

ENGLISH 3S03 BIBLICAL TRADITIONS IN LITERATURE
A study of the influence of the Bible on Western literature, especially English. Approaches may include the examination of symbolism, imagery, typology, doctrinal themes and narrative structures.

Three hours; one term
Prerequisite: Registration in Level II and above

Cross-list: COMP LIT 3H03

ENGLISH 3V06 STUDIES IN 17TH-CENTURY LITERATURE
A detailed examination of poets and prose-writers of the period, with emphasis on the poetry of Donne, the "metaphysical school", Jonson and Milton.

Three hours; two terms
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor

ENGLISH 3W03 CONTEMPORARY NATIVE LITERATURE IN CANADA
A study of significant works by Native writers who give voice to their experience in Canada. Issues examined include appropriation of voice, native identity, women in indigenous societies, and stereotyping.

Three hours (lectures and seminars); one term
Prerequisite: INDIG ST 1A03 and 1AA3 (or 1A06) or six units of Level I English or permission of the instructor

Cross-list: INDIG ST 3D03, PEACE ST 3W03

This course is administered by Indigenous Studies.

ENGLISH 3X03 CONTEMPORARY NATIVE LITERATURE IN THE UNITED STATES
A study of contemporary works by Native writers in the United States within the context of American society and Post-Modern and Post-Colonial Literary Theory.

Three hours (lectures and seminars); one term
Prerequisite: INDIG ST 1A03 and 1AA3 (or 1A06) or six units of Level I English or permission of the instructor

Cross-list: INDIG ST 3E03, PEACE ST 3X03

This course is administered by Indigenous Studies.

ENGLISH 3XX3 TOPICS IN DRAMA
Previous topics include: British Drama: 1950 to the Present, Modern Canadian Drama. Consult the Department concerning topic to be offered.

Three lectures; one term
Prerequisite: Registration in Level II and above

ENGLISH 3XX3 may be repeated, if on a different topic, to a total of six units.

ENGLISH 4003 HONOURS ESSAY
In consultation with members of the English Department, students will prepare an essay on an approved topic. This course is normally substituted for three unit of Level IV seminar work in the second term. Students who are interested in taking 4003 should contact the faculty member chairing the 4003 committee early in the first term.

Prerequisite: Registration in Level IV of an Honours programme in English; and permission of the Department. Departmental permission slip required. Enrolment is limited.

Note:
Level IV seminars are open only to Honours students registered in Level IV of an English programme. Enrolment will be limited to 15 students per seminar. The Department is able to offer only a selection of the seminars listed below every year. A list of seminars to be offered will be available prior to registration, which takes place through the Department in March.

ENGLISH 4A03 AFRICAN-AMERICAN WOMEN WRITERS
A study of a selection of African-American women writers, including Hurston, Walker, Morrison and Naylor, with a consideration of gender and race in literary theory.

Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English

Enrolment is limited. Departmental permission required.

ENGLISH 4A03 RHETORIC, CULTURE, CATASTROPHE: AIDS AND ITS REPRESENTATIONS
An examination of selected novels, films, autobiographical writings and theoretical texts about AIDS, with an emphasis on the cultural discourses surrounding the AIDS crisis.

Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English

Enrolment is limited. Departmental permission required.

ENGLISH 4A03 THE AESTHETICS OF SEX IN THE 1890S
This course will focus on the ideologically related struggles of 1890s men and women to express radical forms of sexuality in literature and on the aesthetics and politics that enforced divisions along gender lines.

Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English

Enrolment is limited. Departmental permission required.

ENGLISH 4A03 THE BLOOMSBURY GROUP
An examination of the literary and cultural phenomenon known as Bloomsbury, focusing on the novels of Virginia Woolf and E.M. Forster.

Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English

Enrolment is limited. Departmental permission required.

ENGLISH 4A03 CROSS-CURRENTS IN CONTEMPORARY BRITISH POETRY
Close readings of selected works by three contemporary British poets - Philip Larkin, Ted Hughes and Charles Tomlinson.

Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English

Enrolment is limited. Departmental permission required.
ENGLISH 4CF3 CONTEMPORARY FICTION
A study of recent English and American fiction, with emphasis on metafiction as well as on the relationship between contemporary literary theory and fiction. Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4DE3 STUDIES IN VICTORIAN FICTION:
CHARLES DICKENS AND GEORGE ELIOT
A critical reading of selected novels by Dickens and Eliot, with consideration of their development, their contribution to the novel as genre, and their insights into Victorian society and the modem world.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4DH3 D.H. LAWRENCE
A study of selected works by D.H. Lawrence, focusing upon several events with some attention to his shorter fiction, poetry and non-fictional prose.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4EL3 ENVIRONMENTAL LITERATURE
A study of the ways in which literary texts mediate between culture and nature using traditional, scientific, environmentalist, eco-feminist, native American, and deep ecologist approaches.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4ES3 ENGLISH SATIRE
Close readings of the satiric writings of Dryden, Swift and Pope, with attention to the nature and function of satire and its development from classical literature.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4FT3 THE FAIRY TALE
A study of the fairy tale from the structuralist, psychoanalytic, and socio- logical points of view, concentrating on the tales of the Brothers Grimm in translation and considering the importance of fairy tales in acculturation and their symbolic significance.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4FW3 FORMS OF CREATIVE WRITING
This seminar will combine a hands-on study of form with an opportunity for students to exercise and focus their own creative energies. In any given year, the course will concentrate on either verse or fictional form.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4GM3 CANADIAN FICTIONS OF GENDER AND MIGRATION
A study of the interactions and displacements between discourses of gender and migration in contemporary Canadian multicultural fiction.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4GW3 LEGENDS OF GOOD WOMEN IN LATE-MEDIEVAL ENGLAND
This seminar explores how the Medieval period perceived and constructed notions of gender and goodness. By way of historical and critical materials and Middle English literary texts, theoretical and cultural questions of gender, class and subjectivity are examined.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4HN3 HAWTHORNE
This seminar will examine the works of Nathaniel Hawthorne, with special attention to structural and psychological aspects of his writings.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4NS3 WORDSWORTH AND SHELLEY AS POETS OF NATURE AND SOCIETY
An examination of selected poetry and prose by Wordsworth and Shelley, concentrating on their conceptions of nature, their responses to political events, and their definitions of the poet's role in society.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4ON3 MICHAEL ONDAATJE
This course explores various approaches to Michael Ondaatje's poetry and prose; gender, postcoloniality, and interdisciplinarity (Ondaatje's engagement with film, photography, painting and music) are topics of particular interest.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4PD3 THE PRIMA DONNA IN VICTORIAN FICTION
This course scrutinizes the ideological and practical work of the Victorian prima donna in society and on stage by considering her representation in a variety of media.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4QP3 19TH- AND 20TH-CENTURY POETRY OF QUEBEC IN TRANSLATION
An examination of the works of the major Québécois poets of the last two centuries, beginning with the poetry of the land and ending with "poets of the revolution".
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4RM3 LITERARY REPRESENTATIONS OF MADNESS
This course will seek a partial answer to the question of how writers represent madness by examining texts from the 17th to the 20th centuries. Particular attention will be paid to the role of social pressures behind the transformation of concepts of madness.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4RT3 TELEVISION AND CONTEMPORARY CULTURE
This seminar studies the cultural artefact called television, providing a comprehensive overview of various approaches to its study and the requisite theoretical tools to "read" this important element of contemporary culture.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4SC3 WOMEN WRITERS OF THE 16TH AND 17TH CENTURIES
This seminar explores a variety of works written by women in 16th- and 17th-century England, with a consideration of their literary and cultural contexts and the construction of female identity.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4UT3 UTOPIAN LITERATURE
A study of the genre through English literature, from its roots in Plato's Republic, through the Middle Ages and the Renaissance to contemporary literature.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4WC3 THE WITCHCRAFT CONTROVERSY IN PRINT AND ON STAGE, 1565-1656
An exploration of conflicting attitudes toward witches in England and Scotland, questioning ideological assumptions about gender, class, education, health, social welfare, marriage, and sexuality.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Enrolment is limited. Departmental permission required.

ENGLISH 4WL3 ISSUES IN CONTEMPORARY WORLD LITERATURE
A study of changing literary conceptions of the world through an exploration of contemporary works of fiction written in English from a variety of cultural and national contexts.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English
Enrolment is limited. Departmental permission required.

ENGLISH 4WF3 WAR AND PEACE IN LITERATURE
A close study of selected literary works in English that focus on the experience of war and the search for peace, especially in relation to the American Civil War, the First and Second World Wars and the Vietnam War.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English
Enrolment is limited. Departmental permission required.

ENGLISH 4WS3 SHAKESPEARE: CHANGING STYLES OF INTERPRETATION OF SELECTED PLAYS
An examination of significant alterations in this century of critical attitudes to several Shakespeare plays and the wide variation in their representation and reception.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English
Enrolment is limited. Departmental permission required.

ENGLISH 4WV3 WOMEN WRITERS OF THE EIGHTEENTH CENTURY
An exploration of poetry and fiction written by women in the 18th century, with particular attention to the social and philosophical concerns of these writers.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English
Enrolment is limited. Departmental permission required.

ENVIRONMENTAL SCIENCE

Courses If no prerequisite is listed, the course is open.

ENVIR SC 1A03 ATMOSPHERE AND HYDROSHERE
Formerly: ENVIR SC 1H03, GEO 1A03
An introduction to the processes involved in weather, climate and surface waters with a focus on the human impacts on these processes.
Two lectures, one tutorial, one lab; one term
Antirequisite: ENVIR SC 1A06, 1H03, GEO 1A03, GEOG 1C03
ENVIR SC 1BG1 THE LIVING ENVIRONMENT
Formerly: GEO 1BG1
Characteristics of the biosphere and introduction to major environmental processes and issues.
Two lectures, one tutorial, one lab; one term
Antirequisite: ENVIR SC 1A05, GEO 1B03
ENVIR SC 1G03 EARTH AND THE ENVIRONMENT
Formerly: GEO 1G03
An introduction to environmental geology and geomorphology through study of the processes that form the earth and its surface features. A mandatory Saturday field trip will be held.
Two lectures, one tutorial, one lab; one term
Antirequisite: ENVIR SC 1A06, GEO 1G03, GEOG 1G03, GEOLOGY 1C03
ENVIR SC 3A03 ANALYTICAL ENVIRONMENTAL CHEMISTRY
An introduction to the basic principles of sampling for analysis, of sample handling and separations for analysis, and of selected methods for the detection and determination of analytic species.
Two lectures, one lab (three hours); one term
Prerequisite: CHEM 2A03 or 2N03 and one of CHEM 2P03, 2R03 and registration in Honours Science (Environmental Science Option) or a programme in Chemical Engineering
Antirequisite: CHEM 2M05, 3A03

FRENCH

WEB ADDRESS:
http://www.humanities.mcmaster.ca/~french/frenchhome.htm
Togo Solomon Hall, Room 513
Ext. 24470

Faculty as of January 15, 2001

Chair
Owen Morgan

Professors
Caroline Bayard/L. és L., M. és L. (Toulouse), M.A., Ph.D. (Toronto)
Madeleine Jeay/L. és L. (Bordeaux), M.A., Ph.D. (Montreal)
Owen R. Morgan/B.A., M.A. (Nottingham)

Associate Professors
Marie-Madeleine Ahmed/L. és L. M. és L. D. de IU (Paris-Sorbonne)
Suzanne Crosta/B.A., M.A. (McMaster), Ph.D. (Toronto)
Michael Kiffer/B.A. (British Columbia), M.A. (Michigan), Ph.D. (Cornell)
Dominique Laplq/L. és L. (Caen), M.A. (Ottawa), Ph.D. (Toronto)
Gabriel Moyal/B.A. (McGill), M.A., Ph.D. (Toronto)
Anna St. Leger Lucas/B.A. (Nottingham), M.A. Ph.D. (British Columbia)
John C. Stout/B.A. (British Columbia), Ph.D. (Princeton)
Gary A. Warnh/B.A. (London), L. és L., D. de IU. (Caen)

Assistant Professors
Jane A.C. Rush/B.A. (Toronto), M.A., Ph.D. (UCLA)
Helene Trepanier/B.A. (McGill), M.A. (Leval), D.E.S., D. és L. (Geneva)

Programme Coordinator, Continuing Education

Sessional Lecturers
Pauline Pocknell/B.A. (Mancheste), B.Ed. (Toronto), M.A. (McMaster)
Simonne Venisse-Fam/L. és L., M. és L., D.E.S. (Paris-Sorbonne), Ph.D. (Montreal)

Professors Emeriti
W. Norman Jeeves/M.A. (Cambridge), L. és L. (Bordeaux)
Cesar Rouven/L. és S. (Paris-Sorbonne), B.A. (Sir George Williams), M.A., Ph.D. (McGill)
G. Derek West/M.A. (Oxford), Ph.D. (London)

ENTRY INTO LEVEL I COURSES AND FRENCH PROGRAMMES

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Courses If no prerequisite is listed, the course is open.

FRENCH 1A06 INTRODUCTION TO FRENCH STUDIES: ADVANCED LEVEL
Review of grammar, oral and written practice, and introduction to literary analysis.
Four hours (including one oral French tutorial); two terms
Prerequisite: OAC French with a grade of at least 80 percent. The Department reserves the right to place students in the course most appropriate to their abilities.
Antirequisite: FRENCH 2M06

FRENCH 1N06 INTRODUCTION TO FRENCH STUDIES: INTERMEDIATE LEVEL
Review of grammar, composition, reading and oral practice. Computer-assisted instruction is used for work outside the classroom.
Three hours; two terms
Prerequisite: OAC French with a grade of less than 80 percent or FRENCH 1Z06 with a grade of at least A-
The Department reserves the right to place students in the course most proper to their abilities.

FRENCH 1Z06 BEGINNER'S INTENSIVE FRENCH
An intensive course for developing basic skills in both written and spoken French. The normal sequel to this course is FRENCH 2Z06.
Five hours (including three computer labs); two terms
Prerequisite: OAC French. Not open to Francophones.
Enrolment is limited.
Students with prior knowledge of the language, as determined by a placement test, may be required to enrol in an appropriate alternative.
FRENCH 2B03  FRENCH LANGUAGE PRACTICE I
A course designed to improve competence in oral and written expression. Written proficiency includes the study of vocabulary, grammar, and composition. The oral component will stress listening, comprehension, and conversational proficiency.
Four hours (including one oral French tutorial); one term
Prerequisite: FRENCH 1A06 or 1N06 or 2M06

FRENCH 2BB3  FRENCH LANGUAGE PRACTICE II
Continuation of FRENCH 2B03.
Four hours (including one oral French tutorial); one term.
Prerequisite: FRENCH 2B03 with a grade of at least C-

FRENCH 2E03  LITERATURE OF QUEBEC
Selected novels, plays, and poems representative of the main currents of Quebec literature.
Three hours; one term
Prerequisite: FRENCH 1A06 or 1N06 or 2M06

FRENCH 2G03  FRENCH LANGUAGE PRACTICE: ELEMENTARY TRANSLATION
An introduction to translation techniques (French to English and English to French) and to the use of pertinent reference material.
Three hours; one term
Prerequisite: A grade of at least B- in FRENCH 1A06 or 2M06 or B+ in 1N06 and registration in a French programme
Enrolment is limited.

FRENCH 2H03  INTRODUCTION TO FRENCH LINGUISTICS I
A view of language as system (Saussure, Jakobson, Martineau). Descriptive vs. prescriptive approaches to language studies will be considered, with stress on the French speaking world. Speech sounds (phonetics) and their systematic patterning (phonology), mainly with application to French, will also be examined.
Three hours; one term
Prerequisite: FRENCH 1A06 or 1N06 or 2M06

FRENCH 2I03  19TH-CENTURY FRENCH LITERATURE I
Aspects of the development of 19th century French literature up to 1848.
Three hours; one term
Prerequisite: FRENCH 1A06 or 1N06 or 2M06

FRENCH 2J03  19TH-CENTURY FRENCH LITERATURE II
Aspects of the development of 19th century French literature after 1848.
Three hours; one term
Prerequisite: FRENCH 1A06 or 1N06 or 2M06

FRENCH 2M06  INTRODUCTION TO FRENCH STUDIES: ADVANCED LEVEL
Review of grammar, oral and written practice, and introduction to literary analysis.
Four hours (including one oral French tutorial); two terms
Prerequisite: FRENCH 1N06 or 2Z06
Antirequisite: FRENCH 1A06

FRENCH 2N03  INTRODUCTION TO THE CIVILIZATION OF FRANCE
The study of contemporary France through a selection of texts and audiovisual materials.
Three hours; one term
Prerequisite: FRENCH 1A06 or 1N06 or 2M06

FRENCH 2P03  20TH-CENTURY FRENCH LITERATURE I
Aspects of the development of 20th-century literature to the end of the Second World War.
Three hours; one term
Prerequisite: FRENCH 1A06 or 1N06 or 2M06

FRENCH 2W03  20TH-CENTURY FRENCH LITERATURE II
Aspects of the development of 20th-century literature since the Second World War.
Three hours; one term
Prerequisite: FRENCH 1A06 or 1N06 or 2M06

FRENCH 2Z06  BEGINNER'S INTENSIVE FRENCH II
A sequel to FRENCH 1Z06. Review of grammatical structures. Expansion of vocabulary. Conversation practice. Study of texts with class discussions. The normal sequel to this course is FRENCH 2M06. This course cannot be applied toward a Minor in French.
Five hours (including three computer labs); two terms
Prerequisite: FRENCH 1Z06
Enrolment is limited.

FRENCH 3A03  EVOLUTION OF THE FRENCH LANGUAGE
This course will be based on treatises of the French language dating from the Middle Ages to the present and will show how French has changed over the centuries. The subject matter is divided into four modules treating vocabulary, syntax, verb forms and spelling from a historical point of view.
Three hours; one term
Prerequisite: FRENCH 2BB3
Alternates with FRENCH 3SS3.

FRENCH 3A03  THE MODERN FRENCH-CANADIAN NOVEL
Representative novels by contemporary authors with emphasis upon the relationship between technique and meaning.
Three hours; one term
Prerequisite: Six units of French beyond Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 3C03  FRENCH LANGUAGE PRACTICE: WRITTEN
Advanced grammar and composition; introduction to stylistics.
Three hours; one term
Prerequisite: FRENCH 2BB3 with a grade of at least C- Students may repeat FRENCH 3C03 to improve their grade.

FRENCH 3C3  FRENCH LANGUAGE PRACTICE: INTERMEDIATE TRANSLATION
A course designed for the systematic translation of texts from English to French, including comparative stylistics, with special reference to problems in the translation of texts of a general nature.
Three hours; one term
Prerequisite: FRENCH 2BB3 and 2G03; each with a grade of at least B-
Enrolment is limited.

FRENCH 3F03  FRENCH LANGUAGE PRACTICE: CIVILIZATION AND CULTURE
An introduction to contemporary French society through oral discussions and presentations.
Three hours; one term
Prerequisite: FRENCH 2BB3. Not available to Francophone students with native fluency.
Enrolment is limited.

FRENCH 3G03  FRENCH LANGUAGE PRACTICE: TRANSLATION FROM FRENCH TO ENGLISH
The emphasis will be on inferencing strategies and stylistic comparisons between the two languages. Translation materials will be drawn from contemporary magazines such as L'Express, Le Nouvel Observateur and L'Actualité.
Three hours; one term
Prerequisite: FRENCH 2G03
Enrolment is limited.

FRENCH 3H03  INTRODUCTION TO FRENCH LINGUISTICS II
The study of word formation (morphology), sentence structure (syntax) and meaning (semantics). Contemporary French will be the primary data for all three components. Both functional and formal approaches will be examined.
Three hours; one term
Prerequisite: FRENCH 2B03; FRENCH 2H03 and/or LINGUIST 1A03 and 1AA3 (or 1A06) are recommended.

FRENCH 3K03  18TH-CENTURY FRENCH LITERATURE
The early 18th century with Voltaire, Montesquieu, and the early writings of Voltaire.
Three hours; one term
Prerequisite: Six units of French beyond Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 3K3  18TH-CENTURY FRENCH LITERATURE II
Texts representing the main aspects of Enlightenment thought and literature from the publication of the preliminary discourse of the Encyclopédie to the Revolution.
Three hours; one term
Prerequisite: Six units of French beyond Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 3Q03  17TH-CENTURY FRENCH LITERATURE I
A study of selected plays by Corneille, Molière and Racine.
Three hours; one term
Prerequisite: Six units of French beyond Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 3Q03  17TH-CENTURY FRENCH LITERATURE II
A consideration of selected themes as they appear in the works of major French writers of the 17th century.
Three hours; one term
Prerequisite: Six units of French beyond Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 3SS3  STUDIES IN MEDIEVAL LANGUAGE AND CIVILIZATION
An exploration of the particular characteristics of Old French through a selection of Medieval texts representative of the civilization of the period (chivalry, courtly love, feasts and rituals).
Three hours; one term
Prerequisite: FRENCH 2BB3

FRENCH 3Z03 AFRICAN AND CARIBBEAN FRENCH LITERATURES
Three hours; one term
Prerequisite: FRENCH 1A06 or 2M06 or registration in a French programme

FRENCH 4A03 FRENCH LANGUAGE PRACTICE
Advanced stylistics and composition.
Three hours; one term
Prerequisite: A grade of at least B- in FRENCH 3C03 and in registration in an Honours programme in French. Students must complete FRENCH 4A03 to graduate with an Honours or a Combined Honours B.A. in French.

FRENCH 4BB3 FRENCH LANGUAGE PRACTICE: ADVANCED TRANSLATION
Practice in the translation into French of texts of a specialized nature (e.g., administration, business, politics).
Three hours; one term
Prerequisite: FRENCH 3C03 and 3CC3

Enrolment is limited.

FRENCH 4E03 APPLIED LINGUISTICS AND SECOND-LANGUAGE LEARNING
An examination of various aspects of second language acquisition as applied to the teaching of French, with special emphasis on psycholinguistic factors.
Seminar (two hours); one term
Prerequisite: FRENCH 3E03

FRENCH 4F03 TOPICS IN 18TH-CENTURY FRENCH LITERATURE
Previous topics include: Voltaire, Theatre and Performance. Consult the Department concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: 12 units of French beyond Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 4H03 TOPICS IN LINGUISTICS
Previous topics include: Lexicology, Pragmatics, Sociolinguistics. Consult the Department concerning topic to be offered.
Seminar (three hours); one term
Prerequisite: FRENCH 2H03

FRENCH 4I03 TOPICS IN FRENCH POETRY
Previous topics include: Twentieth-Century Poetry, Poets and Humour, Object Poetry. Consult the Department concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: 12 units of French beyond Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 4I03 may be repeated, if on a different topic, to a total of six units.

FRENCH 4J03 FRENCH SOCIOLINGUISTICS
The study of linguistic variations within French-speaking communities with special emphasis on sociolinguistic issues arising in multilingual societies (Africa, America, Europe...).
Three lectures; one term
Prerequisite: FRENCH 3J03
Antirequisite: FRENCH 3I03

FRENCH 4J03 FRENCH LITERATURE OF THE RENAISSANCE
Characteristic themes of Renaissance humanism as they appear in the works of Rabelais, Montaigne, and selected poets.
Three hours; one term
Prerequisite: 12 units of French beyond Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 4L03 TOPICS IN FRENCH AFRICAN AND CARIBBEAN FRENCH LITERATURES
Previous topics include: Contemporary Caribbean Writers, Literature of Senegal. Consult the Department concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: 12 units of French beyond Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 4L03 may be repeated, if on a different topic, to a total of six units.

FRENCH 4M03 THE 18TH-CENTURY FRENCH NOVEL
A study of the genesis and themes of representative 18th-century novels.
Seminar (two hours); one term
Prerequisite: 12 units of French beyond Level I, excluding FRENCH 2M06 and 2Z06

Note:
The following course, of interest to students of French, is offered by the School of the Arts (formerly School of Art, Drama and Music): DRAMA 3TT3 Topics in National Cinemas II (French Cinema will be a frequent topic of this course).

FRENCH 4N03 TOPICS IN THE FRENCH NOVEL
Previous topics include: Emile Zola, Balzac's Novels: History and Fiction. Consult the Department concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: 12 units of French beyond Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 4N03 may be repeated, if on a different topic, to a total of six units.

FRENCH 4O03 20TH-CENTURY FRENCH THEATRE
A study of the ideas and dramatic techniques of the playwrights of the modern period who have influenced the development of today's theatre in France.
Three hours; one term
Prerequisite: 12 units of French beyond Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 4O03 TOPICS IN 17TH-CENTURY FRENCH LITERATURE
Previous topics include: Corneille, Racine, Moliere. Consult the Department concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: FRENCH 3G03

FRENCH 4G03 TOPICS IN 17TH-CENTURY FRENCH LITERATURE
Previous topics include: Women's Writing, The Essay, Gay and Lesbian Writers of Quebec. Consult the Department concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: FRENCH 3G03

FRENCH 4T03 INDEPENDENT STUDY
The student will prepare under the supervision of a faculty member a research paper involving independent research in an area of study in which the student has already demonstrated a high level of basic knowledge.
Prerequisite: Registration in Level IV of an Honours programme in French and permission of the FRENCH 4T03 Committee

FRENCH 4U03 TOPICS IN FRENCH-CANADIAN LITERATURE
Previous topics include: Fiction and Postmodern Cultural Theories, Women Writers of Quebec. Consult the Department concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: 12 units of French beyond Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 4U03 may be repeated, if on a different topic, to a total of six units.

FRENCH 4X03 LINGUISTICS AND LITERATURE
General linguistics applied to literary analysis. Includes narrative structures, pragmatics and sign theory.
Seminar (two hours); one term
Prerequisite: 12 units of French beyond Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 4Y03 TOPICS IN 20TH-CENTURY FRENCH LITERATURE
Previous topics include: Women's Writing, The Essay, Gay and Lesbian Novel in France. Consult the Department concerning topic to be offered.
Seminar (three hours); one term
Prerequisite: 12 units of French beyond Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 4Y03 may be repeated, if on a different topic, to a total of six units.

GEOGRAPHY AND GEOLOGY
WEB ADDRESS:
http://www.science.mcmaster.ca/geo/geomain.html
Burke Science Building, Room 311
Ext. 23533

Faculty as of January 15, 2001

Director
John J. Drake
Associate Director
Susan J. Elliott
1. The Honours Environmental Science (B.Sc.), Honours Environmental Science Co-op (B.Sc.), Honours Geography (B.Sc.) and Honours Geology (B.Sc.) programmes offered by the School of Geography and Geology are being phased out. These programmes have been replaced with the Honours Earth and Environmental Sciences (B.Sc.) and the Honours Earth and Environmental Sciences Co-op (B.Sc.) programmes. These programmes allow students to select a specialist stream in biogeosciences, geosciences or hydrosciences at the end of Level II. Specialist streams aim to fulfill the academic requirements for professional registration of Geoscientists in Ontario. Students should seek academic advice from the School during March counselling in Level II to ensure that their course choices are appropriate.

2. Course codes including the letter L indicate a non-science course.

3. Students are advised that not all courses will be offered in every year.

Courses

**ENVR SC 1A03**

** ATMOSPHERE AND HYDROSPHERE**

Formerly: ENVR SC 1H03, GEO 1A03

An introduction to the processes involved in weather, climate and surface waters with a focus on the human impacts on these processes.

Two lectures, one tutorial, one lab; one term

Antirequisite: ENVR SC 1A06, 1H03, GEO 1A03, GEOG 1C03

**ENVR SC 1B03**

**THE LIVING ENVIRONMENT**

Formerly: GEO 1B03

Characteristics of the biosphere and introduction to major environmental processes and issues.

Two lectures, one tutorial, one lab; one term

Antirequisite: ENVR SC 1A06, GEO 1B03

**ENVR SC 1G03**

**EARTH AND THE ENVIRONMENT**

Formerly: GEO 1G03

An introduction to environmental geology and geomorphology through study of the processes that form the earth and its surface features. A mandatory Saturday field trip will be held.

Two lectures, one tutorial, one lab; one term

Antirequisite: ENVR SC 1A06, GEO 1G03, GEOG 1G03, GEOLOGY 1C03

**GEO 1H03**

** GEOGRAPHY OF THE HUMAN ENVIRONMENT**

Formerly: GEO 1H06

Introduction to human-environment relations and spatial analysis with special emphasis on urban, social, health and cultural environments.

Two lectures, one lab (two hours); one term

Antirequisite: GEO 1B06, GEOG 1B06

**GEO 1H13**

** URBAN ECONOMIC GEOGRAPHY**

Formerly: GEO 1H16

Basic principles in spatial analysis and location theory applied to the changing urban, economic and environmental patterns of development and urbanization at the local, national and international scale.

Two lectures, one lab (two hours); one term

Antirequisite: GEO 1B06, GEOG 1B06

**GEO 2A03**

** INTRODUCTION TO ENVIRONMENTAL ISSUES**

An introduction to environmental issues, perspectives and models in environmental studies at local, regional, national and international scales.

Two lectures, one lab (two hours); one term

Prerequisite: One of ENVR SC 1A03, 1A06, 1B03, 1G03, 1H03, GEO 1A03, 1B03, 1G03, 1H06, 1H03, 1H05, GEOG 1B06, 1C03, 1G03

**GEO 2B03**

** SOILS AND THE ENVIRONMENT**

An introduction to the physical, chemical and biological properties of soil. Application to environmental and land use impacts.

Two lectures, one lab (three hours); one term

Prerequisite: One of ENVR SC 1A03, 1A06, 1B03, 1G03, 1H03, GEO 1A03, 1B03, 1G03, 1H05, GEOG 1B06

**GEO 2C03**

** SURFACE CLIMATE PROCESSES AND ENVIRONMENTAL INTERACTION**

The surface heat and water balance of natural and human-modified landscapes. Emphasis on interactions of people and the biosphere with climate.

Two lectures, one lab (two hours); one term

Prerequisite: One of ENVR SC 1A03, 1A06, 1B03, 1G03, 1H03, GEO 1A03, 1B03, 1G03, GEOG 1C03

Antirequisite: GEOG 2F03

**GEO 2E03**

** EARTH HISTORY**

Geological evolution of the Earth and palaeontological evidence for the evolution of marine life, with emphasis on the geological history of North America.

Two lectures, one lab (three hours); one term

Prerequisite: One of ENVR SC 1A06, 1B03, GEO 1G03, GEOG 1G03, GEOLOGY 1C03

Antirequisite: GEOLOGY 2C03
GEO 2G03  FLUVIAL ENVIRONMENTS, PROCESSES AND LANDFORMS
The effects of moving water on the earth's surface: principles of sediment
entainment and transport, fluvial flow, and analysis of the resulting landforms.
Two lectures; one lab (two hours); one term
Prerequisite: One of ENVIR SC 1A03, 1A06, 1G03, 1H03, GEO 1A03,
1G03, GEOG 1G03, GEOLOGY 1C03
Antirequisite: GEOG 2I03

GEO 2GG3  THE SHIFTING EARTH
A study of the long and short term processes that change the face of the earth
including landslides, river erosion and glaciation.
Three lectures; one term

GEO 2HA3  LOCATIONAL ANALYSIS
Spatial location theory and spatial analysis methods as related to the
siting of resource, manufacturing, and service activities.
Two lectures, one lab (two hours); one term
Prerequisite: One of GEO 1H66, 1H53, 1H03, GEOG 1B06
Antirequisite: GEOG 2B03

GEO 2HC3  CANADA
The geography of Canada emphasizing the economic and social geography
of regions and current development issues.
Three lectures; one term
Antirequisite: GEOG 2E03

GEO 2HD3  URBAN HISTORICAL GEOGRAPHY
The historical development of cities with particular reference to old world
origins, and focusing on North America since 1850.
Two lectures, one lab (two hours); one term
Antirequisite: GEOG 2B03

GEO 2HR3  RESEARCH METHODS IN SOCIAL GEOGRAPHY
An introduction to research methods in social geography. Emphasis is
placed on the application of various methods to understanding human
spatial behaviour.
Two lectures, one lab (two hours); one term
Prerequisite: One of GEO 1H66, 1H53, 1H03, GEOG 1B06
Antirequisite: ANTHROP 2203, GEOG 2R03, 2RR3, GERON'T 2C03,
HEALTH 2B03, SOCIOLOGY 2203

GEO 2HU3  THE UNITED STATES OF AMERICA
The physical and economic geography of the United States.
Three lectures; one term
Antirequisite: GEOG 2P03

GEO 2HY3  CITIES IN A CHANGING WORLD
Key themes, perspectives and concepts in urban geography. Emphasis is
placed on the relationship between urban space and processes of economic,
political, cultural and environmental change.
Two lectures, one tutorial (one hour); one term
Prerequisite: One of GEO 1H66, 1H53, 1H03, GEOG 1B06
Antirequisite: GEOG 2I03

GEO 2I03  GIS AND DIGITAL CARTOGRAPHY
Introduction to fundamental concepts for geographic information science,
cartographic theory and digital techniques, spatial data and data structures
and analysis of spatial data using GIS
Prerequisite: STATS 1C03 or SOC SCI 2J03

GEO 2K03  CRYSTALLOGRAPHY AND ENVIRONMENTAL MINERALOGY
Introduction to crystallography and the use of the polarizing microscope,
including an introduction to the physical properties of minerals important
to environmental science.
Two lectures, one lab (two hours); one term
Prerequisite: One of ENVIR SC 1A06, 1G03, GEOG 1G03, GEOLOGY 1C03
Antirequisite: GEOLOGY 2B06

GEO 2KK3  OPTICAL MINERALOGY AND PETROLOGY
Use of the polarizing microscope to identify the common rock-forming minerals
in thin-section. Optical properties, crystal chemistry and occurrence of these
minerals in rocks.
Two lectures, one lab (two hours); one term
Prerequisite: GEO 2K03
Antirequisite: GEOLOGY 2B06

GEO 2M04  OPTICAL CRYSTALLOGRAPHY AND MINERALOGY
Elementary optical theory with applications to, and descriptive study of,
the common rock-forming minerals. Introduction to crystal chemistry.
Two lectures, one lab (two hours); in parts of both terms
Prerequisite: Open only to students registered in Materials Engineering
or Materials Science
Antirequisite: GEOLOGY 2B04

GEO 2Q03  INTRODUCTION TO ENVIRONMENTAL GEOCHEMISTRY
Chemical principles applied to the understanding of processes in aquatic
and environmental systems.
Two lectures, one lab (three hours); one term
Prerequisite: CHEM 1A03

GEO 2W03  PHYSICAL HYDROLOGY: SURFACE
Hydrological processes including precipitation, snowmelt, slope runoff,
streamflow and hydrological data analysis.
Two lectures, one lab (two hours); one term
Prerequisite: STATS 1C03 or SOC SCI 2J03 and one of ENVIR SC 1A06,
1A03, 1B03, 1G03, 1H03, GEO 1A03, 1B03, 1G03, GEOG 1C03, 1G03,
GEOLOGY 1C03
Antirequisite: GEOG 3W03

GEO 2W3  WATER AND THE ENVIRONMENT
Selected environmental issues related to water, including floods and
droughts, irrigation, affects of water management projects and pollution.
Examples from Canada and the world.
Three lectures; one term

GEO 3A03  ENVIRONMENTAL POLICY AND PLANNING
An exploration of the issues of environmental policy and planning as well
as the relationship between science and policy.
Two lectures, one lab (two hours); one term
Prerequisite: GEO 2A03 or registration in an Honours programme in the
School of Geography and Geology, Honours Biology or an Honours Engi-
neering and Society programme

GEO 3B03  ENVIRONMENTAL CHANGE AND THE BIOSPHERE
Past, present and future natural and anthropogenic environmental change
are examined in terms of the underling global biogeochemical cycles.
Two lectures, one lab (two hours); one term
Prerequisite: One of GEO 2B03, 2C03, BIOLOGY 2F03
Antirequisite: GEOG 3P03

GEO 3C03  CLIMATE CHANGE AND ENVIRONMENTAL IMPACTS
Possible causes for climate change including both historical and pre-historical
evidence. Impacts of climate change, focusing on the physics and chemistry
of these impacts.
Two lectures, one lab (two hours); one term
Prerequisite: GEO 2C03

GEO 3CC3  EARTH'S CHANGING CLIMATE
The earth's climatic history including natural causes of past climate change
and human influences on climate will be explored.
Three lectures; one term
Prerequisite: Registration in Level III or above

GEO 3D03  GEOARCHAEOLOGY
Human interaction with the landscape; effect on the earth's surface,
modification of environment and biosphere; gearchaeological record of
this interaction.
Three lectures; one term
Prerequisite: Registration in Level III or above

GEO 3E03  SEDIMENTARY ENVIRONMENTS
Sedimentary, stratigraphy and depositional environments of clastic and
carbonate systems.
Two lectures, one lab (two hours); one term
Prerequisite: GEO 2E03
Antirequisite: GEOLOGY 3F03

GEO 3F03  FIELD METHODS
Introduction to field methods and field equipment used in physical geography
and environmental science. A portion of this course occurs outside the regular
academic term, usually the week preceding the start of term in September;
details and applications are available in March. Enrolled students enrolling in
this course must pay both the incidental fees as prescribed by the School and the
regular tuition fees.
Prerequisite: One of ENVR SC 1G03, GEO 1G03, GEOG 1G03 and registration in Level III or above of an Honours programme in the School of Geography and Geology. 
Prerequisite: (Beginning in 2002-2003): GEO 2E03 and registration in Level III or above of an Honours programme in the School of Geography and Geology. 
Antirequisite: GEOG 3E03

**GEO 3F93 FIELD CAMP**
A field camp of about two weeks duration usually held prior to the start of term in September, normally taken at the level of 2500. Students enrolling in this course must pay both the incidental fees, as prescribed by the School, and the regular tuition fees.
Prerequisite: One of GEO 1R86, 2R6, 2G03
Antirequisite: GEOG 3M03

**GEO 3H03 TRANSPORTATION GEOGRAPHY**
Principles underlying the movement of goods and people in space with discussion of its economic, social and environmental impacts.
Two lectures, one lab (two hours); one term
Prerequisite: One of GEO 1R86, 1H83, 1HJ3, GEOG 1B06 or ECON 1A06
Antirequisite: GEOG 3D03

**GEO 3H3 RESOURCES AND ENVIRONMENTS**
The development and movement of glaciers, glacial depositional processes and sedimentary successions in terrestrial, lacustrine and marine environments.
Two lectures, one lab (two hours); one term
Prerequisite: One of GEO 1H86, 1H83, 1HJ3, GEOG 1B06 or ECON 1A06
Antirequisite: GEOG 3G03

**GEO 3H3 FIELD STUDY IN HUMAN GEOGRAPHY**
Introduction to field research in Human Geography, usually in the Hamilton area.
Prerequisite: GEO 2R6, 2G03
Prerequisite: (Beginning in 2002-2003): GEO 2R6 and registration in Level III or above of an Honours programme in the School of Geography and Geology. 
Antirequisite: GEOG 3H03

**GEO 3H3 POPULATION GROWTH AND DISTRIBUTION**
Facts, theories, and major issues about the growth and distribution of human population.
Three lectures; one term
Prerequisite: One of GEO 1R86, 1H83, 1HJ3, GEOG 1B06
Antirequisite: GEOG 3G03

**GEO 3H3 GEOGRAPHY OF HEALTH AND HEALTH CARE**
An understanding of transitions in health geography and an exploration of the determinants of health including the social environment, the physical environment and health care services.
Two seminars; one term
Prerequisite: One of GEO 1R86, 1H83, 1HJ3, GEOG 1B06
Antirequisite: GEOG 3H03

**GEO 3H3 GEODES OF JAPAN**
Human and physical geography of Japan with emphasis on historical, international, demographical and economic aspects.
Three lectures; one term
Prerequisite: One of GEO 1R86, 1H83, 1HJ3, GEOG 1B06 or registration in a Japanese Studies programme
Antirequisite: GEOG 3J03

**GEO 3R3 GEOGRAPHY OF A SELECTED WORLD REGION**
The study of an area outside of North America which will include topics in physical and human geography.
Three lectures; one term
Prerequisite: GEO 3R3 may be repeated, if on a different topic, with permission of the School of Geography and Geology during March Counselling.

**GEO 3HT3 GEOGRAPHY OF PLANNING**
A review of historical and contemporary approaches to city and regional planning problems.
Two lectures, one lab (two hours); one term
Prerequisite: One of GEO 2H43, 2H58, 2H73
Antirequisite: GEOG 3T03

**GEO 3K03 URBAN MODELS AND POLICY ANALYSIS I**
A survey of modern literature on urban spatial structure. Topics include morphology, adjustments to change, and such phenomena as sudden urban growth and the decline of central cities.
Two lectures; one lab (two hours); one term
Prerequisite: One of ECON 2G03, 2L06, GEO 2H58
Cross-list: ECON 3K03
Antirequisite: GEOG 3K03

**GEO 3K3 URBAN SOCIAL GEOGRAPHY**
The social geography of North American cities. Topics include commuting, segregation, inner-city gentrification, suburban development.
Lectures and seminars; one term
Prerequisite: GEO 2H43. GEO 2H58 and 2H73 are recommended.
Antirequisite: GEOG 3K03

**GEO 3L3 APPLIED GIS**
Practical and conceptual issues surrounding spatial databases. Advanced use of raster and vector data structures, data automation and visualization, terrain modelling and GIS simulation through object oriented programming. 
Two lectures, one lab (two hours); one term
Prerequisite: GEO 2K03 with a minimum grade of C+
Antirequisite: GEOG 3N03

**GEO 3K3 GEODES OF WESTERN EUROPE**
Principles of the history of cartography and the development of cartographic techniques and the production of maps.
Two lectures, one lab (two hours); one term
Prerequisite: GEO 2K03
Antirequisite: GEOG 3K03, 3K08

**GEO 3K3 ENVIRONMENTAL PALEONTOLOGY**
Paleontology as a paleoenvironmental indicator; important fossil groups, paleoecology and taphonomy will be emphasized.
Two lectures, one lab (three hours); one term
Prerequisite: One of GEO 2E03, 2P03

**GEO 3J03 GEOCHEMISTRY**
Chemical composition of the earth including geochemistry, global cycles, ocean chemistry, radiogenic and stable isotope systematics, geochronology and analytical techniques.
Three lectures; one term
Prerequisite: One of ENVR SC 1G03, GEO 1G03, GEOG 1G03, GEOLOGY 1C03 and one of CHEM 2P03, 2P06, 2P08, GEO 2G03 or permission of the instructor.
Antirequisite: GEOG 3J03

**GEO 3J03 RESEARCH DESIGN AND DISSEMINATION**
Introduction to the scientific research, data analysis, and writing. Research in geography with a focus on the writing of theses and articles.
Two lectures, one lab (two hours); one term
Prerequisite: Registration in Level III or above of an Honours programme in the School of Geography and Geology.
Antirequisite: GEOG 3J03

**GEO 3L03 INTRODUCTION TO STATISTICAL ANALYSIS**
An introduction to the use of statistical techniques for analysis of geographical data and interpretation of spatial and temporal trends. 
Two lectures, one lab (two hours); one term
Prerequisite: STATS 1CSS or SOC SCI 2J03
Antirequisite: GEOG 3L03

**GEO 3L03 ENVIRONMENTAL SYSTEMS**
Use of computer numerical models applied to solving environmental problems related to anthropogenic perturbations. Introduction to STELLA numerical simulator, statement of the problem and "what if?" scenarios.
Prerequisite: MATH 1A03, registration in a major, or any Level III Honours programme in the Faculty of Science and Engineering.
Antirequisite: CIV ENG 2J03, GEOLOGY 2K03

**GEO 3P03 ENVIRONMENTAL GEOPHYSICS**
Introduction to the principles and applications of geophysics in groundwater and environmental investigations. Practical demonstrations in magnetics, gravity, shallow seismic, radar, borehole logging, surface EM and electrical methods.
Two lectures, one lab (three hours); one term
Prerequisite: PHYSICS 1B03 and one of ENVR SC 1G03, GEO 1G03
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 3W03</td>
<td>PHYSICAL HYDROGEOLOGY</td>
<td>Mechanisms and processes of water movement in the subsurface including the saturated zone (groundwater) and the unsaturated zone (soil water). Two lectures; one lab (three hours); one term</td>
</tr>
<tr>
<td>GEO 3Y03</td>
<td>REMOTE SENSING</td>
<td>Aerial photography; passive and active satellite direction systems; image processing and interpretation procedures; application to resource exploration and environmental management. Two lectures; one lab (two hours); one term</td>
</tr>
<tr>
<td>GEO 3Z03</td>
<td>STRUCTURAL GEOLOGY</td>
<td>Introduction to mapping and geometric description of geologic structures and analysis of stress and strain in the subsurface. Two lectures, one lab (three hours); one term</td>
</tr>
<tr>
<td>GEO 4A03</td>
<td>ENVIRONMENTAL ASSESSMENT</td>
<td>Technical and policy issues involved in the production and the appraisal of environmental impact assessments. Two lectures, one lab; one term</td>
</tr>
<tr>
<td>GEO 4B03</td>
<td>WATERSHED ECO SYSTEM BIOGEOCHEMISTRY</td>
<td>A discussion of biogeochemical processes at the watershed level to examine the impact of natural and human disturbances on water quality in stream and wetland ecosystems. Two lectures, one lab (two hours); one term</td>
</tr>
<tr>
<td>GEO 4C03</td>
<td>ADVANCED PHYSICAL CLIMATOLOGY</td>
<td>This course develops energy and mass exchange processes in the near surface layer, the lower atmosphere and the earth-atmosphere interface. Sensitivities of these processes to environmental change and feedback mechanisms are examined. Seminars and individual presentations are emphasized. Two lectures; one lab (two hours) one term</td>
</tr>
<tr>
<td>GEO 4D03</td>
<td>LAND USE AND TRANSPORTATION</td>
<td>Methods for the analysis and prediction of transportation and land use patterns in cities, with applications to urban planning and pollution problems. Three lectures; one term</td>
</tr>
<tr>
<td>GEO 4E03</td>
<td>COASTAL ENVIRONMENTS</td>
<td>Coastal systems and their response to sea level change with an emphasis on the Quaternary; methods of reconstructing sea level change; environmental concerns in coastal areas. Three lectures, one lab (three hours); one term</td>
</tr>
<tr>
<td>GEO 4F03</td>
<td>FIELD COURSE</td>
<td>Detailed study of a particular aspect of physical geography, geology or environmental science in the field. Held immediately after the end of Level III or prior to Fall registration in Level IV; report to be submitted before the end of first term. Various topics and locations: details announced in March. Students enrolled in this course must pay both the incidental fees, as prescribed by the Department, and the regular tuition fees. Prerequisite: Registration in Level III, IV or V Honours B.Sc. programme in the School of Geography and Geology</td>
</tr>
<tr>
<td>GEO 4F03</td>
<td>TOPICS OF FIELD RESEARCH</td>
<td>Selected topics in field research in the Earth Sciences. Topics may vary from year to year, and the timing of the course will depend on the offerings. Details will be posted in the School. Students enrolling in this course must pay the incidental fees, as prescribed by the School, and the regular tuition fees. Prerequisite: Registration in a Level III, IV or V Honours B.Sc. programme and permission of the instructor</td>
</tr>
<tr>
<td>GEO 4H03</td>
<td>ENVIRONMENT AND HEALTH</td>
<td>Models and methods for research and policy on environment and health. One lecture/seminar (three hours); one term</td>
</tr>
<tr>
<td>GEO 4H3</td>
<td>URBAN PLACES AND URBAN DREAMS</td>
<td>The ideas of planning visionaries and the designs of city planners will be explored as responses to forces shaping cities and regions. Three lectures; one term</td>
</tr>
<tr>
<td>GEO 4K03</td>
<td>URBAN MODELS AND POLICY ANALYSIS</td>
<td>A survey of modern literature on urban issues. Topics include welfare criteria, externalities, public goods and fiscal policies. Two lectures, one lab (two hours); one term</td>
</tr>
<tr>
<td>GEO 4M03</td>
<td>ADVANCED GIS</td>
<td>Advanced methods in GIS using ARC/INFO. Topics will include raster based analysis, working with linear features, surface modelling and AML programming. Two lectures, one lab (two hours); one term</td>
</tr>
<tr>
<td>GEO 4N03</td>
<td>MINERALOGY</td>
<td>Advanced topics in crystal chemistry and mineralogy, with emphasis on mineral spectroscopies. Two lectures, one tutorial; one term</td>
</tr>
<tr>
<td>GEO 4O03</td>
<td>THE LANDSCAPE OF URBAN HOUSING</td>
<td>Historical-geographical patterns in the way housing landscapes are produced, occupied and used. The effects of planning and housing policy on the landscape. Two lectures and seminars; one term</td>
</tr>
<tr>
<td>GEO 4P03</td>
<td>INQUIRY: MINERALS AND SOCIETY</td>
<td>Case studies of mineral structures and properties with implications of practical importance. Gem and other economic minerals; workplace and environmental hazards. Two lectures, one tutorial; one term</td>
</tr>
<tr>
<td>GEO 4Q03</td>
<td>PHYSICAL AND CHEMICAL PROCESSES</td>
<td>A multidisciplinary course emphasizing the interactions of chemical, physical, geological and biological factors in controlling the chemical distribution, composition and structure of freshwater systems. A mandatory weekend field trip will be held in September. Two lectures, one lab (four hours); one term</td>
</tr>
</tbody>
</table>

Prerequisites and Antirequisites:

- Prerequisite: One of GEO 2B03, 2G03, 2W03
- Prerequisite: One of GEO 2B03, 2G03, 2W03
- Antirequisite: GEO 4E03, GEOLOGY 4A03
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- Antirequisite: GEO 4E03, GEOLOGY 4A03

Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.
GEO 4Q03 ENVIRONMENTAL GEOCHEMISTRY
Two lectures, one lab (two hours); one term
Prerequisite: GEO 3Q03
Antirequisite: GEOLOGY 4Q03

GEO 4R06 SENIOR THESIS
Students will select research topics and prepare a thesis either individually or in teams.
One seminar (two hours); two terms
Prerequisite: Registration in Level IV or V of an Honours programme in the School of Geography and Geology and a grade of at least 8+ in GEO 3R08 (or GEOG 3R03), or permission of the instructor
Antirequisite: GEO 4CC3, GEOG 4C06, 4CS3, 4V06, GEOLOGY 4K06

GEO 4S03 ADVANCED TOPICS IN SPATIAL STATISTICS
This course explores concepts and methods in visualisation, exploration and modelling of point pattern, spatially continuous data and area data.
Three hours; one term
Prerequisite: GEO 3S03

GEO 4T03 PLATE TECTONICS AND ORE DEPOSITS
Synthesis of plate tectonics, with application to crustal evolution and genesis of ore deposits.
Three lectures; one term
Prerequisite: GEO 2E03 and credit or registration in GEO 3K03
Antirequisite: GEOLOGY 4T03

GEO 4W03 HYDROLOGIC MODELLING
Principles of numerical modelling and examination of selected hydrologic models.
Two lectures, one lab (two hours); one term
Prerequisite: GEO 2W03 or 3W03
Antirequisite: GEOG 4W03

GEO 4W3 CONTAMINANT HYDROGEOLOGY
Physical and chemical aspects of the fate and transport of contaminants in soils and groundwater, including multiphase flow.
Two lectures, one lab (two hours); one term
Prerequisite: GEO 3W03

GEO 4X03 INQUIRY: CLIMATE CHANGE - A GEOLOGICAL PERSPECTIVE
Ancient and recent changes in the Earth's climate recorded in natural materials. Geological records of climatic catastrophism and cyclicity, natural causes of past change and human influences on climate.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level IV of an Honours programme in the Faculty of Science.
Antirequisite: GEOLOGY 4C03
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar:

GEO 4Z03 GEOPHYSICS I - REMOTE MAPPING METHODS
Advanced methods in regional geophysical resource mapping. Acquisition and interpretation of gravity, magnetic, radiometric and EM conductivity; map generation, advanced numerical analysis and modelling.
Two lectures, one lab (two hours); one term
Prerequisite: GEO 2E03, 3I03 and 3V03
Antirequisite: GEOLOGY 3A03
Alternates with GEO 4Z23.
Offered in 2001-2002.

GEO 4Z23 GEOPHYSICS II - SUBSURFACE IMAGING METHODS
Advanced methods in 2- and 3-D geophysical subsurface imaging and signal processing. Acquisition and interpretation of seismic, ground-penetrating radar and borehole geophysics.
Two lectures, one lab (two hours); one term
Prerequisite: GEO 2E03, 3I03 and 3V03
Antirequisite: GEOLOGY 3B03
Alternates with GEO 4Z03.

GERMAN
(SEE MODERN LANGUAGES AND LINGUISTICS, GERMAN)

GERONTOLOGY
WEB ADDRESS: http://www.socsci.mcmaster.ca/-geros/ba/
Kenneth Taylor Hall, Room 226 Ext. 24449

Faculty as of January 15, 2001

Director
C.J. Rosenthal

Professors
Carolyn J. Rosenthal (Gerontology/Sociology) B.A. (Toronto), M.A., Ph.D. (McMaster)
Ellen B. Ryan (Psychiatry/Gerontology) B.A., M.A. (Brown), Ph.D. (Michigan)

Associate Professor
Margaret Denton (Gerontology/Sociology) B.A., M.A., Ph.D. (McMaster)

Adjunct Associate Professor
John Hirdes (Health Studies and Gerontology) B.Sc., M.A., Ph.D. (Waterloo)

Assistant Professors
Lori Campbell (Gerontology) B.A., M.A. (Western Ontario), Ph.D. (Guelph)
Anju Joshi (Gerontology) B.A., M.A. (Dalhousie)
Christopher Justice (Gerontology) B.A. (Simon Fraser), M.A., Ph.D. (McMaster)

Adjunct Assistant Professor
Sherry Dupuis (Gerontology) B.Mus. (Queen's), M.A. (Waterloo), Ph.D. (Waterloo)

Associate Members
Ailian J. Bishop (English) B.A. (Rhodes, S. Africa), M.A., D.Phil. (Oxford)
Larry W. Chambers (Clinical Epidemiology and Biostatistics) B.A., M.Sc. (McMaster), Ph.D. (Memorial)
James W. Gladstone (Social Work) B.A. (McGill), M.S.W. (British Columbia), Ph.D. (Toronto)
Jenny Ploeg (Nursing) B.Sc., M.Sc. (Western Ontario), Ph.D. (Toronto), R.N.
Byron G. Spencer (Economics) B.A. (Queen's), Ph.D. (Rice)

Notes:
1. Programmes at McMaster University are administered by the Faculty of Social Sciences through the McMaster Centre for Gerontological Studies, and are coordinated and supervised by an interdisciplinary Committee of Instruction.
2. Not all gerontology courses may be offered every year. Students are advised to contact the McMaster Centre for Gerontological Studies after May 1 to determine which courses will be offered in the following academic year.
3. Gerontology students are strongly recommended to complete GERONTOL 2E03 prior to GERONTOL 3A03.
4. GERONTOL 1A06 is available for elective credit for students enrolled in a non-Gerontology programme. GERONTOL 2B03, 3A03 and 3H03 are available for elective credit for students enrolled in a non-Gerontology programme. In the case of 3A03 and 3H03 enrolment for non-Gerontology students is limited and places are assigned on first come basis.

Committee of Instruction:

Director
C. Rosenthal (Gerontology/Sociology)

J. Aronson (Social Work)
E. Badone (Religious Studies)
A. Bishop (English)
M. Denton (Gerontology/Sociology)
A. Harrison (Dean) Ex-officio
A. Hicks (Kinesiology)
C. Justice (Gerontology)
GERONTOLOGY 1A06 AGING AND SOCIETY
Introduction to gerontology using techniques and insights from a diversity of disciplines to understand issues such as aging of the Canadian population; myths and stereotypes of aging; challenges and rewards in later life; and the changing body, mind and self. Provides a deeper understanding of the meaning, experience and context of aging and later life.

Three hours (lectures, inquiry and experiential components); two terms

GERONTOLOGY 2B03 BIOLOGICAL DIMENSIONS OF HUMAN AGING
An examination of age-related changes in biology and physiology of organisms with a special emphasis on human aging. Attention will be given to the gradual deterioration of function and homeostatic controls and the maintenance of optimal operation for various organs.

Three hours (lectures); one term
Pre requisite: GERONTOLOGY 1A06
Not open to students with credit or registration in KINESIO 4S3.

GERONTOLOGY 2C03 RESEARCH METHODS IN SOCIAL GERONTOLOGY
An introduction to quantitative and qualitative research methods in social gerontology. Topics covered include research design, measurement, techniques of data collection and data analysis. Special attention will be given to how research methods may be applied in the study of aging.

Three hours (lectures and practice); one term
Pre requisite: Registration in any Gerontology programme
Antirequisite: ANTHROP 2203, GEO 2HR3, GERONTOLOGY 3C03, HEALTHST 2B03, SOCIOLOGY 2203

GERONTOLOGY 2D03 SOCIAL ASPECTS OF AGING
Explores social aspects of aging using a life course perspective. Aging is examined at both the individual and societal levels using a variety of approaches such as political economy, social constructionism, self identity, and a feminist perspective of aging.

Three hours (lectures and discussions); one term
Pre requisite: Registration in any Gerontology programme
Antirequisite: ANTHROP 2203, 2A03, 2A09
Not open to students with credit in SOCIOLOGY 3X03.

GERONTOLOGY 2E03 COMMUNICATION AND COUNSELLING WITH OLDER ADULTS
Focuses on the unique communication and counselling needs of older adults. Explores various communication issues and approaches and enables students to apply client-centred communication techniques.

Three hours (lectures and discussion, includes experiential component); one term
Pre requisite: Registration in any Gerontology programme
Antirequisite: GERONTOLOGY 4B03
(See Note 3 above.)

GERONTOLOGY 3A03 INTERNATIONAL ASPECTS OF GERONTOLOGY
Issues in gerontology in selected developed and developing countries. The course focuses on demographic changes, social, political and economic implications of population change, attitudes toward the aged, health care and social policies.

Three hours (lectures and discussions); one term
Pre requisite: GERONTOLOGY 1A06
This course may be taken as elective credit by undergraduate students registered in a non-Gerontology programme, however, enrolment for such students is limited.

GERONTOLOGY 3B03 GERONTOLOGY FIELD OBSERVATION
Directed observation of 40 hours in an approved field setting and a weekly seminar focusing on integration of theoretical knowledge and observation. Approximately four hours field observation per week, and two hours weekly seminar; one term
Pre requisite: Registration in any Gerontology Second Degree programme; or Level III or IV of any Gerontology programme
(See Note 3 above.)

GERONTOLOGY 3BB3 ADVANCED GERONTOLOGY PLACEMENT
A supervised experience linking classroom knowledge to a practice setting. Seminars focus on integration of theoretical knowledge and observation. Placement consists of approximately 60 hours of contact time.

Six hours field practicum per week, and two hours bi-weekly seminar; one term
Pre requisite: GERONTOLOGY 3B03, registration in Level III or IV of any Gerontology programme and permission of the instructor; or credit or registration in GERONTOLOGY 3B03, registration in any Gerontology Second Degree programme and permission of the instructor
(See Note 3 above.)

GERONTOLOGY 3D03 PSYCHOLOGICAL ASPECTS OF AGING
An examination of psychological aspects of aging: sensation, perception, attention, memory, intelligence, communication, personality, attitudes and mental health.

Three hours (lectures and discussion); one term
Pre requisite: Registration in any Gerontology programme
Not open to students with credit in PSYCH 3D03

GERONTOLOGY 3E03 INDEPENDENT STUDY IN GERONTOLOGY FOR FIRST DEGREE STUDENTS
The student will select a topic in gerontology for an in-depth investigation under the supervision of a faculty member and write a paper. This investigation could take several forms such as library research, field study, or a supervised experience in an applied setting.

The study will normally extend over two terms.
Pre requisite: Permission of the Course Coordinator or Programme Chair; and registration in Level III or IV of any Gerontology first degree programme
GERONTOLOGY 3E03 may be repeated, if on a different topic, to a total of six units.

GERONTOLOGY 3F03 GERONTOLOGICAL PRACTICE
Principles and methods of gerontological practice. The students will take part in the McMaster Summer Institute of Gerontology as partial fulfilment of course requirements, when offered in Term 1 of the Spring/Summer Session.

One term
Pre requisite: GERONTOLOGY 3F03; and registration in any Gerontology Second Degree programme or Level III or IV of any Gerontology programme

GERONTOLOGY 3H03 DIVERSITY AND AGING
Examines issues in gerontology related to the diversity of contemporary western societies. Aspects of diversity such as ethnicity, race, culture, disability, gender, sexual orientation, rural and urban life, and social class will be addressed.

Three hours (lectures and discussions, includes experiential components); one term
Pre requisite: GERONTOLOGY 1A06
This course may be taken as elective credit by undergraduate students registered in a non-Gerontology programme, however, enrolment for such students is limited.

GERONTOLOGY 3I03 SPECIAL TOPICS IN GERONTOLOGY
Topics may vary from year to year. Students should consult the Chair of the Committee of Instruction prior to registration concerning topics to be examined.

Three hours (lectures and discussion); one term
Pre requisite: Registration in any Gerontology programme
GERONTOLOGY 3I03 may be repeated, if on a different topic, to a total of six units.

GERONTOLOGY 3J03 AGING, WORK, RETIREMENT AND PENSIONS
An examination of the issues and concepts related to work, retirement and pensions and their implications for aging individuals and society.

Three hours (lectures and discussions); one term
Pre requisite: Registration in any Gerontology Second Degree programme, Level III or IV of any Gerontology programme; or with permission of the instructor, registration in a Labour Studies programme

GERONTOLOGY 3K03 IMAGES OF AGING
Explores themes in aging through critical analysis of representations in English literature, selected works of art, music, painting, photography and film, but with emphasis on English literature. Themes may include institutionalization, loss of autonomy, loneliness, intergenerational and other relations.

Three hours (lectures and discussion); one term
Pre requisite: Registration in any Gerontology programme
Not open to students with credit in GERONTOLOGY 3I03, SPECIAL TOPICS IN GERONTOLOGY; if the topic was Images of Aging.
GERONTOL 3Q03  ANTHROPOLOGICAL APPROACHES TO THE STUDY OF AGING
An examination of the contribution of anthropology to the study of aging with an emphasis on cross-cultural comparisons, and including an assessment of the anthropological literature relating to the biological basis of aging in modern and prehistoric populations.
Three hours (lectures and discussion); one term
Prerequisite: Six units of Social/Cultural Anthropology or registration in any programme in Gerontology
Cross-list: ANTHROP 3Q03

GERONTOL 4A06  GERONTOLOGY THESIS
Research projects with individual faculty members.
Prerequisite: GERONTOL 2C03 or 3C03 and GERONTOL 3G03 or another approved three unit statistics course; and registration in Level IV of a Combined Honours Programme in Gerontology and Another Subject

GERONTOL 4C03  SPECIAL TOPICS IN GERONTOLOGY
2001-2002: Geriatric Mental Health
Topics may vary from year to year. Students should consult the Committee of Instruction prior to registration, concerning topics to be examined.
Prerequisite: Registration in Level IV of a Combined Honours Programme in Gerontology and Another Subject or any Gerontology as a Second Degree programme

GERONTOL 4D03  CURRENT ISSUES IN GERONTOLOGY
The content of the course will vary from year to year; please consult the Chair of the Gerontology Committee of Instruction for details.
Prerequisite: Registration in Level IV of a Combined Honours Programme in Gerontology and Another Subject or any Gerontology as a Second Degree programme

GERONTOL 4E03  ADVANCED SEMINAR IN GERONTOLOGY
This course examines varied methodologies for gerontological research. With an emphasis on self-directed learning, students will learn about some of these methods in depth through individual and group projects and discussions with researchers.
Three hours (lectures and discussion); one term
Prerequisite: GERONTOL 2C03 or 3C03 and registration in Level IV of a Combined Honours programme in Gerontology and Another Subject or any Gerontology as a Second Degree programme

GERONTOL 4F06  DIRECTED RESEARCH FOR SECOND DEGREE STUDENTS
Directed study of a research problem through published materials and/or field inquiry and/or data analysis. Students will be required to write up the results of their inquiry in scholarly form.
Prerequisite: Registration in the B.A. Gerontology as a Second Degree programme

GERONTOL 4G03  INDEPENDENT STUDY IN GERONTOLOGY FOR SECOND DEGREE STUDENTS
The student will select a topic in gerontology for an in-depth investigation under the supervision of a faculty member and write a paper. This investigation could take several forms such as library research, field study, or a supervised experience in an applied setting.
Prerequisite: Registration in any Gerontology as a Second Degree programme

GERONTOL 4I03  AGING AND HEALTH
Addresses the biological, psychological and socio-political factors influencing the health of elderly persons from a broad national and international perspective.
Three hours (problem-based tutorial); one term
Prerequisite: Registration in Level IV of a Combined Honours programme in Gerontology and Another Subject or any Gerontology as a Second Degree programme
Not open to students with credit in GERONTOL 4D03, CURRENT ISSUES IN GERONTOLOGY, if the topic was Aging and Health.

GERONTOL 4S03  SOCIAL POLICY AND THE AGING POPULATION
Critical examination of the social and economic implications of the aging population and the nature of social welfare policy with respect to the elderly.
Three hours (seminar); one term
Prerequisite: Registration in Level IV of the Combined Honours Programme in Gerontology and Another Subject or any Gerontology as a Second Degree programme
Not open to students with credit in SOC WORK 4A03. Enrolment is limited.

GLOBALIZATION, SOCIAL CHANGE AND THE HUMAN EXPERIENCE

(SEE THEME SCHOOL ON GLOBALIZATION, SOCIAL CHANGE AND THE HUMAN EXPERIENCE)

GREEK

(SEE CLASSICS, GREEK)

HEALTH AND SOCIETY

(SEE MINOR IN HEALTH STUDIES, FACULTY OF SOCIAL SCIENCES)

HEALTH SCIENCES

Faculty Note:
This course listing is divided into two parts:
1. Bachelor of Health Sciences (Honours) programme courses.
2. Health Sciences courses normally available only to students registered in Nursing (A), (B) or (C) Streams or Oncology or Midwifery, as applicable.

BACHELOR OF HEALTH SCIENCES (HONOURS) ...

WEB ADDRESS: http://www.fhs.mcmaster.ca/bhsc
Health Sciences Centre, Room 1J11
Ext. 22815

Assistant Dean, Bachelor of Health Sciences (Honours)
D.G. Harnish/ B.Sc., M.Sc. (Queen’s), Ph.D. (McMaster), 3M Teaching Fellow

Note:
Detailed course descriptions are available on the programme website at http://www.fhs.mcmaster.ca/bhsc/

Courses

HTH SCI 1E03  INQUIRY
This course will initiate the development of a skill set required for life-long learning, in the context of the study of one or two health care issues.
Three hours; one term
Prerequisite: Registration in the B.H.Sc. (Honours) Programme
Note: Students entering the B.H.Sc. (Honours) programme after completion of Level I in another programme may be required to complete HTH SCI 1E03 at the discretion of the Assistant Dean of the programme.

HTH SCI 1E03  INQUIRY
A problem based course applying principles of scientific inquiry to selected health issues.
Three hours, one term
Prerequisite: HTH SCI 1E03

HTH SCI 1F03  STATISTICS
Basic statistical methods and their application to the analysis of biological and psychosocial data. Manual calculations will be discouraged; use of the computer to do statistical analysis is an explicit goal of this course.
Two lectures, one tutorial; one term
Prerequisite: OAC Calculus
Antirequisite: STAT 1C03

HTH SCI 1G03  PSYCHOBIOLOGY
This course introduces essential components of the central and peripheral nervous systems as well as key regulatory systems. Concepts such as plasticity, homeostasis, compensation and adaptation and ways in which failure of these regulatory systems can lead to illness states are examined.
Two lectures, one tutorial; one term
Prerequisite: Completion of or co-registration in BIOLOGY 1A03
Antirequisite: PSYCH 1A1A3
HTH SCI 2E03  INQUIRY II
This course will use a problem-based format to introduce major illness categories such as infectious disease, genetic diseases, cancer, and occupational/ environmental. One term.
Prerequisite: HTH SCI 1E03; completion of or registration in HTH SCI 1EE3.

HTH SCI 2F03  HUMAN PHYSIOLOGY AND ANATOMY I
An introduction to the principal organ systems including the endocrine, skin, CNS and locomotion.
Two lectures, one tutorial or one lab; one term.
Prerequisite: BIOLOGY 1A03, CHEM 1A03 and registration in the B.H.Sc. (Honours) programme or permission of the Assistant Dean, B.H.Sc. Programme. Cross-list: HTH SCI 1H03.
Antirequisite: BIOLOGY 2F03, 2J03, 3U03, KINESIOL 1A06, 1X06.

HTH SCI 2F03  HUMAN PHYSIOLOGY AND ANATOMY II
A continuation of HTH SCI 2F03 with an examination of the Immune, Cardiovascular, Respiratory, Gastrointestinal and Uro-Genital Systems. Two lectures, one tutorial or one lab; one term.
Prerequisite: HTH SCI 2F03.
Cross-list: HTH SCI 1H03.
Antirequisite: BIOLOGY 1J03, 3U03, 3U03, KINESIOL 1A06, 1X06.

HTH SCI 2G03  HEALTH CONCEPTS
This course examines concepts of health from three disciplinary perspectives: epidemiology, psychology and anthropology. Participants will apply conceptual frameworks and methods from each approach to case studies.
One lecture (two hours), one tutorial (two hours); one term.
Prerequisite: HTH SCI 1F03 or STATS 1C03.

HTH SCI 2J03  HEALTH PSYCHOLOGY
This course will provide an overview of psychological factors as they influence or result from medical conditions. Topics will include stress, psychosomatic illness, illness behaviour, compliance, and cultural influences on health related behaviours.
Two lectures, one tutorial; one term.
Prerequisite: HTH SCI 1G03 or PSYCH 1A03.

HTH SCI 2K03  CELL BIOLOGY
An examination of the relationship between cell structure and function in eukaryotic (primarily) cells.
Tutorials (three hours); Problem Based Learning and Computer Laboratories (three hours); one term.
Prerequisite: BIOLOGY 1A03 (or 1A06), CHEM 1A03 (or 1A06) and registration in the B.H.Sc. (Honours) programme or permission of the instructor.
Antirequisite: BIOLOGY 2K03.
Note: B.H.Sc. (Honours) students may elect to take either HTH SCI 2K03 or BIOLOGY 2K03 to meet programme requirements.

HTH SCI 3E03  INQUIRY III
This course will cover health-issues that are prevalent at certain times in the developmental cycle. Topics will include reproduction, health of children and adolescents, adulthood, and health care issues in the elderly.
One term.
Prerequisite: HTH SCI 2E03. Not offered in 2001-2002.

HTH SCI 3F03  STRUCTURE AND FUNCTION OF TISSUES I
Functional organization of cells into organs and organ systems will be examined at the light and electron microscope levels.
Two lectures, one lab (three hours); one term.
Prerequisite: HTH SCI 2K03.

HTH SCI 3F03  STRUCTURE AND FUNCTION OF TISSUES II
The functional organization of cells into organs and organ systems will be examined at the light and electron microscope levels.
Two lectures, one lab (three hours); one term.
Prerequisite: HTH SCI 3F03.

HTH SCI 3G03  POPULATION HEALTH
The strategies used to promote population health, the theoretical foundations for these strategies and their effectiveness as assessed at the societal, community and individual level will be examined.
Two lectures, one tutorial (three hours); one term.
Prerequisite: HTH SCI 1F03 or STATS 1C03. Not offered in 2001-2002.

HTH SCI 3H03  INQUIRY PROJECT
An opportunity to explore one or more specialized areas of Health Sciences in preparation for HTH SCI 4A09 or HTH SCI 4B06.
One tutorial/seminar session (three hours); one term.
Prerequisite: Registration in B.H.Sc. (Honours) Programme and permission of the B.H.Sc. (Honours) Programme Office.
Antirequisite: BIOCHEM 4C03, 4P03, BIOLOGY 4C09, 4F06, 4FF3, MOL BIOL 4R09, PHARMAC 4F09, PSYCH 4D06, 4E09. Not offered in 2001-2002.

HTH SCI 3I03  INTRODUCTORY IMMUNOLOGY
An introduction to humoral and cellular immunity. The molecular and cellular basis of immunity, and an introduction to immunological techniques.
Two lectures, one tutorial (two hours); one term.
Prerequisite: BIOLOGY 2B03 or HTH SCI 2K03.

HTH SCI 3J03  ADVANCED TOPICS IN IMMUNOLOGY
This course will build on knowledge of the immune system and cover selected topics such as allergy, auto-immunity, tumour, reproductive and viral immunity and AIDS.
Two lectures, one tutorial (two hours); one term.
Prerequisite: One of BIOLOGY 3X03 or HTH SCI 3I03.

HTH SCI 3L03  BIOMEDICAL ETHICS
This course will cover ethical issues that are relevant to biological sciences. Topics will include genetic engineering and cloning, genetic screening, reproductive technology and the use of behavioural strategies to alter societal behaviours.
One term.

HTH SCI 3Y03  DEATH, DISEASE AND DEGENERATION: A HISTORY OF HEALTH AND HEALTH CARE IN CANADA
Two lectures, one small group discussion (one hour); one term.
Prerequisite: Registration in Level II and above.
Cross-list: HEALTHST 3Y03, HISTORY 3Y03.

HTH SCI 4A09  THESIS
A thesis-based research project conducted under the direction and supervision of a member of the Faculty. Arrangements to enrol in HTH SCI 4A09, including agreement of the supervisor and a co-supervisor, must be made before the end of March in Level III.
Prerequisite: HTH SCI 3H03; registration in B.H.Sc. (Honours) Programme and permission of B.H.Sc. (Honours) Programme Office.
Antirequisite: BIOCHEM 4C03, 4P03, BIOLOGY 4C09, 4F06, 4FF3, MOL BIOL 4R09, PHARMAC 4F09, PSYCH 4D06, 4E09. Not offered in 2001-2002.

HTH SCI 4B06  SENIOR PROJECTS
A selection of information-based research projects conducted under the supervision of one or more members of the Faculty. Arrangements to register in HTH SCI 4B06 including agreement of faculty supervisors must be made before the end of March in Level III.
Prerequisite: HTH SCI 3H03; registration in B.H.Sc. (Honours) Programme and permission of B.H.Sc. (Honours) Programme Office.
Antirequisite: BIOCHEM 4C03, 4P03, BIOLOGY 4C09, 4F06, 4FF3, MOL BIOL 4R09, PHARMAC 4F09, PSYCH 4D06, 4E09. Not offered in 2001-2002.

HTH SCI 4C03  SCIENTIFIC THOUGHT
This course will cover the logic of science and scientific methods, how progress is defined in science, the diversity of sciences applied to health research.
One term.
HSC SCI 4C03  HEALTH RESEARCH METHODOLOGY
This course examines how scientific philosophy is operationalized into experimental design. Issues included are research questions, definition, how literature is reviewed, and how and what to measure, specific study designs and an introduction to qualitative research methods.
One term
Prerequisite: HTH SCI 4G03

HSC SCI 4F03  CLINICAL PRACTICE ENVIRONMENT
This course will include one or more placements for students. In conjunction with these placements, students will be required to compile a report on one or more health care delivery environments.
One term
Prerequisite: HTH SCI 3E03

HSC SCI 4G03  ACQUISITION AND PRESENTATION OF SCIENTIFIC KNOWLEDGE
Students will examine how health information is disseminated through formats including oral presentations, journal publications, popular media and the Internet.
One term
Prerequisite: Registration in Level III or IV of the B.H.Sc. (Honours) programme Not offered in 2001-2002.

HSC SCI 4J03  BIOCHEMICAL IMMUNOLOGY
Topically developed in Immunology: assistance to infection and immunity in health and disease. Format is small group and problem-based.
One session (two hours), one tutorial; one term
Prerequisite: One of BIOCHEM 3A03, 3B03, 3G03 or BIOLOGY 3H03 and HTH SCI 3I03 or 3I13
Cross-list: BIOCHEM 4J03, MOL. BIOL 4J03

HSC SCI 4M03  HEALTH POLICY ANALYSIS
A detailed examination of methods used to evaluate health policy by use of case-based studies.
One tutorial, three hours; one term
Prerequisite: HTH SCI 3G03

HSC SCI 4N03  HEALTH MEASUREMENT
The theory of measurement including statistical bases and assumptions of measurement, test validity and reliability and the measurement of human characteristics.
Three lectures; one term
Prerequisite: HTH SCI 1F03 or STATS 1CC3 and HTH SCI 1G03 or PSYCH 1A03. Students with a grade of less than B in either HTH SCI 1F03 or STATS 1CC3 should consult with the instructor before registering in this course.

HSC SCI 4P03  PSYCHOCLOGIC ASSESSMENT
This course will cover the techniques used to measure a variety of neuropsychologic processes.
Three lectures; one term
Prerequisite: HTH SCI 4N03

HSC SCI 4Q03  BEHAVIOURAL PHARMACOLOGY
This course will cover behavioural measures to study drug action and the physicochemical mechanisms in normal and abnormal behaviour.
One tutorial (three hours); one term
Prerequisite: BIOLOGY 3A03 or PHARMAC 3A06
Cross-list: PHARMAC 4B03

HSC SCI 4R03  NEUROBIOLOGY
This course will cover selected topics in neurobiology at the molecular and cellular level.
Two (or one) lectures, one (or two) tutorials; one term
Prerequisite: BIOLOGY 3P03
Cross-list: BIOLOGY 4T03

HSC SCI 4X03  COLLABORATION AND PEER TUTORING
An important part of our responsibility in the programme is to develop a learning community that incorporates the concepts of collaboration, peer tutoring and life-long learning. This course will consist of three units to be taken over four years and will encourage these activities, both formally and informally.
Prerequisite: Registration in the B.H.Sc. (Honours) programme

HEALTH SCIENCES
(MIDWIFERY, NURSING) ...

Note:
The following Health Sciences courses are normally available only to students registered in Nursing (A) or (B) Streams, Nurse Practitioner (C) Stream, Oncology or Midwifery, as applicable.

Courses

HSC SCI 1A06  HUMAN BIOCHEMISTRY
Term I: Introduction to protein, DNA, RNA, chromosomes and their building blocks; gene expression; proteins, carbohydrates and fats as fuels in the production of energy for living, including nutritional aspects.
Term II: DNA replication, transcription and translation; recombinant DNA technology; and the molecular biology of inherited and acquired diseases.
Lectures/problem-based tutorial (three hours); two terms
Prerequisite: Registration in Level I of the B.Sc.N. (Stream, Level III of the B.Sc.N. (Stream) or permission of the instructor.
Antirequisite: HTH SCI 1CC7

HSC SCI 1C06  SOCIAL AND CULTURAL DIMENSIONS OF HEALTH CARE
This course will increase the students' understanding of individuals, social and cultural groups in relation to health and health care. Special emphasis will be placed on understanding the social and cultural meanings of pregnancy and birth to women and their families, in particular cultural communities within Ontario.
Lectures/tutorials; two terms
Prerequisite: Registration in the Midwifery Education programme

HSC SCI 1CC7  INTEGRATED BIOLOGICAL BASES OF NURSING PRACTICE I
Through a small group, self-directed problem-based learning format, students will apply biological and biochemical principles essential to the assessment and management of health care problems.
Lecture (two hours), two problem based tutorials (two hours each), one lab (two hours); one term
Prerequisite: Permission of the instructor.
Antirequisite: HTH SCI 1A06, 1ZZ4
Normally taken concurrently with HSC SCI 3G03.

HSC SCI 1DD6  TOPICS IN BIOLOGICAL SCIENCES
This course covers basic concepts of human structure and function, genetics and embryology through lectures, demonstrations and appropriate laboratory assignments.
Lectures/tutorials; two terms
Prerequisite: Registration in the Midwifery Education programme

HSC SCI 1H03  HUMAN ANATOMY AND PHYSIOLOGY I
A study of anatomy and physiology of the communication and locomotion systems.
Lecture (two hours), lab or tutorial (three hours); one term
Prerequisite: Registration in Nursing I or permission of the instructor.
Cross-list: HTH SCI 2F03
Antirequisite: BIOLOGY 1J03, 2A03, HSC SCI 1B07, KINESIOL 1A06, 1X06

HSC SCI 1H03  HUMAN ANATOMY AND PHYSIOLOGY II
A study of the anatomy and physiology of the systems maintaining homeostasis. Lecture (two hours), lab or tutorial (three hours); one term
Prerequisite: HTH SCI 1H03 and registration in Nursing I or permission of the instructor.
Cross-list: HTH SCI 2F03
Antirequisite: BIOLOGY 1J03, 2A03, HSC SCI 1B07, KINESIOL 1A06, 1X06

HSC SCI 1ZZ4  INTRODUCTORY PHYSIOLOGY FOR POST-DIPLOMA NURSING STUDENTS
This course focuses on integrative physiology of the gastrointestinal, cardiovascular, respiratory and renal systems and how these systems maintain acid base and ionic balance and homeostasis.
Lecture (two hours), tutorial/laboratory (three hours); one term
Prerequisite: credit or registration in HTH SCI 1A06, registration in Level II of the B.Sc.N. (Stream) or permission of the instructor.
Antirequisite: HTH SCI 1CC7

HSC SCI 2B08  HUMAN BIOLOGICAL SCIENCE II
The first half of the term examines clinical microbiology and principles of pathology, and the latter half of the term examines pharmacological principles. Second term examines the central and peripheral nervous system and anatomy and physiology in the first half, and reproductive anatomy and physiology in the second half.
Two lectures (two hours each), two tutorials (two hours each), one lab (two hours), every other week; two terms
HEALTH STUDIES

Prerequisite: HTH SCI 1A06 and 1B07, or 1A06, 1Z04 and 1Z24, and registration in Level II of the B.Sc.N. (A) Stream; or HTH SCI 1A06 and 1Z24, and registration in Level IV of the B.Sc.N. (B) Stream; or permission of the instructor.

Antirequisite: HTH SCI 1C07, 1H03, 2H03

Last offered in session of 2001-2002 for BScN (A) Stream.

HTH SCI 2C07 INTEGRATED BIOLOGICAL BASES OF NURSING PRACTICE II

Continued application of biological and biochemical principles essential to the management of health care problems. Particular emphasis will be placed on introduction to principles of pharmacology and mechanisms of drug action. Lecture (two hours), two problem-based tutorials (two hours each), one lab (two hours); one term

Prerequisite: HTH SCI 1C07 or 1Z24 and registration in Level III of BScN (B) or (C) Streams or permission of the instructor

Antirequisite: HTH SCI 2A02, 2B06, 2B07, 2C02, 2DD2, 2H03, 2H03

Normally taken concurrently with NURSING 3T03.

HTH SCI 2H03 INTRODUCTORY PHARMACOLOGY

An examination of the administration, distribution, action, metabolism and elimination of drugs generally and as related to specific systems. Lecture (two hours), tutorial or clinical problem (three hours); one term

Prerequisite: HTH SCI 1A06, 1H03, 1H13 and registration in Level II of the BScN (A) Stream or permission of the instructor

Antirequisite: HTH SCI 2C06, 2C07, 2DD2

HTH SCI 2H03 INTRODUCTORY MICROBIOLOGY

An examination of the interactions of microbes in the human body including action, responses, treatment and prevention. Lecture (two hours), tutorial or lab or clinical problem (three hours); one term

Prerequisite: HTH SCI 1A06, 1H03, 1H13, 2H03 and registration in Level II of the BScN (A) Stream or permission of the instructor

Antirequisite: HTH SCI 2C06, 2C07, 2DD2

HTH SCI 3J03 HEALTH, SCIENCE AND SOCIETY

This course provides an introduction to a number of macrohealth issues including determinants of health and political, economic and social factors that influence the organization of health care systems. Nine lecture/problem-based tutorials (three hours each), guided self-study (two hours); one term

Prerequisite: Registration in Level III of the B.Sc.N. (A) Stream, or the NP (C) Stream, or Level III or IV of the B.Sc.N. (B) Stream; or registration in Level II of the Midwifery Education programme; or permission of Instructor

HTH SCI 3C04 INTRODUCTION TO RESEARCH METHODS AND CRITICAL APPRAISAL

Introduction to the principles of clinical research and statistical inference, with particular emphasis on critical assessment of research evidence (both qualitative and quantitative) as presented in the health sciences literature relevant to health care. Problem based tutorial (two and one-half hours), guided self-study (two hours) per week; one term

Prerequisite: Normally registration in Level III of the BScN (A) or (B) or NP (C) Stream or permission of the instructor; or registration in the Paediatric or Adult Oncology programmes.

Antirequisite: HTH SCI 3A03, 3M03, 3L02

HTH SCI 3L03 PRINCIPLES AND METHODS OF RESEARCH

Advanced analysis of principles of research design, with an emphasis on quantitative and qualitative methodologies. Readings and assignments focus on selected topics of interest to midwives. This course will be taught using a combination of self-directed and distance learning techniques. Self-study

Prerequisite: HTH SCI 3A03, 3M03

Antirequisite: HTH SCI 4L04

HTH SCI 3M03 CRITICAL APPRAISAL FOR MIDWIFERY

Introduction to the principles of clinical research and statistical inference with particular emphasis on critical assessment of evidence as presented in the health science literature related to the care of patients. A problem-based approach will be taken. Lecture (three hours), problem based tutorial (three hours), guided self-study (two hours); one term

Prerequisite: Registration in the Midwifery Education Programme

HTH SCI 3R03 INDEPENDENT STUDY IN A HEALTH SCIENCES TOPIC

Special topics will be considered in depth under the supervision of a faculty member. The plan of study must be negotiated with the supervisor. Lecture or equivalent (three hours); one term

Prerequisite: Registration in Level II or above of the B.Sc.N. programme; permission of the instructor and permission of the Coordinator of Studies (Nursing)

Students will not normally be permitted to apply more than one independent study course in the Health Sciences toward their elective requirements for the B.Sc.N. programme.

HTH SCI 4E06 INTRODUCTION TO HEALTH CARE LEADERSHIP/MANAGEMENT

Theories and principles of leadership and management are applied to the health care disciplines. Given in both problem based tutorial format and through distance education. Enrolment in tutorial format is limited. Problem based tutorial or equivalent (four hours); independent study at a clinical site (six hours); one term

Prerequisite: A minimum of one year clinical work experience in a health care profession or permission of the instructor

Antirequisite: NURSING 4B05

HTH SCI 4H03 ISSUES IN INTERNATIONAL AND INTERCULTURAL HEALTH

An introduction to health issues in a rural Canadian and international context including theories of: development; political economy; medical and social anthropology; and intercultural health care practice.

Three hours (lecture/probem-based tutorials); one term

Prerequisite: HTH SCI 3E03 and registration in Level III or IV of the BScN Programme or permission of the instructor

Antirequisite: NURSING 4E03

HTH SCI 4L02 RESEARCH PROJECT

Students participate in a research study. Concepts of research design, implementation and analysis and dissemination of results are studied. Approximately two hours per week; two terms

Prerequisite: HTH SCI 3A03, 3L02 and registration in Level IV of the B.Sc.N. (A) or (B) or NP (C) Stream; or permission of the instructor

Antirequisite: HTH SCI 4L04

HEALTH STUDIES

WEB ADDRESS: http://www.socsci.mcmaster.ca/healthst

Faculty as of January 15, 2001

Director:

Roy Cain

Academic Advisory Committee

Jane Aronson (Social Work)
Elisabeth Boetzkes (Philosophy)
Margaret Denton (Gerontology/Sociology)
Susan Elliott (Geography and Geology)
Mita Giaconni (Clinical Epidemiology & Biostatistics/CHEPA)
Del Harnish (Bachelor of Health Sciences Programme)
Ann Henning (Anthropology)
Jerry Hurley (Economics)
Kathleen Martin (Kinesiology)
Dorothy Pawluch (Sociology)
Carolyn Rosenthal (Gerontology/Sociology)
Eileen Schuller (Religious Studies)
Vivienne Walters (Sociology)
David Wright (History/Psychiatry)

Notes:

1. HEALTHST 1E03 and 1S03 are available to all students.
2. HEALTHST 2C03, 2D03 and 3Y03 may be taken as electives by students enrolled in Level II and above of a non-Health Studies programme.
3. HEALTHST 3C03, 3D03, 3E03, 3F03, 4C03, 4D03, 4F03 may be taken as electives by students enrolled in Level III and above of a non-Health Studies programme. Enrolment for such students is limited and places are assigned on a first come basis.
HEALTHST 1E03  INTRODUCTION TO HEALTH STUDIES: POLITICAL AND ENVIRONMENTAL CONTEXTS
An introduction to the key themes and questions in health studies, with an emphasis on the political and environmental aspects of health and illness. Topics may include: Canadian health policy; international comparison of health systems; social determinants of health; social inequality and health status; or environment and health.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level I or above of any Health Studies programme

HEALTHST 1S03  INTRODUCTION TO HEALTH STUDIES: PERSONAL AND CULTURAL MEANINGS
An introduction to the key themes and questions in health studies, with an emphasis on the personal and cultural aspects of health and illness. Topics may include: Canadian health policy; international comparison of health systems; social determinants of health; social inequality and health status; or environment and health.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level I or above of any Health Studies programme

HEALTHST 2A03  MODELS OF HEALTH AND ILLNESS
A review of the major models of health and illness (including biomedicine), and their implications for health care practice and policy. Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II or above of a Health Studies programme

HEALTHST 2B03  RESEARCH METHODS IN HEALTH STUDIES
A review of the major methodological approaches used in health studies research. The course will examine methods such as historical, qualitative, quantitative, and narrative.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II or above of a Health Studies programme

HEALTHST 2C03  INTRODUCTION TO HEALTH ECONOMICS
Economic analyses of health and health care, with a special emphasis on policy issues in the Canadian health care system.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II or above of a Health Studies programme

HEALTHST 3A03  HEALTH ISSUES
An examination of a selected health issue (such as tuberculosis, madness or healers) from various social science and humanities perspectives.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level III or above of a Health Studies programme

HEALTHST 3B03  HEALTH KNOWLEDGE
An examination of the construction of knowledge relating to health and illness from various social science and humanities perspectives. Emphasis on development of critical analysis of health knowledge.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level III or above of a Health Studies programme

HEALTHST 3C03  OCCUPATIONAL HEALTH AND SAFETY
An analysis of issues and problems associated with occupational health and safety in Canada and other industrialized countries. Topics will be examined from social, political, economic, legal and medical perspectives.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level III or above of a Health Studies programme

HEALTHST 3D03  DISABILITIES AND CHRONIC ILLNESS
An examination of issues relating to disabilities and chronic illness.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level III or above of any programme
Enrolment is limited.

HEALTHST 3E03  ETHICAL ISSUES
Ethical issues of current relevance to debates in health and health care. Topics will vary from year to year.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level III or above of any programme
Enrolment is limited.

HEALTHST 3F03  SELECTED TOPICS IN HEALTH STUDIES I
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level III or above of any programme
Enrolment is limited.

HEALTHST 3G03  DEATH, DISEASE AND DEGENERATION:
A HISTORY OF HEALTH AND HEALTH CARE IN CANADA
Explores the history of health and health care in Canada, from the first Western European settlements to the present day.
Two lectures one small group session (one hour); one term
Prerequisite: Registration in Level II or above
Cross-list: HTH SCI 3Y03, HISTORY 3Y03

HEALTHST 4A03  HEALTH STUDIES INQUIRY
Systematic inquiry of a selected topic in a problem-based seminar. Students will identify a health issue, formulate questions, conduct research and present findings.
Three hours (seminar); one term
Prerequisite: Registration in Level IV of a Health Studies programme

HEALTHST 4B03  CRITICAL PERSPECTIVES ON CONSUMING HEALTH RESEARCH
A critical examination of the consumption and use of health research. Consideration of the use of research by media, governments, and industry, and of the potential for consumer empowerment and community development.
Three hours (seminar); one term
Prerequisite: Registration in Level IV of a Health Studies programme

HEALTHST 4C03  REPRESENTATIONS OF HEALTH AND ILLNESS
An exploration of representations of health and illness in the humanities. The focus may vary from year to year, but will examine how health and illness have been represented in literature, art, drama, or music.
Three hours (seminar); one term
Prerequisite: Registration in Level IV of any programme
Enrolment is limited.

HEALTHST 4D03  HEALTH IN CROSS CULTURAL AND INTERNATIONAL PERSPECTIVES
Examination of contemporary issues in health and illness from cross cultural and international perspectives.
Three hours (seminar); one term
Prerequisite: Registration in Level IV of any programme
Enrolment is limited.

HEALTHST 4E03  ENVIRONMENT AND HEALTH
Models and methods for research and policy on environment and health.
Three hours (seminar); one term
Prerequisite: Registration in Level IV of a Health Studies programme
Cross-list: GEO 4H13

HEALTHST 4F03  SELECTED TOPICS IN HEALTH STUDIES II
An examination of selected topics in health studies. Topics may vary from year to year.
Three hours (seminar); one term
Prerequisite: Registration in Level IV of any programme
HEALTHST 4F03 may be repeated, if on a different topic, to a total of six units.
Enrolment is limited.

HEALTHST 4G06  INDEPENDENT STUDY
Independent research supervised by a faculty member.
Prerequisite: Registration in Level IV of Health Studies Programme and permission of the Director of Health Studies
Enrolment is limited.
HEALTHST 4H03  DIRECTED RESEARCH IN HEALTH STUDIES

Directed study of a research question in Health Studies under the supervision of a faculty member. A report is submitted to the supervisor upon completion of the project.

Prerequisite: Registration in Level IV of a Health Studies Programme and permission of the Director of Health Studies


HEBREW

(SEE RELIGIOUS STUDIES, HEBREW)

HISPANIC STUDIES

(SEE MODERN LANGUAGES AND LINGUISTICS, HISPANIC STUDIES)

HISTORY

Web Address:
http://www.humanities.mcmaster.ca/~history/histhome.htm
Chester New Hall, Room 619
Ext. 24270

Faculty as of January 15, 2001

Chair
Virginia Aksan

Professors
James D. Alson/B.A. (Winnipeg), M.A. (Western Ontario), Ph.D. (Cambridge), F.R.H.S.
J. Michael Gauvreau/B.A. (Laurentian), M.A., Ph.D. (Toronto)
Daniel J. Gaagari/A.B. (Boston), Ph.D. (Johns Hopkins)
Berenice M. Kaczynski/B.A. (Pittsburgh), M.Phl., Ph.D. (Yale)
John C. Wiseman/B.A. (Queen's), M.A., Ph.D. (Duke)
Daniel R. Woolf/B.A. (Queen's), D.Phl. (Oxford)

Adjunct Professor

Associate Professors
Virginia Aksan/B.A. (Alleghegy College), M.L.S. (California-Berkeley), M.A., Ph.D. (Toronto)
David P. Barrett/B.A., M.A., M.Phl. (Toronto), Ph.D. (London)
Kenneth Cruikshank/B.A. (Carleton), M.A., Ph.D. (York)
Ruth Fraser/B.A. (Rochester), M.A., Ph.D. (York)
Evan W. Haley/Ab. (Dartmouth), Ph.D. (Columbia)
David Wright/B.A., M.A. (McGill), D. Phil. (Oxford)

Assistant Professors
Martin Horn/B.A. (Western Ontario), M.A. (McMaster), Ph.D. (Toronto)
Steven Streeter/B.S. (Bates), M.A. (SUNY-Stony Brook), M.A. (California-Riverside), Ph.D. (Connecticut)
Pamela Swept/A.B. (Bryn Mawr), M.A., Ph.D. (Brown)

Adjunct Assistant Professor
Andrew Bone/bertrand Russell, Editorial Project, B.A. (Birmingham), M.A., Ph.D. (McMaster)

Associate Members
Nancy B. Bouchler/Kinesiology/B.A., M.A., Ph.D. (Western Ontario)
Peter J. George/Economics B.A., M.A., Ph.D. (Toronto), D.U., C.M. (Ottawa), C.M.
Richard S. Harris/Geography and Geology/B.A. (Cambridge), M.A. (Ohio State), Ph.D. (Queen's)

Lecturer
Karen Balcom/B.A. (Carleton), M.A. (Dalhousie)

Professors Emeriti
Alan Cassels/M.A. (Oxford), Ph.D. (Michigan), F.R.H.S.
Paul J. Fritz/B.A. (Queen's), M.A. (Wisconsin), Ph.D. (Cambridge), F.R.H.S.
Charles M. Johnston/B.A. (McMaster), M.A., Ph.D. (Pennsylvania)
Robert H. Johnston/B.A. (Toronto), M.A., Ph.D. (Yale)
Harvey A. Lefevre/B.A. (Toronto), M.S., Ph.D. (Wisconsin)
David J. Russo/B.A. (Massachusetts), M.A., Ph.D. (Yale)
John H. Trueman/B.A., M.A. (Toronto), Ph.D. (Cornell)

Department Notes:
1. The Department of History offers six Level I courses, each of which is designed to introduce the student to the study of History at the university level through the examination of an important aspect of the development of western civilization. Six units of Level I History are required for students who anticipate entering B.A. or Honours programmes in History, but students will be admitted to programmes in History from CLASSICS 1L06 (or 1L03 and 1L33), cross listed as HISTORY 1L06 (or 1L03 and 1L33). Students may take only 12 units of these Level I History courses.

2. Enrolment in any Level IV History seminar will be limited to approximately 15 students. Students must be registered in an Honours History programme to enrol in any Level IV History seminar. Preference will be given in order to students according to the following categories: Level IV Honours History and Combined Honours in History; Level III Honours History and Combined Honours in History; Level III B.A. History and others (with special permission of the Department).

3. Students interested in Ancient History are advised to examine the courses in Classics offered by the Department of Classics.

The following courses may be applied towards degree requirements in History at Levels II and III:

HUMAN 2F03 Selected Interdisciplinary Topics in Medieval Life and Culture
KINESIOL 3A03 History of Physical Culture and Sports Medicine

Courses  if no prerequisite is listed, the course is open.

HISTORY 1A03  EUROPE FROM THE RENAISSANCE TO THE FRENCH REVOLUTION
An examination of the principal themes and issues of European history from the Renaissance to the French Revolution.
Three hours (lectures and tutorials); one term
Antirequisite: HISTORY 1A06

HISTORY 1A13  EUROPE FROM THE FRENCH REVOLUTION TO THE END OF THE SECOND WORLD WAR
An examination of the principal themes and issues of European history from the French Revolution to the end of the Second World War.
Three hours (lectures and tutorials); one term
Antirequisite: HISTORY 1A06

HISTORY 1B03  AMERICA AND THE WORLD: FROM THE COLONIAL PERIOD TO THE TWENTIETH CENTURY
An examination of the development of America in relation to European national and imperial histories from the settlement period to 1900.
Three hours (lectures and tutorials); one term

HISTORY 1B03  AMERICA AND THE WORLD: THE TWENTIETH CENTURY
An examination of the global interactions among nations of the world as shaped by and shaping America.
Three hours (lectures and tutorials); one term

HISTORY 1L03  HISTORY AND ARCHAEOLOGY OF THE ANCIENT WORLD I
The history of the Ancient Near East and Greece down to the end of the 5th century B.C. based on documentary sources and archaeological evidence.
Two lectures, one tutorial; one term
Cross-list: CLASSICS 1L03
Antirequisite: CLASSICS 1L06, HISTORY 1L06
This course is administered by the Department of Classics.

HISTORY 1L03  HISTORY AND ARCHAEOLOGY OF THE ANCIENT WORLD II
The history of Greece and Rome from the 4th century B.C. to the fall of Rome based on documentary sources and archaeological evidence.
Two lectures, one tutorial; one term
Cross-list: CLASSICS 1L03
Antirequisite: CLASSICS 1L06, HISTORY 1L06
This course is administered by the Department of Classics.

HISTORY 2BB 6  WOMEN'S ROLE IN WESTERN EUROPEAN SOCIETY
An exploration of the history of European women and gender from the Medieval to the Modern periods, focusing on the political, social, intellectual, and economic realms.
Three hours; two terms
Prerequisite: Registration in Level II and above
Cross-list: WOMEN ST 2B06

HISTORY 2C06 MODERN EUROPE
An examination of major themes in 19th- and 20th-century European history up to the 1990s.
Three lectures; two terms
Prerequisite: Registration in Level II and above

HISTORY 2EA3 ISLAM AND MEDITERRANEAN SOCIETY, 600-1300
An introduction to Islamic civilization from its beginnings in Arabia to the period of the Crusades, with an emphasis on Mediterranean culture of the period.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: RELIG ST 2EA3

HISTORY 2EB3 ISLAM IN THE WORLD, 1300-1600
A survey course which emphasizes the role of Islam in the global setting in the period of the great Islamic empires.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: RELIG ST 2EB3

HISTORY 2GG3 CHINA: HISTORICAL FOUNDATIONS
Political, social and cultural background to the modern age, with emphasis on the late imperial period (1600-1900).
Three lectures; one term
Prerequisite: Registration in Level II and above

HISTORY 2I06 EUROPE IN THE MIDDLE AGES
The history of Western Europe, 400-1400 from the barbarian kingdoms to the emergence of national monarchies.
Three lectures; two terms
Prerequisite: Registration in Level II and above

HISTORY 2J06 THE HISTORY OF CANADA
A study of the major social and political forces that have contributed to the development of modern Canada.
Three hours (two lectures and discussion group); two terms
Prerequisite: Registration in Level II and above

HISTORY 2K03 THE SOCIETY OF GREECE AND ROME
A description and analysis of selected aspects of the social life of Greece and Rome. Attention will be given to subjects such as work and leisure, war and the warrior, slavery, marriage and family, and the role of women.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: CLASSICS 2K03
This course is administered by the Department of Classics.

HISTORY 2L03 HISTORY OF CLASSICAL GREECE
Greece from the rise of the city-states to Alexander, with particular attention to the political, social and cultural development in the light of literary and archaeological evidence. (No Greek or Latin required).
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: CLASSICS 2L03

HISTORY 2L3 HISTORY OF CLASSICAL rome
Rome from the middle Republic through the Empire, with particular attention to the political, social and cultural development in the light of both literary and archaeological evidence. (No Greek or Latin required).
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: CLASSICS 2L3

HISTORY 2N06 BRITISH HISTORY, 1500-1970
Emphasis will be placed on the main political, religious, economic and social developments.
Three hours (lectures and discussion groups); two terms
Prerequisite: Registration in Level II and above

HISTORY 2O06 HISTORICAL ANTECEDENTS OF GLOBALIZATION
An introduction to the history of cross-cultural trade, empires and colonization, free and forced diasporas, the disposition of flora and fauna, the spread of ideas about science and property, innovations in finance and communications. From circa 1200 to circa 1900.
Three hours (two lectures, one tutorial); two terms
Prerequisite: Registration in Level II and above
HISTORY 3E03 THE ROMAN FAMILY
The ancient Roman family, including social, economic and legal aspects. Three lectures; one term
Prerequisite: One of CLASSICS 1L06, 2K03, 2L23, 3C03, 3C06 and registration in Level III and above
Cross-list: CLASSICS 3E03
Alternates with HISTORY 3E03.
This course is administered by the Department of Classics.

HISTORY 3E03 THE GREEK HISTORIANS
The study in translation of Herodotus, Thucydides, and other Greek historical writers, with consideration of the evolution of their genre and their contributions to the development of historiography.
Three lectures; one term
Prerequisite: Registration in Level III and above
Cross-list: CLASSICS 3E03
This course is administered by the Department of Classics.

HISTORY 3F03 MEDIEVAL SOCIETY
An examination of the aristocratic, monastic, urban and rural communities of the Middle Ages. Attention will be given to patterns of social organization as well as to such specific themes as gender, popular piety, justice and warfare.
Three hours (lectures and discussion group); one term
Prerequisite: One of HISTORY 2J06, 2L03, 2L3

HISTORY 3F03 THE UNITED STATES: 1918-1950
An examination of American society and culture in the inter-war and immediate post-WW II period. Topics include the roaring 1920s, the Depression crisis, war and American society, life in a nuclear age.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above

HISTORY 3G03 BUSINESS HISTORY:
THE CANADIAN EXPERIENCE IN AN INTERNATIONAL PERSPECTIVE
An examination of major developments in the formation of the modern corporation and the international business system, including a consideration of the impact of the business system on Canadian society.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above

HISTORY 3G03 CHINA: THE REVOLUTIONARY CENTURY, 1895-1995
End of the imperial system; the Republic; the rise of the Communist Party; Communist China; the varieties of revolution.
Three lectures; one term
Prerequisite: Registration in Level II and above
Antirequisite: HISTORY 2G06

HISTORY 3H06 THE HISTORY OF MODERN RUSSIA
A survey of the history of Russia with major emphasis on the 19th and 20th centuries.
Three lectures; two terms
Prerequisite: Registration in any programme in History or Honours Russian and East European Studies

HISTORY 3H06 THE INTERNATIONAL RELATIONS OF THE EUROPEAN POWERS, 1618-1914
An examination of the post-Napoleonic settlement of 1815; its breakdown and the triumph of the national unification movements; the causes of World War I.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: PEACE ST 3H03

HISTORY 3I03 THE INTERNATIONAL RELATIONS OF THE EUROPEAN POWERS, 1914-1945
An examination of the origins and course of the First World War; the failure of post-war stabilization; and the origins and course of the Second World War.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: PEACE ST 3I03

HISTORY 3J03 THE UNITED STATES IN THE 1960s
An examination of the political, social and cultural changes that occurred in the United States during the 1960s. Topics include the civil rights struggle, Black Power movement, "The Left", opposition to the Vietnam War, counterculture, feminism and the conservative backlash.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above

HISTORY 3JJ3 CRIME, CRIMINAL JUSTICE AND PUNISHMENT IN MODERN HISTORY
A study of the changing face of the institutions of criminal justice, and of criminal behaviour, as revealed in statistical and conventional historical works. The focus will be on North America, Great Britain and France.
Three lectures; one term
Prerequisite: Registration in Level II and above

HISTORY 3K03 CANADIAN POLITICAL DEVELOPMENT SINCE 1840
An examination of the changing structure and role of the Canadian state since the Act of Union, with particular attention to the emergence of the modern regulatory and welfare state.
Three hours (lectures and discussion groups); one term
Prerequisite: HISTORY 2K03

HISTORY 3L03 THE HELLENISTIC AGE
The successors of Alexander, the world of the monarchies and their absorption into the Roman Empire. Political, cultural and social achievements in the light of modern historical research will be emphasized.
Three hours (lectures and discussion groups); one term
Prerequisite: One of HISTORY 1L08, 2L03, or six units of Classics
Cross-list: CLASSICS 3L03

HISTORY 3N03 THE HISTORY OF THE CANADIAN WORKING CLASS
An examination of social, political and economic issues shaping the development of the Canadian working class. This includes investigation of the ideological divisions, ethnic relations, and gender roles within the working class and within the labour movement.
Three lectures; one term
Prerequisite: HISTORY 2N06, or registration in a Labour Studies programme Offered in alternate years.

HISTORY 3NN3 CANADA'S REVOLUTIONS: 1939-1982
An intensive treatment, through the lenses of society, ideology and politics, of the revolutionary experience of the post war decades. The course will examine the country's transition from a prevailing conservative liberalism premised on community solidarity to a liberal democracy which exalts individual rights.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above

HISTORY 3P03 RELIGION AND SOCIETY IN CANADA
This course will examine the origin, nature and development of the major Canadian religious denominations from the 17th to the mid-20th Century.
Three hours (lectures and discussion groups); one term
Prerequisite: Registration in Level II and above Offered in alternate years.

HISTORY 3PP3 THE INDUSTRIAL REVOLUTION IN BRITAIN 1780-1914
A survey of the economic and social history of Britain from the early stages of the industrial revolution to the outbreak of the First World War.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above

HISTORY 3Q03 HISTORY OF MODERN GERMANY
This course examines the complexities of German social and political history since 1840, including World War One, Third Reich, cold war division, questions of national identity, and the peaceful revolution of 1989.
Three hours (lectures and discussion groups); one term
Prerequisite: Registration in Level II and above
Cross-list: PEACE ST 3Q03

HISTORY 3R03 EUROPE BETWEEN THE WARS, 1918-1938
This course explores the political radicalism, social transformation, and cultural experimentation which defined Europe in the roaring 1920's and the crisis-ridden 1930's.
Three hours (lectures and discussion groups); one term
Prerequisite: Registration in Level II and above

HISTORY 3RR3 WAR AND SOCIETY IN 20TH-CENTURY BRITAIN
Imperialism and Society in Britain: the impact of World War I and World War II on the British Empire.
Three hours (lectures and discussion groups); one term
Prerequisite: Registration in Level II and above

HISTORY 3SS3 ASPECTS OF THE CULTURAL HISTORY OF ENGLAND, 1500-1688
An introduction to courtly, urban, and rural culture from pre-Reformation humanism through to the Restoration era, with emphasis upon social, political and religious influences.
Three hours (lectures and discussion groups); one term
Prerequisite: Registration in Level II and above
HISTORY 3V03 MADNESS IN THE AGE OF REASON: MENTAL ILLNESS AND SOCIETY FROM 1750 TO THE PRESENT DAY
An exploration of the history of madness from the rise of the asylum to the present day.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above
Antirequisite: HEALTHST 2D03

HISTORY 3W03 HISTORY OF WOMEN IN CANADA AND THE U.S. TO 1920
This course examines key areas of women's history, such as indigenous cultures, slavery, immigration, religion, "witchcraft", the family, sexuality, paid and unpaid labour, and the first wave of the women's movement.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above
Cross-list: WOMEN ST 3G03
Antirequisite: HISTORY 3X03

HISTORY 3W03 HISTORY OF WOMEN IN CANADA AND THE U.S. FROM 1920
This course examines key areas of women's history, such as the impact of the Great Depression and the Second World War, the civil rights movement, the sexual revolution, and the second wave of the women's movement.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above
Cross-list: WOMEN ST 3G03
Antirequisite: HISTORY 3X03

HISTORY 3Y03 DEATH, DISEASE AND DEGENERATION: A HISTORY OF HEALTH AND HEALTH CARE IN CANADA
Explores the history of health and health care in Canada, from the first Western European settlements to the present day.
Two lectures one small group session (one hour); one term
Prerequisite: Registration in Level II and above
Cross-list: HEALTHST 3Y03, HTH SCI 3Y03

HISTORY 3YY3 MODERN LATIN AMERICA SINCE 1820
Liberalism, nationalism, militarism and the various revolutions will be covered as well as the U.S. role in Latin America and the Caribbean.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: PEACE ST 3J03

HISTORY 3Z03 JESUS, THE JEWISH PEOPLE AND THE BIRTH OF THE MODERN WORLD
On the lures and threats of the modern world from the early eighteenth to the early twentieth century. Topics include: Jewish philosophy in the Age of Reason, new Jewish denominations, assimilation, early Zionism, Yiddish socialism, the beginnings of modern anti-Semitism movements of cultural renewal.
Two lectures, one tutorial; one term
Prerequisite: Open to students in Level II and above
Cross-list: RELIG ST 3Z03
This course is administered by the Department of Religious Studies.

HISTORY 3ZZ3 JUDAISM AND THE JEWISH PEOPLE IN THE TWENTIETH CENTURY
Jews and Judaism in a century of catastrophe and renewal. The progress of Emancipation; Jews in Canada and the U.S.; the Jewish catastrophe in Europe; the Jewish identities in literature and the arts.
Two lectures, one tutorial; one term
Prerequisite: Open to students in Level II and above
Cross-list: RELIG ST 3Z23
This course is administered by the Department of Religious Studies.

Note:
Level IV seminars are open only to students registered in Levels III and IV of an Honours History programme. Enrollment will be limited to approximately 15 students per seminar. The Department is able to offer only a selection of the seminars listed below every year. Information on courses may be obtained from the Department. Seminar places will be allotted each March for the succeeding session; early application to the Department is essential.

HISTORY 4A06 SPECIAL TOPICS IN THE HISTORY OF TUDOR AND STUART ENGLAND
Studies in the political, religious, intellectual and social life of Tudor and Stuart England.
Seminar (two hours); two terms
Prerequisite: One of HISTORY 2W06, 3S03, or HISTORY 3TT3, and registration in Level III or IV of any Honours programme in History
Enrollment is limited. Departmental permission required.

HISTORY 4B06 MODERN CANADA, 1896-1968: AN INTELLECTUAL AND CULTURAL HISTORY
An intensive study of the shaping of the twentieth-century outlook in English-speaking Canada. Topos will include the growth of the welfare state, ideologies (liberalism, conservatism, socialism, feminism), the cultural impact of depression and the two world wars, and the role of religion in shaping the Canadian community.
Seminar (two hours); two terms
Prerequisite: HISTORY 2J06 or 3N3N, and registration in Level III or IV of any Honours programme in History
Enrollment is limited. Departmental permission required.

HISTORY 4B86 SPECIAL TOPICS IN THE HISTORY OF MODERN JAPAN
Japan from the Meiji Restoration to the post-war resurgence, with emphasis on political developments and social change.
Seminar (two hours); two terms
Prerequisite: HISTORY 3B03 and registration in Level III or IV of any Honours programme in History; or JAPAN ST 3B03 (HISTORY 3B03) with a grade of at least B- and registration in Level III or IV of the Japanese Studies programme
Enrollment is limited. Departmental permission required.

HISTORY 4D06 SPECIAL TOPICS IN GREEK HISTORY
Investigations into Greek social history and its interpretation.
Seminar (two hours); two terms
Prerequisite: Six units from HISTORY 2K03, 2L03, 3EE3, 3U03, and registration in Level III or IV of any Honours programme in History
Cross-list: CLASSICS 4D06
Enrollment is limited. Departmental permission required.

HISTORY 4E06 SPECIAL TOPICS IN THE HISTORY OF MODERN BRITAIN
Seminar (two hours); two terms
Prerequisite: One of HISTORY 2N06, 3PP3 or 3R33 and registration in Level III or IV of any Honours programme in History
Enrollment is limited. Departmental permission required.

HISTORY 4G06 SPECIAL TOPICS IN THE HISTORY OF MODERN CHINA
Aspects of the political, social, and cultural history of nineteenth- and twentieth-century China.
Seminar (two hours); two terms
Prerequisite: One of HISTORY 2B06, 2GG3 or 3GG3 and registration in Level III or IV of any Honours programme in History
Alternates with: HISTORY 4B86.
Enrollment is limited. Departmental permission required.

HISTORY 4GG6 TOPICS IN MIDDL EASTERN AND ISLAMIC HISTORY
Aspects of the social history of the Middle East and Islamic world, such as the Muslim-Christian encounter, gender and ethnicity.
Seminar (two hours); two terms
Prerequisite: One of HISTORY 2EA3, 2EB3, 3A03, 3AA3, and registration in Level III or IV of any Honours programme in History
Enrollment is limited. Departmental permission required.

HISTORY 4H05 CANADIAN WOMEN'S HISTORY
An examination of historical changes in women's roles in Canadian society, particularly since Confederation. This includes investigation of family dynamics, women's work and women's political involvement.
Seminar (two hours); two terms
Prerequisite: One of HISTORY 2J06, 3W03, 3WW3 or 3X03 and registration in Level III or IV of any Honours programme in History
Enrollment is limited. Departmental permission required.

HISTORY 4J06 SPECIAL TOPICS IN THE HISTORY OF THE UNITED STATES SINCE 1865
Seminar (two hours); two terms
Prerequisite: One of HISTORY 2H06, 2F03, 2FR3 or 3FF3 and registration in Level III or IV of any Honours programme in History
Enrollment is limited. Departmental permission required.

HISTORY 4JJ6 SPECIAL TOPICS IN THE HISTORY OF THE UNITED STATES FOREIGN RELATIONS
Topos in the history of the United States foreign relations in the modern era.
Seminar (two hours); two terms
Prerequisite: One of HISTORY 2H06, 2FR3, 3FF3 or 3KK3 and registration in Level III or IV of any Honours programme in History
Enrollment is limited. Departmental permission required.
HISTORY 4Q06 RUSSIA AND REVOLUTION
The impact of modernization upon the Soviet state and society.
Seminar (two hours); two terms
Prerequisite: History 3H06 and registration in Level III or IV of any Honours programme in History
Enrolment is limited. Departmental permission required.

HISTORY 4P06 CONTEMPORARY EUROPE
Topics in the history of Europe during the 20th Century.
Seminar (two hours); two terms
Prerequisite: Six units from History 2C06, 3H06, 3H3, 3I03, 3Q03, 3R03 and registration in Level III or IV of any Honours programme in History
Enrolment is limited. Departmental permission required.

HISTORY 4Q06 SPECIAL TOPICS IN THE HISTORY OF LATE ANTIQUITY AND BYZANTIUM
An examination of the shift from pagan to Christian paradigms in the Mediterranean world, beginning with the conversion of Constantine in 313 and ending with the fall of Constantinople in 1453.
Seminar (two hours); two terms
Prerequisite: Six units from History 2I06, 2L03, 2L13, 3F03, 3L3, 3M3, 3U3, 3V9 and registration in Level III or IV of any Honours programme in History
Enrolment is limited. Departmental permission required.

HISTORY 4T06 THE PROGRESSIVE IMPULSE IN CANADA AND THE UNITED STATES
An examination of the social and political reform movements which swept across North America from the 1890's to the 1920's, as various social groups responded to the emergence of the modern corporate economy.
Seminar (two hours); two terms
Prerequisite: One of History 2H06, 2J06, 2R03, 2R93, 3G03, 3K03 and registration in Level III or IV of any Honours programme in History
Enrolment is limited. Departmental permission required.

HISTORY 4U06 INDEPENDENT RESEARCH
A reading and/or research programme under the supervision of one member of the Department. A major paper is required, as well as a formal oral examination.
Prerequisite: Registration in Level IV of any Honours programme in History and the attainment of a CA of at least 9.0, and permission of the Department
Enrolment is limited. Departmental permission required.

HISTORY 4W06 THE NORTH AMERICAN CITY, 1700 TO THE PRESENT
An examination of: founders' designs; practices and influence of business communities; the impact of technologies and architecture; spatial organization of class and ethnicity; shelter and urban services; differences between Canadian and American cities.
Seminar (two hours); two terms
Prerequisite: History 2H06 or 2I06 or 2R03 and 2R93 and registration in Level III or IV of any Honours programme in History
Enrolment is limited. Departmental permission required.

HISTORY 4Y06 THE SECOND WORLD WAR
Emphasis will be placed on the military and diplomatic aspects of the subject.
Seminar (two hours); two terms
Prerequisite: One of History 2C06, 3I03, 3Q03 or 3R03 and registration in Level III or IV of any Honours programme in History
Enrolment is limited. Departmental permission required.

HUMANITIES (GENERAL)

Courses If no prerequisite is listed, the course is open.

INQUIRY 1H03 INQUIRY IN THE HUMANITIES
This introduction to the systematic investigation of an issue develops skills that will serve students well in their university careers. Students learn how to formulate questions, gather and interpret evidence, and reach well-considered conclusions, using, as content, a topic central to research in the Faculty of Humanities.
Three hours; one term
Prerequisite: Registration in Humanities I or Music I
Enrolment is limited.

HUMAN 2C03 CRITICAL THINKING
This course aims to improve skills in analyzing and evaluating arguments and presentations found in everyday life and academic contexts, and to improve critical judgement.
Two lectures; one tutorial; one term
Prerequisite: Registration in Level II and above

Cross-list: CMST 2W03
Antirequisite: ARTS&SCI 1B06, PHILOS 2R03
HUMAN 2C03 is administered by the Department of Philosophy.

HUMAN 2F03 SELECTED INTERDISCIPLINARY TOPICS IN MEDIEVAL LIFE AND CULTURE
The course focuses on themes promoting discussion and analysis of the roles played by women and men in the Middle Ages. Topics will include: the history of health care and life cycles; the depiction of women by Latin and vernacular writers; female/male roles in the realm of spirituality; women as patrons and performers, authors, musicians and artists in medieval society; gender issues in legislation and law enforcement.
Three lectures; one term
Prerequisite: Registration in Level II or above
HUMAN 2F03 is administered by the Department of History for 2001-2002.

HUMAN 3C03 HUMANITIES COMMUNICATION PRACTICUM
Students will study writing problems common to Level I or II writing assignments and instructional techniques for addressing them. Students will serve as writing mentors.
Three hours (tutorials and labs); one term
Prerequisite: Registration in Level III or IV of any Honours programme in the Faculty of Humanities and permission of the instructor (Dr. J. Buckley, TSH-306)
Enrolment is limited.

HUMAN 3W03 APPLIED HUMANITIES I
An opportunity for students to gain applied experience in a field related to a Humanities discipline. A student will apply skills and knowledge acquired in undergraduate studies in practical areas such as research projects, pedagogy and work placements. Students participate in defining learning goals and experiences.
Prerequisite: Registration in Level III or IV of any Honours programme offered by the Faculty of Humanities. Students must contact the Dean's Office, CNH-112, for information on opportunities that are available for the coming year.
Enrolment is limited.

HUMAN 4W03 APPLIED HUMANITIES II
An opportunity for students to gain applied experience in a field related to a Humanities discipline. A student will apply skills and knowledge acquired in undergraduate studies in practical areas such as research projects, pedagogy and work placements. Students participate in defining learning goals and experiences.
Prerequisite: Registration in Level III or IV of any Honours programme offered by the Faculty of Humanities. Students must contact the Dean's Office, CNH-112, for information on opportunities that are available for the coming year.
Enrolment is limited.

INDIGENOUS STUDIES
WEB ADDRESS: http://www.mcmaster.ca/indigenous/

Chester New Hall, Room 228
Ext. 27426

Director
D.J. Martin-Hill/B.A., M.A., Ph.D. (McMaster)
Lecturer
R. Monture/B.A., M.A. (McMaster)

Committee of Instructors
T. Deer, Mohawk Language Instructor
J. Longboat, Traditional Herbalist
I. Toulouse, Ojibwe Language Instructor

Associate Elders
W. Cooke, Ojibwe
A. General, Confederacy Chief, Six Nations
N. General, Faithkeeper, Six Nations

President's Committee on Indigenous Issues

Co-Chairs
S. Palmer (McMaster University Representative)
L. Staats (First Nations Community Representative)
## Courses

If no prerequisite is listed, the course is open.

### INDIGENOUS STUDIES...

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
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<tr>
<td>INDIG ST 1A03</td>
<td>INTRODUCTION TO INDIGENOUS STUDIES</td>
<td>An introduction to Indigenous peoples' world views from pre-contact to the Indian Act of 1876. Indigenous history and philosophy will be examined along with the issues of representation and colonialism. Three hours (lectures and seminars); one term Antirequisite: INDIG ST 1A06</td>
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<tr>
<td>INDIG ST 1A03</td>
<td>INTRODUCTION TO CONTEMPORARY INDIGENOUS STUDIES</td>
<td>This course will explore the relationship between Indigenous peoples and mainstream society in the twenty-first-century with regard to governmental policy, land claims, economic development, and self-determination. Three hours (lectures and seminars); one term Antirequisite: INDIG ST 1A06</td>
</tr>
<tr>
<td>INDIG ST 2A03</td>
<td>INTRODUCTION TO INDIGENOUS PEOPLES' SPIRITUALITY</td>
<td>This course will examine the spirituality based knowledge of Aboriginal peoples across North America. The philosophies, world view, sacred ways of knowing and relationship to the natural world will be explored. Three hours (lectures and seminars); one term Prerequisite: INDIG ST 1A03 and 1A03, or one of CAYUGA 1Z03, 1Z06, INDIG ST 1A06, MOHAWK 1Z03, 1Z06, OJIBWE 1Z03, 1Z06, or permission of the instructor Antirequisite: INDIG ST 2A06</td>
</tr>
<tr>
<td>INDIG ST 2A03</td>
<td>INDIGENOUS KNOWLEDGE AND METHODOLOGY</td>
<td>This course will explore the basis of Indigenous knowledge and how that translates into theory and methodology. It explores a range of interdisciplinary approaches based on current work of Indigenous scholars redefining the field of Indigenous research. Three hours (lectures and seminars); one term Prerequisite: INDIG ST 1A03 and 1A03, or one of CAYUGA 1Z03, 1Z06, INDIG ST 1A06, MOHAWK 1Z03, 1Z06, OJIBWE 1Z03, 1Z06, or permission of the instructor Antirequisite: INDIG ST 2A06</td>
</tr>
<tr>
<td>INDIG ST 2B03</td>
<td>HISTORY OF INDIGENOUS PEOPLES' POLITICAL ECONOMY</td>
<td>An examination of North America Indigenous People's political and economic history in the pre-contact, early contact, and colonial era within a post-colonial context. Topics will include: self-determination, resource management, land claims, and economic development. Three hours (lectures and seminars); one term Prerequisite: INDIG ST 1A03 and 1A03, or one of CAYUGA 1Z03, 1Z06, INDIG ST 1A06, MOHAWK 1Z03, 1Z06, OJIBWE 1Z03, 1Z06, or permission of the instructor</td>
</tr>
<tr>
<td>INDIG ST 2C03</td>
<td>CONTEMPORARY INDIGENOUS SOCIETIES AND ISSUES</td>
<td>A review of the geographic, cultural and demographic composition of Inuit, First Nations and Metis, and of the major current developments on land, cultural integrity, treaties, economic development, community social development and self-government. Three hours (lectures and seminars); one term Prerequisite: INDIG ST 1A03 and 1A03 (or 1A06) or permission of the instructor</td>
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<tr>
<td>INDIG ST 2D03</td>
<td>TRADITIONAL INDIGENOUS ECOLOGICAL KNOWLEDGE</td>
<td>This course is a study of the ecological teachings of Indigenous peoples and of their relationships with the natural environment in historical and contemporary times. Three hours (lectures and seminars); one term Prerequisite: INDIG ST 1A03 and 1A03 (or 1A06) or permission of the instructor</td>
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<tr>
<td>INDIG ST 2E03</td>
<td>ABORIGINAL COMMUNITY AND ECONOMIC DEVELOPMENT</td>
<td>This course will examine the infrastructure of Aboriginal Reservation and urban communities, focusing on the colonial legislation which governs their ability to achieve goals and aspirations conducive to improving standards of living. Three hours (lectures and seminars); one term Prerequisite: INDIG ST 1A03 and 1A03 (or 1A06) or permission of the instructor</td>
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<tr>
<td>INDIG ST 3C03</td>
<td>STUDY OF IROQUOIS FIRST NATIONS IN CONTEMPORARY TIMES</td>
<td>An intensive examination of the Iroquois First Nations Confederacy and its attempts to maintain its culture, socio-political systems and economic independence. Three hours (lectures and seminars); one term Prerequisite: A Level II Indigenous Studies Course or permission of the instructor</td>
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<tr>
<td>INDIG ST 3D03</td>
<td>CONTEMPORARY NATIVE LITERATURE IN CANADA</td>
<td>A study of significant works by Native writers who give voice to their experience in Canada. Issues to be examined include appropriation of voice, native identity, women in Indigenous societies, and stereotyping. Three hours (lectures and seminars); one term Prerequisite: INDIG ST 1A03 and 1A03 (or 1A06) or six units of Level I English or permission of the instructor Cross-list: ENGLISH 3W03, PEACE ST 3W03</td>
</tr>
<tr>
<td>INDIG ST 3E03</td>
<td>CONTEMPORARY NATIVE LITERATURE IN THE UNITED STATES</td>
<td>A study of contemporary works by Native writers in the United States. Native representations of voice, identity, gender, and popular culture will be examined. Three hours (lectures and seminars); one term Prerequisite: INDIG ST 1A03 and 1A03 (or 1A06) or six units of Level I English or permission of the instructor Cross-list: ENGLISH 3X03, PEACE ST 3X03</td>
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<tr>
<td>INDIG ST 3G03</td>
<td>INDIGENOUS CREATIVE ARTS AND DRAMA</td>
<td>The creative processes of Indigenous cultures are studied through the examination of selected forms of artistic expression, which may include art, music, dance and/or drama. Term two Prerequisite: INDIG ST 2A03 and 2A03 (or 2A06) or permission of the instructor INDIG ST 3G03 may be repeated, if on a different topic, to a total of nine units</td>
</tr>
<tr>
<td>INDIG ST 3H03</td>
<td>TRADITIONAL APPROACHES TO HEALING AND WELLNESS I (PHILOSOPHY)</td>
<td>This course will examine the Aboriginal concepts of health and wellness. The holistic traditional approach will be used in the classroom as well as in visits by elders, medicine people and class trips to places of health, wellness and healing. Three hours (lectures and seminars); one term Prerequisite: A Level II Indigenous Studies Course or permission of the instructor Not open to students with credit in INDIG ST 3C03, CONTEMPORARY INDIGENOUS SOCIETIES: SELECTED TOPICS, 1986-97, if the topic was Traditional Approaches to Healing and Wellness</td>
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<tr>
<td>INDIG ST 3H03</td>
<td>TRADITIONAL APPROACHES TO HEALING AND WELLNESS II (PRACTICAL)</td>
<td>This course will examine the concept of traditional medicines, their histories and their connection to Aboriginal philosophies of wellness (studied in Part I); procedures for procurement and use of the medicines will be addressed and emphasis will be placed on the reasons for efficacy. Three hours (lectures and seminars); one term Prerequisite: A Level II Indigenous Studies Course or permission of the instructor Not open to students with credit in INDIG ST 3C03, CONTEMPORARY INDIGENOUS SOCIETIES: SELECTED TOPICS, 1986-97, if the topic was Traditional Approaches to Healing and Wellness</td>
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<tr>
<td>INDIG ST 3I03</td>
<td>INDIGENOUS PEOPLES AND SOCIAL POLICY</td>
<td>Examines the evolution of colonial policies and their impact on Indigenous peoples social structures, socio-economic status and relationship with the government of Canada. The emphasis will be on the decolonization of family and community; assessing how the Indian Act and Child Welfare Act shaped the current First Nations realities and challenges. There will be a focus on gender Indigenous analysis of colonialism. Three hours (lectures and seminars); one term Prerequisite: A Level II Indigenous Studies Course or permission of the instructor</td>
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</tbody>
</table>
INDIG ST 3J03 GOVERNMENT AND POLITICS OF INDIGENOUS PEOPLES
An historical examination of the leadership and politics in Canada's Indigenous communities, with a particular focus on pre-contact political structures, the Indian Act and its consequences, and contemporary social questions.
Three hours (lectures and seminars); one term
Cross-list: POL SCI 3C03
Enrolment is limited

INDIG ST 3K03 INDIGENOUS HUMAN RIGHTS
A study of government policies and their impact on Indigenous Peoples, specifically Indian Affairs in Canada and the United States. Topics will include individual and collective rights of Indigenous Peoples and the conceptual problems which arise in a Westernized justice system.
Three hours (lectures and seminars); one term
Prerequisite: A Level II Indigenous Studies course or permission of the instructor

CAYUGA...

CAYUGA 1Z03 INTRODUCTION TO CAYUGA LANGUAGE AND CULTURE
This course will study the Cayuga language, in its spoken and written forms, in the context of Iroquoian cultural traditions, values, beliefs and customs.
Three hours (lecture and seminars); one term
Antirequisite: CAYUGA 1Z06

CAYUGA 2Z03 INTERMEDIATE CAYUGA
This course expands on the vocabulary and the oral skills for the Cayuga language. In addition, the course reviews the written component of the language.
Three hours (lecture and seminars); one term
Prerequisite: CAYUGA 1Z03 or 1Z06
Antirequisite: CAYUGA 2Z06

MOHAWK...

MOHAWK 1Z03 INTRODUCTION TO MOHAWK LANGUAGE AND CULTURE
This course will study the Mohawk language, in its spoken and written forms, in the context of Iroquoian cultural traditions, values, beliefs and customs.
Three hours (lecture and seminars); one term
Antirequisite: MOHAWK 1Z06

MOHAWK 2Z03 INTERMEDIATE MOHAWK
This course expands on the vocabulary and the oral skills for the Mohawk language. In addition, the course reviews the written component of the language.
Three hours (lecture and seminars); one term
Prerequisite: MOHAWK 1Z03 or 1Z06
Antirequisite: MOHAWK 2Z06

OJIBWE...

OJIBWE 1Z03 INTRODUCTION TO OJIBWE LANGUAGE AND CULTURE
This course will study the Ojibwe language, in its spoken and written forms, in the context of Ojibwe cultural traditions, values, beliefs and customs.
Three hours (lecture and seminars); one term
Antirequisite: OJIBWE 1Z06

OJIBWE 2Z03 INTERMEDIATE OJIBWE
This course expands on the vocabulary and the oral skills for the Ojibwe language. In addition, the course reviews the written component of the language.
Three hours (lecture and seminars); one term
Prerequisite: OJIBWE 1Z03 or 1Z06
Antirequisite: OJIBWE 2Z06

INQUIRY

Note:
These Level I courses unite the expertise of the Faculties' scholars and researchers with the University's distinctive inquiry-based approach to instruction. Students examine a key research question, as a class of no more than 25, in smaller groups, or in combination with other classes that are examining the same question in a section led by a different instructor.

INQUIRY 1H03 INQUIRY IN THE HUMANITIES
This introduction to the systematic investigation of an issue develops skills that will serve students well in their university careers. Students learn how to formulate questions, gather and interpret evidence, and reach well-considered conclusions, using, as content, a topic central to research in the Faculty of Humanities.
Three hours; one term
Prerequisite: Registration in Humanities I or Music I
Enrolment is limited.

INQUIRY 1SC3 INQUIRY IN SCIENCE I
This introduction to the systematic investigation of an issue develops skills that will serve students well in their university careers. Students learn how to formulate questions, gather and interpret evidence, and reach well-considered conclusions, using, as content, a topic central to research in the Faculty of Science.
One hour, term one; Two hours, term two
Prerequisite: Registration in Science I
Enrolment is limited.

INQUIRY 1SS3 INQUIRY IN THE SOCIAL SCIENCES
This introduction to the systematic investigation of an issue develops skills that will serve students well in their university careers. Students learn how to formulate questions, gather and interpret evidence, and reach well-considered conclusions, using, as content, a topic central to research in the Faculty of Social Sciences. Topics may vary from section to section.
Three hours; one term
Prerequisite: Registration in Social Sciences I or Kinesiology I

Note:
The following courses are upper level inquiry Courses offered by the Science Faculty. Each course deals with the systematic investigation of broad themes from various areas of science. Students will work in small groups using an interdisciplinary approach. Normally, only one of the following courses may be taken to satisfy programme requirements for Inquiry Courses. However, students who are not able to register for three units of inquiry in their own department may take a maximum of two of the following courses to meet programme requirements.

INQUIRY 4SA3 INQUIRY IN SCIENCE II (BIOCHEMISTRY)
Three hours (seminars and discussion); one term
Prerequisite: At least three units of Biochemistry and registration in Level IV of an Honours (Complementary Studies Option) programme in the Faculty of Science other than Biochemistry
Antirequisite: INQUIRY 4SB3, 4SC3, 4SD3, 4SE3, 4SF3, 4SG3, 4SH3, 4SI3
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

INQUIRY 4SB3 INQUIRY IN SCIENCE II (BIOLOGY)
Three hours (seminars and discussion); one term
Prerequisite: At least three units of Biology and registration in Level IV of an Honours (Complementary Studies Option) programme in the Faculty of Science other than Biology
Antirequisite: INQUIRY 4SA3, 4SC3, 4SD3, 4SE3, 4SF3, 4SG3, 4SH3, 4SI3
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

INQUIRY 4SC3 INQUIRY IN SCIENCE II (CHEMISTRY)
Three hours (seminars and discussion); one term
Prerequisite: At least three units of Chemistry and registration in Level IV of an Honours (Complementary Studies Option) programme in the Faculty of Science other than Chemistry
Antirequisite: INQUIRY 4SA3, 4SB3, 4SD3, 4SE3, 4SF3, 4SG3, 4SH3, 4SI3
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

INQUIRY 4SD3 INQUIRY IN SCIENCE II (COMPUTING AND SOFTWARE)
Three hours (seminars and discussion); one term
Prerequisite: At least three units of Computer Science and registration in Level IV of an Honours (Complementary Studies Option) programme in the Faculty of Science other than Computer Science
Antirequisite: INQUIRY 4SA3, 4SB3, 4SC3, 4SE3, 4SF3, 4SG3, 4SH3, 4SI3
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

INQUIRY 4SE3 INQUIRY IN SCIENCE II (GEOGRAPHY)
Three hours (seminars and discussion); one term
Prerequisite: At least three units of Environmental Science and registration in Level IV of an Honours (Complementary Studies Option) programme in the Faculty of Science other than Environmental Science
Antirequisite: INQUIRY 4SA3, 4SB3, 4SC3, 4SD3, 4SF3, 4SG3, 4SH3, 4SI3
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.
INQUIRY 4SF3 INQUIRY IN SCIENCE II
(MATHEMATICS AND STATISTICS)
Three hours (seminars and discussion); one term
Prerequisite: At least three units of Mathematics or Statistics and registration in Level IV of an Honours (Complementary Studies Option) program in the Faculty of Science other than Mathematics or Statistics.
Antirequisite: INQUIRY 4SA3, 4SB3, 4SC3, 4SD3, 4SE3, 4SF3, 4SG3, 4SH3, 4SI3
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

INQUIRY 4SG3 INQUIRY IN SCIENCE II
(PHYSICS AND ASTRONOMY)
Three hours (seminars and discussion); one term
Prerequisite: At least three units of Physics and registration in Level IV of an Honours (Complementary Studies Option) program in the Faculty of Science other than Physics.
Antirequisite: INQUIRY 4SA3, 4SB3, 4SC3, 4SD3, 4SE3, 4SF3, 4SG3, 4SH3, 4SI3
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

INQUIRY 4SH3 INQUIRY IN SCIENCE II (PSYCHOLOGY)
Three hours (seminars and discussion); one term
Prerequisite: At least three units of Psychology and registration in Level IV of an Honours (Complementary Studies Option) program in the Faculty of Science other than Psychology.
Antirequisite: INQUIRY 4SA3, 4SB3, 4SC3, 4SD3, 4SE3, 4SF3, 4SG3, 4SI3
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

INQUIRY 4SI3 INQUIRY IN SCIENCE II
(RADIATION AND LIFE)
Three hours (seminars and discussion); one term
Prerequisite: Registration in Level IV of an Honours (Complementary Studies Option) program in the Faculty of Science.
Antirequisite: INQUIRY 4SA3, 4SB3, 4SC3, 4SD3, 4SE3, 4SF3, 4SG3, 4SI3
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

ITALIAN
(SEE MODERN LANGUAGES AND LINGUISTICS, ITALIAN)

JAPANESE AND JAPANESE STUDIES
(SEE MODERN LANGUAGES AND LINGUISTICS, JAPANESE)

JEWISH STUDIES
(SEE INTERDISCIPLINARY MINORS AND THEMATIC AREAS)

KINESIOLOGY
WEB ADDRESS: http://www.kinlabserver.mcmaster.ca
Ivor Wynne Centre, Room 203 Ext. 24462

Faculty as of January 15, 2001

Chair
Janet L. Starkes

Professors
Cameron J. Blimkie/B.A., B.P.E. (McMaster), M.A., Ph.D. (Western Ontario)
Terry B. Bossard/B.A., M.A., Ph.D. (Western Ontario)
Timothy D. Lee/B.H.K., M.A. (Windsor), Ph.D. (Louisiana State)
Digby G. Sale/B.P.H.E. (Toronto), M.A. (Western Ontario), Ph.D. (McMaster)
Janet L. Starkes/B.A. (Western Ontario), M.Sc., Ph.D. (Waterloo)

Associate Professors
Nancy B. Bouchier/B.A., M.A., Ph.D. (Western Ontario)
Nicola Cipriano/B.P.H.E., M.Sc. (Lakehead)
James J. Dowling/B.H.K., M.H.K. (Windsor), Ph.D. (Waterloo)
Robert J. Henderson/B.P.E. (McMaster) M.A., Ph.D. (Alberta)

Audrey Hicks/B.P.E., M.Sc., Ph.D. (McMaster)
Susan E. Inglish/B.P.E., M.A. (Alberta), Ph.D. (Ohio State)
Mary E. Keyes/B.A., M.A. (Western Ontario), Ph.D. (Ohio State)
Cindy Flach/B.A., B.P.H.E., B.Ed., M.Sc. (Queen's), Ph.D. (Waterloo)
Mark A. Tamagoshwky/B.P.E., M.D., Ph.D., F.R.C.P., (G), (McMaster)
David C. Wilson/Cert.Ed. (St. Paul's College), B.Ed. (Bristol), M.A. (York)

Assistant Professors
Barry Bartlett/B.P.H.E. (Toronto), M.A. (Western Ontario), CATA (C)
Cameron J. Blimkie/B.A., M.A., Ph.D. (McMaster)
T. J. Digby/B.H.K. (Windsor), M.Sc. (McMaster), Ph.D. (Guelph)
Maureen J. MacDonald/B.Sc. (Acadia), M.Sc., Ph.D. (Waterloo)
Kathleen A. Martin/Ph.D. (Western Ontario), M.A. (Waterloo), Ph.D. (Waterloo)
Stuart M. Phillips/B.Sc., M.Sc. (McMaster), Ph.D. (Waterloo)

Associate Members
Oded Bar/O/Pediatrics M.D. (Hebrew Univ., Jerusalem)
Vicki Galea/Rehabilitation Science B.Sc., M.Sc. (Waterloo), Ph.D. (McMaster)
A.J. McComas/Medicine B.Sc., M.B., B.S. (Durham), F.R.C.P.(C)
Robert S. McKeelvile/Medicine B.Sc., M.Sc., M.D. (Western Ontario), Ph.D. (McMaster)
Michael Perriehowski/Rehabilitation Science B.Sc., M.Sc. (Waterloo), Ph.D. (Simon Fraser)
Laurie Wishart/Rehabilitation Science Dipl.P.T., B.Sc. (Toronto), M.Sc. (McMaster)

Professors Emeriti
Frank J. Hayden/Ph.D. (Western Ontario), M.A., Ph.D. (Illinois)
J. Duncan MacDougall/B.A., B.P.H.E. (Queen's), M.S. (Oregon), Ph.D. (Wisconsin)
Alan J. Smith/B.S.A., M.Ed. (Toronto), D.Ed. (SUNY-Buffalo)

Department Notes:
1. Kinesiology students may not register in Level III or IV Kinesiology courses until all required Level I and II Kinesiology courses have been successfully completed.
2. Not all Level III and IV Kinesiology courses are offered each year. Enrolment in some Level III and IV Kinesiology courses is limited.
3. KINESIOL 1X06 is available to all students.
4. The following courses are available for elective credit for students enrolled in Level III or above of a non-Kinesiology program: KINESIOL 3003, 3F03, 3J03, 3L03, 3M03, 3P03, 3Q03, 3S03, 3T03, 3Y03, 4D03, 4G03, 4J03, 4M03, 4T03, 4U03 and 4Z03. Enrolment for such students is limited and places are assigned on a first come basis.
5. KINESIOL 3E03 and 4P03 may be used to satisfy psychology requirements for Kinesiology students pursuing a Minor in Psychology.

Courses
All courses are open only to Kinesiology students unless otherwise specified. (See Notes 3 and 4 above.)

KINESIOL 1A06 HUMAN ANATOMY AND PHYSIOLOGY
Macroscopic and microscopic anatomy and physiology of the skeletal, muscular, nervous, cardiovascular, and respiratory systems. The basic anatomy of the integumentary, immune, digestive, endocrine and urogenital systems will also be presented.
Three hours (lectures, labs); two terms
Prerequisite: Registration in Kinesiology I
Antirequisite: BIOLOGY 4G06, HTH SCI 1H03, 1H13, 2F03, 2FF3, KINESIOL 1X05

KINESIOL 1F03 PSYCHOMOTOR BEHAVIOUR
The behavioural and psychological principles underlying motor control and motor learning.
Three hours (lectures, labs); one term
Prerequisite: Registration in Kinesiology I

KINESIOL 1F05 LIFESTYLE, RECREATION AND ACTIVITIES
An experiential course that acts as a foundation for developing a healthy and a holistic lifestyle. The course is a program requirement and includes CPR/First Aid: lectures: practical activities in the areas of games, mind-body, sport and fitness, outdoor recreation.
Two hours; one term
Prerequisite: Registration in Kinesiology I

KINESIOL 1H03 SPORT, HUMAN MOVEMENT AND CULTURE
Critical examination of contemporary issues and problems of sport in Canadian Society.
Three hours (lectures); one term
Prerequisite: Registration in Kinesiology I
Antirequisite: KINESIOL 2503
KINESIOLOGY 211

KINESIO 1X06 HUMAN ANATOMY AND PHYSIOLOGY
Macroscopic and microscopic anatomy and physiology of the skeletal, muscular, nervous, cardiovascular, and respiratory systems. The basic anatomy of the integumentary, immune, digestive, endocrine, and urogenital systems will also be presented.
Three hours (lectures, labs); two terms
Completion of OAC Biology is strongly recommended.
Antirequisite: KINESIO 1A06, HTH SCI 1H03, 1H3, 2F03, 2FF3
Not open to students registered in a Kinesiology programme, Science I, the Bachelor of Health Sciences (Honours) programme or to students with credit or registration in BIOLOGY 4G06.
Enrolment is limited.

KINESIO 2A03 BIOMECHANICS
An introduction to basic mechanical principles and concepts as applied to human physical activity and the musculoskeletal system.
Three hours (lectures, lab); one term
Prerequisite: KINESIO 1A06

KINESIO 2C06 PHYSIOLOGY OF EXERCISE
History and Philosophy
The effects of exercise on the physiological systems, and the application of physiological principles to human exercise performance.
Three hours (lectures, labs); two terms
Prerequisite: KINESIO 1A06

KINESIO 2G03 HEALTH PSYCHOLOGY
An introduction to health psychology issues including stress, exercise, weight control and diet, health promotion, addictions and coping with illness.
Three hours (lectures); one term
Prerequisite: Registration in Level II of a Kinesiology programme
Antirequisite: HTH SCI 2J03

KINESIO 2H03 HISTORY AND PHILOSOPHY OF KINESIOLOGY
A study of the origins and development of modern Kinesiology including an examination of the evolution of Kinesiology subdisciplines and areas of allied professional practice such as physical education and sports medicine.
Three hours (lectures, tutorials); one term
Prerequisite: Registration in Level II of a Kinesiology programme
Antirequisite: KINESIO 1D03

KINESIO 3A03 HISTORY OF PHYSICAL CULTURE AND SPORTS MEDICINE
Selected topics in the social and cultural history of physical culture and sports medicine in the Western World, with a particular emphasis on nineteenth and twentieth century developments in North America.
Three hours (lectures); one term
Prerequisite: Registration in Level III or above of any Kinesiology or History programme
Enrolment is limited.

KINESIO 3A03 BIOMECHANICS II
Study of kinematics and kinetics of human movement, including electromyography, fluid and tissue mechanics with applications.
Three hours (lectures, lab); one term
Prerequisite: KINESIO 1A06, 2A03 and registration in Level III or above of a Kinesiology programme
Antirequisite: KINESIO 2A06

KINESIO 3B03 PHYSICAL ACTIVITY FOR CHALLENGED POPULATIONS
An introduction to special populations, together with an examination of issues related to integration, design, and objectives of special physical activity programming.
Three hours (lectures); one term
Prerequisite: KINESIO 1A06, 2G03
Corequisites: Registration in KINESIO 3B00
Students who do not successfully complete the required KINESIO 3B00 placement will forfeit credit in KINESIO 3B03.

KINESIO 3C03 STATISTICS
Research design and descriptive and inferential statistics in Kinesiology.
Three hours (lectures, labs); one term
Prerequisite: Registration in Level III or above of a Kinesiology programme

KINESIO 3D03 GROWTH, MATURATION AND PHYSICAL ACTIVITY
Growth, development and maturation changes underlying morphologic and functional development of selected physiological systems which influence human exercise capacity during childhood.
Two lectures, one poster presentation; one term
Prerequisite: KINESIO 1A06, 2C06

KINESIO 3D03 FOUNDATIONS OF OUTDOOR EXPERIENTIAL EDUCATION
An analysis of curricular programs in O.E.E. including, environmental, earth, and eco-political education; expeditionary and adventure based learning; eco-psychology and eco-tourism.
Prerequisite: Registration in Level III or above
Antirequisite: KINESIO 4D03
This course may be taken as elective credit by undergraduates in Level III or above of a non-Kinesiology programme; however, enrolment for such students is limited.

KINESIO 3E03 NEURAL CONTROL OF HUMAN MOVEMENT
Neuromuscular control underlying human movement. Topics include basic neurophysiology, mechanisms of sensation, reflexes, voluntary movement and theories of motor control.
Three hours (lectures); one term
Prerequisite: KINESIO 1A06, 1E03 and registration in Level III or above of a Kinesiology programme or PSYCH 2F03, registration in Level III or above of an Honours Psychology programme and permission of the instructor. (See Note 5 above.)

KINESIO 3F03 MANAGEMENT CONCEPTS AND PROGRAMME DESIGN
Combining theory and practice, the course includes concepts and issues related to: organizations, volunteerism, planning, policy, marketing, fiscal and legal management.
Three hours (lectures, seminars, group project); one term
Prerequisite: Registration in Level III or above
This course may be taken as elective credit by undergraduates in Level III or above of a non-Kinesiology programme; however, enrolment for such students is limited.

KINESIO 3G03 HISTORICAL INTERPRETATIONS OF SPORT AND PHYSICAL ACTIVITY
Critical inquiry into the development of physical activity and sport from ancient to modern civilizations in the perspective of cultural change.
Two lectures, one seminar; one term
Prerequisite: KINESIO 1H03, 2H03 and registration in a Kinesiology programme
Enrolment is limited.

KINESIO 3J03 HISTORY OF MODERN DANCE
A survey of trends in modern dance including modern dance forerunners, pioneers, second generation, post-moderns, and new dance. Students attend performances and participate in workshops.
Three hours (lectures, practical); one term
Prerequisite: Registration in Level III or above
Antirequisite: KINESIO 4J03
This course may be taken as elective credit by undergraduates in Level III or above of a non-Kinesiology programme; however, enrolment for such students is limited.

KINESIO 3K03 SPORTS INJURIES
Common athletic injuries will be discussed under the following headings: mechanism of injury, prevention, preliminary assessment, tissue healing, basic taping techniques, and emergency care.
Two lectures, one lab; one term (Approximately $30.00 will be charged for supplies used in labs.)
Prerequisite: KINESIO 1A06, 2C06
Enrolment is limited. Priority will be given to Level IV Kinesiology students.

KINESIO 3L03 ORGANIZATIONAL BEHAVIOUR AND APPLICATIONS TO KINESIOLOGY
An examination of concepts and issues of organizational behaviour in a variety of work environments. Topics include communications, leadership, conflict management, individuals and groups at work.
Three hours (lectures and seminars); one term
Prerequisite: KINESIO 3F03
Antirequisite: COMM 2B3
This course may be taken as elective credit by undergraduates in Level III or above of a non-Kinesiology programme.
Enrolment is limited.

KINESIO 3M03 FOUNDATIONS OF ATHLETIC COACHING
An examination of the coaching process with emphasis placed on the behavioural aspects. Topics include leadership styles and decision making, motivation in sport, ethics in coaching, group cohesion and psychological considerations for youth in sport.
Three hours (lectures); one term
Prerequisite: Registration in Level III or above
This course may be taken as elective credit by undergraduates in Level III or above of a non-Kinesiology programme; however, enrolment for such students is limited.
KINESIOLOGY 3P03  SPORT AND SOCIAL DEVELOPMENT
Macro-analysis of sport and culture, considering the place of sport and leisure in cultural transmission and cultural change.
Three hours (lectures and discussion); one term
Prerequisite: One of KINESIOLOGY 1H03, 2B03, SOCIOLOGY 1A06 and registration in Level III or above
This course may be taken as elective credit by undergraduates in Level III or above of a non-Kinesiology programme; however, enrolment for such students is limited.

KINESIOLOGY 3Q03  SPORT AND SOCIALIZATION
Analysis of the process of becoming involved in sport, sustaining and changing that involvement, and retirement.
Three hours (lectures and discussion); one term
Prerequisite: One of KINESIOLOGY 1H03, 2B03, SOCIOLOGY 1A06 and registration in Level III or above
This course may be taken as elective credit by undergraduates in Level III or above of a non-Kinesiology programme; however, enrolment for such students is limited.

KINESIOLOGY 3S33  BODY, MIND, SPIRIT
An exploration of the relationship between body, mind and spirit from the standpoint of eastern and western religious and philosophical thought with special reference to current perspectives on human potential. Course work includes experiential workshops.
Three hours (lectures and seminars); one term
Prerequisite: Registration in Level III or above
This course may be taken as elective credit by undergraduates in Level III or above of a non-Kinesiology programme.
Enrolment is limited.

KINESIOLOGY 3T03  DANCE PERFORMANCE
An in-depth practical experience in performing, choreographing and teaching aimed at experienced dancers. The course will have a focus on creative modern dance and dance composition but will also include an introduction to other styles such as jazz and ballet.
Four hours (seminars and labs); one term
Prerequisite: Registration in Level III or above
This course may be taken as elective credit by undergraduates in Level III or above of a non-Kinesiology programme.
(Approximate cost of field component is $30.00.)

KINESIOLOGY 3Y03  HUMAN NUTRITION AND METABOLISM
An in-depth analysis of human nutrition and metabolism, with an emphasis on the impact of diet on human physical performance in both healthy and disease states.
Three hours (lectures and labs); one term
Prerequisite: One of KINESIOLOGY 1A06 or 1X06 and registration in Level III or above
This course may be taken as elective credit by undergraduates in Level III or above of a non-Kinesiology programme.
Enrolment is limited.

KINESIOLOGY 3Z03  HUMAN MOVEMENT PRACTICUM
Experiential learning in three movement activities selected from team games, individual sports, indoor and outdoor recreational activities, body awareness and dance. (Depending on the activity, there may be a fee charged for course materials.)
Prerequisite: Registration in Level III or above of a Kinesiology programme
Enrolment is limited.

KINESIOLOGY 3Z23  HUMAN MOVEMENT PRACTICUM
Experiential learning in three movement activities selected from team games, individual sports, indoor and outdoor recreational activities, body awareness and dance. (Depending on the activity, there may be a fee charged for course materials.)
Prerequisite: Registration in Level III or above of a Kinesiology programme
Enrolment is limited.

KINESIOLOGY 4A06  ADVANCED BIOMECHANICS
In-depth study of the mechanics of human movement including the topics of multi-linked segment analysis in 3-D, fluid resistance, optimization, movement simulation and individual muscle force estimation with applications to occupational biomechanics, injury and rehabilitation.
Three hours (lectures, labs); two terms
Prerequisite: KINESIOLOGY 2A03, 3A03
Enrolment is limited.

KINESIOLOGY 4B03  PHYSICAL ACTIVITY AND CORONARY HEART DISEASE
An examination of the role of physical activity in the prevention and rehabilitation of coronary heart disease.
Three lectures; one term
Prerequisite: KINESIOLOGY 1A06, 2C06

KINESIOLOGY 4C03  CARDIO-RESPIRATORY AND METABOLIC REGULATION DURING EXERCISE AND TRAINING
An in-depth analysis of the cardiorespiratory and metabolic factors which regulate human physical performance, with an emphasis on the physiological and biochemical integration that occurs during exercise and following training.
Three hours (lectures, labs); one term
Prerequisite: KINESIOLOGY 2C06
Enrolment is limited.

KINESIOLOGY 4C43  NEUROMUSCULAR EXERCISE PHYSIOLOGY
Neuromuscular physiology of strength, power, and speed performance, including adaptations to training and training methods.
Three hours (lectures, labs); one term
Prerequisite: KINESIOLOGY 2C06
Enrolment is limited.

KINESIOLOGY 4EE3  ADVANCED PLACEMENT
Students take part in a supervised practical experience that links classroom knowledge to professional practice. Placements are offered in aging, cardiac rehabilitation, dance, management, outdoor education, special needs populations and teaching and coaching.
Placement experience equivalent to one day per week (60 hrs.), seminars; one term
Prerequisite: One of KINESIOLOGY 3B03, 3F03, 3K03, 3M03, 4B03, 4D03, 4I03, 4J03, 4S33 including completion of the corresponding non-credit placement; registration in Level IV of an Honours Kinesiology programme; and permission of the Associate Chair Undergraduate Affairs and Instructor

KINESIOLOGY 4F03  SELECTED TOPICS IN KINESIOLOGY
2001-2002: Mind in Health, Healing and Wellness
Each year the Department of Kinesiology offers a number of different courses under this category reflecting topics of contemporary interest with emphasis upon current theory and research. Students are advised to contact the Department of Kinesiology, Undergraduate Office, for descriptions of the courses offered during the current academic year.
Three hours (lectures); one term
Prerequisite: Registration in Level III or above of a Kinesiology programme
Enrolment is limited for some topics.

KINESIOLOGY 4F03  SELECTED TOPICS IN KINESIOLOGY II
2001-2002: Canadian Sport History
as per KINESIOLOGY 4F03
Three hours (lectures); one term
Prerequisite: Registration in Level III or above of a Kinesiology programme
Enrolment is limited for some topics.

KINESIOLOGY 4G03  PEDAGOGY OF CONTEMPORARY AND TRADITIONAL WILDERNESS TRAVEL
An examination of Canadian winter travel skills (traditional and contemporary), travel literature and pedagogy of travel guiding. Part of the course requirement is a mandatory five-day traditional winter travel experience during the February mid-term recess.
Three hours (lectures, tutorials, field experiences); one term
Prerequisite: KINESIOLOGY 4D03 and registration in Level III or above
This course may be taken as elective credit by undergraduates in Level III or above of a non-Kinesiology programme.
(Approximate cost of field component is $50.00.)
Enrolment is limited.
KINESIOL 4H03 PHYSICAL ACTIVITY AND LIFESTYLE INFLUENCES ON CHRONIC DISEASE

The relationship between physical activity and associated lifestyle influences on selected chronic diseases is examined from a biological perspective.
Three hours (two lectures, poster presentation); one term
Prerequisite: KINESIOL 1A06, 2G03 and 2C06

KINESIOL 4I03 EXERCISE PSYCHOLOGY

A review and evaluation of research from the areas of exercise psychology and behavioural medicine, and interventions used to promote physical activity participation.
Three hours (lectures); one term
Prerequisite: KINESIOL 2G03.
Not open to students with credit in KINESIOL 4F03, SELECTED TOPICS IN KINESIOLOGY, if the topic was Exercise Psychology.
Enrolment is limited.

KINESIOL 4J03 FUNCTIONAL ANATOMY

The study of functional anatomy with a focus on the structure and function of the osseous, articular, muscular, and supportive tissues of the human body as it relates to sport and activity.
Four hours (lectures, lab); one term
Prerequisite: KINESIOL 1A06, 2C06 and registration in Level III or above of a Kinesiology programme.
Not open to students with credit in KINESIOL 4F03, SELECTED TOPICS IN KINESIOLOGY, if the topic was Functional Anatomy.
(Emphasis required)
Enrolment is limited. Priority will be given to Level IV Kinesiology students.

KINESIOL 4J13 DANCE IN CONTEMPORARY SOCIETY

A survey of topics pertaining to the dance industry and the lifestyles of dancers in contemporary society. Content includes dance careers, administration, production, technology, education, health and special populations.
Three hours (lectures, seminars); one term
Prerequisite: Registration in Level III or above
Antirequisite: KINESIOL 4J03
This course may be taken as elective credit by undergraduates in Level III or above of a non-Kinesiology programme.
Enrolment is limited.

KINESIOL 4K03 PERCEPTUAL-MOTOR BEHAVIOUR

An advanced examination of current topics regarding perceptual-motor behaviour with particular reference to everyday experiences.
Three hours (lectures, labs); one term
Prerequisite: KINESIOL 1E03 and registration in Level III or above of a Kinesiology programme
Enrolment is limited.

KINESIOL 4K03 FUNCTIONAL ANATOMY

The study of functional anatomy with a focus on the structure and function of the osseous, articular, muscular, and supportive tissues of the human body as it relates to sport and activity.
Four hours (lectures, lab); one term
Prerequisite: KINESIOL 1A06, 2C06 and registration in Level III or above of a Kinesiology programme.
Not open to students with credit in KINESIOL 4F03, SELECTED TOPICS IN KINESIOLOGY, if the topic was Functional Anatomy.
(Emphasis required)
Enrolment is limited. Priority will be given to Level IV Kinesiology students.

KINESIOL 4K03 FUNDAMENTALS OF REHABILITATION

This course will outline the basic principles of rehabilitation and explore the more common techniques and modalities. Application of principles will be explored in a number of impairments including, acquired brain injury, amputee, spinal cord injury, neuromuscular disease, stroke, etc.
Three hours (lectures, lab); one term
Prerequisite: KINESIOL 1A06 and registration in Level III or above of a Kinesiology programme
Enrolment is limited. Priority will be given to Level IV Kinesiology students.

KINESIOL 4M03 SPORT PSYCHOLOGY

Principles of sport psychology are applied to individual and team performance issues. Research is emphasized and topics include: personality, motivation, arousal, perception, biofeedback, the process of competition, children in sport, and ethics in sport psychology.
Two lectures, one lab; one term
Prerequisite: Registration in Level III or above
This course may be taken as elective credit by undergraduates in Level III or above of a non-Kinesiology programme.
Enrolment is limited.

KINESIOL 4N03 ATHLETIC COACHING: TRAINING AND PLANNING PERSPECTIVES

An analysis of factors that facilitate sport performance at the elite level. Topics include periodization, talent identification, environmental factors, optimal arousal and scouting.
Three hours (lectures); one term
Prerequisite: KINESIOL 3M03

KINESIOL 4P03 THE BRAIN AND HUMAN MOVEMENT

A study of the role of the brain in movement control in normal and special populations.
Three hours (lectures, labs); one term
Prerequisite: KINESIOL 3E03 and registration in Level III and above of a Kinesiology or Honours Psychology programme. (See Note 5 above.)
Enrolment is limited.

KINESIOL 4Q03 PAEDIATRIC EXERCISE PHYSIOLOGY

Physiologic aspects of physical activity in children and adolescents in health and disease.
Two lectures, one lab; one term
Prerequisite: KINESIOL 2C06, 3D03
Enrolment is limited.

KINESIOL 4R03 INDEPENDENT RESEARCH

Investigation of a selected theoretical or applied problem mutually acceptable to instructor and student.
Prerequisite: Registration in Level IV of an Honours Kinesiology programme and permission of both the Undergraduate Coordinator and instructor.
Antirequisite: KINESIOL 4R06

KINESIOL 4R06 THESIS

Independent project involving a research topic under the supervision of a faculty member. The project involves a literature review, design of methodology, data collection, analysis and a research report or equivalent appropriate to the sub-discipline.
Prerequisite: Registration in Level IV of an Honours Kinesiology programme, and permission of the Associate Chair and Instructor by April 30
Antirequisite: KINESIOL 4R03

KINESIOL 4S03 PHYSICAL ACTIVITY IN CHRONIC HEALTH IMPAIRMENTS

Focus on specific health impairments prevalent in our society and the various benefits/risks of physical activity in these populations.
Three hours (two lectures, one seminar); one term
Prerequisite: KINESIOL 3B03 and 3P00
Enrolment is limited.

KINESIOL 4S03 HUMAN AGING: BIOLOGICAL AND LIFESTYLE INFLUENCES

The interrelationship between biological processes of aging and associated lifestyle factors (e.g. exercise/inactivity) will be explored in various human systems.
Three hours (lectures); one term
Prerequisite: KINESIOL 1A06, 2C06 and 2G03

KINESIOL 4T03 GENDER, SPORT AND LEISURE

The influence of sport and leisure on the social construction of masculinity and femininity.
Three hours (seminars); one term
Prerequisite: One of KINESIOL 1H03, 2B03, 3C06 and registration in Level III or above
This course may be taken as elective credit by undergraduates in Level III or above of a non-Kinesiology programme.
Enrolment is limited.

KINESIOL 4U03 ADVENTURE BASED LEARNING

Adventure based learning foundations, philosophy, and pedagogy will be examined through a combination of practices and theories relevant to contemporary educational issues.
Lectures, tutorials, and field experiences; one term
(Emphasis required)
Enrolment is limited.

KINESIOL 4V03 HUMAN FACTORS AND ERGONOMICS

The abilities and limitations of human performance are examined with respect to how individuals interact with objects in their environment.
Three hours (lectures, labs); one term
Prerequisite: KINESIOL 1A06, 1E03, 2A03
Enrolment is limited.

KINESIOL 4W03 POSTURE AND GAIT

An examination of neural and mechanical factors in posture and gait control in normal and special populations. The format will be lectures, labs and group discussion of case studies. The first part of the course will include neuroanatomy labs.
Three hours (lectures, labs); one term
Prerequisite: KINESIOL 1A06, 2A03, 3E03
Enrolment is limited.
LABOUR STUDIES

WEB ADDRESS: http://www.socsci.mcmaster.ca/labret/

Kenneth Taylor Hall, Room 717
Ext. 24692

Faculty as of January 15, 2001

Director
W. Lewchuk

Professor
W. Lewchuk/B.A., M.A. (Toronto), Ph.D. (Cambridge)

Associate Professors
R. Storey/B.A. (Toronto), M.A. (Dalhousie), Ph.D. (Toronto)
D. Wells/B.A. (Western Ontario), M.A. (British Columbia), Ph.D. (Toronto)
C. Yates/B.A. (Winnipeg), M.A. (Queen’s), Ph.D. (Carleton)

Assistant Professors
D. Baines/B.S.W. ( Calgary), M.S.W. (Carleton), Ph.D. (Toronto)
O. Raftery/B.A. (Western Ontario), M.A., Ph.D. (McMaster)
L. Vosko/B.A. (Toronto), M.A. (Simon Fraser), Ph.D. (York)

Associate Members
P. Daenzer/Social Work B.A., B.S.W. (York), M.S.W., Ph.D. (Toronto)
A. Robo/Economics B.A., M.A. (British Columbia), Ph.D. (Essex)
P. Sugimura/Sociology B.A., M.A., Ph.D. (Toronto)
V. Walters/Sociology B.A., M.A., Ph.D. (McGill)

Note:
The following courses may be taken for elective credit by qualified students registered in any programme, however, enrolment for such students is limited and permission of the instructor required.

LABR ST 2A03 Trade Unions
LABR ST 2C03 Theoretical Foundations of the Labour Movement
LABR ST 2D03 Different Labours, Different Voices
LABR ST 3A03 Economics of Labour Market Issues
LABR ST 3C03 Labour Law and Policy
LABR ST 3D03 Occupational Health and Safety
LABR ST 3E03 Women, Work and Trade Unionism
LABR ST 3F03 Selected Topics in Labour Studies
LABR ST 3G03 Economic Restructuring and Work Organization

The Honours B.A. Programme and the B.A. Programme in Labour Studies are supervised and coordinated by an interdisciplinary Labour Studies Committee.

Labour Studies Committee

Chair
W. Lewchuk (Economics/Labour Studies)

D. Baines (Labour Studies/Social Work)
R. Storey (Labour Studies/Sociology)
L. Vosko (Political Science/Labour Studies)
D. Wells (Labour Studies/Political Science)
C. Yates (Labour Studies/Political Science)

Courses

If no prerequisite is listed, the course is open.

LABR ST 1A03 AN INTRODUCTION TO THE CANADIAN LABOUR MOVEMENT
An examination of the impact of economic, social, cultural and political factors on the historical evolution, structure and actions of the Canadian working class and labour movement.
Lectures and discussions; one term

LABR ST 1203 WORK, WORKERS AND UNIONS IN A GLOBAL ECONOMY
An introduction to major issues in the field of Labour Studies. Topics will include the nature of work, technology, occupational health and safety, labour-management relations and the role of government in a global context.
Lectures and discussion; one term
Antirequisite: LABR ST 1A03

LABR 3F03 SELECTED TOPICS IN LABOUR STUDIES
This course may be taken for elective credit by undergraduates in Level III or above of a non-Labour Studies programme. This course is designed to apply the principles and theories of athletic coaching, management concepts in a variety of community settings.
Prerequisites: KINESIOL 3B03, 3L03 and registration in Level III or above of a non-Labour Studies programme. This course may be completed in conjunction with KINESIOL 3B03. Students who do not successfully complete this placement will forfeit credit in KINESIOL 3B03.

KINESIOL 3B03 SPECIAL POPULATIONS PLACEMENT
This course is designed to supplement the student's classroom learning of the issues involved in providing physical activity for special populations. Students will design and/or implement physical activity programs in a variety of community settings.
Corequisite: KINESIOL 3B03
This placement must be completed in conjunction with KINESIOL 3B03. Students who do not successfully complete this placement will forfeit credit in KINESIOL 3B03.

KINESIOL 3P00 MANAGEMENT PLACEMENT
This course is designed to provide practical experience in applying management concepts in a variety of community settings.
Prerequisite: KINESIOL 3F03, 3L03 and registration in Level III or above of a non-Labour Studies programme. This placement may be completed in conjunction with KINESIOL 3F03.

KINESIOL 3J00 DANCE PLACEMENT
This course is designed to provide practical experience in dance production, choreography and improvisation.
Prerequisite: Registration in Level III or above of a Kinesiology programme and permission of the instructor.
This placement may be completed in conjunction with KINESIOL 3J03 or 4J03.

KINESIOL 3K00 SPORTS INJURIES PLACEMENT
This course is designed to provide practical experience in sports injuries in a variety of clinical settings.
Prerequisite: Registration in Level III or above of a Kinesiology programme and permission of the instructor.
This placement may be completed in conjunction with KINESIOL 3K03. Enrolment is limited.

KINESIOL 3M00 COACHING PLACEMENT
This course is designed to apply the principles and theories of athletic coaching in a practical setting. The student will coach an athletic team for one season.
Prerequisite: KINESIOL 3B03 or 4N03.
This placement may be completed in conjunction with KINESIOL 3M03 or 4M03.

KINESIOL 4A00 OUTDOOR EDUCATION PLACEMENT
This course is designed to allow the student to experience a variety of outdoor education activities.
Prerequisite: KINESIOL 4G03.
This placement may be completed in conjunction with KINESIOL 4N03.

KINESIOL 4B00 HEALTH PROMOTION AND REHABILITATION PLACEMENT
This course is designed to allow the student to experience a variety of outdoor education activities.
Prerequisite: KINESIOL 4G03.
This placement may be completed in conjunction with one of KINESIOL 3B03, 4B03, 4I03, 4S03 or 4SS3.

KINESIOL 4C00 NUTRITION AND ERGONOMIC AIDS
Emphasis on biochemical mechanisms behind the current facts and myths surrounding the use of popular ergogenic aids. Ergonomic aids relating to human physical performance and health will be covered.
Four hours (lectures, tutorials, stand-alone presentations and a research paper); one term
Prerequisite: KINESIOL 3Y03 and registration in Level III or above of a Kinesiology programme.
Not open to students with credit in KINESIOL 4F03 SELECTED TOPICS IN KINESIOLOGY if the topic was Nutrition and Ergonomic Aids.
Enrolment is limited. Priority will be given to Level IV Kinesiology students.

KINESIOL 4D00 SELECTED TOPICS IN SPORT MANAGEMENT
This course is designed to apply the principles and theories of athletic coaching, management concepts in a variety of community settings.
Prerequisite: KINESIOL 4F03, 3L03 and registration in Level III or above of a non-Kinesiology programme.
This placement may be completed in conjunction with KINESIOL 4F03. Students who do not successfully complete this placement will forfeit credit in KINESIOL 4F03.
LABR ST 2A03  TRADE UNIONS
An examination of trade unions and their economic and social environment. Topics may include collective bargaining, labour-state relations, internal union decision-making processes and public sector unions. Lectures and discussion; one term
Prerequisite: Registration in a Labour Studies programme or permission of the instructor
Antirequisite: LABR ST 2A06

LABR ST 2B03  SOCIAL WELFARE I
An examination of social welfare policy and the income security system in Canada in historical perspective. Lectures and discussion; one term
Prerequisite: Registration in a Labour Studies programme
Cross-list: SOC WORK 2B03.
Students in a Labour Studies programme must register for this course as LABR ST 2B03.

LABR ST 2BB3  SOCIAL WELFARE II
An examination of particular social problems and the institutional arrangements intended to address them.
Lectures and discussion; one term
Prerequisite: Registration in a Labour Studies programme or permission of the instructor
Antirequisite: LABR ST 1B03

LABR ST 2D03  DIFFERENT LABOURS, DIFFERENT VOICES
An overview of the ways in which people's changing experiences of work are shaped by gender, race, class and culture in Canada and the wider global context.
Lectures and discussion; one term
Prerequisite: Registration in a Labour Studies programme or permission of the instructor
Antirequisite: LABR ST 1B03

LABR ST 2F03  THE SOCIOLOGY OF ORGANIZATIONS
A theoretical and empirical analysis of formal and informal organizational structures and processes in the major sectors of modern industrial society.
Lectures and discussion; two terms
Prerequisite: SOCIOL 1A06 and registration in a Labour Studies programme
Cross-list: SOCIOL 2106
Antirequisite: LABR ST 2F03, 3F03, SOCIOL 2103

LABR ST 3A03  ECONOMICS OF LABOUR MARKET ISSUES
This course applies economic analysis to issues of importance in the labour market. Topics vary and may include: women in the Canadian labour market; discrimination in hiring and promotion; unemployment; job loss and workplace closing; work sharing.
Prerequisite: ECON 1A06 or 1B03 and 1B83; registration in a Labour Studies programme or permission of the instructor
Cross-list: ECON 2A03

LABR ST 3B03  ECONOMICS OF TRADE UNIONISM AND LABOUR
Topics will include the economics of the labour market, the impact of trade unions on the labour market, economic theories of strikes, trade unions and the state.
Lectures and discussion; one term
Prerequisite: ECON 1A06 or 1B03 and 1B83, and registration in a Labour Studies program
Cross-list: ECON 2T03

LABR ST 3C03  LABOUR LAW AND POLICY
An analysis of the concepts and fundamentals of Canadian labour law and an analysis of Canadian labour policy.
Lectures: one term
Prerequisite: LABR ST 2A06 or 2A03; registration in a Labour Studies programme or permission of the instructor
Cross-list: COMMERCE 4B93
Generally offered in alternate years.

LABR ST 3D03  OCCUPATIONAL HEALTH AND SAFETY
An analysis of issues and problems associated with occupational health and safety in Canada and other industrialized countries. Topics will be examined from social, political, economic, legal and medical perspectives. Lectures and discussion; one term
Prerequisite: Registration in a Labour Studies programme or permission of the instructor
Cross-list: HEALTHST 3C03
Generally offered in alternate years.

LABR ST 3E03  WOMEN, WORK AND TRADE UNIONISM
An examination of the historical and contemporary relations between women and work, and women and trade unionism. Topics will include the evolution and structure of the gender division of labour, women and the labour market, and the relationship of women to the labour movement.
Lectures and discussion; one term
Prerequisite: LABR ST 2A03 and registration in a Labour Studies programme or permission of the instructor
Generally offered in alternate years.

LABR ST 3F03  SELECTED TOPICS IN LABOUR STUDIES
Topics of current interest to students in Labour Studies, with emphasis on current theory and research. Students should consult the Labour Studies Office concerning the topics to be examined.
Three hours (seminar); one term
Prerequisite: LABR ST 2A03 or 2A06; registration in a Labour Studies programme or permission of the instructor
Antirequisite: LABR ST 3A03

LABR ST 3G03  ECONOMIC RESTRUCTURING AND WORK ORGANIZATION
Analysis of transformations in work organization and labour markets in selected advanced capitalist societies; evaluation of labour strategies in the context of neoliberalism and globalization.
Lectures and discussion; one term
Prerequisite: LABR ST 2A03 or 2A06; registration in a Labour Studies programme or permission of the instructor
Antirequisite: LABR ST 3A03

LABR ST 3H03  FIELD PLACEMENT METHODS
An inquiry course that exposes students to research ethics and strategies in preparation for Level IV thesis or field work. Emphasizes working with data in a real world context. Students will learn on-line research skills and how to use Power Point and other presentation strategies.
Lectures and discussion; one term
Prerequisite: Registration in Level III or above of an Honours Labour Studies programme
Antirequisite: LABR ST 4A09

LABR ST 4A06  RESEARCH AND FIELD EXPERIENCE
Students will either write an honours thesis or participate in a field experience (a placement in a labour union, government agency or other appropriate organization). Enrollment in the field experience option is limited; students must apply to the Labour Studies Office by March 1.
Two terms
Prerequisite: Registration in Level IV of an Honours Labour Studies programme
Antirequisite: LABR ST 4A09

LABR ST 4C03  PUBLIC SECTOR COLLECTIVE BARGAINING
This course examines unionization and collective bargaining for employees in the public, and para-public, sectors. The topics covered include the origin and growth of public sector unions, models of public sector bargaining, legal aspects of bargaining rights and impasse resolution, bargaining issues and bargaining outcomes, and empirical studies of the effectiveness of dispute resolution procedures.
Lectures and discussion; one term
Prerequisite: COMMERCE 4B63 and registration in Level III or IV of a Labour Studies programme
Cross-list: COMMERCE 4B63

LABR ST 4D03  COMPARATIVE INDUSTRIAL RELATIONS
A discussion of industrial relations, policies and practices in several selected countries. Topics will include the development, structure, objectives and strategies of labour and management organizations.
Lectures and discussion; one term
Prerequisite: Registration in Level III or IV of a Labour Studies programme
Cross-list: COMMERCE 4B63
Faculty as of January 15, 2001

Chair
D.S. Wilkinson

University Professors
Gary R. Purdy/M.Sc. (Alberta), Ph.D. (McMaster), D.H.C. (Grenoble),

Professors
Dofasco/NSERC Industrial Research Chair in Process Metallurgy
Gyan P. Johari/B.Sc., M.Sc. (Gorakhpur), D.H.C. (Lyon), F.R.S.C.
Adrian Kita/B.Sc. (McMaster), Ph.D. (Cornell), P.Eng.
David S. Wilkinson/B.A.Sc. (Toronto), Ph.D. (Cambridge), F.C.I.M.,

Adjunct Professors
Prasad A. Apte/B.Tech. (IIT, Bombay), Ph.D. (McMaster)
Yves Brechet/D.E.A. (Ecole Polytechnique), Ph.D. (Grenoble)
C.H. Cheh/B.A.Sc. (Ottawa), M.A.Sc., Ph. D. (Toronto)
Michael J. Graham/B.Sc., Ph.D. (Liverpool), F.N.A.C.E.
S.R. MacEwen/B.A.Sc., Ph.D. (Toronto)
Zoran D. Popovi/Ph.D., M.Sc. (Belgrade), Ph.D. (McMaster)
Barry A. Strathdee/B.A.Sc., Ph.D. (Toronto), P.Eng.
S.V. Mani Subramaniam/B.Sc. (Banaras), M.Met., Ph.D. (Sheffield)
Gregory X. Zhang/B.Sc. (Beijing Inst. of Aeronautics), M.Sc., Ph.D. (Free
University of Brussels)

Associate Professors
Ken S. Coley/B.Sc. (Strathclyde), Ph.D., D.I.C. (Imperial College, London)
Gu Yu/M.Sc., Ph.D. (Pittsburgh), D.E.S. (Columbia)
Shiping Zhu/B.Eng. (Zhejiang), Ph.D. (McMaster)
Geoffrey Brooks, B.Eng. (RMIT), B.A. (Swinburne), Ph.D. (Melbourne)
Assistant Professor
Marek Niewczas/M.Sc., Ph.D. (Krakow)

Professors Emeriti
M. Brian Ives/B.Sc., Ph.D. (Bristol), F.A.S.M., P. Eng.
Wei-Kao Lu/B.S. (Cheng-Kung), Ph.D. (Minnesota), F.C.I.M.

Courses
If no prerequisite is listed, the course is open.

MATLS 1A03 - INTRODUCTION TO MATERIALS
Application of chemistry and physics to the production of metals, ceramics, polymers and amorphous and oto-electronic materials. Control of mechanical and electrical properties by change of microscopic and atomic level structures.
Two lectures, one tutorial; second term
Prerequisite: Registration in or completion of Science I
Antirequisite: Registration in the Faculty of Engineering, or ENGINEER 2E03, 2003, 2004, MATLS 2003

MATLS 2B03 - THERMODYNAMICS OF MATERIALS I
Thermodynamics of gases and critical phenomena. The three laws of thermodynamics applied to materials processing; reactions in gases and condensed phases; Ellingham Diagrams. An introduction to statistical thermodynamics.
Three lectures, one tutorial; first term
Prerequisite: CHEM 1A03 or 1E03
Antirequisite: MATLS 2006

MATLS 2D03 - THERMODYNAMICS OF MATERIALS II
Solution thermodynamics, reactions and equilibria, Gibbs phase rule; aqueous electrochemistry.
Three lectures, one tutorial; second term
Prerequisite: CHEM 1A03 or 1E03; MATLS 2B03
Antirequisite: MATLS 2006

MATLS 2H03 - MEASUREMENTS AND COMMUNICATION
Methods of technical communication, involving oral and written practice; basic experimental methods of acquiring, analyzing and presenting data.
Two labs (three hours); first term: one lab (three hours); second term
Prerequisite: COMP SCI 1MC3 or ENGINEER 1D04, and CHEM 1A03 or 1E03, and registration in a programme administered by the Department of Materials Science and Engineering

MATLS 2L03 - PROPERTIES OF ENGINEERING MATERIALS
Structure of inorganic solids and polymers and their relation to basic physical and chemical properties and allocations to selection of materials for engineering design.
Two lectures, one tutorial; first term
Prerequisite: At least 12 units of Level I Chemistry, Mathematics or Physics
Antirequisite: ENGINEER 2E03, 2003, 2004, MATLS 1A03

MATLS 2X02 - CRYSTALLINE STRUCTURE OF MATERIALS
Crystal geometry, x-ray diffraction methods for the determination of crystalline structures and chemical compositions, electron and neutron diffraction methods, microanalysis, crystalline defects.
One lecture, one lab (two and one half hours); second term
Prerequisite: ENGINEER 2003

MATLS 3B03 - MATERIALS PROCESSING I
Surface science and technology related to the preparation of particles and slurries of minerals for metals and ceramics production. Hydrometallurgy and electrometallurgy.
Two lectures, one lab (three hours); second term
Prerequisite: MATLS 2B06, or MATLS 2B03 and 2D03

MATLS 3C03 - SOLUTION THERMODYNAMICS
Solution thermodynamics and its relationship to binary equilibrium diagrams; high temperature electrochemistry; use of computerized thermodynamics data bases.
Two lectures, one lab (three hours) every other week, one tutorial; first term
Prerequisite: MATLS 2B06 or 2D03
Antirequisite: MATLS 3I05

MATLS 3D03 - THERMODYNAMICS AND KINETICS

Three lectures, one tutorial; second term
Prerequisite: MATLS 2B06 or 2B03
Antirequisite: MATLS 3I05

Open to Level III and IV Science and Engineering students with permission of the department.

MATLS 3E04 - MASS TRANSFER
Phenomenological and mechanistic approaches to diffusion; boundary conditions; diffusion in fluids and solids; point defects in solids.
Three lectures, two tutorials; second term.
Prerequisite: MATH 2M06; or 2003 and one of MATH 2A03, 2C03

MATLS 3M03 - MECHANICAL BEHAVIOUR OF MATERIALS
How materials are made strong, tough, ductile, formable. How to prevent failures. Materials selection using computer databases.
Two lectures, one tutorial and/or laboratory; first term
Antirequisite: ENGINEER 2003 or MATLS 1A03 and ENGINEER 2F04

MATLS 3Q03 - MATERIALS FOR ELECTRONIC APPLICATIONS
The functional properties of materials of interest in electronic applications, including conductivity, magnetism, dielectric behaviour and luminescence. Includes a discussion of phenomena such as ferro- and piezoelectricity, ionic conductivity.
Three lectures; second term
Prerequisite: ENGINEER 2E03 or 2003
Antirequisite: MATLS 4R03, 4R04

MATLS 3T04 - PHASE TRANSFORMATIONS
Review of thermodynamics, binary phase diagrams and solid state diffusion. Role of interfaces; solidification, diffusional and martensitic transformations; welding; oxidation. Materialslographic examination will be featured in laboratory work.
Three lectures or tutorial, one lab (three hours); first term
Prerequisite: ENGINEER 2003 or MATLS 2X02

MATLS 4A02 - SEMINARS AND PLANT VISITS
Seminars and discussions by technical personnel from industry. Corresponding plant visits made by the class and reported both in written and oral form. Workshops on: Statistical Process Control; ISO 9000; Industrial Health and Safety; Entrepreneurship.
One seminar/tutorial/plant visit (three hours); both terms.
Prerequisite: Registration in the final level of a programme administered by the Department of Materials Science and Engineering

MATLS 4B04 - MATERIALS PROCESSING II
Fundamentals of processing, building on a knowledge of heat and mass transfer. High temperature processing of materials, focusing on heat sources, solid state processing of powders and liquid state processing. Three lectures, one lab or tutorial (three hours); first term
Prerequisite: CHEM ENG 2A04 or MATLS 3A03, and MATLS 3B03, 3E04

MATLS 4C03 - MODERN IRON AND STEELMAKING
Theory and practice of iron making. Heat and material balances, iron making reactors, raw materials, direct reduction and new processes. Thermodynamics and kinetics of steel making. Hot metal treatment; static and dynamic process control; deoxidation; casting; specialty steel making; inclusion engineering.
Three lectures; second term
Prerequisite: CHEM ENG 2A04 and MATLS 3E04
Corequisite: MATLS 4B04

MATLS 4D03 - CORROSION
The oxidation of metals and alloys; electrochemical principles and methods applied to aqueous corrosion and its control.
Three lectures; first term
Prerequisite: MATLS 2D03 and one of 3E04 or 3T04 which may be taken concurrently
Offered in alternate years.

MATLS 4K04 - SENIOR THESIS
Individual experimental research problem with a selected supervisor. A preliminary written and oral report is required at the end of the first term. The thesis is defended orally. A minimum of six unscheduled hours each week, both terms.
Prerequisite: A CA of at least 8.0 and registration in the final level of a programme administered by the Department of Materials Science and Engineering
Faculty of Science

MATHEMATICS AND STATISTICS

WEB ADDRESS:
http://www.science.mcmaster.ca/MthStat/Dept.html
Burke Science Building, Room 133
Ext. 24581

Faculty as of January 15, 2001

Chair
Matthew A. Valeriote

Associate Chair
Ernest R. Mead

Professors
N. Balakrishnan/B.Sc., M.Sc. (Madras), Ph.D. (I.T., Kanpur)
Walter Craig/B.Sc. (California-Berkeley), M.S., Ph.D. (Courant, N.Y.U.)
Thomas M.K. Davison/B.Sc. (Sir George Williams), M.A., Ph.D. (Toronto)
Pengfei Guan/B.Sc. (Zhengjiang), Ph.D. (Princeton)
Ian Hambleton/B.Sc., M.Sc. (Toronto), Ph.D. (Yale), Britton Professor of Mathematics
Bradd Hart/B.Math. (Waterloo), Ph.D. (McGill)
Fred M. Hoppe/B.Sc. (Toronto), M.Sc. (Weizmann Institute of Science), M.A., Ph.D. (Princeton)
Thomas R. Hull/B.Sc. (Queen’s), Ph.D. (Oxford)
Mehndiratta, Dipl. (Hamburg); Dr. rer. nat. (Saarbrücken), Habil. (Münster)
Peter D.M. Macdonald/B.Sc., M.Sc. (Toronto), D.Phil. (Oxford)/Graduate
Advisor, Statistics

Maung Min-Oo/B.Sc. (Rangoon), Dipl. Math., Dr. rer. nat., Habil. (Bonn)/Graduate Advisor, Mathematics
Andrew J. Nice/B.Sc. (McGill), M.A., Ph.D. (Princeton)/Undergraduate
Advisor

Bret T. Sawyer/B.Sc., Ph.D. (McGill), McKay Professor of Mathematics
Matthew A. Valeriote/B.Math. (Waterloo), Ph.D. (California-Berkeley)
Román Viveros-Aguilera/B.A. (Veracruzana, Mexico), M.A. (National Polytechnic Inst., Mexico), Ph.D. (Waterloo)

McKenzie Y.-K. Wang/A.B. (Princeton), Ph.D. (Stanford)
Gall S.K. Wolockicz/B.Sc., M.Sc. (McGill), Ph.D. (Alberta)
Patrick C. Yip/B.Sc. (Memorial), Ph.D. (McMaster)

Adjunct Professor
Abdel H. El-Shaaraawi/B.Sc., M.Sc. (Cairo), Ph.D. (Waterloo)/part-time
Ron A. Kerman (Brock University) B.A., M.A. (Manitoba), Ph.D. (Toronto)

Associate Professors
Stanley Alama/B.Sc. (Columbia), M.S., Ph.D. (Courant, N.Y.U.)
Hans Boden/B.Sc. (New Hampshire), Ph.D. (Brandeis)
Lia Bronsard/B.A. (Montreal), M.S., Ph.D. (Courant, N.Y.U.)
Shul Feng/B.Sc., M.Sc. (Beijing Normal), Ph.D. (Carleton)
Jean-Pierre Gabriel/B.Sc. (Université de l’Etat a Mons), Ph.D. (Maryland)
Deirdre Haskell/B.A. (Oxford), M.S., Ph.D. (Stanford)
Zsófia V. Kovári/M.Sc. (Charlottesville, Ph.D. (Toronto)
Ernest R. Mead/B.A., M.A., Ph.D. (Western Ontario), A.S.A.

Assistant Professors
Aaron Childs/B.Sc., M.Sc., Ph.D. (McMaster)
David Earn/B.Sc., M.Sc. (Toronto), Ph.D. (Cambridge)
Nicholas Kevlahan/B.Sc. (British Columbia), Ph.D. (Cambridge)
Miroslav Lovrić/B.S. (Zagreb), M.S., Ph.D. (Ohio State)
Dmitry E. Pelinovsky/M.Sc. (Nizhny Novgorod State, Russia), Ph.D. (Monash, Australia)

Associate Members
Brantise Frank (Computing and Software) M.Sc., RNDr. (Charles, Prague), Ph.D. (Prague)
Charles H. Goldsmith (Clinical Epidemiology and Biostatistics) B.Sc., M.Sc. (Manitoba), Ph.D. (N.Carolina)
Patrick J. Ryan (Computing and Software) B.Sc., M.Sc., Ph.D. (Brown)
Tamás Terlaky (Computing and Software) M.Sc., Ph.D. (Loránd Eotvos, Budapest)

Lecturer
Anton M. Jopko/B.Sc., M.Sc., Ph.D. (McMaster), Dipl. Educ. (Althouse)

Professors Emeriti
Bernhard Banaschewski/Dipl. Math., Dr. rer. nat. (Hamburg), F.R.S.C., McKay Professor of Mathematics, Emeritus
Claude E. Billig/Ph.D. (Melbourne), Ph.D. (Toronto)
Gunter W.A. Bruns/Dr. rer. nat. (Berlin)
Tae Ho Choe/B.Sc., M.A. (Kyungpook), Ph.D. (Florida)
Joseph Csima/Dipl. Math. (Eotvos, Budapest), Ph.D. (Toronto)
Charles W. Dunnett/M.B.E., B.A. (McMaster), M.A. (Toronto), D.Sc. (Aberdeen)
Gerard Field/B.Sc., Ph.D. (London)
Hans P. Heling/B.Sc. (McMaster), M.A. (Western Ontario), Ph.D. (Toronto)
Maung Min-Oo/B.Sc. (Rangoon), Dipl. Math., Dr. rer. nat. (Saarbrücken), Habil. (Münster)
Fred M. Hoppe/B.Sc. (Toronto), M.Sc. (Weizmann Institute of Science), M.A., Ph.D. (Princeton)
Thomas R. Hull/B.Sc. (Queen’s), Ph.D. (Oxford)

Department Note:
Course codes ending with * indicate that course is not necessarily offered every session; consult the Chair of the Department or the Associate Dean of Science (Studies).
MATH 1A03  
**CALCULUS I**
Differential calculus, the definite integral, techniques of integration, differential equations with applications.
Three lectures, one tutorial; one term
Prerequisite: OAC Calculus or MATH 1K03 and one of OAC Finite Mathematics, OAC Algebra and Geometry, STATS 1L03
Antirequisite: MATH 1N03, ARTS&SCI 1D06

MATH 1A13  
**CALCULUS II**
Power series, partial derivatives, extremal problems, multiple integrals.
Three lectures, one tutorial; one term
Prerequisite: MATH 1A03
Antirequisite: MATH 1NN3, ARTS&SCI 1D06

MATH 1B03  
**LINEAR ALGEBRA I**
Vectors, matrices, determinants, solvability of linear systems, Euclidean geometry, complex numbers, with applications.
Three lectures, one tutorial; one term
Prerequisite: One of OAC Finite Mathematics, OAC Algebra and Geometry, STATS 1L03
Antirequisite: MATH 1H03, 1H05, 1HH3

MATH 1C03  
**INQUIRY IN MATHEMATICS I**
Material covered in the course may include topics from: geometry, discrete math, number theory, algebra.
Three hours; one term
Prerequisite: OAC Calculus and one of OAC Algebra and Geometry or OAC Finite Mathematics and registration in Science I
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

MATH 1H03  
**ENGINEERING MATHEMATICS I**
Basic concepts of discrete mathematics. Probability, combinatorics, propositional logic, set theory. Linear systems of equations, matrices, determinants.
Three lectures, one tutorial; one term
Prerequisite: Registration in Engineering I
Antirequisite: MATH 1B03, 1H05

MATH 1H3  
**LINEAR ALGEBRA FOR ENGINEERING**
Vectors and vector spaces, linear transformations, complex numbers, eigenvalues and eigenvectors, with applications.
Three lectures, one tutorial; one term
Prerequisite: Registration in Engineering I, MATH 1H03
Antirequisite: MATH 1B03, 1H05

MATH 1J03  
**MATHEMATICAL COMPUTING**
Introduction to scientific programming; the Matlab environment, statements and control structures, scripts and functions, matrix computations, symbolic algebra, numerical differentiation and integration, plotting, data analysis, applications to modelling problems.
Two lectures, one lab (two hours); one term
Prerequisite: Credit or registration in MATH 1A03 and 1B03
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

MATH 1K03  
**INTRODUCTORY CALCULUS FOR BUSINESS, HUMANITIES AND THE SOCIAL SCIENCES**
An introduction to differential and integral calculus.
Three lectures, one tutorial; one term
Prerequisite: Grade 12 Mathematics (Advanced)
Normally not open to students who have completed OAC Calculus.
Students transferring to the Faculty of Science do not retain credit for this course.

MATH 1L03  
**CALCULUS FOR BUSINESS, HUMANITIES AND THE SOCIAL SCIENCES**
Differential and integral calculus.
Three lectures, one tutorial; one term
Prerequisite: MATH 1K03, or OAC Calculus
Not open to students with credit or registration in MATH 1A03, 1N03, ARTS&SCI 1D06.
Students transferring to the Faculty of Science do not retain credit for this course.
Students considering upper year mathematics courses should take MATH 1A03.

MATH 1M03  
**CALCULUS FOR ENGINEERING I**
Differential calculus, the definite integral, techniques of integration, applications.
Three lectures, one tutorial; one term
Prerequisite: Registration In Engineering I
Antirequisite: MATH 1A03

MATH 1N03  
**CALCULUS FOR ENGINEERING II**
Applications of integration, differential equations, sequences and series, differential calculus of several variables, applications.
Three lectures, one tutorial; one term
Prerequisite: MATH 1N03
Antirequisite: MATH 1A03

MATH 2A03  
**CALCULUS III**
Functions of several variables, chain rule, Taylor's formula, extremal problems, Lagrange multipliers; multiple integrals, change of variables formula, line and surface integrals, Green's, Gauss' and Stokes' theorems.
Three lectures; one term
Prerequisite: One of MATH 1A03, 1N03, ARTS&SCI 1D06 and credit or registration in one of MATH 1B03, 1H05, or 1H13
Antirequisite: MATH 2Q04

MATH 2A3  
**INTRODUCTION TO REAL ANALYSIS**
Fundamental topics in analysis; properties of real numbers, sequences and series, power series, uniform continuity, uniform convergence.
Three lectures; one term
Prerequisite: MATH 1A03 and credit or registration in 1B03
Antirequisite: MATH 2A3

MATH 2C03  
**DIFFERENTIAL EQUATIONS**
Three lectures; one term
Prerequisite: One of MATH 1A03, 1N03, ARTS&SCI 1D06, and one of MATH 1B03, 1H05, 1HH3
Antirequisite: MATH 2C03, 2P04

MATH 2E03  
**INTRODUCTION TO MODELLING**
General features of modelling. Selected examples from biology, chemistry, economics and physics are treated by a variety of elementary methods.
Computer packages are used when appropriate.
Three lectures, one lab (one hour); one term
Prerequisite: One of MATH 1A03, 1H05, ARTS&SCI 1D06 and credit or registration in one of MATH 1B03, 1H05, 1HH3
Enrolment is limited. However, all students in programmes requiring this course will be admitted. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

MATH 2F03  
**FINANCIAL MATHEMATICS**
Nominal and effective rates of interest and discount, forces of interest and discount, compound interest, annuities certain; amortization, sinking funds; bonds, security evaluation, determination of yields.
Three lectures; one term
Prerequisite: One of MATH 1A03, 1M03, 1N03, ARTS&SCI 1D06

MATH 2L03  
**MATHEMATICAL METHODS FOR BUSINESS AND SOCIAL SCIENCES**
Selected topics from: matrix programming, Markov chains, game theory, differential equations, and the calculus of several variables.
Three lectures; one term
Prerequisite: One of MATH 1A03, 1M03, 1N03, ARTS&SCI 1D06, and one of MATH 1B03, 1H05, 1HH3
Antirequisite: MATH 2A03, 2L03, ARTS&SCI 1D06.
Not open to students registered in Science or Engineering programmes.

MATH 2M06  
**ENGINEERING MATHEMATICS II**
Ordinary differential equations, Laplace transforms, Fourier series, vector calculus, orthogonal curvilinear coordinates, integral theorems, with engineering applications.
Three lectures; two terms
Prerequisite: MATH 1N03 and one of MATH 1H05, 1HH3

MATH 2P04  
**DIFFERENTIAL EQUATIONS FOR ENGINEERING**
Three lectures and two tutorials; one term
Prerequisite: Either MATH 1NN3 and one of MATH 1H05, 1HH3; or registration in Honours Neural Computation and credit or registration in MATH 1B03
Antirequisite: MATH 2G03

MATH 2Q04  
**ADVANCED CALCULUS FOR ENGINEERING**
Vector algebra, curves, partial differentiation, multiple integrals, Green's Theorem, line and surface integrals, integral theorems, scalar and vector potentials, orthogonal curvilinear coordinates, introduction to partial differential equations.
Three lectures and two tutorials; one term
Prerequisite: Either MATH 1NN3 and one of MATH 1H05, 1HH3; or registration in Honours Neural Computation and credit or registration in MATH 1B03
Antirequisite: MATH 2A03

MATH 2R03
LINEAR ALGEBRA II
Abstract vector spaces, basis and dimension, linear transformations, linear equations, inner product spaces, eigenvalues, spectral theorems.
Three lectures; one term
Prerequisite: One of MATH 1AA3, 1NN3, ARTS&SCI 1D06 and one of MATH 1B05, 1H05, 1H13

MATH 2S03
LINEAR ALGEBRA III
Canonical forms, determinants, bilinear forms, groups of linear transformations, other topics selected by the instructor.
Three lectures; one term
Prerequisite: MATH 2R03

MATH 2T03
NUMERICAL ANALYSIS I
Numerical solution of linear and nonlinear systems of equations; root finding, LU factorization, Jacobi iteration; conditioning and stability, QR factorization, least squares, power iteration and other eigenvalue algorithms.
Three lectures; one term
Prerequisite: MATH 2T03

MATH 2U03
TEACHING MATHEMATICS
This course is designed to give a maximum of 20 students practical experience with teaching methods in mathematics. The course also provides an introduction to mathematics writing and development of communication skills relevant to mathematics.
Two lectures and one practicum; one term
Prerequisite: A grade of A- in both MATH 1A03 and 1AA3 or in ARTS&SCI 1D06 and permission of the course instructor
Enrollment is limited. Applications must be submitted to the instructor by May 1 of the academic year prior to registration, with selection for placements announced by September 5.
See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

MATH 3A03
REAL ANALYSIS I
The real number system, metric spaces, compactness, sequences and series, continuity, differentiability, the Riemann-Stieltjes integral, uniform convergence.
Three lectures; one term
Prerequisite: MATH 2A03, 2C03, and 2R03

MATH 3A03
REAL ANALYSIS II
Equicontinuous functions, functions of several variables, the inverse function theorem, the implicit function theorem, the rank theorem, Stokes' Theorem, the Lebesgue integral.
Three lectures; one term
Prerequisite: MATH 3A03

MATH 3B03
TOPICS IN GEOMETRY
Selected topics from: affine and projective geometry, Euclidean, spherical, and hyperbolic geometry, differential geometry of curves and surfaces.
Three lectures; one term
Prerequisite: MATH 2A03 and 2R03

MATH 3C03
MATHEMATICAL PHYSICS I
Linear algebra and eigenvalue problems; partial differential equations, orthogonal functions, Fourier series, Legendre functions, spherical harmonics.
Three lectures; one term
Prerequisite: One of MATH 2A03, 2Q04; and one of MATH 2C03, 2C03, 2P04. One of PHYSICS 2B06, 2D03, or 2K03 is recommended.
Not open to students with credit or registration in MATH 3F03, 3J04.

MATH 3D03
MATHEMATICAL PHYSICS II
Functions of a complex variable, probability and statistics, boundary value problems, Bessel functions.
Three lectures; one term
Prerequisite: MATH 3C03
Antirequisite: MATH 3K03
Not open to students with credit or registration in MATH 3J04, 3K03.
Not open to students registered in Honours Mathematics and Physics.

MATH 3E03
ALGEBRA I
An introduction to group theory, including Sylow theorems and structure of finite generated Abelian groups; applications of group theory.
Three lectures; one term
Prerequisite: MATH 2S03

MATH 3EE3
ALGEBRA II
Topics in ring and module theory, in particular principal ideal domains, unique factorization domains, Euclidean rings, field theory and Galois theory.
Three lectures; one term
Prerequisite: MATH 3E03

MATH 3F03
ADVANCED DIFFERENTIAL EQUATIONS
Three lectures; one term
Prerequisite: MATH 2A03, 2C03, and credit or registration in MATH 2R03

MATH 3FF3
PARTIAL DIFFERENTIAL EQUATIONS I
First order equations, well-posedness, characteristics, wave equation, heat equation, Laplace equation, boundary conditions, Fourier series, applications.
Three lectures; one term
Prerequisite: MATH 2A03, 2C03, 2R03

MATH 3H03
NUMBER THEORY
Selected topics from: congruence and residues, continued fractions, approximation of irrationals, arithmetical distribution in selected quadratic number fields. Diophantine equations, partitions, geometry of numbers, quadratic reciprocity.
Three lectures; one term
Prerequisite: Credit in at least 12 units of Level II Mathematics or Statistics

MATH 3I03
PARTIAL DIFFERENTIAL EQUATIONS FOR ENGINEERING
Topics in partial differential equations of interest to mechanical, material and ceramic engineering, including the wave equation, the heat diffusion equation and Laplace equation, in various coordinate systems.
Three lectures; first term
Prerequisite: MATH 2M06, or MATH 2P04 and 2Q04 or registration in Level III or IV of a programme in the Department of Materials Science and Engineering

MATH 3J04
ENGINEERING MATHEMATICS III
Topics in mathematics of interest for civil engineering, including probability and statistics, partial differential equations, numerical analysis, and matrix algebra.
Four hours; one term
Prerequisite: MATH 2M06

MATH 3K03
ENGINEERING MATHEMATICS III
Complex variable theory with applications to electrical and computer engineering.
Three lectures; one term
Prerequisite: MATH 2P04 and 2Q04
Antirequisite: MATH 3D03

MATH 3M03
MATHEMATICAL BIOLOGY
Population dynamics: models of discrete and continuous growth; competition and predation; epidemic models. Partial differential equations; diffusion and pattern formation in biological settings. Biological oscillators.
Three lectures; one term
Prerequisite: MATH 2E03 and 3F03

MATH 3N03
NUMERICAL ANALYSIS II
Interpolation and approximation, numerical integration and differentiation, solution of ordinary differential equation systems, partial differential equations, study of stiffness and stability.
Three lectures; one term
Prerequisite: MATH 2A03, 2T03
Antirequisite: MATH 4Q03

MATH 3P03
SET THEORY AND GENERAL TOPOLOGY
Naive set theory, Zorn's Lemma, metric spaces, point set topology.
Three lectures; one term
Prerequisite: MATH 2R03
Antirequisite: MATH 4P03

MATH 3Q03
COMPLEX ANALYSIS I
Analytic functions, Cauchy's theorem, Cauchy's integral formula, residues, zeroes of analytic functions; Laurent series, the maximum principle.
Three lectures; one term
Prerequisite: MATH 2AB3, 2C03, and 2F03

MATH 3R03
INQUIRY: HISTORY OF MATHEMATICS
An introduction to the history of mathematics, including interaction with other phases of culture, with special emphasis on the past three centuries.
Three lectures; one term
Prerequisite: At least two Level II Mathematics or Statistics courses other than MATH 2K03, 2L03

MATH 4B03
CALCULUS ON MANIFOLDS
Review of multivariable calculus, basic properties of manifolds, differential forms, Stokes' theorem, de Rham cohomology and applications.
Three hours; one term
Prerequisite: MATH 3C03; or MATH 2S03 and one of MATH 2AA3, or 2AB3
### MATH 4BB3  DIFFERENTIAL GEOMETRY
Riemannian metrics, connections, curvature, topological and analytical properties of Riemannian manifolds.
Three lectures; one term
Prerequisite: MATH 4B03

### MATH 4C03  COMBINATORICS
Inversion-formulae, systems of distinct representatives, block designs and other configurations; and other topics.
Three lectures; one term
Prerequisite: MATH 2A03 and 2R03

### MATH 4E03  ALGEBRA III
Selected topics in algebra, such as: representation theory, rings and modules, homological algebra.
Three lectures; one term
Prerequisite: MATH 3EE3

### MATH 4G03  DYNAMICAL SYSTEMS
Topics to be selected from ordinary differential equations theory, bifurcation and stability theory.
Three lectures; one term
Prerequisite: MATH 3F03. MATH 3A03 is recommended.

### MATH 4G03  PARTIAL DIFFERENTIAL EQUATIONS II
Elliptic, parabolic, and hyperbolic equations in several space dimensions: fundamental solutions, maximum principle, Sobolev spaces, variational methods, nonlinear equations, applications.
Three lectures; one term
Prerequisite: MATH 2A03 and 2R03

### MATH 4J03*  GRAPH THEORY
Graphs, trees, bipartite graphs, connectivity, graph colouring, matrix representations, applications.
Three lectures; one term
Prerequisite: MATH 2A03 and 2R03

### MATH 4L03  INTRODUCTION TO MATHEMATICAL LOGIC
First order logic, deduction systems, completeness and compactness theorems, model theory.
Three lectures; one term
Prerequisite: MATH 3EE3
Antirequisite: MATH 3L03

### MATH 4Q03  NUMERICAL METHODS FOR ORDINARY AND PARTIAL DIFFERENTIAL EQUATIONS
Methods for ordinary initial and boundary value problems. Stiff systems.
Three lectures; second term
Prerequisite: Credit or registration in MATH 3FF3 or 3D03, or permission of the instructor.
Antirequisite: MATH 3Q03

### MATH 4S03*  THE THEORY OF COMPUTABILITY
Automata and regular languages, Turing machines, recursive functions, decidability, Gödel's incompleteness theorems.
Three lectures; one term
Prerequisite: One of MATH 2S03, 2T03
Antirequisite: COMP SCI 4T03
Alternates with COMP SCI 4T03.

### MATH 4T03*  ALGEBRAIC TOPOLOGY
Fundamental groups and covering spaces, topics selected by the instructor.
Three lectures; one term
Prerequisite: MATH 3E03, 3S03

### MATH 4V03  APPLIED MATHEMATICAL ANALYSIS
Lebesgue integration, distribution theory, Fourier Analysis, partial differential equations, integral equations, calculus of variations; additional topics.
Three lectures; one term
Prerequisite: One of MATH 3C03, 3FF3

### MATH 4W03  DIRECTED READING
Directed reading in areas of mathematics of interest to the student and the instructor.
Prerequisite: Permission of the Chair of the Department. Application for permission must be received by March 31st of the academic year prior to registration.

### MATH 4X03  COMPLEX ANALYSIS II
Conformal maps, analytic continuation, harmonic functions, the Riemann mapping theorem, Riemann surfaces.
Three lectures; one term
Prerequisite: MATH 3X03

### STATISTICS

#### STATISTICS 1A03  STATISTICAL REASONING
The basic ideas of graphical displays, sampling methodology and probability are developed through diverse examples from a wide range of disciplines.
Three lectures, one tutorial; one term
Prerequisite: Grade 12 Mathematics
Not open to students registered in the Faculty of Science.
Not open to students with credit or registration in COMMERCIAL 2QA3, ECON 2B03, PSYCH 2RR3, SOC SCI 2J03, STATICS 1CC3, 2D03, 2MA3, 2MB3.

#### STATISTICS 1CC3  INTRODUCTORY COMPUTER-AIDED STATISTICS
Applied statistics including simple probability calculations based on binomial, Poisson and normal distributions, with emphasis on inferential methods and linear regression using computer statistics packages.
Two lectures, one lab (two hours); one term
Prerequisite: MATH 1A03 or 1M03
Antirequisite: COMMERCIAL 2QA3, ECON 2B03, HTH SCI 1F03, PSYCH 2G03, 2R03
Not open to students with credit in any Level II or above Statistics course. See Department Note above.
Students who have completed PSYCH 2G03 or 2R03 may take STATISTICS 1CC3, but will not receive credit.

#### STATISTICS 1L03  PROBABILITY AND LINEAR ALGEBRA
The algebra of probability, conditional probability and independence, discrete and continuous random variables, mean and variance, matrices, determinants, Cramer's rule, solution of linear equations.
Three lectures; one tutorial; one term
Prerequisite: Grade 12 Mathematics
Not open to students with credit in OAC Finite Mathematics or Statistics 1CC3, 2D03, 2MA3, 2MB3.
Not open to students registered in Science or Engineering programmes. Students transferring to the Faculty of Science do not retain credit for this course.

#### STATISTICS 2D03  PROBABILITY THEORY
Combinatorics, independence, conditioning; Poisson-process; discrete and continuous distributions with statistical applications; expectation, transformations, order statistics. Distribution of sample mean and variance, moment-generating functions, central limit theorem.
Three lectures; one term
Prerequisite: One of MATH 1A03, 1M03 and credit or registration in MATH 1B03
Not open to students with credit or registration in STATISTICS 2A03, 2MA3.

#### STATISTICS 2MA3  PROBABILITY AND STATISTICAL METHODS FOR SCIENCE
Combinatorics; discrete and continuous probability distributions; expectations; central limit theorem; point and interval estimation; hypothesis testing; regression and correlation; analysis of variance.
Three lectures; one term
Prerequisite: STATISTICS 1CC3; one of MATH 1A03, 1M03
Antirequisite: ECON 2B03
Not open to students with credit or registration in COMMERCIAL 2QA3, ECON 2B03, SOCIAL SCI 2J03, STATISTICS 2A03, 2D03, 2MB3.

#### STATISTICS 2MB3  STATISTICAL METHODS
Estimation; sampling distributions; confidence intervals; hypothesis testing; power; robustness; analysis of variance for one and two factor designs; linear regression; graphical methods; statistical computing.
Three lectures; one term
Prerequisite: STATISTICS 2D03
Antirequisite: ECON 2B03, PSYCH 2RR3, 2R03, STATISTICS 2R06
Not open to students with credit or registration in COMMERCIAL 2QA3, ECON 2B03, SOCIAL SCI 2J03, STATISTICS 2A03, 2MA3.
STATS 3D03  MATHEMATICAL STATISTICS I
The multivariate normal distribution, sampling distributions, limiting distributions, introduction to statistical inference.
Three lectures; one term
Prerequisite: STATS 2D03 and one of MATH 2A03, 2L03, 2G04
Antirequisite: STATS 3D03

STATS 3D03  MATHEMATICAL STATISTICS II
Estimation tests of hypotheses, sufficient statistics, inference about normal models, and selected topics from robust inference, Bayesian inference, nonparametric inference and resampling methods.
Three lectures; one term
Prerequisite: STATS 3D03
Antirequisite: STATS 3D06

STATS 3G03*  ACTUARIAL MATHEMATICS I
Survival distributions, life tables, life insurance, life annuities, net premiums and reserves.
Three lectures; one term
Prerequisite: STATS 2D03 and credit or registration in MATH 2K03
Offered in alternate years.

STATS 3H03*  ACTUARIAL MATHEMATICS II
Multiple life functions, multiple decrement models, valuation theory for pension plans.
Three lectures; one term
Prerequisite: STATS 3G03*
Offered in alternate years.

STATS 3N03  STATISTICAL METHODS FOR ENGINEERING
Introduction to statistical methods and applications: data analysis and statistical methods.
Three lectures; one term
Prerequisite: Registration or credit in Levels III, IV or V Engineering; or registration in Level III or IV of a programme in the Department of Materials Science and Engineering; or registration in Level II of a programme in the Department of Chemical Engineering
Antirequisite: STATS 3Y03

STATS 3P03*  SURVEY SAMPLING
Survey design; simple random sampling; stratified sampling; proportional allocation; ratio estimation; cluster sampling; systematic sampling and sample size determination. A project associated with current research is required.
Three lectures; one term
Prerequisite: STATS 2D03 and 2MB3

STATS 3U03  STOCHASTIC PROCESSES
Random walk, Markov chains, discrete and continuous parameter Markov processes, branching processes, birth and death processes, queuing processes.
Three lectures; one term
Prerequisite: STATS 2D03 and MATH 2A03

STATS 3Y03  STATISTICAL ANALYSIS FOR ENGINEERING
Introduction to probability, statistical inference, regression, correlation and decision making.
Three lectures; one term
Prerequisite: Registration in an Engineering and Management programme or a programme in the Department of Materials Science and Engineering or Mechanical Engineering, and credit in either MATH 2M06 or MATH 2P04 and MATH 2G04; or permission of the instructor
Antirequisite: STATS 3N03, 4R03

STATS 4B03  DESIGN OF EXPERIMENTS AND REGRESSION
Analysis of variance; linear models; randomized block designs; Latin squares; factorial experiments; regression and inference. Emphasis on applications.
Three lectures; one term
Prerequisite: STATS 3D03 (or 3D06)
Antirequisite: STATS 4R03, 4T03

STATS 4D03  INTERMEDIATE PROBABILITY THEORY
Construction of probability spaces and random variables, integration, conditional expectation, law of large numbers, convergence of series, weak convergence, characteristic functions and central limit theorems, martingales.
Three lectures; one term
Prerequisite: STATS 2D03 and MATH 3A03

STATS 4E03  BROWNIAN MOTION AND DIFFUSION
Brownian motion, stochastic integrals, one-dimensional Ito's formula, diffusion processes, option pricing and other financial applications. Simulation of the Black-Scholes formula and related models.
Three lectures; one term
Prerequisite: STATS 2D03

STATS 4H03*  OPERATIONS RESEARCH
Network models and algorithms, dynamic models, queuing models and other topics.
Three lectures; one term
Prerequisite: Credit or registration in STATS 3D03 (or 3D06)

STATS 4M03  MULTIVARIATE ANALYSIS
Multivariate distributions: Normal, Wishart, T2 and others; regression, correlation, factor analysis, general linear hypothesis.
Three lectures; first term
Prerequisite: STATS 3D03 (or 3D06), and one of MATH 2S03, 2T03

STATS 4R03  ORDER STATISTICS
Three lectures, second term
Prerequisite: Credit or registration in STATS 3D03 (or 3D06)

STATS 4U03*  NONPARAMETRIC METHODS IN STATISTICS
Rank tests and nonparametric methods; rank correlation; comparisons with parametric methods.
Three lectures; one term
Prerequisite: Credit or registration in STATS 3D03 (or 3D06)

MECHANICAL ENGINEERING
WEB ADDRESS:  http://www.mech.mcmaster.ca
John Hodgins Engineering Building, Room 316
Ext. 24294

Faculty as of January 15, 2001
Chair
D.S. Weaver

Professors
Mamdouh Shoukri/B.Sc. (Cairo), M.Eng., Ph.D., (McMaster), P.Eng.
David S. Weaver/B.A.Sc., M.A.Sc. (Toronto), Ph.D. (Waterloo), P.Eng.

Associate Professors
Chen Y. Ching/B.Sc. (Peradeniya), Ph.D. (Syracuse)
Marek P. Sklad/M.S.M. (Warsaw)
Samir Zada/B.Sc. (Cairo), M.Eng. (McMaster), Ph.D. (Lehigh)

Adjunct Associate Professor
Albert M.G. Chan/B.Sc. (Alberta), M.Eng, Ph.D. (McMaster), P.Eng.

Assistant Professors
Dan Ewing/B.A.Sc. (Waterloo), Ph.D. (SUNY-Buffalo)
Philip Koshy/B.E. (Anna), M.Tech., Ph.D. (IIT Kanpur)
Marlyn F. Lightstone/B.A.Sc., (Queen's), M.A.Sc., Ph.D. (Waterloo), P.Eng.

Assistant Members
J.David Embury (Materials Science and Engineering) B.Sc. (Manchester), Ph.D. (Cambridge), P.Eng.
MECHANICAL ENGINEERING

MECH ENG 2B03 MECHANICAL ENGINEERING MEASUREMENTS
Introduction to the theory and practice of engineering measuring techniques. Theory of measurements, precision shop measurements and laser metrology; measurements of pressure, flow, temperature and power; combustion analysis and gas analysis, measurement of strain and force; elementary statistical analyses.
One lecture, one lab (three hours); first term, one lab (three hours); second term
Prerequisite: MATH 1H05, PHYSICS 1D03

MECH ENG 2C03 MECHANICAL ENGINEERING DESIGN I
Two design projects involving modelling, analysis, synthesis, computing and drawing graded on the basis of participation and formal report preparation.
One tutorial (two hours), one lab (three hours); second term
Prerequisite: ENGINEER 1C04, 1D04, 2P04

MECH ENG 2W04 ENGINEERING THERMODYNAMICS
Introduction to the principles of thermodynamics, and applications in engineering.
Basic concepts: energy systems, properties of pure substances, entropy. Laws of thermodynamics, power and refrigeration cycles.
Three lectures, one tutorial; second term
Prerequisite: CHEM 1E03 and credit or registration in MATH 2M06, or MATH 2P04 and 2Q04
Antirequisite: ENGINEER 2H03, 2W04

MECH ENG 3A03 ENGINEERING MECHANICS
Three lectures; first term
Prerequisite: ENGINEER 2P04

MECH ENG 3C03 MANUFACTURING ENGINEERING
A general introduction, encompassing the wide field of activities from iron and steel making through casting, rolling, forging, to cold forming, metal cutting, welding, bonding, electrical machinery, surface treatment, mechanical handling, assembly, cleaning, packaging.
Three lectures; second term
Prerequisite: MECH ENG 2W04

MECH ENG 3D03 MECHANICAL ENGINEERING THERMODYNAMICS
Re-examination of the thermodynamic laws, developed in MECH ENG 2W04. Applied thermodynamics including advanced engineering thermodynamic processes, psychrometry, and an introduction to combustion, compressible flow and environmental problems.
Three lectures; second term
Prerequisite: MECH ENG 2W04

MECH ENG 3E04 MECHANICAL ENGINEERING DESIGN II
3-D stress transformation, curved beams, thick walled pressure vessels, contact stresses, fatigue, bolted and welded joints, machine elements. The laboratories feature a major design project from concept development through analysis to formal report preparation.
Three lectures, one lab (three hours); second term
Prerequisite: ENGINEER 2P04, 2Q04, MECH ENG 3A03

MECH ENG 3F04 MODELLING AND NUMERICAL SOLUTIONS
An introductory course in numerical analysis covering such topics as solution of differential and non-linear equations, matrices and systems of linear equations. One tutorial period, every other week, devoted to the modelling of mechanical systems.
Three lectures; one tutorial; first term
Prerequisite: Registration in a programme administered by the Department of Mechanical Engineering.

MECH ENG 3M02 COMPOSITE LABORATORY
Laboratory exercises in fluid mechanics, thermodynamics and solid mechanics.
One lab (three hours); both terms
Prerequisite: Registration in a programme administered by the Department of Mechanical Engineering.

MECH ENG 3N04 FLUID MECHANICS I
Fluid properties and statics, conservation laws, applications of the continuity, momentum and energy equations, dimensional analysis and similarity, boundary layer flow, internal and external flows.
Three lectures, one tutorial (two hours); first term
Prerequisite: MATH 2M06, or MATH 2P04 and 2Q04

MECH ENG 2A03 KINEMATICS OF MECHANISMS
Analysis and synthesis of planar mechanisms. Displacement, velocity and acceleration analysis methods. Design of 4-bar mechanisms. Cam design, gears and gear trains. Mechanical advantage.
Two lectures, one lab (three hours); first term
Prerequisite: MATH 1H05, 1N06 or 1N03 and 1NN3, and PHYSICS 1D03

Mechanics.

Two design projects involving

Diwaker Gupta/Business) B.Tech. (New Delhi), M.A.Sc. (Waterloo), P.Eng.
Andrew N. Hrymak/Chemical Engineering) B.Eng. (McMaster), Ph.D. (Carleton University), P.Eng.
George E. Round/B.S., Ph.D. (Birmingham), P.Eng.

Professors Emeriti

Mohammed A. Doka/Ph.D. Sc. (Cairo), M.A.Sc., Ph.D. (Toronto), P.Eng.
Brian Latto/B.Sc. (London), Ph.D. (Glasgow), P.Eng.; C.Eng.
Philip E. Wood/Chemical Engineering) B.A.Sc. (Waterloo), Ph.D. (California Institute Tech.), P.Eng.

Enrolment in Mechanical Engineering courses by students in programmes other than those administered by the Department may be restricted.

MANUFACTURING ENGINEERING

Courses If no prerequisite is listed, the course is open.

MANUFACT 2C03 MECHANICAL ENGINEERING DESIGN I
Two design projects involving modelling, analysis, synthesis, computing and drawing graded on the basis of participation and formal report preparation.
Two labs (three hours); second term
Prerequisite: ENGINEER 1C04, 1D04, 2P04

MANUFACT 3M02 MANUFACTURING LABORATORY I
Laboratory exercises in metalworking practices, measurements and solid mechanics.
One lab (three hours); both terms
Prerequisite: Registration in Manufacturing Engineering

MANUFACT 4A03 COMPUTER AIDED MANUFACTURING
Fixturing and part setups for machining and inspection. Detailed coverage of numerical control codes, computer aided tool path generation and part processing. Real time linear and circular interpolation algorithms. Geometric dimensioning and tolerancing. Introduction to coordinate measuring machines.
Two lectures, one tutorial (one hour), one lab (two hours) alternate weeks; second term
Prerequisite: Registration in Level III or Level IV of a programme administered by the Department of Mechanical Engineering.

MANUFACT 4M04 PROJECT
A major project in the area of manufacturing engineering. It may be of a design or experimental nature, to be completed under the supervision of a faculty member holding an appointment in the Department of Mechanical Engineering.
One lab (three hours), first term, three labs (three hours); second term
Prerequisite: Registration in Level IV of Manufacturing Engineering or Level V of Manufacturing Engineering and Management or Manufacturing Engineering and Society

MANUFACT 4P02 MANUFACTURING LABORATORY II
Laboratory exercises in metalworking practices, solid mechanics and controls.
One lab (three hours); both terms
Prerequisite: MANUFACT 3M02

MECHANICAL ENGINEERING

Courses If no prerequisite is listed, the course is open.

MECH ENG 2A03 KINEMATICS OF MECHANISMS
Analysis and synthesis of planar mechanisms. Displacement, velocity and acceleration analysis methods. Design of 4-bar mechanisms. Cam design, gears and gear trains. Mechanical advantage.
Two lectures, one lab (three hours); first term
Prerequisite: MATH 1H05, 1N06 or 1N03 and 1NN3, and PHYSICS 1D03

Department Note:
Enrolment in Mechanical Engineering courses by students in programmes other than those administered by the Department may be restricted.
MECH ENG 3R03 HEAT TRANSFER
Three lectures; second term
Prerequisite: MATH 2M06, MECH ENG 2W04

MECH ENG 4D03 MANUFACTURING PROCESSES (METAL REMOVAL)
Three lectures; second term
Prerequisite: MECH ENG 3C03

MECH ENG 4H03 MECHATRONICS
Integration of mechanical engineering with electronics and computer control. Sensors, actuators (including pneumatic and hydraulic), modelling using building block and state space methods, model-based control, programming of PLCs with practical demonstrations.
Three lectures; second term
Prerequisite: One of MECH ENG 4R03, ELEC ENG 3CA3 or 3CK4

MECH ENG 4I03 NOISE ANALYSIS AND CONTROL
Acoustics and vibration; noise measurement and analysis, noise standards; sound generation, propagation, absorption, transmission; acoustic materials; noise control techniques; case studies.
Three lectures; second term
Prerequisite: MECH ENG 4Q03

MECH ENG 4J03 ADVANCED FLUID MECHANICS
Study of high Reynolds number flows occurring in engineering applications. Topics include turbulence, boundary layers, aerodynamics, separated flows, drag reduction and heat transfer.
Three lectures; second term
Prerequisite: MECH ENG 4S03

MECH ENG 4K03 INTRODUCTION TO ROBOTIC MECHANICS
Spatial descriptions and transformations, manipulator kinematics, inverse kinematics, Jacobians, dynamics.
Three lectures; first term
Prerequisite: ENGINEER 2004

MECH ENG 4L03 INDUSTRIAL DESIGN
Introduction for engineering students to the techniques of industrial design, case studies and introduction to illustration techniques.
Three lectures; second term
Prerequisite: MANUFACT 2C03 or MECH ENG 2C03

MECH ENG 4M04 PROJECT
A major project related to any option or branch of engineering which may be of a design or experimental nature, to be completed under the supervision of a faculty member holding an appointment in the Department of Mechanical Engineering.
One lab (three hours), first term; three labs (three hours); second term
Prerequisite: Registration in Level IV of a programme administered by the Department of Mechanical Engineering

MECH ENG 4P02 COMPOSITE LABORATORY
Laboratory exercises in vibration analysis, machine structures, controls, heat transfer, gas dynamics, fluid mechanics and thermodynamics.
One lab (three hours); both terms
Prerequisite: MECH ENG 3M02, and registration in a programme administered by the Department of Mechanical Engineering

MECH ENG 4Q03 MECHANICAL VIBRATIONS
Transient and steady state vibration of single- and multi-degree of freedom systems. Free and forced vibrations of single and multiple degree-of-freedom mechanical systems, transient response, damping and vibration isolation.
Two lectures, one tutorial (two hours); first term
Prerequisite: ENGINEER 2004

MECH ENG 4R03 CONTROL SYSTEMS
Fundamentals of linear, continuous control systems. Control system performance in both time and frequency domains. Design and analysis of controllers.
Three lectures; first term
Prerequisite: STATS 3Y03
Antirequisite: ELEC ENG 3CA3 or 3CK4

MECH ENG 4S03 FLUID MECHANICS II
Introduction to potential flows, internal and external laminar and turbulent incompressible flows. Introduction to compressible flows and incompressible flow machines.
Three lectures; first term
Prerequisite: MECH ENG 3004

MECH ENG 4T03 FINITE ELEMENT APPLICATIONS
Theory of the finite element method, element derivation, solution procedures. Applications to static and dynamic mechanical systems using a finite element package.
Two lectures, one tutorial (one hour), one lab (two hours) alternate weeks; first term
Prerequisite: Registration in Level IV or V of a programme administered by the department of Mechanical Engineering

MECH ENG 4U03 ADVANCED THERMODYNAMICS
Compressible flows: Fanno and Rayleigh flows, normal and oblique shocks. Turbomachines: axial and radial, flow gas and steam turbines, axial and radial flow compressors and fans.
Three lectures; second term
Prerequisite: MECH ENG 3D03

MECH ENG 4V03 THERMO–FLUIDS SYSTEMS DESIGN AND ANALYSIS
The analysis and synthesis of thermo-fluid systems including renewable energy source systems. Approaches to modelling including techniques for the design and analysis of the performance of thermo-fluid systems.
Three lectures; second term
Prerequisite: MECH ENG 3D03, 3F03, 4G03

MECH ENG 4X03 CODIFIED DESIGN AND FAILURE ANALYSIS
Application of mechanical design to engineering practice. Topics include codified design of steel structures and the analysis of common failures occurring in service.
Three lectures; second term
Prerequisite: MECH ENG 3A03

MECH ENG 4Z03 COMPUTER AIDED DESIGN
Project-oriented CAD course. 3-D modelling and graphics, design by features, use of mechanical design application packages.
Two lectures, one tutorial (one hour), one lab (two hours) alternate weeks; first term
Prerequisite: Registration in Level IV or Level V of a programme administered by the Department of Mechanical Engineering

MEDICAL PHYSICS AND APPLIED RADIATION SCIENCES

WEB ADDRESS: http://www.physics.mcmaster.ca/
Nuclear Research Building, Room 128
Ext. 27650

Faculty as of January 15, 2001

Chair
Appointment Pending

Associate Chair
Fiona E. McNeill

Professors
David R. Chettle/B.Sc., M.Sc., Ph.D. (Birmingham)
William V. Prestwich/B.Sc., Ph.D. (McMaster)

Assistant Professors
Douglas R. Boreham/B.Sc. (Laurentian), Ph.D. (Ottawa)/Undergraduate Advisor, Chair Committee of Instruction Honours Medical and Health Physics Co-op
Fiona E. McNeill/B.Sc. (Edinburgh), Ph.D. (Birmingham)
John F. Valliant/B.Sc., Ph.D. (McMaster)

Associate Members
Richard G. Butler (Pathology) B.Sc., M.Sc. (Toronto), Ph.D. (A.N.U. Canberra), M.B.A. (McMaster)
Thomas J. Farrell (Radiology) B.Sc., B.Ed. (Toronto), M.Sc. (Western Ontario), Ph.D. (McMaster)
Claude Nahmias (Radiology) B.Sc. ( Cairo), Ph.D. (Surrey)
Michael S. Patterson (Radiology) B.Sc. (Queen's), M.Sc. (McMaster), Ph.D. (Toronto)
Andrew J. Rainbow (Biomed) B.Sc. (Manchester), M.Sc. (London), Ph.D. (McMaster)
Colin E. Webber (Radiology) B.Sc. (Birmingham), M.Phil., Ph.D. (Surrey)
Douglas R. Wyman (Radiology) B.Math (Waterloo), Ph.D. (McMaster)

Special Lecturer
David M. Tucker (Health Physics) B.Sc. (McMaster), C.H.P. (American Board of Health Physics)
Courses if no prerequisite is listed, the course is open.

MED PHYS 3101  SEMINAR I
Formerly: Physics 3101
Preparation and presentation of report on first work term.
One seminar (one hour); first term
Prerequisite: Registration in Year 4 of Honours Medical and Health Physics Co-op
Antirequisite: PHYSICS 3101

MED PHYS 3R03  COMPUTATIONAL MEDICAL PHYSICS
Formerly: Physics 3R03
A problem-based introduction to the use of numerical methods in medical physics.
Three lectures; second term
Prerequisite: Registration in Level III of Honours Medical and Health Physics or Year 4 of Honours Medical and Health Physics Co-op
Antirequisite: PHYSICS 3R03

MED PHYS 3T03  RADIOACTIVITY AND RADIATION INTERACTIONS
Formerly: Physics 3T03
Radioactivity and radiation phenomenology: interaction of radiations with matter, dosimetry, radiation in medicine, biological effects, radiation levels and regulations, radiation protection.
Three lectures; one term
Prerequisite: One of PHYSICS 1A03, 1F03 or permission of the instructor.
Antirequisite: BIOLOGY 3L03, PHYSICS 3T03

MED PHYS 401  SEMINAR II
Formerly: Physics 401
Preparation and presentation of report on second work term.
One seminar (one hour); second term
Prerequisite: Registration in Year 5 of Honours Medical and Health Physics Co-op
Antirequisite: PHYSICS 401

MED PHYS 4R06  RADIATION AND RADIOISOTOPE METHODOLOGY
Formerly: PHYSICS 4R06
Techniques and theory of the measurement of radiation. Includes radioactivity and radioactive decay, solid state dosimetry, principles of radioactive detectors, counting statistics and data reduction, advanced multidetector systems.
One lecture every week, one lab (three hours) every other week; two terms
Prerequisite: Registration in Level IV of Honours Medical and Health Physics or Year 4 of Honours Medical and Health Physics Co-op or permission of the instructor.
Antirequisite: PHYSICS 4R06

MED PHYS 4T03  CLINICAL APPLICATIONS OF PHYSICS IN MEDICINE
Formerly: Physics 4T03
Basic physical concepts underlying medical imaging, nuclear medicine, physiological measurement, radiation therapy and biomedical laser applications with an overview of their technical implementation.
Three lectures; one term
Prerequisite: One of MATH 2A03, 2Q04 and one of MATH 2C03, 2E03, 2P04; and one of BIOLOGY 3L03, ENG PHYS 3D03, MED PHYS 3T03, PHYSICS 3T03
Antirequisite: PHYSICS 4T03

MED PHYS 4X3  HUMAN BIOLOGY FOR PHYSICAL SCIENTISTS
Formerly: Physics 4X3
An overview of the structure and the function of the major organ systems of the body with some reference to radiation interactions.
Three hours; first term
Prerequisite: Registration in Level IV of Honours Medical and Health Physics or Year 4 of Honours Medical and Health Physics Co-op or permission of the instructor.
Antirequisite: BIOLOGY 3XX3, PHYSICS 3XX3, 4XX3

BIOLOGY 4U3  RADIATION BIOLOGY
The effects of radiation on biological material at the molecular, cellular, tissue and whole organism level.
Three lectures; two tutorials and one tutorial; one term
Prerequisite: BIOLOGY 2B03 or 2C03; or registration in Year 4 of Medical Health and Physics Co-op; or permission of the instructor.
One of BIOLOGY 3L03, MED PHYS 3T03 or PHYSICS 3T03 is strongly recommended.

MIDWIFERY 225

WEB ADDRESS: http://www.fhs.mcmaster.ca/midwifery
St. Joseph’s Hospital, Fontbonne Building, Room 609
(905) 522-1155, ext. 5273

Faculty as of January 15, 2001

Chair
Karyn Kaufman
Professor
Karyn Kaufman/B.S.N. (Michigan), M.S. (New York), Dr.P.H. (North Carolina), R.M.
Assistant Professors
Eileen Hutton/B.N.Sc. (Queen’s), M.N.Sc. (Toronto), R.M.
Helen McDonald/M.H.Sc. (McMaster), R.M.
Patricia McNiven/M.Sc. (Toronto), Ph.D. (Toronto), R.M.
Bruce Wainman/B.Sc., (Laurentian), M.H.Sc. (McMaster), Ph.D. (York)

Courses if no prerequisite is listed, the course is open.

MIDWIF 1A06  INTRODUCTION TO MIDWIFERY
Through small group discussions and arranged experiences, students will be oriented to the midwife’s role, the philosophy of practice in Ontario and the future direction of midwifery in Canada. Includes one week with all students in one site and follow-through of clients in fall and spring terms.
Prerequisite: Registration in the Midwifery Education Programme

MIDWIF 1C03  LIFE SCIENCE FOR MIDWIFERY
This course provides an overview of basic concepts relating to chemistry, biochemistry and microbiology. Content areas will include practical applications of clinical chemistry, specimen collection, related disease entities and pathologies, and the significance of laboratory values.
One term
Prerequisite: Registration in the Midwifery Education Programme
Co-requisite: HTH SCI 1D06

MIDWIF 2A03  MIDWIFERY CARE I - CLINICAL SKILLS INTENSIVE
This course involves four (4) weeks of structured learning experiences to prepare for an individualized placement in a midwifery practice. Fundamental clinical skills and theoretical information will be included.
Prerequisite: MIDWIF 1A06

MIDWIF 2B15  MIDWIFERY CARE II
This clinical course provides the student with an extended period of clinical experience within a midwifery practice. The course begins with a seven day intensive. Weekly tutorials will cover topics in preconception, antepartum, intrapartum, postpartum and newborn care.
One term
Prerequisite: MIDWIF 2A03 and 2E12

MIDWIF 2C15  MIDWIFERY CARE III
This course will further develop knowledge and skills relating to topics in preconception, antepartum, intrapartum, postpartum, and newborn care.
Weekly tutorials will move from simple to more complex situations with further integration of the biological, behavioral and social concepts.
One term
Prerequisite: MIDWIF 2B15

MIDWIF 2D03  REPRODUCTIVE PHYSIOLOGY
This course provides an in-depth understanding of human reproduction with particular emphasis on intrinsic control mechanisms and extrinsic methods of regulation of reproduction. This course will also provide the basis for understanding alterations from normal mechanisms including the influence of medical conditions on reproductive processes.
One term
Prerequisite: HTH SCI 1D06

MIDWIF 2E12  MIDWIFERY CARE I-CLINICAL PRACTICUM
This clinical placement focuses on assessment skills of prenatal and postnatal clients and observation of births. Physical assessment and history taking skills can be practiced under supervision. Included is a weekly situation-based, small group tutorial which will focus on thorough assessment of situations and integration of basic knowledge with clinical observations.
Twelve weeks
Prerequisite: MIDWIF 2A03
Antirequisite: MIDWIF 1B12, 1E09
MODERN LANGUAGES

MIDWIF 2F03 PHARMACOTHERAPY
This course is an overview of basic concepts in pharmacy, pharmacology and therapeutics relevant to the practice of midwifery in Ontario. Content areas include pharmacokinetics, toxicology, adverse drug reactions during pregnancy and lactation and pharmacology in the neonate.
One term
Prerequisite: HTH SCI 1006

MIDWIF 3A09 COMMUNITY BLOCK PLACEMENTS
Three one month placements will be organized with a family physician and an obstetrician. The third placement will be chosen by the student and may take place within or without the province or country.
Prerequisite: MIDWIF 2B15

MIDWIF 3B15 MIDWIFERY CARE IV
Integrates theoretical and clinical content progressively and a sound knowledge base of clinical skills to provide care throughout the childbearing cycle. The weekly tutorial situations will increasingly focus on the recognition of indications for consultation and referral and the relationships with other health care providers.
Prerequisite: MIDWIF 2C15
Antirequisite: MIDWIF 3B15

MIDWIF 3C12 MIDWIFERY CARE CLERKSHIP
This course examines clinical judgement and decision making skills. The student will be expected to participate in all phases of childbirth care in all available settings and should be increasingly able to devise the plan of care and make clinical decisions with minimal supervision.
One term
Prerequisite: MIDWIF 3B15

MIDWIF 3D03 HEALTH EDUCATION AND HEALTH PROMOTION
This course will incorporate concepts and principles from areas that contribute to the understanding of human behaviour in health related situations. Of special interest are teaching-learning situations that arise in primary health care settings for childbearing families.
Self-study; one term
Prerequisite: HTH SCI 1C06
Co-requisite: MIDWIF 3A09

MIDWIF 3E03 PROFESSIONAL ISSUES
This is a two-week intensive covering topics related to the profession of midwifery.
One term
Prerequisite: MIDWIF 3B15
Co-requisite: MIDWIF 3C12

MIDWIF 3F03 MIDWIFERY SYNTHESIS PAPER
The goal of this course is the synthesis of in-depth knowledge and critical analysis about a selected topic that leads to relevant application of the information for the midwifery profession. Each student is assigned to a faculty supervisor who will work closely with the student throughout the preparation of the paper.
One term
Prerequisite: Registration in Level III of the Midwifery Education Programma

MODERN LANGUAGES AND LINGUISTICS

WEB ADDRESS:
http://www.humanities.mcmaster.ca/~modlang/mlhome.htm
Togo Salmon Hall, Room 611
Ext. 24388

Faculty as of January 15, 2001

Chair
Gabriele Erasmi

Professors
Nina Kolesnikoff/M.A. (Moscow State), Ph.D. (Alberta)

Associate Professors
Marfa del C. Carreño/B.A. (Puerto Rico), M.A. (McGill), Ph.D. (Toronto)
Inga Dolinina Hitchcock/M.A., Ph.D. (Leningrad)
Gabriele Erasmi/B.A. (Yale), M.A., Ph.D. (Minneapolis)
Florigio Minelli/B.A., M.A. (Western Ontario), Ph.D. (Brown)
Magda Stroinska/M.A. (Warsaw), Ph.D. (Edinburgh)
Jean Wilson/B.A. (McMaster), B.Ed., M.A., Ph.D. (Toronto)

Adjunct Associate Professor

Assistant Professors
Iris Bruce/M.A., Ph.D. (Toronto)
Vittoria Cecchetto/B.A., M.A., Ph.D. (Toronto)
Anna L. Mora/B.A., M.A., Ph.D. (Toronto)

Lecturers
Eiko Virginia Ariga/B.A. (Doshisha), M.A. (Tokyo), M.A. (Texas)
Nicla Gargano/B.A., M.A. (Toronto)
Tasuneko Iwai/B.A. M.Ed. (Toronto)
Ping-Mei Law/B.A., M.A. (Toronto)
Ruth Renters/Staatsexamen (Bochum), M.A. (McMaster)

Research Associate
Branka Popovic/M.A., Ph.D. (Belgrade)

Professors Emeriti
George Thomas/B.A., Ph.D. (Edinburgh)
Jiri Truska/M.A. (SUNY-Buffalo)

Department Notes:
1. The Department of Modern Languages and Linguistics administers all courses in Catalan, German, Hispanic Studies, Italian, Japanese, Linguistics, Polish, and Russian. For information and counselling, please contact the departmental office, Togo Salmon Hall, Room 611.
2. All language courses are taught and assessed in the original language.
3. Not all courses are offered on an annual basis. Students should consult the timetable for available courses.

CATALAN...

Courses in Catalan are administered within the Department of Modern Languages and Linguistics of the Faculty of Humanities. For information and counselling, please contact the departmental office, Togo Salmon Hall, Room 611.

Notes:
1. Students should note that the Department has classified its Catalan language courses under the following categories:
   Introductory Level Language Courses
   CATALAN 2A03, 2A03
   Intermediate Level Language Courses
   CATALAN 3A03, 3A03
2. Not all courses are offered on an annual basis. Students should consult the timetable for available courses.

Courses: If no prerequisite is listed, the course is open.

CATALAN 2A03 INTENSIVE BEGINNER’S CATALAN I
An introduction to the Catalan language for students with no previous knowledge of Catalan. Emphasis will be placed on grammar, reading, writing, and oral practice. The sequel to this course is CATALAN 2A03.
Four hours; one term
First offered in 2001-2002.
Enrolment is limited.

CATALAN 2A03 INTENSIVE BEGINNER’S CATALAN II
This course is a continuation of CATALAN 2A03. It completes the grammatical structures introduced and continues reading, writing, and oral practice. The sequel to this course is CATALAN 3A03.
Four hours; one term
First offered in 2001-2002.
Enrolment is limited.

CATALAN 2B03 THE LITERATURE AND CULTURE OF CATALONIA
This course is taught in English and provides an introduction to the historical, artistic, musical and literary developments in Catalonia.
Three hours; one term
CATALAN 3A03  INTERMEDIATE CATALAN I
Review of grammatical structures and the introduction of idiomatic expressions in the language. Emphasis is placed on the expansion of reading, writing, and oral skills acquired. Introduction to Catalan texts. The sequel to this course is CATALAN 3A03. Four hours; one term
Prerequisite: CATALAN 2A03
Enrolment is limited.

CATALAN 3A03  INTERMEDIATE CATALAN II
This course is a continuation of CATALAN 3A03. There is grammar review and the expansion of grammatical structures and of the oral and written skills acquired. The reading of literary texts continues. Four hours; one term
Prerequisite: CATALAN 3A03
Enrolment is limited.

CHINESE ...
Courses in Chinese are administered within the Department of Modern Languages and Linguistics of the Faculty of Humanities. For information and counselling, please contact the departmental office, Togo Salmon Hall, Room 611.

Note:
Not all courses are offered on an annual basis. Students should consult the timetable for available courses.

Courses  If no prerequisite is listed, the course is open.

CHINESE 2A03  INTRODUCTORY MODERN CHINESE I
This intensive course is aimed at beginners with no prior knowledge of Modern standard (Mandarin) Chinese. Students will learn to read, write and speak at an elementary level. Pronunciation, basic sentence structure and vocabulary will be taught together with about 300 Chinese characters.
Four hours; one term
Antirequisite: CHINESE 1Z03, OAC Chinese or equivalent.
The Department reserves the right to place students in the course most appropriate to their abilities.
Enrolment is limited.

CHINESE 2A03  INTRODUCTORY MODERN CHINESE II
A continuation of CHINESE 2A03. An additional 300 Chinese characters will be taught.
Four hours; one term
Prerequisite: CHINESE 2A03
Antirequisite: CHINESE 1Z06
The Department reserves the right to place students in the course most appropriate to their abilities.
Enrolment is limited.

GERMAN ...
Courses and programmes in German are administered within the Department of Modern Languages and Linguistics of the Faculty of Humanities. For information and counselling, please contact the departmental office, Togo Salmon Hall, Room 611.

Notes:
1. Students should note that the Department has classified its German language courses under the following categories:
   Introductory Level Language Course
   GERMAN 1Z03, 1Z23
   Intermediate Level Language Courses
   GERMAN 1B03, 1B06, 2Z03, 2Z23
   Advanced Level Language Courses
   GERMAN 3E03, 3G03, 4CC3, 4Z03
2. Not all courses are offered on an annual basis. Students should consult the timetable for available courses.

Courses  If no prerequisite is listed, the course is open.

GERMAN 1B03  INTERMEDIATE GERMAN I
A course designed to further proficiency in spoken and written German while reviewing grammatical structures. Use is made of original German materials for listening comprehension and reading. Topics on the culture and civilization of the German-speaking peoples are studied. The sequel to this course is GERMAN 1B03.
Four hours; one term
Prerequisite: OAC German or permission of the Department
Antirequisite: GERMAN 1B06, 2Z03, 2Z23
Not open to students with credit or registration in GERMAN 1B03.
The Department reserves the right to place students in the course most appropriate to their abilities.

GERMAN 1B03  INTERMEDIATE GERMAN II
The course develops further proficiency in spoken and written German while emphasizing more advanced grammatical structures. Material in the original language on the culture of the German-speaking peoples is used extensively for listening comprehension and reading. The sequels to this course are GERMAN 3E03 and 3G03.
Four hours; one term
Prerequisite: GERMAN 1B03 or permission of the Department
Antirequisite: GERMAN 1B06, 2Z06 or 2Z23
The Department reserves the right to place students in the course most appropriate to their abilities.

GERMAN 1203  BEGINNER’S INTENSIVE GERMAN I
This course is designed to give students a basic knowledge of German grammar and a reasonable amount of speaking and reading skills. Small tutorial groups ensure maximum participation by each student. This course is enhanced by a CD-ROM and a Web-Page. The sequel to this course is GERMAN 1Z23.
Four hours; one term
Antirequisite: OAC German, GERMAN 1Z06
Not open to students with credit or registration in GERMAN 1Z03.
The Department reserves the right to place students in the course most appropriate to their abilities.
Enrolment is limited.

GERMAN 1Z23  BEGINNER’S INTENSIVE GERMAN II
This course is designed to introduce more advanced grammatical structures and to practice speaking, reading and writing skills. Students will be able to express themselves reasonably in German. Small tutorial groups ensure maximum participation by each student. This course is enhanced by a CD-ROM and a Web-Page. The sequel to this course is GERMAN 2Z03.
Four hours; one term
Prerequisite: GERMAN 1Z03 or permission of the Department
Antirequisite: OAC German, GERMAN 1Z06
The Department reserves the right to place students in the course most appropriate to their abilities.
Enrolment is limited.

GERMAN 2A03  INTRODUCTION TO GERMAN LITERATURE
Lectures outline the development of German literature against its cultural background and through readings of literary texts.
Three hours; one term
Prerequisite: One of GERMAN 1B06, 1B03, 2Z23 or 2Z06; or concurrent registration in GERMAN 2Z03 or 2Z23

GERMAN 2CC3  GERMANY THROUGH THE AGES:
CULTURE AND SOCIETY
Historical and cultural events as well as personalites which have shaped German culture and society are examined. Texts are taken from various genres: literature, journalism, history, the fine arts, etc.
Three hours; one term
Prerequisite: One of GERMAN 1B06, 1B03, 2Z06 or 2Z23; or concurrent registration in GERMAN 2Z03 or 2Z23

GERMAN 2Z03  INTERMEDIATE GERMAN I
A course designed to further proficiency in spoken and written German. Extensive use is made of original German materials for listening comprehension and reading. There will also be an introduction to the culture and civilization of the German-speaking peoples. The sequel to this course is GERMAN 2Z23.
Three hours; one term
Prerequisite: One of GERMAN 1B06 or 1Z03, or permission of the Department
Antirequisite: GERMAN 1B03, 1B06, 2Z26
Not open to students with credit or registration in GERMAN 2Z3.
The Department reserves the right to place students in the course most appropriate to their abilities.

GERMAN 2Z23  INTERMEDIATE GERMAN II
The course develops further proficiency in spoken and written German while emphasizing more advanced grammatical structures. Material in the original language on the culture of the German-speaking peoples is used extensively for listening comprehension and reading. The sequels to this course are GERMAN 3E03 and 3G03.
Three hours; one term
GERMAN 3B03 THE AGE OF GOETHE AND SCHILLER
The development of German literature from Sturm und Drang to Romanticism. Three lectures; one term
Prerequisite: GERMAN 2AA3 or 2CC3
Offered in alternate years.

GERMAN 3C03 THE 20TH CENTURY: FROM MODERNISM TO POSTMODERNISM IN GERMAN CULTURE
The course will highlight structural, philosophical, and thematic features of (post)modernity in literary texts, films, cabaret, music and popular culture. Among possible authors, film makers, and song writers to be studied: Kafka, Brecht, Tucholsky, Andreas Salomé, Wolf, Honigmann, Fassbinder, Dörfle, Biermann.
Three lectures; one term
Prerequisite: GERMAN 2AA3 or 2CC3
Antirequisite: GERMAN 2A03
Offered in alternate years.

GERMAN 3E03 GERMAN GRAMMAR
A systematic review of grammar; this knowledge will be applied to writing short essays and translations. The sequel to this course is GERMAN 4203.
Three hours; one term
Prerequisite: One of GERMAN 1B06, 1B83, 2Z06 or 2Z3
Antirequisite: GERMAN 2E03
The Department reserves the right to place students in the course most appropriate to their abilities.

GERMAN 3G03 PRACTICE IN GERMAN
The course develops the skills of speaking, writing and listening comprehension. Emphasis will be on fluent and correct expression. The sequel to this course is GERMAN 4203.
Three hours; one term
Prerequisite: One of GERMAN 1B06, 1B83, 2Z06 or 2Z3
Antirequisite: GERMAN 2G03
Priority is given to students in a programme requiring German. Students with native or near native fluency may be required to register in an appropriate alternative.
The Department reserves the right to place students in the course most appropriate to their abilities.
Enrolment is limited.

GERMAN 4C03 TRANSLATION: TECHNIQUES AND PRACTICE
Practice in the translation of texts of a literary and non-literary nature. (English to German and German to English). This course makes use of a special Annotated Screens programme available in the Humanities Computing Laboratory.
Three hours; one term
Prerequisite: GERMAN 3203 or 4203

GERMAN 4F03 GERMAN FOLKLORE AND FAIRY TALES
The course will examine elements of folklore and the supernatural in fairy tales from various periods: tales from German Romanticism, and modern twentieth-century (parodic) rewritings of the tradition.
Three lectures; one term
Prerequisite: GERMAN 2AA3 or 2CC3
Alternates with GERMAN 4H03

GERMAN 4H03 GERMAN LANGUAGE THROUGH THE AGES
The course follows the development of the German language from its Indo-European origins to the present situation in three German speaking countries. Selected texts from major writers of the Old and Middle High German periods, as well as works on linguistic and social history of the German language will be studied.
Three lectures; one term
Prerequisite: Nine units of German above Level I
Alternates with GERMAN 4F03.

GERMAN 4I03 INDEPENDENT STUDY
The student will prepare, under the supervision of a faculty member, a research paper involving independent study in an area where the student has already demonstrated competence.
Prerequisite: Twelve units of German above Level I and permission of the Department

GERMAN 4T03 TOPICS IN GERMAN LITERATURE I
Possible Topics: Kafka after Kafka; German Expressionism and Film; German Literature of Exile and the inner Emigration; The Legacy of the Holocaust in German Film and Fiction; Berlin/Vienna: The Cultural Life of a City; The Literature of Reunification, etc. Consult with the Department concerning topic to be offered.
Three lectures; one term
Prerequisite: GERMAN 2AA3 or 2CC3
Antirequisite: GERMAN 4T03 may be repeated, if on a different topic, to a total of six units.

GERMAN 4Z03 ADVANCED LANGUAGE PRACTICE
A course designed to increase the student's facility in oral and written communication. Students will be required to express their views on a variety of topics in written assignments and class discussions. Extensive reading will expand the student's vocabulary and improve general language ability.
Three hours; one term
Prerequisite: GERMAN 2E03 or 3E03
Antirequisite: GERMAN 3Z03

HISPANIC STUDIES ...

Courses and programmes in Hispanic Studies are administered within the Department of Modern Languages and Linguistics of the Faculty of Humanities. For information and counselling, please contact the departmental office, Togo Salmon Hall, Room 611.

Notes:
1. Students should note that the Department has classified its Hispanic language courses under the following categories:
INTRODUCTORY LEVEL LANGUAGE COURSE
HISPANIC 1A06, 1ZZ3

INTERMEDIATE LEVEL LANGUAGE COURSES
HISPANIC 1A03, 1A06, 1A3, 2A03, 2203, 22Z3

ADVANCED LEVEL LANGUAGE COURSES
HISPANIC 3A03, 3B03, 3D03, 4C03

2. Not all courses are offered on an annual basis. Students should consult the timetable for available courses.

HISPANIC 1A03 INTERMEDIATE SPANISH I
First part of an intensive review of the grammatical structures of Spanish. Emphasis will be upon composition, expansion of vocabulary and oral practice. Written works in the original will be studied. The sequel to this course is HISPANIC 1A03.
Three hours; one term
Prerequisite: OAC Spanish or permission of the Department
Antirequisite: HISPANIC 1A06, 2Z06, 2ZZ3
Not open to students with credit or registration in HISPANIC 1A03.
The Department reserves the right to place students in the course most appropriate to their abilities.

HISPANIC 1A03 INTERMEDIATE SPANISH II
Second part of an intensive review of grammatical structures of Spanish. Emphasis will be upon composition, expansion of vocabulary and oral practice. Written works in the original will be studied. The sequel to this course is HISPANIC 2A03 and 3A03.
Three hours; one term
Prerequisite: HISPANIC 1A03 or permission of the Department
Antirequisite: HISPANIC 1A06, 2Z06, 2ZZ3
The Department reserves the right to place students in the course most appropriate to their abilities.

HISPANIC 1Z03 BEGINNER'S INTENSIVE SPANISH I
No prior knowledge of the language is needed to take this course. Basic vocabulary and grammatical structures are studied. Focus is on reading and writing, but students completing this level should be able to understand and speak reasonably well.
This course is enhanced by a Computer Assisted Language Learning (CALL) module. The sequel to this course is HISPANIC 1Z03.
Four hours; one term
Prerequisite: OAC Spanish or permission of the Department, HISPANIC 1Z03
Antirequisite: OAC Spanish or prior knowledge of Spanish, HISPANIC 1Z03
The Department reserves the right to place students in the course most appropriate to their abilities.
Enrolment is limited.

HISPANIC 1ZZ3 BEGINNER'S INTENSIVE SPANISH II
A continuation of HISPANIC 1Z03, students shall broaden their grammar base and expand their vocabulary to the point where they will be able to exchange information (orally and in writing) in contexts that reflect real situations. This course is enhanced by a Computer Assisted Language Learning (CALL) module. The sequel to this course is HISPANIC 2Z03. Four hours; one term
Prerequisite: HISPANIC 1Z03 or permission of the Department.

Antirequisite: OAC Spanish or prior knowledge of Spanish, HISPANIC 1Z06.
The Department reserves the right to place students in the course most appropriate to their abilities.
Enrolment is limited.

**HISPANIC 2A03: LANGUAGE PRACTICE**
A course devoted to the expansion of vocabulary, the improvement of comprehension, and the achievement of greater confidence and versatility in the language by using different and creative forms of communication. The sequel to this course is HISPANIC 3A03.
Three hours; one term
Prerequisite: One of HISPANIC 1A06, 1AA3, 2Z06 or 2ZZ3; or concurrent registration in HISPANIC 2ZZ3; or permission of the Department. Not available to students who have native fluency in Spanish.
The Department reserves the right to place students in the course most appropriate to their abilities.

**HISPANIC 2B03: INTRODUCTION TO SPANISH LITERATURE AND CIVILIZATION**
A survey of Spanish literature from the Middle Ages to the present. Discussions will bring into focus the historical, intellectual and aesthetic context in which this literature flourished.
Three lectures; one term
Prerequisite: One of HISPANIC 1A06, 1AA3 or 2Z03.

**HISPANIC 2L03: SPANISH AMERICAN LITERATURE AND CIVILIZATION**
A survey of Spanish American literature from the fifteenth century to the present. The most significant cultural currents and representative writers will be studied with the purpose of understanding the development of literary genres and the cultural, political and social context in which they flourished.
Three lectures; one term
Prerequisite: One of HISPANIC 1A06, 1AA3 or 2Z03.

**HISPANIC 2Z03: INTERMEDIATE SPANISH I**
First part of an intensive review of the grammatical structures of Spanish. Emphasis will be upon composition, expansion of vocabulary and oral practice. Written works in the original will be studied. The sequel to this course is HISPANIC 2Z23.
Three hours; one term
Prerequisite: One of HISPANIC 1ZZ2 or 1Z06, or permission of the Department.
The Department reserves the right to place students in the course most appropriate to their abilities.

**HISPANIC 2ZZ3: INTERMEDIATE SPANISH II**
Second part of an intensive review of grammatical structures of Spanish. Emphasis will be upon composition, expansion of vocabulary and oral practice. Written works in the original will be studied. The sequel to this course is HISPANIC 3A09.
Three hours; one term
Prerequisite: HISPANIC 2Z03 or permission of the Department.
The Department reserves the right to place students in the course most appropriate to their abilities.

**HISPANIC 3A03: ADVANCED GRAMMAR AND COMPOSITION I**
The emphasis is clarity, precision, conciseness and other pertinent aspects of the language. Students will prepare written works such as letters, memos, application forms and resumes and will develop related vocabulary. The sequel to this course is HISPANIC 3D03.
Three hours; one term
Prerequisite: HISPANIC 2A03.

**HISPANIC 3D03: ADVANCED GRAMMAR AND COMPOSITION II**
The main objective is to develop the students' abilities in the kinds of writing they are expected to do at university level such as outlines, book reviews and essays. The sequel to this course is HISPANIC 4C03.
Three hours; one term
Prerequisite: HISPANIC 3A03.

**HISPANIC 4A03: THE SPANISH AMERICAN NOVEL (BEFORE 1954)**
A study of the Spanish American Novel up to the middle of the 20th Century (Azuela, Gallegos, Alegria, etc.).
Three lectures; one term
Prerequisite: Nine units of Hispanic Studies above Level I, including HISPANIC 2L03.
Offered in alternate years.

**HISPANIC 4AA3: THE SPANISH AMERICAN NOVEL (AFTER 1954)**
An examination of the themes and trends of the Spanish American novel from the publication of Pedro Párra (1954) and including the Boom (Garcia Márquez, Fuentes, Donoso, Cortazar).
Three lectures; one term
Prerequisite: Nine units of Hispanic Studies above Level I, including HISPANIC 2L03.
Offered in alternate years.

**HISPANIC 4B03: THE SPANISH AMERICAN SHORT STORY**
A study of the evolution and trends of the Spanish American short story from Romanticism to the present.
Three lectures; one term
Prerequisite: Nine units of Hispanic Studies above Level I, including HISPANIC 2L03.
Offered in alternate years.

**HISPANIC 4C03: SYNTAX**
This course provides the opportunity to develop a deeper awareness of style through the study of syntax.
Three hours; one term
Prerequisite: HISPANIC 3D03.
Antirequisite: HISPANIC 3E03.

**HISPANIC 4F03: SURVEY OF MEDIEVAL AND RENAISSANCE LITERATURE**
This course will study Spain's literary masterpieces of these periods, focusing primarily on prose and poetry.
Three lectures; one term
Prerequisite: Nine units of Hispanic Studies above Level I, including HISPANIC 2B03.
Offered in alternate years.

**HISPANIC 4FF3: SURVEY OF SPANISH THEATRE**
This course will focus on the major developments in Spanish drama and stage from Lope to Lorca.
Three lectures; one term
Prerequisite: Nine units of Hispanic Studies above Level I, including HISPANIC 2B03.
Offered in alternate years.

**HISPANIC 4H03: SPANISH NOVEL OF THE 19TH AND 20TH CENTURIES**
This course will examine the masterpieces and trends of the Spanish novel over the last 150 years.
Three lectures; one term
Prerequisite: Nine units of Hispanic Studies above Level I, including HISPANIC 2B03.
Offered in alternate years.

**HISPANIC 4I03: INDEPENDENT STUDY**
The student will prepare, under the supervision of a faculty member, a research paper involving independent study in an area in which the student has demonstrated competence.
Prerequisite: 12 units of Hispanic Studies above Level I and permission of the Department.

**ITALIAN...**

Courses and programmes in Italian are administered within the Department of Modern Languages and Linguistics of the Faculty of Humanities. For information and counselling, please contact the departmental office, Togo Salmon Hall, Room 611.

**Notes:**
1. Students should note that the Department has classified its Italian language courses under the following categories:

   **Introductory Level Language Courses**
   ITALIAN 1C03, 1C03, 1D03, 1DD3

   **Intermediate Level Language Courses**
   ITALIAN 1A03, 1AA3, 2Z03, 2ZZ3

   **Advanced Level Language Courses**
   ITALIAN 3A03, 3D03, 4A03, 4B03

2. Not all courses are offered on an annual basis. Students should consult the timetable for available courses.
ITALIAN 1A03  INTERMEDIATE ITALIAN I
An intensive review of certain grammatical structures of Italian and an
introduction to composition, together with oral practice. The sequel to
this course is ITALIAN 1A03.
Four hours; one term
Prerequisite: OAC Italian or equivalent or permission of the Department
Antirequisite: ITALIAN 1A06, 2Z03 or 2Z06
Not open to students with credit or registration in ITALIAN 1A03.
The Department reserves the right to place students in the course most
appropriate to their abilities.

ITALIAN 1A04  INTERMEDIATE ITALIAN II
An intensive review of those grammatical structures not studied previ­
ously, together with oral practice. Selected written works in the original
will also be studied. The sequel to this course is ITALIAN 3A03.
Four hours; one term
Prerequisite: ITALIAN 1A03 or permission of the Department
Antirequisite: ITALIAN 1A06, 2Z03 or 2Z06
The Department reserves the right to place students in the course most
appropriate to their abilities.

ITALIAN 1C03  BEGINNER'S INTENSIVE ITALIAN I
A course designed for students with no prior knowledge of the language.
The course gives the student a basic knowledge of Italian grammar and the
opportunity to practise the spoken language. The course is enhanced by
a CALL (Computer-Aided Language Learning) module. The sequel to
this course is ITALIAN 1C03.
Four hours; one term
Antirequisite: OAC Italian or equivalent, ITALIAN 1D03, 1D03, 1D06, or 1Z26.
The Department reserves the right to place students in the course most
appropriate to their abilities.

ITALIAN 1D03  BEGINNER’S INTENSIVE ITALIAN FOR DIALECT SPEAKERS I
A course designed for students who understand an Italian dialect or Stand­
ard Italian (but have not studied Standard Italian formally) which provides
a basic knowledge of Italian grammar and the opportunity to practise the
spoken language. The course is enhanced by a CALL (Computer-Aided Language Learning)
module. The sequel to this course is ITALIAN 1D03.
Four hours; one term
Antirequisite: OAC Italian or equivalent, ITALIAN 1C03, 1C03, 1Z26 or 1Z26.
The Department reserves the right to place students in the course most
appropriate to their abilities.

ITALIAN 1D06  BEGINNER’S INTENSIVE ITALIAN FOR DIALECT SPEAKERS I
The course builds on the grammatical structures acquired through 1D03 and
offers students the opportunity to practise the spoken language. The course is enhanced by a CALL (Computer-Aided Language Learning)
module. The sequel to this course is ITALIAN 2Z03.
Four hours; one term
Antirequisite: OAC Italian or equivalent, ITALIAN 1C03, 1C03, 1Z26 or 1Z26;
The Department reserves the right to place students in the course most
appropriate to their abilities.

ITALIAN 1E03  INTERMEDIATE ITALIAN II
An intensive review of those grammatical structures not studied previ­
ously, together with oral practice. Selected written works in the original
will also be studied. The sequel to this course is ITALIAN 3A03.
Four hours; one term
Prerequisite: ITALIAN 1A03 or permission of the Department
Antirequisite: ITALIAN 1A06, 2Z03 or 2Z06

ITALIAN 1F03  CONTEMPORARY ITALIAN LITERATURE AND CULTURE
This course will study Italian literature from Fascism and the Second World
War, focusing on Neorealist in literature and film, and on major contem­
porary authors, from Moravia to Celvino.
Three lectures; one term
Prerequisite: One of ITALIAN 1A06, 1A03, 2Z03, 2Z06, or concurrent
registration in ITALIAN 2Z03

ITALIAN 2A03  INTERMEDIATE ITALIAN I
An intensive review of certain grammatical structures of Italian and an
introduction to composition, together with oral practice. The sequel to
this course is ITALIAN 2A03.
Four hours; one term
Prerequisite: One of ITALIAN 1CC3 or 1D03 or 1Z26 or 1Z26, or permission of the Department
Antirequisite: ITALIAN 1A06, 1A03, 2Z06 or 2Z26

ITALIAN 2A04  INTERMEDIATE ITALIAN II
An intensive review of those grammatical structures not studied previ­
ously, together with oral practice. Selected written works in the original
will also be studied. The sequel to this course is ITALIAN 3A03.
Four hours; one term
Prerequisite: One of ITALIAN 1CC3 or 1D03 or 1Z26 or 1Z26, or permission of the Department
Antirequisite: ITALIAN 1A06, 1A03, 2Z06 or 2Z26

ITALIAN 2B03  ADVANCED GRAMMAR PRACTICE
This course is designed to improve the student’s written and oral proficiency
through exercises, compositions, and analysis of texts. The sequel to
this course is ITALIAN 3D03.
Three hours; one term
Prerequisite: One of ITALIAN 1A06, 1A03, 2Z06 or 2Z26, or permission of the Department
Antirequisite: ITALIAN 2A03, 2G03

ITALIAN 2C03  COMPOSITION AND STYLISTICS I
An introduction to the study of Italian stylistics through an intensive and
systematic analysis of Italian clause, sentence and discourse structure in the
written and spoken language. The sequel to this course is ITALIAN 4A03.
Three hours; one term
Prerequisite: One of ITALIAN 2G03 or 3A03, or permission of the Department
Antirequisite: ITALIAN 2D03

ITALIAN 2D03  COMPOSITION AND STYLISTICS II
An advanced course in composition and stylistics designed to develop
the student’s skills in critical writing and oral expression. The sequel to
this course is ITALIAN 4B03.
Three hours; one term
Prerequisite: ITALIAN 3D03
Antirequisite: ITALIAN 4M03

ITALIAN 2E03  INTRODUCTION TO TRANSLATION
A course designed to introduce the students to the basic techniques of
translation from English to Italian and from Italian to English, including
comparative stylistics. Translation materials will be selected from con­
temporary literary and journalistic sources.
Three hours; one term
Prerequisite: ITALIAN 4A03 or permission of the Department
ITALIAN 4G03  NINETEENTH-CENTURY ITALIAN LITERATURE AND CULTURE
This course will study Italian poetry, fiction and drama, with special emphasis on
the works of Foscolo, Manzoni, Leopardi, Carducci, Verga, Fogazzaro and
Pascoli.
Three lectures; one term
Prerequisite: One of ITALIAN 1A06, 1AA3, 2206 or 2ZZ3
Offered in alternate years.
ITALIAN 4I13  INDEPENDENT STUDY
The student will prepare, under the supervision of a faculty member, a
research paper involving independent study in an area where the student
has already demonstrated competence.
Prerequisite: 12 units of Italian above Level I and permission of the
Department
ITALIAN 4R03  RENAISSANCE
A study of the literature of the Renaissance.
Three lectures; one term

ITALIAN 4T03  TOPICS IN ITALIAN LITERATURE
Previous topics include: Italian drama, Italian Romantic opera, political literature
of the eighteenth and nineteenth centuries. Consult the Department concerning
appropriate topic to be offered.
Three lectures; one term
Prerequisite: One of ITALIAN 1A06, 1AA3, 2206 or 2ZZ3
ITALIAN 4T03 may be repeated, if on a different topic, to a total of six units.
Offered in alternate years.

JAPANESE ...

Japanese courses are administered within the Department of Modern Lan-
guages and Linguistics of the Faculty of Humanities. The Combined Honors
in Japanese Studies and Another Subject Programme is coordinated by an
interdisciplinary Committee of Instruction. For information and counselling,
please contact the departmental office, Togo Salmon Hall, Room 611.

Committee of Instruction

Director
David F. Barrett (History)
Eiko Virginia Ariga (Modern Languages and Linguistics)
Kenneth S. Chan (Economics)
J.S. Chang (Engineering Physics)
Pyllis Granoff (Religious Studies)
Tsuneko Iwai (Modern Languages and Linguistics)
K. L. Liaw (Geography and Geology)
Koichi Shinohara (Religious Studies)
Richard Stubbs (Political Science)
Francois Winnick (Chemistry)

Note:
Not all courses are offered on an annual basis. Students should consult
the timetable for available courses.

Courses  If no prerequisite is listed, the course is open.

JAPANESE 1Z03 BEGINNER'S INTENSIVE JAPANESE I
This course provides students with an introductory knowledge of spoken
Japanese. Acquisition of basic grammar, hiragana and
katakana scripts, and oral communication skills will be emphasized. Open
to students with no prior background in Japanese. The sequel to this
course is JAPANESE 1ZZ3.
Four hours; one term
Antirequisite: OAC Japanese or equivalent, JAPANESE 1206
Not open to students with credit in JAPANESE 1ZZ3.
The Department reserves the right to place students in the course most
appropriate to their abilities.
Enrolment is limited.

JAPANESE 1ZZ3 BEGINNER'S INTENSIVE JAPANESE II
This course focuses on developing proficiency in the four skills of listen-
ing, speaking, reading, and writing. Kanji (Chinese characters) will be
introduced. Writing skill in hiragana and katakana script is required. The
sequel to this course is JAPANESE 2Z03.
Four hours; one term
Prerequisite: JAPANESE 1203 or permission of the Department
Antirequisite: OAC Japanese or equivalent, JAPANESE 1Z06
The Department reserves the right to place students in the course most
appropriate to their abilities.
Enrolment is limited.

JAPANESE 2203 INTERMEDIATE INTENSIVE JAPANESE I
This course develops students' communicative skills in Japanese through
conversational exercises, creative writing and other practices. Emphasis
will be placed upon refining the knowledge of grammar and expanding
vocabulary. The sequel to this course is JAPANESE 22Z3.
Four hours; one term
Prerequisite: JAPANESE 1206 or 1ZZ3, with a grade of at least B-; or
permission of the instructor
Antirequisite: JAPANESE 2206
Not open to students with credit in JAPANESE 2ZZ3.
The Department reserves the right to place students in the course most
appropriate to their abilities.

JAPANESE 2ZZ3 INTERMEDIATE INTENSIVE JAPANESE II
This course aims to develop students' communicative skills in Japanese
through conversational exercises, creative writing and other exercises.
The sequel to this course is JAPANESE 3A03.
Four hours; one term
Prerequisite: JAPANESE 2203 or permission of the instructor
Antirequisite: JAPANESE 2206
The Department reserves the right to place students in the course most
appropriate to their abilities.

JAPANESE 3A03 ADVANCED INTENSIVE JAPANESE I
This course continues the study of written and spoken Japanese with
particular attention devoted to the development of the following language
skills: conversational practice based on situational drills; reading skills
based on selected literary materials; writing short essays; and continued
study of Kanji. The sequel to this course is JAPANESE 3A03.
Four hours; one term
Prerequisite: JAPANESE 2206 or 2ZZ3 or permission of the instructor
Antirequisite: JAPANESE 32Z6
The Department reserves the right to place students in the course most
appropriate to their abilities.

JAPANESE 3B03 BUSINESS JAPANESE
A study of Japanese language in a context of culture, values and customs
of the Japanese business world. Emphasis on oral and aural proficiency in
Japanese.
Three hours; one term
Prerequisite: JAPANESE 2206 or 2ZZ3 or permission of the instructor
Enrolment is limited.

JAPANESE 4L03 JAPANESE LITERATURE
Readings in the original of contemporary Japanese prose and poetry (Haiku
and Tanka). Previous readings include: Murakami Haruki, Akutagawa, Ito
Hiroyuki, Oe Kenzaburo, Toshio, Nishi, Basho. Consult the Department for
readings to be offered.
Three lectures; one term
Prerequisite: JAPANESE 3AA3 or 3Z26, or permission of the instructor
Antirequisite: JAPANESE 4Z26

JAPANESE 4L03 ADVANCED PRACTICE IN JAPANESE
This course is designed to improve and increase the student's spoken and
written proficiency through selected readings, exercises and class discussions.
Three hours; one term
Prerequisite: JAPANESE 3AA3 or 3Z26, or permission of the instructor

JAPANESE STUDIES ...

JAPAN ST 2C03 ASIA-PACIFIC ECONOMIES
Economic conditions and factors influencing economic growth in selected
countries in the Asia-Pacific region. Topics include government policies
related to exchange rates and trade and development, as well as the
Japanese style of management, the bonus system and job tenure.
Three hours; one term
Prerequisite: ECON 1A06
Cross-list: ECON 2C03
This course is administered by the Department of Economics.
Courses

If no prerequisite is listed, the course is open.

**LINGUIST 1A03**

**INTRODUCTION TO LINGUISTICS I**
This course provides an introduction to the field of linguistics, the scientific study of language. The focus will be on language structure, specifically the core areas of phonetics, phonology and morphology. Topics covered will be exemplified not only through English, but through a wide variety of languages.

Two lectures, one tutorial; one term
Antirequisite: LINGUIST 1A06

**LINGUIST 1AA3**

**INTRODUCTION TO LINGUISTICS II**
This course is a continuation of LINGUIST 1A03, and completes the Introduction to Linguistics. Emphasis will be placed on syntax, semantics, typology, historical linguistics and applied linguistics.

Two lectures, one tutorial; one term
Antirequisite: LINGUIST 1A06

**LINGUIST 2A03**

**THE MAKING OF THE EUROPEAN LINGUISTIC LANDSCAPE**

The history of language use in Europe from antiquity to the present day. The course will illustrate the different functions of language in social life and the growth of national, standardized idioms. It will also serve as an introduction to the history of linguistics as a discipline.

Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: CMST 2U03
Antirequisite: ANTHROP 2A03

**LINGUIST 2AA3**

**HISTORICAL LINGUISTICS: THE DEVELOPMENT OF INDO-EUROPEAN LANGUAGES**

The phonetic, morphological, syntactic and lexical structures of Indo-European languages and the role of these features in the genesis and development of English, German, French, Russian, Italian and Spanish and other Indo-European-based languages of Europe.

Three lectures; one term
Prerequisite: LINGUIST 1A03 and 1AA3 (or 1A06) or permission of the Department
Antirequisite: ANTHROP 2A03

**LINGUIST 2E03**

**FUNCTIONAL STYLISTICS**

Introduction to a detailed and systematic study of the language of texts. Application of the model of differentiation of the basic functions of the standard language and different functional styles, such as conversational style, journalistic style, scientific style or poetic literary style.

Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above
Cross-list: CMST 2E03
First offered in 2002-03.

**LINGUIST 2L03**

**PHONETICS**

A study of the sounds of language and human articulatory capabilities.

Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: ANTHROP 2L03

**LINGUIST 2LL3**

**INTRODUCTION TO LINGUISTIC TYPOLOGY**

The study of the diversity of languages of the world, language universals and parameters of cross-linguistic analysis of grammatical systems.

Three hours (lectures and discussion); one term
Prerequisite: LINGUIST 1A03 and 1AA3 (or 1A06) or permission of the department
Cross-list: ANTHROP 2L03

**LINGUIST 2M03**

**PHONOLOGY**

A study of the patterns of distinctive sounds in the world's languages.

Three lectures; one term
Prerequisite: LINGUIST 2L03
Cross-list: ANTHROP 2M03

**LINGUIST 3B03**

**PSYCHOLINGUISTICS**

The study of perception, production and acquisition of language. Special attention is paid to methods of psycho- and neurolinguistic research and to their connection with theoretical linguistics.

Three hours; one term
Prerequisite: LINGUIST 3B03 or 3M03; or 1A03 and 1AA3 (or 1A06) and PSYCH 2H03; or permission of the Department
Cross-list: PSYCH 3BB3
Offered in alternate years.
LINGUIST 3I03 Syntax
A study of how words are organized into sentences. The emphasis will be on the Functional approach in comparison with other syntactic theories.
Three hours; one term
Prerequisite: One of LINGUIST 2L3, ANTHROP 2L3 or permission of the Department
Cross-list: ANTHROP 3I03
Offered in alternate years.

LINGUIST 3J03 Semantics
The study of patterns of meaning in language; a critical survey of theories and issues.
Three hours; one term
Prerequisite: LINGUIST 3I03 or 3M03; or ANTHROP 3I03 or 3M03 or permission of the Department
Cross-list: ANTHROP 3J03
Offered in alternate years.

LINGUIST 3M03 Morphology
The study of word formation in the languages of the world; a critical survey of current theories and issues.
Three lectures; one term
Prerequisite: One of LINGUIST 2L3, ANTHROP 2L3 or permission of the Department
Cross-list: ANTHROP 3M03
Offered in alternate years.

LINGUIST 3P03 Pragmatics and Discourse
A discussion of the problems confronting the linguist in the study of text and discourse at the level beyond the sentence. The course will deal with the interaction between grammar and situational factors.
Prerequisite: LINGUIST 1A03 and 1AA3 (or 1A06); or FRENCH 2H03; or permission of the Department
Cross-list: CMST 3P03
Antirequisite: ANTHROP 3PL3
Offered in alternate years.

LINGUIST 3X03 Sociolinguistics
An introduction to sociolinguistics with particular emphasis on the social situation of the major European languages. Topics covered include linguistic variation (geographic, social, situational), social and ethical issues (language and sex/gender, language and disadvantage/power) and pragmatics.
Three lectures; one term
Prerequisite: LINGUIST 1A03 and 1AA3 (or 1A06); or permission of the Department
Cross-list: CMST 3X03
Antirequisite: ANTHROP 3PL3
Offered in alternate years.

LINGUIST 4B03 Applied Linguistics
The course is designed to acquaint the student with the contributions that the linguist, psycholinguist, sociolinguist, and discourse analyst can make to the planning, organization and implementation of a language-teaching methodology. CAI CALL will be one of the methodologies investigated with particular emphasis.
Three lectures; one term
Prerequisite: Registration in Level III or IV of a Linguistics programme, or permission of the Department
Cross-list: CMST 4B03
Antirequisite: ANTHROP 4BL3
Alternates with LINGUIST 4BB3.

LINGUIST 4B3 Topics in the Application of Linguistics
This seminar course looks at how linguistics is applied in fields other than language learning. Possible topics include: translation theory; forensic linguistics; applied linguistics.
Seminar (two hours); one practicum per week; one term
Prerequisite: Registration in Level III or IV of a programme in Linguistics, or permission of the Department
Cross-list: CMST 4H03
Alternates with LINGUIST 4B03.

LINGUIST 4D03 Computers and Linguistic Analysis
This course studies the linguistic-applications of computer technology in general, and language processing in particular, including parsers and machine translation.
Two lectures, one lab.; one term
Prerequisite: Registration in Level III or IV of a Linguistics programme, or permission of the Department
Cross-list: CMST 4I03
Offered in alternate years.

LINGUIST 4I03 Independent Study
The student will prepare, under the supervision of a faculty member, a research paper involving independent study in an area where the student has already demonstrated competence.
Prerequisite: 18 units of Linguistics above Level I and permission of the Department

LINGUIST 4L03 Structure of a Language
An in-depth examination of a language, usually one from the Caucasus, such as Circassian, Georgian, or Chechen. The phonetics, phonology, and morphology will be emphasized. The utility of current linguistics theory will be appraised.
Three lectures; one term
Prerequisite: Nine units of Linguistics above Level I
Cross-list: ANTHROP 4LB3
Antirequisite: ANTHROP 4LA3, LINGUIST 4LA3

LINGUIST 4L13 Structure of a Language
An in-depth examination of a language, usually one from the Caucasus, such as Circassian, Georgian, or Chechen. The syntax, semantics, and discourse structure will be emphasized. The utility of current linguistics theory will be appraised.
Three lectures; one term
Prerequisite: Nine units of Linguistics above Level I
Cross-list: ANTHROP 4LC3
Antirequisite: ANTHROP 4LA3, LINGUIST 4LA3

LINGUIST 4X03 Topics in Sociolinguistics
Topics include: Languages in Contact; Standard Languages; Gender and Language.
Seminar (two hours); one term
Prerequisite: LINGUIST 3X03
Cross-list: CMST 4J03
LINGUIST 4X03 may be repeated, if on a different topic, to a total of six units.
Offered in alternate years.

LINGUIST 4X3 Topics in Linguistic Theory
Issues in different aspects of Linguistic Theory and Advanced Philology.
Seminar (two hours); one term
Prerequisite: LINGUIST 3I03 or 3M03
Cross-list: ANTHROP 4XX3
LINGUIST 4XX3 may be repeated, if on a different topic, to a total of six units.
Offered in alternate years.

LINGUIST 4Z03 Topics in Psycholinguistics
Consult the Department for the topic to be offered.
Seminar (two hours); one term
Prerequisite: LINGUIST 3B03 or PSYCH 3BB3
Cross-list: PSYCH 4Z03
LINGUIST 4Z03 may be repeated, if on a different topic, to a total of six units.
Offered in alternate years.

POLISH...
Courses in Polish are administered within the Department of Modern Languages and Linguistics of the Faculty of Humanities. For information and counselling, please contact the departmental office, Togo Salmon Hall, Room 611.

Notes:
1. Students should note that the Department has classified its Polish language courses under the following categories:
   Introductory Level Language Courses
   POLISH 1A03, 2A03
   Intermediate Level Language Courses
   POLISH 3A03, 3AA3
   Advanced Level Language Courses
   POLISH 4A03, 4AA3
2. POLISH 2A03 and 2AA3 are open only to students with no prior knowledge of Polish. Students with some knowledge of written and oral Polish are advised to enrol in POLISH 3A03 or 3AA3. Students with a good command of Polish should enrol in POLISH 4A03 or 4AA3.
3. Courses are offered on a three-year rotation basis. Students should consult the timetable for available courses.
Courses

If no prerequisite is listed, the course is open.

POLISH 2A03  BEGINNER'S POLISH I
An introduction to basic conversational and written Polish, teaching the skills of listening, speaking, and writing. The sequel to this course is POLISH 2A03.
Four hours; one term
Prerequisite: POLISH 1Z03, 1Z06
Antirequisite: POLISH 2AA3
Not open to students with a prior knowledge of Polish.
The Department reserves the right to place students in the course most appropriate to their abilities.
Enrolment is limited.

POLISH 3A03  INTERMEDIATE POLISH I
This course concentrates on the study of Polish grammar and develops skills for conversation, reading and writing. The sequel to this course is POLISH 3A03.
Four hours; one term
Prerequisite: POLISH 2A03, 2A03 or permission of the Department
Antirequisite: POLISH 2Z03, 1Z06
The Department reserves the right to place students in the course most appropriate to their abilities.
Enrolment is limited.

POLISH 4A03  ADVANCED POLISH I
This course focuses on the study of more advanced syntax, composition and conversation, using short modern texts and films.
Three hours; one term
Prerequisite: POLISH 3A03 or permission of the Department
Antirequisite: POLISH 2Z06
The Department reserves the right to place students in the course most appropriate to their abilities.
Offered on a three-year rotation basis. Offered in 2001-2002.
Enrolment is limited.

Notes:
1. Students should note that the Department has classified its Russian language courses under the following categories:
   Introductory Level Language Courses
   RUSSIAN 1Z03, 1Z06
   Intermediate Level Language Courses
   RUSSIAN 2Z03, 2Z06
   Advanced Level Language Courses
   RUSSIAN 3G03, 3H03, RUSSIAN 4A03, RUSSIAN 4G03
2. Not all courses are offered on an annual basis. Students should consult the timetable for available courses.

Courses

If no prerequisite is listed, the course is open.

RUSSIAN 1Z03  INTENSIVE BEGINNER'S RUSSIAN I
Designed for students with no prior knowledge of Russian, the course covers basic Russian vocabulary and grammatical structures, with emphasis on spoken Russian. The course is enhanced by CALL (Computer-Assisted Language Learning) module. The sequel to this course is RUSSIAN 1Z03.
Four hours; one term
Antirequisite: OAC Russian or RUSSIAN 1Z06
Not open to students with credit or registration in RUSSIAN 1Z03.
The Department reserves the right to place student in the course most appropriate to their abilities.

RUSSIAN 2Z03  INTERMEDIATE RUSSIAN I
This course continues the study of Russian grammar with emphasis on extending skills for conversation, reading and writing. Video film and interactive computer software will be used to supplement traditional printed materials. The sequel to this course is RUSSIAN 2Z03.
Four hours; one term
Prerequisite: RUSSIAN 1Z06 or RUSSIAN 1Z03
Antirequisite: OAC Russian or RUSSIAN 1Z06
The Department reserves the right to place student in the course most appropriate to their abilities.

RUSSIAN 2Z03  INTERMEDIATE RUSSIAN II
Emphasis will be on extending skills for conversation, reading and writing. Video film and interactive computer software will be used to supplement traditional printed materials. The sequel to this course is RUSSIAN 3G03.
Four hours; one term
Prerequisite: RUSSIAN 2Z03
Antirequisite: RUSSIAN 2C06
Not open to students with credit or registration in RUSSIAN 2Z03.
The Department reserves the right to place student in the course most appropriate to their abilities.

RUSSIAN 3G03  ADVANCED LANGUAGE PRACTICE I
The course focuses on the structure of a simple sentence. Reading, writing and conversational skills are developed through the reading and discussion of narrative texts and the writing of short compositions. The sequel to this course is RUSSIAN 3H03.
Three hours; one term
Prerequisite: One of RUSSIAN 2C06, 2Z03 or permission of the Department
Antirequisite: RUSSIAN 3C06
The Department reserves the right to place students in the course most appropriate to their abilities.
RUSSIAN 3H03 ADVANCED RUSSIAN GRAMMAR AND STYLISTICS

This course focuses on the study of the compound and complex sentences. Emphasis will be on the reading of selected texts, advanced composition, and stylistics. Three hours; one term
Prerequisite: RUSSIAN 3C06, 3G03
The Department reserves the right to place students in the course most appropriate to their abilities.

RUSSIAN 4II3 INDEPENDENT STUDY

The student will prepare, under the supervision of a faculty member, a research paper involving independent study in an area where the student has already demonstrated competence.
Prerequisite: 12 units of Russian above Level 1 and permission of the Department

MOHAWK

(SEE INDIGENOUS STUDIES, MOHAWK)

MOLECULAR BIOLOGY

The Molecular Biology courses are administered within the Faculty of Science through a Committee of Instruction, and draw on the Departments of Biochemistry, Biology and Pathology and the McMaster Institute for Molecular Biology and Biotechnology. Information and counselling may be obtained from the Programme Coordinator.

Courses

If no prerequisite is listed, the course is open.

MOL BIOL 4F03 MOLECULAR INVESTIGATIONS IN DEVELOPMENT

Students will investigate a topical problem in developmental biology, make two presentations, and write a research proposal. The research is self- and group-directed.
Three lectures; one term
Prerequisite: BIOLOGY 3M03 or 3NN3; or permission of the Instructor.
Application for permission must be received by March 31st of the previous year.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

MOL BIOL 4H03 MOLECULAR BIOLOGY OF CANCER

Cancer at the cellular and molecular level. Topics include: properties of cancer cells, activation of proto-oncogenes, function of oncoproteins, transgenic mouse models, and tumour viruses.
Two lectures; one tutorial; one term
Prerequisite: One of BIOLOGY 3H03, 3H13, BIOCHEM 3B03, 3G03; or permission of the instructor.

MOL BIOL 4J03 MOLECULAR IMMUNOLOGY

This advanced course applies small group based learning to immunological problems. Topics covered: development of immuneassay, resistance to infection and immunity in health and disease.
One session (two hours), one tutorial; one term
Prerequisite: One of BIOLOGY 3X03, 4X13 and one of BIOCHEM 3B03, 3G03, BIOLOGY 3H13; or permission of the instructor.
Cross-list: BIOCHEM 4J03, HTH SCI 4J03

MOL BIOL 4R09 SENIOR THESIS

A thesis based on a research project in molecular biology supervised or co-supervised by a member of the Department of Biology or the Department of Biochemistry. Permission of the Student Advisor is required.
Prerequisite: Registration in Level IV Honours Molecular Biology and permission of the Course Coordinator. Application for permission must be received by March 31 of the academic year prior to registration. Normally, a CA of at least 85 is required.
Antirequisite: BIOLOGY 4F06, BIOCHEM 4L03, 4P03, HTH SCI 3H03, 4A09, 4B06
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

MULTIMEDIA

WEB ADDRESS: http://www.multimedia.mcmaster.ca/

Multimedia is administered within the School of the Arts in the Faculty of Humanities.

Courses

If no prerequisite is listed, the course is open.

MMEDIA 1A03 INTRODUCTION TO COMPUTERS IN THE HUMANITIES

An introduction to issues in Humanities Computing. Students will study the history and present state of computing and information technology with particular attention given to issues around communication and electronic texts. Students will also learn skills such as word processing, electronic mail, electronic textbases, how to browse the Internet and how to create a WWW page.
One lecture (two hours); one tutorial; one term
Antirequisite: COMP SCI 1B33, 1T33, HUMAN 2E03
Enrolment is limited.

MMEDIA 1B03 THE DIGITAL IMAGE

An introduction to the critique and creation of digital images. Readings will explore issues concerning the digital image and graphic design for the Internet. Students will be expected to use graphics software and create WWW pages in order to complete design assignments.
One lecture (two hours); one tutorial; one term
Antirequisite: HUMAN 2H03
Enrolment is limited.

MMEDIA 1C03 WRITING IN THE ELECTRONIC AGE

An introduction to grammar and essay composition in the context of new writing technologies. Students will use supplementary writing software, WWW materials, e-mail discussion lists and readings to explore the effects of information technology on communication.
One lecture; one tutorial; one lab; one term
Antirequisite: HUMAN 1A03, 2G03
Enrolment is limited.

MMEDIA 2A03 INTRODUCTION TO MULTIMEDIA

This course presents arts students with the fundamentals of computer-based multimedia. Students will read about and discuss how to critique multimedia works, create such works, and consider the application of multimedia technology.
One lecture (two hours); one tutorial; one term
Antirequisite: One of HUMAN 2E03 or 2H03, MMEDIA 1A03 or 1B03
Antirequisite: HUMAN 3G03
Enrolment is limited.

MMEDIA 2B03 DIGITAL MEDIA (AUDIO AND VIDEO)

A study of digital media where students will create and critique digital audio and video. Readings will explore the evolution of digital media and the technical and social aspects of digital audio and video.
One lecture (two hours); one tutorial; one term
Antirequisite: Registration in the Combined Honours in Multimedia Programme
Enrolment is limited.

MMEDIA 2C03 COMPUTER ARCHITECTURE FOR MULTIMEDIA

Students will study the fundamentals of microcomputers, operating systems, and multimedia peripherals with emphasis on diagnostic knowledge of the hardware and operating system used for multimedia development. Special attention will be paid to the media acquisition hardware and emerging standards for connecting media devices. Critical readings will cover the history of computing.
Two lectures (one hour); one lab (two hours every other week); one term
Prerequisite: Registration in the Combined Honours in Multimedia Programme
Enrolment is limited.

MMEDIA 2D03 ELECTRONIC TEXTS AND THEIR STUDY

An introduction to the fundamentals of computer-assisted text-analysis in the humanities. In the context of humanities research, students will create encoded electronic texts and learn to use text-analysis tools. Students will be expected to work on projects related to another subject.
One lecture (two hours); one tutorial; one term
Prerequisite: One of HUMAN 1A03, 2E03 or 2J03, MMEDIA 1A03, 1B03, 1C03, 2G03, 2H03
Antirequisite: HUMAN 3F03
Enrolment is limited.

MMEDIA 2E03 COMPUTER GRAPHICS

This course develops both technical and conceptual aspects of computer drawing using standard computer graphics tools. Students will concentrate on developing drawing abilities through the computer and will be expected to present their work and discuss that of others.
One lecture (one hour); one tutorial (one hour); one hour of independent study; one term
Prerequisite: HUMAN 2H03 or MMEDIA 1A03, 1B03
Enrolment is limited.
MMEDIA 2F03  THE HISTORY OF GRAPHIC DESIGN
An introduction to the history of graphic, two-dimensional design. The course
addresses the manifestation of high and popular culture that informs adver-
sising, posters, book design and illustration, etc. Students will be intro-
duced to desktop publishing.
Three lectures; one term
Prerequisite: Registration in Level II or above. Prior completion of
ART HIST 1A06 or 1A09 and 1A33 is recommended.
Cross-list: ART HIST 2F03, CMST 2N03

MMEDIA 2G03  INTRODUCTION TO MIDI AND COMPUTER MUSIC
Basic electroacoustic theory; introduction to techniques of digital music
composition, emphasizing MIDI applications; computer music notation;
aesthetics of music composition. Students will be expected to produce at
least one original work. Prior experience with computers and/or music
composition is strongly encouraged, though not required. Independent
studio work will be required.
Two lectures; one tutorial; one term
Prerequisite: Registration in the Combined Honours in Multimedia Programme
or registration in Level II or above of a Music programme
Cross-list: MUSIC 2G03
Enrolment is limited.

MMEDIA 2H03  INTRODUCTION TO ANIMATION
This class will begin an introduction to the history and basic principles
of animation. Students will be expected to create a significant work of
computer animation in which they display a variety of techniques. Readings
and discussions will cover theatre, film studies and narrative. Students will
be expected to produce three screenings.
One lecture (two hours); one tutorial/screening; one term
Prerequisite: HUMAN 2H03 or MMEDIA 1A03, 1B03
Enrolment is limited.

MMEDIA 2I03  RHETORIC AND COMMUNICATION IN THE ELECTRONIC AGE
An introduction to the history of rhetoric, the study of classical and electronic
examples of oral discourse. Students will analyze the persuasive technique
of examples of oral communication collected from print and electronic media.
There will be a practicum where students deliver an expository speech with
multimedia support.
Two lectures; two tutorials; one term
Prerequisite: Registration in Level II or above
Antirequisite: HUMAN 2I03 or MMEDIA 1A03, 1B03
Enrolment is limited.

MMEDIA 3A03  ADVANCED MULTIMEDIA
A study of multimedia programming, this course expands upon the issues
and techniques introduced in MMEDIA 2A03. Students will design and
develop multimedia applications that combine text, images, sound, video,
and animation. Critical readings and discussion will cover theories of
interactivity, hypertext, and instructional technology.
One lecture (two hours); one tutorial; one term
Prerequisite: HUMAN 3A03 or MMEDIA 2A03
Enrolment is limited.

MMEDIA 3B03  TOPICS IN THE PHILOSOPHY AND HISTORY OF COMPUTING
A seminar in the history and philosophy of computing and communications
technology; topics may include: Computers and Culture, The History of
Computers and Communications Technology, Computers and Education,
One lecture (two hours); one tutorial; one term
Prerequisite: One of HUMAN 1A03 or 2E03, MMEDIA 1A03 or 1C03
Antirequisite: HUMAN 3A00

MMEDIA 3C03  ADVANCED COMPUTER MUSIC
Digital audio workstations, including hard disk recording techniques, com-
puter scoring, and multimedia applications. Students will be responsible
for at least one extended original work which may be produced in collabo-
ration with other students in this or another approved course.
Two lectures; one tutorial; one term
Prerequisite: MMEDIA 2G03 or MUSIC 2Z03
Cross-list: MUSIC 3C03
Enrolment is limited.

MMEDIA 3D03  TECHNICAL WRITING AND COMMUNICATION
An introduction to technical writing and documentation. Students will explore
issues such as audience analysis, the role of jargon and specialized language.
Students will be asked to complete a project of their own devising, including
a proposal, a final report, and a videotaped presentation.
One lecture (two hours); one tutorial; one term
Prerequisite: One of HUMAN 1A03 or 2J03, MMEDIA 1C03, 2D03 or 2I03
Antirequisite: HUMAN 3B03
Enrolment is limited.

MMEDIA 3E03  HYPERTEXT THEORY
This class will consider the history of hypertext systems and key theoretical
issues in the area of hypertext and hypermedia. Students will be expected to
try significant hypertext systems and read current theories of hypertext.
Assignments will include reviews of hypertexts, presentations, and the
creation of a hypertext essay.
One lecture (two hours); one tutorial; one term
Prerequisite: One of HUMAN 1A03 or 2E03, MMEDIA 1A03 or 1C03

MMEDIA 3F03  HUMAN COMPUTER INTERFACE DESIGN
This course explores the history and design of computer interfaces. A variety
of design approaches and techniques will be surveyed to understand the
relationship between computers and people. Topics such as usability and
evaluation of computer interfaces; drama, narrative, and interface; Interface
and representation; and the politics of interface design will be covered.
One lecture (two hours); one tutorial; one term
Prerequisite: Six units of MMEDIA courses beyond Level I and registration in
the Combined Honours in Multimedia Programme
Enrolment is limited.

MMEDIA 3G03  NETWORK SERVICES FOR MULTIMEDIA
The fundamentals of network systems and services for multimedia are
studied with emphasis on diagnostic knowledge of networked systems
and services as used for multimedia deployment. Special attention will
be paid to WWW servers. Readings will cover the history of networking,
the Internet and the World Wide Web.
Two lectures (one hour); one lab (two hours every other week); one term
Prerequisite: Registration in the Combined Honours in Multimedia Programme
Enrolment is limited.

MMEDIA 4A03  THE MANAGEMENT OF MULTIMEDIA
Multimedia development requires collections of media and teams of devel-
opers. Students will study case histories, learn how to build and manage
content collections and learn how to lead and participate in team-based
multimedia production. Readings will cover the design of large media
collections, management theory, copyright and intellectual property.
One lecture (two hours); one tutorial; one term
Prerequisite: Registration in Level IV of the Combined Honours in Multi-
media Programme

MMEDIA 4B03  SENIOR THESIS PROJECT
The Senior Thesis Project provides students with an opportunity to pursue
individual advanced multimedia projects under the supervision of a Thesis
Committee. Students will propose a multimedia project and have it approved
by the Multimedia Programme Committee. Students will be expected to
present their completed project publicly.
Prerequisite: Registration in Level IV of the Combined Honours in Multi-
media Programme

MMEDIA 4C03  COMPUTERS AND EDUCATION
This class will survey the history of instructional technology and uses of
computers in education. Students will be expected to review instructional
materials in their field, and to create, evaluate, and present an instructional
application. Students will also be expected to read critically of technology and
discuss the effects of technology on education.
One lecture (two hours); one tutorial; one term
Prerequisite: MMEDIA 3A03

MMEDIA 4D03  VIRTUAL REALITY AND THE DESIGN OF SPACE
This course will introduce students to the design of three-dimensional
spaces and to theories of architecture as applied to virtual reality. Com-
puter-Aided Design (CAD) software will be used in order to complete
projects related to other subjects. Projects might include the design of
fictional spaces, sculptural objects, dramatic settings, or archaeological
re-creations.
One lecture (two hours); one tutorial; one term
Prerequisite: Registration in Level IV of the Combined Honours in Multi-
media Programme
Enrolment is limited.
Courses and programmes in Music are administered within the School of the Arts (formerly School of Art, Drama and Music) of the Faculty of Humanities.

Courses  If no prerequisite is listed, the course is open.

**MUSIC 1A03  INTRODUCTION TO THE HISTORY OF MUSIC I**
An introductory survey of Western music, from Gregorian chant to the time of Bach and Handel. Emphasis is on important composers and their works in relation to their society and culture. No previous knowledge of music required.
Three lectures; one term
Antirequisite: MUSIC 1A06
Not open to students registered in Honours Music.

**MUSIC 1A03  INTRODUCTION TO THE HISTORY OF MUSIC II**
An introductory survey of Western music, from the time of Mozart to the present. Composers studied include Beethoven, Schubert, Chopin, Verdi, Wagner, Debussy, and Stravinsky. No previous knowledge of music required.
Three lectures; one term
Antirequisite: MUSIC 1A06
Not open to students registered in Honours Music.

**MUSIC 1C03  RUDIMENTS OF WESTERN MUSIC**
A first course in hearing, reading, and writing Western music, at the level of Grade 2 rudiments of the Royal Conservatory of Music. Topics include pitches and rhythms; intervals, scales, chords, keys, and modes; musical terms, melody, elementary cadences, transposition, and open score.
Two lectures, one tutorial; one term
Not open to students registered in a Music programme.

**MUSIC 1C03  HARMONY**
The analysis and writing of functional harmony. Includes study of music by J.S. Bach and others.
Three lectures; one term
Prerequisite: Registration in a Music programme, or a grade of at least B- in MUSIC 1C03 or qualifying tests and permission of the School of the Arts.

**MUSIC 1D03  AURAL SKILLS**
Sight-singing and dictation.
Two lectures, one lab; two terms
Prerequisite: Registration in a Music programme, or qualifying tests

**MUSIC 1E06  SOLO PERFORMANCE**
Intensive study of the technique and repertoire of any orchestral instrument, piano, organ, harpsichord, voice, recorder, saxophone, or guitar.
12 one-hour meetings per term; two terms
Prerequisite: Registration in a Music programme or permission of the School of the Arts.

**MUSIC 1E06  ENSEMBLE PERFORMANCE**
McMaster Chamber Orchestra, McMaster University Choir, McMaster Concert Band, McMaster Jazz Band, or any other ensemble approved by the School of the Arts.
Prerequisite: Successful audition required

**MUSIC 1Y03  MUSIC AND CULTURE**
An introduction to the study of music as a cultural practice, including the exploration of issues such as gender in composition and performance, the relationship of music to spiritual practices, the body in performance, and the roles musicians have in society. Both contemporary and historical musical examples will be drawn from various cultures. Competence in reading music is required.
Three lectures, one tutorial; one term
Prerequisite: Registration in a Music Programme or permission of the School of the Arts
Antirequisite: MUSIC 1B06

**MUSIC 1YY3  HISTORY OF WESTERN MUSIC: BAROQUE AND CLASSICAL**
A survey of Baroque and Classical music. Includes consideration of performance practices, influences of the other arts and socio-political developments.
Three lectures; one term
Prerequisite: MUSIC 1Y03
Antirequisite: MUSIC 1B06

**MUSIC 2A03  MUSIC OF THE WORLD'S CULTURES**
A survey of music traditions of non-European cultures, e.g., far Eastern, Indian, African.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: CMST 2T03
Antirequisite: MUSIC 4X03
Offered in alternate years.

**MUSIC 2A03  POPULAR MUSIC**
A study of 20th-century popular music from the late 1940's to the present. Topics include: rhythm and blues (Chuck Berry), hard rock (Led Zeppelin), and punk (Sex Pistols).
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: CMST 2T03

**MUSIC 2B03  HISTORY OF WESTERN MUSIC (c. 1800-1914)**
A survey of romantic and postromantic music.
Three lectures; one term
Prerequisite: MUSIC 1B06
Antirequisite: MUSIC 2Y03
Last offered in 2001-2002.

**MUSIC 2B03  HISTORY OF WESTERN MUSIC (c. 1914 TO THE PRESENT)**
A survey of 20th-century music.
Three lectures; one term
Prerequisite: MUSIC 2B03
Antirequisite: MUSIC 2Y03
Last offered in 2001-2002.

**MUSIC 2C03  MODAL COUNTERPOINT**
The writing and analysis of modal counterpoint in the style of the late Renaissance. Includes study of music by composers such as Palestrina and Lasso.
Two lectures, term one; one lecture, term two
Prerequisite: Registration in a Music programme, or qualifying tests.

**MUSIC 2CC3  HARMONY**
A continuation of MUSIC 1CC3. Chromatic harmony and the completed major-minor system.
One lecture, term one; two lectures, term two
Prerequisite: MUSIC 1CC3

**MUSIC 2D03  KEYBOARD HARMONY**
Keyboard Harmony.
Two lectures; two terms
Prerequisite: Registration in a Music programme, or qualifying tests

**MUSIC 2E06  SOLO PERFORMANCE**
A continuation of MUSIC 1E06.
12 one-hour meetings per term; two terms
Prerequisite: MUSIC 1E06, registration in a Music programme or permission of the School of the Arts.

**MUSIC 2F03  MUSIC FOR FILM AND TELEVISION**
An examination of how music functions to help create meanings in the history of film and television. Examples will be drawn from throughout history of film and television.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: CMST 2T03
Antirequisite: SADM 3A03

**MUSIC 2G03  ENSEMBLE PERFORMANCE**
McMaster Chamber Orchestra, McMaster University Choir, McMaster Concert Band, McMaster Jazz Band, or any other ensemble approved by the School of the Arts.
Prerequisite: MUSIC 1G03 and successful audition
MUSIC 2H03 ANALYSIS
The traditional forms of Western art music as found in works by composers such as Bach, Mozart, Beethoven, and Brahms.
Three lectures; one term
Enrolment is limited.
Prerequisite: MUSIC 1CC3

MUSIC 2Y03 HISTORY OF WESTERN MUSIC: ROMANTIC TO THE PRESENT
Three lectures; one term
Prerequisite: MUSIC 1Y03
Antirequisite: MUSIC 2B03, 2BB3

MUSIC 2YY3 HISTORY OF WESTERN MUSIC: MEDIEVAL AND RENAISSANCE
A survey of Medieval and Renaissance music. Includes consideration of performance practices, influences of the other arts and socio-political developments.
Three lectures; one term
Prerequisite: MUSIC 1Y03
Antirequisite: MUSIC 1B06

MUSIC 2Z03 INTRODUCTION TO MIDI AND COMPUTER MUSIC
Basic electroacoustic theory; introduction to techniques of digital music composition, emphasizing MIDI applications; computer music notation; aesthetics of music composition. Students will be expected to produce at least one original work. Prior experience with computers and/or music composition is strongly encouraged, though not required. Independent studio work will be required.
Two lectures, one tutorial; one term
Prerequisite: Registration in the Combined Honours in Multimedia Programme or registration in Level II or above of a Music programme.
Cross-list: MMEDIA 2G03
Enrolment is limited.

MUSIC 3AA3 ELEMENTARY MUSIC EDUCATION
A survey of elementary music education methods such as those of Kodály, Orff and Suzuki.
Three lectures; one term
Prerequisite: MUSIC 1A03 and 1AA3 (or 1A06); or 18 units of Music

MUSIC 3B03 TOPICS IN MUSIC HISTORY: MEDIEVAL AND/OR RENAISSANCE MUSIC
Previous topics include: Gregorian chant, The Renaissance Madrigal, Consult the School of the Arts concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: MUSIC 1B06 or 2YY3 and registration in Level III or IV of an Honours Music programme, or permission of the School of the Arts
Alternates with MUSIC 3BB3.
MUSIC 3B03 may be repeated, if on a different topic, to a total of six units.
Enrolment is limited.

MUSIC 3BB3 TOPICS IN MUSIC HISTORY: MUSIC OF THE ROMANTIC ERA
Previous topics include: Liszt's Symphonic Poems, 19th-Century Piano Music. Consult the School of the Arts concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: MUSIC 2B03 or 2Y03 and registration in Level III or IV of an Honours Music programme, or permission of the School of the Arts
Alternates with MUSIC 3BB3.
MUSIC 3BB3 may be repeated, if on a different topic, to a total of six units.
Enrolment is limited.

MUSIC 3C03 TONAL COUNTERPOINT
The writing and analysis of tonal counterpoint in Baroque style. Includes study of music by major composers of the 17th and early 18th centuries.
Seminar (two hours); one term
Prerequisite: MUSIC 2C03 and 2CC3, registration in Honours Music
Enrolment is limited.

MUSIC 3E03 SOLO PERFORMANCE
The technique and repertoire of any orchestral instrument, piano, organ, harpsichord, voice, recorder, saxophone or guitar.
12 one-hour meetings; one term
Prerequisite: MUSIC 2E06
Antirequisite: MUSIC 3E06
Lesson fees are charged to students taking MUSIC 3E03 if the course is not a specific requirement for their music degree programme.

MUSIC 3E06 SOLO PERFORMANCE
A continuation of MUSIC 2E06.
12 one-hour meetings per term; two terms
Prerequisite: MUSIC 2E06
Antirequisite: MUSIC 3E03
Lesson fees are charged to students taking MUSIC 3E06 if the course is not a specific requirement for their music degree programme.

MUSIC 3G03 ENSEMBLE PERFORMANCE
McMaster Chamber Orchestra, McMaster University Choir, McMaster Concert Band, McMaster Jazz Band, or any other ensemble approved by the School of the Arts.
Prerequisite: MUSIC 2G03 and successful audition

MUSIC 3H03 ANALYSIS
Techniques of analysis applied to selected works of the 20th century.
Seminar (two hours); one term
Prerequisite: MUSIC 2CC3 and 2H03 and registration In Honours Music Offered in alternate years.
Enrolment is limited.

MUSIC 3J03 BRASS METHODS
A study of the basic techniques of playing brass instruments. Brass literature for various educational levels. No previous study of brass required. The instruments studied differ from those studied in MUSIC 4K03.
Two lectures, one lab; one term
Prerequisite: Registration in Honours Music or permission of the School of the Arts
Alternates with MUSIC 4K03.
Enrolment is limited.

MUSIC 3K03 BRASS METHODS
A study of the basic techniques of playing brass instruments. Brass literature for various educational levels. No previous study of brass required. The instruments studied differ from those studied in MUSIC 4K03.
Two lectures, one lab; one term
Prerequisite: Registration in Honours Music or permission of the School of the Arts
Alternates with MUSIC 4K03.
Enrolment is limited.

MUSIC 3L03 WOODWIND METHODS
A study of the basic techniques of playing woodwind instruments. Woodwind literature for various educational levels. No previous study of woodwinds required. The instruments studied differ from those studied in MUSIC 4L03.
Two lectures, one lab; one term
Prerequisite: Registration in Honours Music or permission of the School of the Arts
Alternates with MUSIC 4L03.
Enrolment is limited.

MUSIC 3M03 STRING METHODS
A study of the basic techniques of playing string instruments. String literature for various educational levels. No previous study of strings required. The instruments studied differ from those studied in MUSIC 4M03.
Two lectures; two terms
Prerequisite: Registration in Honours Music or permission of the School of the Arts
Alternates with MUSIC 4M03.
Enrolment is limited.

MUSIC 3N03 VOCAL METHODS
A study of the basic techniques of singing. The organization, conducting, and rehearsing of a choir. Choral Literature. No previous study of voice required. Techniques and materials focus on the primary and junior levels.
Two lectures; one term
Prerequisite: Registration In Honours Music or permission of the School of the Arts
Alternates with MUSIC 4N03.
Enrolment is limited.

MUSIC 3O03 CONDUCTING
Fundamental conducting techniques applied to works selected from the standard repertoire.
Three lectures; one term
Prerequisite: MUSIC 2D03 and registration in Honours Music or permission of the School of the Arts
Enrolment is limited.
MUSIC 3P03  PERCUSION METHODS
A study of the basic techniques of playing percussion instruments. Percussion literature for various educational levels. No previous study of percussion required.
Two lectures; one term
Prerequisite: Registration in Honours Music or permission of the School of the Arts
Antirequisite: MUSIC 4P03
Enrolment is limited.

MUSIC 3S03  SPECIAL STUDIES IN CHAMBER MUSIC OR ACCOMPANYING
Advanced supervised studies in chamber music performance or vocal or instrumental accompanying. Times to be arranged between the students and instructor; one term
Prerequisite: Completion of MUSIC 2E06 with a grade of at least A-, registration in Level III or IV of a Music programme, and permission of the School of the Arts. Students requesting this course must submit a written proposal to the School of the Arts by April 15. This course is primarily for students pursuing the Diploma in Music Performance. Fees are charged to students taking MUSIC 3S03.

MUSIC 3T03  CANADIAN MUSIC
A historical survey of music in Canada, in the context of social and political developments, from c. 1600 to the present.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II or above
Offered in alternate years.

MUSIC 3U03  JAZZ
An historical survey of jazz, focusing on selected performers and arrangers.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II or above

MUSIC 3V03  FOUNDATIONS OF MUSIC EDUCATION
A study of the philosophical, psychological and sociological foundations of music education, leading to the formation of a personal philosophy of music education.
Seminar (two hours); one term
Prerequisite: Registration in Level III or IV of an Honours Music programme
Offered in alternate years.
Enrolment is limited.

MUSIC 3W03  ADVANCED COMPUTER MUSIC
Digital audio workstations, including hard disk recording techniques, computer scoring, and multimedia applications. Students will be responsible for at least one extended original work which may be produced in collaboration with other students in this or another approved course.
Two lectures, one tutorial; one term
Prerequisite: MMEDIA 2E03 or MUSIC 2203
Cross-list: MMEDIA 3C03
Enrolment is limited.

MUSIC 4B03  TOPICS IN MUSIC HISTORY: BAROQUE AND/OR CLASSICAL MUSIC
Previous topics include: Choral music of Bach and Handel, Beethoven's Piano Sonatas. Consult the School of the Arts concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: MUSIC 1B06 or 1YY3 and registration in Level III or IV of an Honours Music programme, or permission of the School of the Arts
Alternates with MUSIC 4BB3.
MUSIC 4B03 may be repeated, if on a different topic, to a total of six units.
Enrolment is limited.

MUSIC 4B23  TOPICS IN MUSIC HISTORY: MUSIC OF THE 20TH CENTURY
Previous topics include: The Evolution of the Avant-garde, Shostakovich and the Soviet Union. Consult the School of the Arts concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: MUSIC 2BB3 or 2Y03 and registration in Level III or IV of an Honours Music programme, or permission of the School of the Arts
Alternates with MUSIC 4BB3.
MUSIC 4B23 may be repeated, if on a different topic, to a total of six units.
Enrolment is limited.

MUSIC 4C03  HARMONY AND COUNTERPOINT
Advanced studies in the writing an analysis of classical and romantic music.
Seminar (two hours); one term
Prerequisite: MUSIC 2C03, 2C03; registration in Honours Music
Alternates with MUSIC 3C03.
Enrolment is limited.

MUSIC 4E03  SOLO PERFORMANCE
A continuation of MUSIC 3E03 or 3E06.
12 one-hour meetings; one term
Prerequisite: MUSIC 3E03 or 3E06
Antirequisite: MUSIC 4E03, 4E09
Lesson fees are charged to students taking MUSIC 4E03 if the course is not a specific requirement for their music degree programme.

MUSIC 4E06  SOLO PERFORMANCE
A continuation of MUSIC 3E06 or 3E03.
12 one-hour meetings per term; two terms
Prerequisite: MUSIC 3E03 or 3E06
Antirequisite: MUSIC 4E03, 4E09
Lesson fees are charged to students taking MUSIC 4E06 if the course is not a specific requirement for their music degree programme.

MUSIC 4E09  SOLO PERFORMANCE, DIPLOMA
Intensive advanced study in the technique and repertoire of any orchestral instrument, piano, organ, harpsichord, voice, recorder, saxophone, or guitar; or other instrument approved by the School. The final examination is a recital presentation of approximately 40 minutes.
Individual instruction; two terms
Prerequisite: MUSIC 3E06 with a grade of at least A- and permission of the School of the Arts
Antirequisite: MUSIC 4E03 or 4E06.
Open only to students pursuing the Diploma in Music Performance. Fees are charged to students taking MUSIC 4E09.

MUSIC 4G03  ANALYSIS
Advanced studies in analysis.
Seminar (two hours); one term
Prerequisite: MUSIC 2H03; either MUSIC 2BB3 or 2CC3 and registration in Honours Music
Offered in alternate years.
Enrolment is limited.

MUSIC 4K03  BRASS METHODS
A study of the basic techniques of playing brass instruments. Brass literature for various educational levels. No previous study of brass required. The instruments studied differ from those studied in MUSIC 3K03.
Two lectures, one lab; one term
Prerequisite: Registration in Honours Music, or permission of the School of the Arts
Alternates with MUSIC 3K03.
Enrolment is limited.

MUSIC 4L03  WOODWIND METHODS
A study of the basic techniques of playing woodwind instruments. Woodwind literature for various educational levels. No previous study of woodwinds required. The instruments studied differ from those studied in MUSIC 3L03.
Two lectures; two terms
Prerequisite: Registration in Honours Music, or permission of the School of the Arts
Alternates with MUSIC 3M03.
Enrolment is limited.
MUSIC 4N03 VOCAL METHODS
A study of the basic techniques of singing. The organization, conducting, and rehearsing of a choir. Choral literature. No previous study of voice required. Techniques and materials focus on the intermediate and senior levels and beyond.
Two lectures; one term
Prerequisite: Registration in Honours Music, or permission of the School of the Arts
Alternates with MUSIC 3N03.
Enrolment is limited.

MUSIC 4C03 ADVANCED CONDUCTING: CHORAL
A continuation of MUSIC 3C03. Rehearsal and conducting techniques specific to choral ensembles: warm-ups, exercises, tone, intonation, balance, pronunciation, attack, sustain, and cueing, as well as music selection and score reading and preparation.
Three lectures; one term
Prerequisite: MUSIC 3C03, and registration in Honours Music or permission of the School of the Arts
Antirequisite: MUSIC 4C03
Alternates with MUSIC 4O13.

MUSIC 4C03 ADVANCED CONDUCTING: INSTRUMENTAL
A continuation of MUSIC 3C03. Refinement and development of conducting techniques. Exploration of in-depth score preparation, rehearsal techniques, odd and shifting meters, sub-division.
Three lectures; one term
Prerequisite: MUSIC 3C03 and registration in Honours Music or permission of the School of the Arts
Antirequisite: MUSIC 4C03
Alternates with MUSIC 4O03.

MUSIC 4P03 PERCUSSION METHODS
A continuation of MUSIC 3P03.
Two lectures; one term
Prerequisite: MUSIC 3P03, registration in Honours Music, or permission of the School of the Arts
Enrolment is limited.

MUSIC 4Q03 PIANO LITERATURE AND PEDAGOGY
Study of piano repertoire and teaching methods for various age groups.
Three lectures; one term
Prerequisite: Registration as a piano major in Level III or IV of an Honours Music programme
Enrolment is limited.
Offered in alternate years.

MUSIC 4R03 ISSUES AND METHODS IN CURRENT MUSICOLOGY
An exploration of historical, analytical and critical methods of research in music, including models of analysis derived from cultural studies, genre studies, literary theory, etc.
Seminar (two hours); one term
Prerequisite: MUSIC 4B03 and registration in Honours Music
Antirequisite: MUSIC 3R03, 4103
Enrolment is limited.

MUSIC 4S03 SPECIAL STUDIES
Advanced supervised study in any area offered and approved by the School of the Arts.
Times to be arranged between the student and instructor; one term
Prerequisite: Registration in Level IV of an Honours Music programme, and permission of the School of the Arts. Students requesting this course must submit a written proposal to the School of the Arts by April 15th.

MUSIC 4U03 JAZZ IMPROVISATION
Study and performance of jazz improvisations in various styles.
Two hours; one term
Prerequisite: MUSIC 3U03 and permission of the instructor
Offered in alternate years.

MUSIC 4V03 CURRENT ISSUES IN MUSIC EDUCATION
An investigation of new political initiatives, philosophical views, developing research, and curricular and administrative changes that are currently influencing the practice of music in the schools.
Seminar (two hours); one term
Prerequisite: Registration in Level III or IV of an Honours programme in Music
Alternates with MUSIC 3V03.

MUSIC 4Z03 COMPOSITION
The composition of various instrumental or vocal works.
Times to be arranged between the student and instructor; one term
Prerequisite: Registration in Level III or IV of an Honours Music programme, and permission of the instructor

MUSIC 4Z03 ADVANCED COMPOSITION
The composition of various instrumental or vocal works.
Times to be arranged between the student and instructor; one term
Prerequisite: MUSIC 4Z03, registration in an Honours Music programme, and permission of the instructor

NEURAL COMPUTATION
The Neural Computation Program is administered within the Faculty of Science through a committee of instruction consisting of Dr. S. Haykin (Electrical and Computer Engineering), Dr. R. Racine (Psychology), Dr. S. Becker (Psychology), Dr. N. Balakrishnan (Mathematics and Statistics) and Dr. D. Jones (Computing and Software) and draws on the Departments of Psychology, Mathematics and Statistics and Computing and Software.

COURSES
If no prerequisite is listed, the course is open.

NEURCOMP 3W03 NEURAL COMPUTATION
An introduction to the use of neural network computational models for understanding the neural bases of psychological processes, and for solving real-world problems.
Three lectures; one term
Prerequisite: COMP SCI 1MC3 or COMP SCI 1SA3 with a grade of at least B+ and one of MATH 1A03, 1N03, ARTS & SCI 1D06. MATH 1B03 is strongly recommended.

NEURCOMP 4D09 NEURAL COMPUTATION THESIS
Students conduct research projects with individual faculty members
Prerequisite: Registration in Level IV of Honours Neural Computation

RELATED COURSES
BIOCHEM 2EE3 Metabolism and Physiological Chemistry
BIOLOGY 2B03 Cell Biology
2C03 Genetics
4T03 Neurobiology
CHEM 2E03 Introductory Organic Chemistry
CDMP SCI3GA3 Introduction to Computer Graphics
3SD3 Computer Simulation Techniques
3TA3 Automata, Computation and Languages
4IB3 Artificial Intelligence and Knowledge-Based Systems
MATH 2E03 Introduction to Modelling
2P04 Differential Equations for Engineering
3N03 Mathematical Biology
4I03 The Theory of Computability
PSYCH 2E03 Sensory Processes
2F03 Fundamentals of Neuroscience
2H03 Human Learning and Cognition
3BB3 Psycholinguistics
3BL3 Laboratory in Human Electrophysiology
3BN3 Behavioural Neuroscience I: Survey
3EE3 Perception Laboratory
3FA3 The Neurobiology of Learning and Memory
3JC3 Visual Neuroscience
3LO3 Neuroscience Laboratory
3WW3 Measuring the Mind
4BN3 Behavioural Neuroscience II: Special Topics
STATS 3D03 Mathematical Statistics I
3DD3 Mathematical Statistics II

NURSE PRACTITIONER
(SEE NURSING, NURSE PRACTITIONER (C) STREAM)

NURSING

WEB ADDRESS: http://www.fhs.mcmaster.ca/nursing
Health Sciences Centre, Room 2220
Ext. 22201

Faculty as of January 15, 2001

Associate Dean of Health Sciences (Nursing) and Director of the School of Nursing
Andrea Baumann
NURSING 241

Professors
Andrea Bauman/B.Sc.N. (Windsor), M.Sc.N. (Western Ontario), Ph.D. (Toronto), R.N.
Gina Brown/C.Sc.N. (Catherine Spaulding), M.S. (Boston), M.Ed., Ph.D. (Toronto), R.N.
Joan Crook/B.S. (Niagara), M.A. (Dalhousie), M.Sc. (McMaster), Ph.D. (Toronto), R.N.
Alba DiCenso/B.Sc.N., M.Sc. (McMaster), Ph.D. (Waterloo), R.N.
Jo-Ann Fox-Threlkeld/B.Sc. (New Brunswick), M.Sc., Ph.D. (Queen's), R.N.
Susan French/B.Sc.N. (McGill), M.S. (Boston), Ph.D. (Toronto), R.N.
Basant Majumdar/B.Sc.N. (Delhi), M.Ed. (Columbia), Ph.D. (Michigan), R.N.
Jackie Roberts/B.Sc.N., M.Sc., (McMaster), R.N.
Robin Weir/B.Sc.N. (Western Ontario), M.Sc. (Boston), M.Ed., Ph.D. (Toronto), R.N.

Associate Professors
Heather Arthur/B.Sc.N. (McMaster), M.Sc.N., Ph.D. (Toronto), R.N.
Margaret Black/B.Sc.N. (McGill), M.Sc.N. (Case Western Reserve), Ph.D. (Michigan), R.N.
Barbara Brown/C.Sc.N. (Windsor), M.Sc.N. (Toronto), R.N.
Carolyn Byrne/M.H.Sc. (McMaster), Ph.D. (Guelph), R.N.
Barbara Carpio/B.Sc.N. (Alberta), M.Sc.N. (Toronto), M.Sc(T) (McMaster), R.N.
Donna Ciliak/B.Sc.N. (Western Ontario), Ph.D. (Toronto), R.N.
Danae Coakes/B.Sc.N. (Toronto), M.Sc.N. (Western Ontario), D.N.S. (SUNY), R.N.
Patricia Ellis/B.Sc.N. (Wagner), M.Sc. (Maryland), R.N.
Mabel Hunsberger/B.S. (Goshen), M.Sc.N. (Pennsylvania), R.N.
Ann Mohida/B.Sc.N. (Toronto), M.H.Sc., M.Sc.(McMaster), R.N.
Janet Pinelli/B.Sc.N. (Boston), M.Sc.N. (Toronto), D.N.S. (Buffalo), R.N.
Elizabeth Riddle/B.Sc.N. (New Brunswick), M.H.Sc.(McMaster), M.Sc., Ph.D. (Toronto), R.N.
Joan Royle/B.Sc.N. (McMaster), M.Sc.N. (Toronto), R.N.
Helen Thomas/B.Sc.N. (Queen's), M.Sc. (Waterloo), R.N.
Catherine Tompkins/B.Sc.N. (Western Ontario), M.Ed. (Toronto), Ph.D. (California), R.N.

Assistant Professors
Gertrude Benson/B.N. (McGill), M.Sc.N. (Boston), R.N.
Jennifer Byther/B.A. (Hull), M.A., Ph.D. (McMaster), M.L.S. (Toronto)
Sheryl Boblin/B.Sc.N. (Alberta), M.Ed. (Alberta), Ph.D. (Toronto), R.N.
Maureen Dobbs/B.Sc.N. (McMaster), Ph.D. (Toronto), R.N.
Michelle Drummond-Young/B.Sc.N., M.H.Sc. (McMaster), R.N.
Anne Enrich/B.Sc.N. (Queen's), M.H.Sc. (Toronto), R.N.
Heather Hoxby/B.Sc.N., M.H.Sc. (McMaster), R.N.
Carolyne Ingram/B.Sc.N. (Pittsburgh), M.Sc.N. (Maryland), R.N.
Michael Ladouceur/B.Sc.N. (Victoria), M.P.H. (Boston), R.N.
J ohanna Landske/B.Sc.N. (Connecticut), M.Ed. (Victoria), Ph.D. (Toronto), R.N.
Jeannette LeGrice/B.N. (Manitoba), M.H.Sc. (McMaster), R.N.
Barbara Love/B.Sc.N., M.H.Sc. (McMaster), R.N.
Ola Lunyk-Child/B.Sc.N. (McMaster), M.Sc.N. (Toronto), R.N.
Maureen Markie-Reid/B.Sc.N (McMaster), M.Sc.N(Toronto), R.N.
Colleen McKey/B.Sc.N. (Niagara), M.Sc. (D'Youville), R.N.
Johanne Mousseau/B.A. (Western Ontario), M.Sc.N., R.N.
Charlotte Noegaard/B.N. (McGill), M.Sc.N. (Western Ontario), R.N.
Cottie Oforo/B.A. (McMaster), M.Ed. (Brock), Ph.D. (Toronto)
Linda O'Mara/B.N., M.Sc.N. (McGill), R.N.
Marilyn Parsons/B.Sc.N. (Queen's), M.H.Sc. (McMaster), R.N.
Chris Patterson/B.Sc. (Waterloo), B.Sc.N. (McMaster), M.Sc.N. (Western Ontario), R.N.
Jenny Ploeg/B.Sc.N., M.Sc.N. (Western Ontario), R.N.
Otto Sanchez-Sweetman/M.Sc.(Toronto), Ph.D. (McMaster)
Dyanne Semogas/B.Sc.N. (McGill), M.N. (Washington), R.N.
Jennifer Skelly/M.H.Sc., M.Sc.(McMaster), Ph.D.(Toronto), R.N.
Eric Staple/B.A.A. (N.) (Ryerson), M.S. (D’Youville), R.N.
Wendy Sword/B.Sc.N., M.Sc(T) (McMaster), Ph.D. (Guelph), R.N.
Ruta Valaitis/B.A., B.Sc.N. (Waterloo), M.H.Sc. (McMaster), R.N.
The Aga Khan University Based Faculty
Susan Beaton/B.A. (Newcastle), M.Ed. (Manchester), R.N.
Anita Fisher/B.A. (Windsor), M.Sc. (McMaster), Ph.D. (Toronto), R.N.
Zeratn Kand/B.Sc.N. (Ryerson), M.Sc.N (Illinois), R.N.
Grace Stanley/B.N. (McGill), M.N. (Calgary), R.N.

Professors Emeriti
E. Mary Buzzell/B.N. (McGill), M.Sc.N., M.Ed. (Boston), R.N.
Karin von Schilling/B.Sc.N. (Toronto), M.Sc.N. (California), R.N.

Note:
The School of Nursing has a large number of part-time faculty appointed from community health-care agencies. A complete list is available from the office of the Associate Dean of Health Sciences (Nursing).

School Notes:
1. Normally, registration in all courses above Level 1 will require satisfactory completion of the prerequisite Nursing courses with a grade of at least C- in graded courses or a pass in clinical practice courses. (See the Faculty of Health Sciences, School of Nursing, Academic Regulations section in this Calendar).
2. Normally, Level I, II, III, and IV Nursing courses are available only to students registered in the B.Sc.N. Programme.
3. Students in any stream who register for a clinical lab course in Level III or above must also submit a Placement Preference form to the Placement Coordinator. The Student Placement Information System (SPIIS) at www.fha.mmcmaster.ca/nursingplacements features detailed information about the selection of placement settings and the deadlines for submission of Placement Preferences.
4. The Nursing Leadership/Management courses are open only to students registered in the Nursing Leadership/Management programme, which was previously administered and is currently endorsed by the Canadian Nurses Association. Students in the B.Sc.N. (B) stream may apply to the coordinator of the Nursing Leadership/Management programme for permission to take these courses.
5. The Paediatric and Adult Oncology courses are open to nurses working in or who have an interest in paediatric or adult oncology respectively. A candidate must be currently registered as a nurse in a province or territory in Canada.

Courses

**NURSING 1F04 INTRODUCTION TO NURSING AND HEALTH I**
An introduction to definitions of nursing and health. Emphasis is on the relevance of context and on caring. Nursing process, beginning level skills in assessment, including physical assessment, and communication are stressed. A clinical practice component includes laboratory and community experience. Two and one half hours (lecture/probem-based tutorials); four hours (clinical lab); one term

Prerequisites: Registration in Level I of the B.Sc.N. (A) Stream

**NURSING 1G04 INTRODUCTION TO NURSING AND HEALTH II**
A continuation of NURSING 1F04. An introduction to reflective practice. Concepts and theories related to specific priority health issues are studied. There is continued development of skills in health assessment and an introduction to health education. A clinical practice component includes laboratory and community experience. Two and one half hours (lecture/probem-based tutorials); four hours (clinical lab); one term

Prerequisites: NURSING 1F04

**NURSING 2L03 GUIDED NURSING PRACTICE I**
Nursing concepts basic to health and illness are examined across the continuum of individual and family growth and development. Planned and guided experiences are provided in acute care institutions, including adult medical and surgical and paediatric settings. This course is evaluated on a Pass/Fail basis.

Nine hours (clinical lab); one term

Prerequisites: NURSING 1F04, 1G04

Normally to be taken concurrently with NURSING 2M03.

**NURSING 2M03 NURSING CONCEPTS IN HEALTH AND ILLNESS I**
Integration of nursing, biological, psychological and social sciences theory is developed through work in problem-based tutorials, in which students apply concepts related to nursing, teaching-learning and group processes to a variety of patient situations.

Three hours (lecture/probem-based tutorials); one term

Prerequisites: NURSING 1F04, 1G04

Normally to be taken concurrently with NURSING 2L03.
NURSING 2N03 NURSING CONCEPTS IN HEALTH AND ILLNESS II

A continuation of NURSING 2M03. Integration of nursing, biological, psychological, and social sciences theory in problem-based tutorials. Three hours (lecture/problem-based tutorials); one term
Prerequisite: NURSING 2M03
Normally to be taken concurrently with NURSING 2P03.

NURSING 2P03 GUIDED NURSING PRACTICE II

A continuation of NURSING 2L03. Planned and guided clinical practice in institutional settings. This course is evaluated on a Pass/Fail basis. Nine hours (clinical lab); one term
Prerequisite: NURSING 2L03
Normally to be taken concurrently with NURSING 2N03.

NURSING 2Q02 POPULATION HEALTH

An introduction to the major factors that determine the health of populations. Approaches to the assessment of the health status of communities will be considered. This course also provides experience in conducting a community assessment. Three hours (clinical lab) and one hour (lecture); one term
Prerequisite: NURSING 1G04

NURSING 3A03 ONCOLOGY HEALTH ASSESSMENT

This course assists the oncology nurse to refine advanced history taking and physical assessment skills specific to the individual and family experiencing the cancer continuum. This course is evaluated on a Pass/Fail basis. Three hours (problem-based tutorial, clinical lab); one term
Prerequisite: Registration In Oncology Programme or permission of instructor Antirequisite: NURSING 3AA2, 3G05, 3L05, 3V05

NURSING 3C03 CONCEPTS AND THEORIES IN ADULT ONCOLOGY NURSING I

Biological, psychological, physical, social sciences, and nursing theory are integrated and applied to selected health care situations related to adult oncology through the problem-based format. Three hours (problem-based tutorials, lectures, self-directed study); one term
Prerequisite: Registration In the Adult Oncology Programme; or registration in Level III of the B.Sc.N. (B) Stream and permission of the instructor Antirequisite: NURSING 3S03

NURSING 3D03 CONCEPTS AND THEORIES IN ADULT ONCOLOGY NURSING II

A continuation of NURSING 3C03. A problem-based course where students integrate and apply theories from the biological, psychological, social, and nursing sciences to selected adult oncology situations. Within the cancer care continuum, health care situations focus on assisting clients, families and the community. Three hours (problem-based tutorials, lectures, self-study); one term
Prerequisite: NURSING 3C03; and either registration in the Adult Oncology Programme; or registration in Level III of the B.Sc.N. (B) Stream and permission of the instructor Antirequisite: NURSING 3T03

NURSING 3L03 CLIENT HEALTH ASSESSMENT

This course focuses on knowledge and skills related to the assessment of the client in a community-based health care setting. History-taking and physical assessment skills are developed. This course is evaluated on a Pass/Fail basis. Three hours (problem-based tutorials, clinical lab, self-study); one term
Prerequisite: Registration in Level III of the B.Sc.N. (B) Stream or permission of the instructor Antirequisite: NURSING 3G05, 3L04, 3L02, 3L05, 3V05

NURSING 3M03 COMMUNICATION SKILLS FOR INDIVIDUALS, FAMILIES AND COMMUNITIES

Communication skills relevant to the complex nursing care of individuals, families and communities are developed through small-group tutorials and use of standardized patients. Three hours (problem-based tutorials); one term
Prerequisite: NURSING 3G05, 3L04, 3L05, 3V05
Normally to be taken concurrently with NURSING 3C03 or 3D03.

NURSING 3P03 NURSING CONCEPTS IN HEALTH AND ILLNESS III

Bio-psycho-social sciences and nursing theory are integrated and applied to health care situations through problem-based learning. Concepts and theories will focus on assisting the child, family and community in responding to the oncological process. Three hours (lecture/problem-based tutorial); one term
Prerequisite: Registration in Paediatric Oncology Programme; or registration in Level III of the B.Sc.N. (B) Stream and permission of the instructor Antirequisite: NURSING 3S03

NURSING 3Q03 NURSING CONCEPTS IN HEALTH AND ILLNESS IV

A continuation of NURSING 3P03. A problem-based course in which students integrate theories from biological, physical, psychological, social and nursing sciences and apply them to paediatric haematology-oncology situations. Three hours (lecture/problem-based tutorials); one term
Prerequisite: NURSING 3P03; and registration in the Paediatric Oncology programme or registration in Level III of the B.Sc.N. (B) Stream and permission of the instructor Antirequisite: NURSING 3T03

NURSING 3S03 NURSING CONCEPTS IN HEALTH AND ILLNESS III

Biological, physical, psychological, social sciences, and nursing theory are integrated and applied to health care situations through problem-based learning. Three hours (lecture/problem-based tutorials); one term
Prerequisite: NURSING 2N03 and 2P03 for B.Sc.N. (A) Stream students or registration in Level III of the B.Sc.N. (B) or Nurse Practitioner (C) Stream Normally to be taken concurrently with NURSING 3X04 for (A) Stream students.

NURSING 3T03 NURSING CONCEPTS IN HEALTH AND ILLNESS IV

A continuation of nursing 3S03. A problem-based course in which students integrate theories from biological, physical, psychological, social and nursing sciences and apply them to health care situations. Three hours (lecture/problem-based tutorials); one term
Prerequisite: NURSING 3S03 and registration in Level III of the B.Sc.N. (B) or Nurse Practitioner (C) Stream Normally to be taken concurrently with NURSING 3Y04 for (A) Stream students.

NURSING 3U02 INTEGRATIVE NURSING PRACTICE SEMINAR

This course is an in-depth analysis of the scientific basis of nursing practice. Selected scientific mechanisms are studied and applied to nursing practice. Two hours (lecture/student presentations); one term
Prerequisite: NURSING 2P03; HTH SCI 2B08 (or HTH SCI 2AA2, 2BB2, 2CC2, 2DD2)
Normally to be taken concurrently with NURSING 3X04 or 3Y04

NURSING 3V03 COMMUNITY HEALTH

Introduction to assessment of the health status of communities within a Primary Health Care framework. Models of community development and community assessment, health promotion and health education are critiqued and applied to clinical scenarios. Three hours (lecture/problem-based tutorials); one term
Prerequisite: Registration in B.Sc.N. (B) Stream; HTH SCI 3H03 Antirequisite: NURSING 3M05, 3V02
Normally to be taken concurrently with NURSING 3T03.

NURSING 3W03 GUIDED NURSING PRACTICE I - COMMUNITY-BASED CARE

An applied nursing practice experience in a community-based health care setting with emphasis on skill development in health promotion, health education and community assessment. This course is evaluated on a Pass/Fail basis. Eight hours (clinical lab) and one hour (independent study); one term
Prerequisite: NURSING 3V02 Antirequisite: NURSING 3M05

NURSING 3X04 GUIDED NURSING PRACTICE III

Planned and guided clinical practice in a variety of institutional and community settings emphasizing that nursing is contextual and relational. Nursing practice roles and selected theories/models are tested with individuals and groups. Emphasis is given to formulating nursing interventions. This course is evaluated on a Pass/Fail basis. Twelve hours (clinical lab); one term
Prerequisite: NURSING 2P03
Normally to be taken concurrently with NURSING 3S03.

NURSING 3Y04 GUIDED NURSING PRACTICE IV

A continuation of NURSING 3X04 with emphasis on integration of scientific mechanisms. Twelve hours (clinical lab); one term
Prerequisite: NURSING 3X04
Normally to be taken concurrently with NURSING 3T03 and NURSING 3U02.

NURSING 4A02 CURRENT TRENDS AND ISSUES IN NURSING

This course considers issues facing the profession, and the implications of current changes in the health field for future nursing practice. Two hours (lecture); one term
Prerequisite: Registration in Level IV of the B.Sc.N. (A) or (B) Stream or Level III of the B.Sc.N. NP (C) Stream, or permission of the instructor
NURSING 4D01 TOTAL QUALITY MANAGEMENT IN NURSING

Introduction to total quality management, quality assurance, quality improvement, risk management and utilization management. Given in distance education. This course is evaluated on a Pass/Fail basis.

Prerequisite: Registered Nurse with a minimum of one year clinical experience or permission of the instructor
Antirequisite: HTH SCI 4E06

NURSING 4C01 NURSING BUDGETING

Introduction to sources of health care funding in Canada and the principles of decentralized financial management. Given in distance education and problem-based tutorial formats. This course is evaluated on a Pass/Fail basis.

Four hours (problem-based tutorial or equivalent); six hours (independent study at a clinical site); one term
Prerequisite: Registered Nurse with a minimum of one year clinical experience or permission of the instructor

NURSING 4D01 TOTAL QUALITY MANAGEMENT IN NURSING

Introduction to total quality management, quality assurance, quality improvement, risk management and utilization management. Given in distance education. This course is evaluated on a Pass/Fail basis.

One hour (lecture or equivalent); one term
Prerequisite: Registered Nurse or permission of the instructor

NURSING 4G03 ADVANCED NURSING CONCEPTS I

A problem-based course in which students focus on theories and concepts related to client/patient care e.g., leadership and management, education of clients/patients, students, and staff. Student participation includes selecting appropriate situations and related theories for study, and identifying interventions and evaluation strategies.

Three hours (lecture/problem-based tutorials); one term
Prerequisite: NURSING 3T03 (for A and B Streams) and NURSING 3Y04 (for A Stream)
Normally taken concurrently with NURSING 4J07 (for A Stream) or NURSING 4G08 (for B Stream).

NURSING 4F03 ADVANCED NURSING CONCEPTS II

A continuation of NURSING 4E03. A problem-based course in which students integrate concepts and theories related to clinical practice issues.

Three hours (lecture/problem-based tutorials); one term
Prerequisite: NURSING 4E03
Normally taken concurrently with NURSING 4K07 (for A Stream) or NURSING 4T06 (for B Stream).

NURSING 4G03 SELECTED TOPICS IN NURSING

Topics of contemporary interest in nursing. Emphasis may be upon theory, research or clinical application. Consult the School regarding the topics to be examined.

Three hours (problem-based tutorial or equivalent); one term
Prerequisite: Permission of the instructor

NURSING 4H03 ISSUES IN INTERNATIONAL AND INTERCULTURAL HEALTH

An introduction to health issues in a rural Canadian and international context including theories of: development; political economy; medical and social anthropology; and intercultural health care practice.

Three hours (lecture/problem-based tutorials); one term
Prerequisite: HTH SCI 3E03 and registration in Level III or IV of the BScN Programme and permission of the instructor
Antirequisite: HTH SCI 4H03

NURSING 4J07 GUIDED NURSING PRACTICE V

This course focuses on the application of theory and concepts to clinical practice, including the introduction to the leadership role in patient care. Students are individually placed in a variety of health-care settings. This course is evaluated on a Pass/Fail basis.

Twenty-four hours (clinical lab, including tutorials); one term
Prerequisite: NURSING 3Y04, 3Y07
Normally to be taken concurrently with NURSING 4E03.

NURSING 4K07 GUIDED NURSING PRACTICE VI

A continuation of Nursing 4J07. This course is evaluated on a Pass/Fail basis.

Twenty-four hours (clinical lab, including tutorials); one term
Prerequisite: NURSING 4J07
Normally to be taken concurrently with NURSING 4F03.

NURSING 4S06 GUIDED NURSING PRACTICE III - COMMUNITY-BASED CARE

An applied nursing practice experience in a community-based health care setting with emphasis on skill development in health promotion, health education and community assessment. This course is evaluated on a Pass/Fail basis.

Twelve hours (clinical lab), two hours (tutorials); one term
Prerequisite: Registration in Level IV of the B.Sc.N. (B Stream); and NURSING 3V03
Normally to be taken concurrently with NURSING 4E03.

NURSING 4T06 GUIDED NURSING PRACTICE IV

An applied nursing practice course which emphasizes integration of theory and development of independent decision-making capacity in a selected area of clinical practice. This course is evaluated on a Pass/Fail basis.

Twelve hours (clinical lab), two hours (tutorials); one term
Prerequisite: Registration in Level IV of the BScN (B Stream)
Normally to be taken concurrently with NURSING 4E03 for BScN (B Stream).

Note:
Distance education modalities are employed in all courses in the Nurse Practitioner (C) Stream and Nurse Practitioner Certificate Stream. Tutorial sessions are held on site at the University. Field experience is required for several courses. Students must attend McMaster for the clinical laboratory components of the programme.

Courses

NURSPRAC 4A10 ADVANCED HEALTH ASSESSMENT AND DIAGNOSIS

This course focuses on the development of clinical decision making and advanced health assessment knowledge and skills in providing primary health care to individuals, families and communities.

Three hours (tutorial); three hours (clinical lab); two terms
Prerequisite: Registration in Level IV of the B.Sc.N. NP (C) Stream; registration in or completion of NURSPRAC 4P03
Antirequisite: NURSPRAC 4A05, 4A06

NURSPRAC 4C13 NURSE PRACTITIONER INTEGRATIVE PRACTICUM

An intensive field study with a focus on assessment, diagnosis and management of the care of clients. Emphasis is on synthesizing advanced knowledge and applying evidence-based health care to clinical practice.

29 hours (clinical lab); six hours tutorial; one term
Prerequisite: NURSPRAC 4A10, 4P03, 4P04, 4T10; registration in Level IV of the B.Sc.N. NP (C) Stream
Antirequisite: NURSPRAC 4C10, 4G03

NURSPRAC 4P03 PATHOPHYSIOLOGY FOR NURSE PRACTITIONERS

This course uses a systems approach to examine concepts in pathophysiology as a basis for advanced nursing practice in primary health care. The course will provide a comprehensive overview of etiology, pathogenesis and clinical manifestation of diseases in adults and children found in primary care.

Three hours (tutorial); two terms
Prerequisite: HTH SCI 1C07, 2C07; registration in Level IV of the B.Sc.N. NP (C) Stream

NURSPRAC 4R03 NURSE PRACTITIONER ROLES AND RESPONSIBILITIES

This course examines and analyzes the political, economic, social, ethical and legal issues related to the role and scope of practice of Nurse Practitioners.

Three hours (tutorial); two terms
Prerequisite: Registration in Level III or IV of the B.Sc.N. NP (C) Stream

NURSPRAC 4T10 THERAPEUTICS IN PRIMARY HEALTH CARE

The course is designed to develop the knowledge, skill and competencies required of a nurse practitioner in managing health and injury through a variety of clinical therapeutic strategies, including counselling, pharmacology and complementary modalities. The effectiveness and efficiency of these strategies are examined.

Three hours (tutorial); three hours (clinical lab); two terms
Prerequisite: HTH SCI 1C07, 2C07; registration in Level IV of the B.Sc.N. NP (C) Stream; registration in or completion of NURSPRAC 4A10, 4P03
Antirequisite: NURSPRAC 4T05, 4T15

OCCUPATIONAL THERAPY AND PHYSIOTHERAPY

Effective September 2000, McMaster University no longer offers admission to the Bachelor of Health Sciences (B.H.Sc.) second-degree programmes in Occupational Therapy and Physiotherapy.

Two graduate programmes, the Master of Clinical Health Sciences, Occupational Therapy degree, MCHS (OT) and the Master of Clinical Health Sciences, Physiotherapy degree, MCHS (PT), are available. For further information concerning the two graduate programmes, please consult the School of Rehabilitation Science website at http://www.fhs.mcmaster.ca/rehab or contact Helena Collins, OT/PT Programme Administrator, (905) 525-9140, Ext. 27801.
Peace Studies

Ojibwe

(See Indigenous Studies, Ojibwe)

OncoLOGY

(See Nursing)

Peace Studies

WEB ADDRESS: http://www.humanities.mcmaster.ca/-peace

Tojo Salmon Hall, Room 726

Ext. 24265

Director

Mark Vorobej/B.A. (Carleton), M.A., Ph.D. (Toronto)

Courses if no prerequisite is listed, the course is open.

Peace ST 1A03 Introduction to Peace Studies
An introduction to the discipline of peace research, focusing on the concepts of peace, war, security, conflict, violence and nonviolence, and the roles of values and ideologies in the attainment of peace.
Three hours (lectures and discussion); one term

Peace ST 1B03 Introduction to the Study of War
A Peace Studies approach to the study of war, including the effects of war on people, societies and the world. War prevention processes will be examined at the levels of interstate and state politics, social movements, and individual peace.
Three hours (lectures and discussion); one term

Peace ST 2A03 Conflict Transformation: Theory and Practice
An examination of ways of preventing, resolving and transforming conflicts in everyday life, in our own culture and others, and in the arenas of family, business, the law, schools and large-scale political conflicts.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above or permission of the Director of Peace Studies
Cross-list: CMST 2V03

Peace ST 2I03 Social and Political Issues
A philosophical examination of some contemporary issues in public policy, such as environmental problems, the question of a just distribution of society's goods and services, and problems of liberty and coercion.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II and above
Cross-list: PHIL 2G03

This course is administered by the Department of Philosophy.

Peace ST 3E06 Postcolonial Literatures: Theory and Practice
A study of postcolonial literary theory and practice. Texts written in English from a variety of formerly colonized regions will be studied; including Africa, the Caribbean, South and Southeast Asia, Australia and New Zealand. The focus will be on such topics as imperialism, race, gender, ethnicity, nation, language and representation.
Three hours; two terms
Prerequisite: Registration in the Combined Honours in Peace Studies Programme or permission of the Departmental Counsellor in the English Department
Cross-list: COMP LIT 3R06, ENGLISH 3R06

This course is administered by the Department of English.

Peace ST 3F03 The Modern Middle East
A survey of the political and social history of the Middle East from 1800 to the present, with an emphasis on contemporary issues, such as the Islamic impulse and the Arab-Israeli conflict.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above
Cross-list: HISTORY 3A03

This course is administered by the Department of History.

Peace ST 3G03 History of Modern Germany
This course examines the complexities of German social and political history since 1890, including World War One, Third Reich, cold war division, questions of national identity, and the peaceful revolution of 1989.
Three hours (lectures and discussion groups); one term
Prerequisite: Registration in Level II and above
Cross-list: HISTORY 3G03

This course is administered by the Department of History.

Peace ST 3H03 The International Relations of the European Powers, 1815-1914
An examination of the post-Napoleonic settlement of 1815; its breakdown and the triumph of the national unification movements; the causes of World War I.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: HISTORY 3H03

This course is administered by the Department of History.

Peace ST 3I03 The International Relations of the European Powers, 1914-1945
An examination of the origins and course of the First World War; the failure of post-war stabilization; and the origins and course of the Second World War.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: HISTORY 3I03

This course is administered by the Department of History.

Peace ST 3J03 Modern Latin America since 1820
Liberalism, nationalism, militarism and the various revolutions will be covered as well as the U.S. role in Latin America and the Caribbean.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: HISTORY 3J03

This course is administered by the Department of History.

Peace ST 3K03 Philosophies of War and Peace
A philosophical appraisal of the rationality and morality of the conduct of war and proposals for fostering peace among nations.
Three lectures; one term
Prerequisite: At least six units of Philosophy, and registration in Level III or IV of any programme; or registration in Level III or IV of the Combined Honours in Peace Studies Programme
Cross-list: PHILOS 3K03

Offered in alternate years.

This course is administered by the Department of Philosophy.

Peace ST 3L03 Contemporary Native Literature in Canada
A study of significant works by Native writers who give voice to their experience in Canada. Issues examined include appropriation of voice, native identity, women in indigenous societies, and stereotyping.
Three hours (lectures and seminars); one term
Prerequisite: INDIG ST 1A03 and 1A04 or 1A06 or six units of Level I English or permission of the instructor
Cross-list: ENGLISH 3L03, INDIG ST 3L03

This course is administered by Indigenous Studies.

Peace ST 3M03 Contemporary Native Literature in the United States
A study of contemporary works by Native writers in the United States within the context of American society and Post-Modern and Post-Colonial Literary Theory.
Three hours (lectures and seminars); one term
Prerequisite: INDIG ST 1A03 and 1A04 or 1A06 or six units of Level I English or permission of the instructor
Cross-list: ENGLISH 3M03, INDIG ST 3E03

This course is administered by Indigenous Studies.

Peace ST 4A03 Research Seminar
An interdisciplinary examination of selected topics of current relevance to peace research.
Seminar (two hours); one term
Prerequisite: Registration in Level III or IV of the Combined Honours in Peace Studies Programme
Enrolment is limited.

Peace ST 4B03 Independent Research
Students develop and execute their own research projects, in regular consultation with a faculty supervisor, and produce and orally defend a substantial paper. May include a practicum component.
Prerequisite: Registration in Level III or IV of the Combined Honours in Peace Studies Programme, a cumulative average of at least 8.5 and permission of the Director of Peace Studies
Note:
The following courses may be used to meet some of the requirements of Peace Studies Course Lists 1 or 2, provided the prerequisite requirements of the home department are fulfilled:

COURSE LIST 1
BIOLOGY 4EE3 Human Diversity and Human Nature

COURSE LIST 2
POL SCI 4D06 Human Rights and International Politics
POL SCI 4M08 Topics in International Politics

PHARMACOLOGY
With the exception of PHARMAC 4B03, these courses are available only to those students registered in Honours Biology and Pharmacology.

Note:
PHARMAC 3A06, 3B06, 4A03, 4AA3, 4C03, 4D03 and 4E03 will be based on self-directed problem based learning.

Courses

PHARMAC 3A06 INTRODUCTION TO PHARMACOLOGY
Receptor theory and classification, receptor response coupling, mechanisms of drug absorption, distribution, metabolism and excretion and their roles in drug selectivity.
One tutorial (one hour), one tutorial (two hours); two terms
Prerequisite: Registration in the Honours Biology and Pharmacology programme

PHARMAC 3B06 METHODS IN PHARMACOLOGY
Methods to study effects of drugs in vitro (such as organ baths, ligand binding, and electrophysiological actions) and analysis of pharmacological data.
One lab (six hours); two terms
Prerequisite: Credit or registration in PHARMAC 3A06

PHARMAC 4A03 RECEPTOR-DRUG INTERACTIONS
Introduction to the effects of drugs on communication by chemical signals in biological systems.
One tutorial (one hour), one tutorial (two hours); one term
Prerequisite: PHARMAC 3A06

PHARMAC 4AA3 ADVANCED TOPICS IN PHARMACOLOGY
The continuation of Pharmacology 4A03.
One tutorial (three hours); one term
Prerequisite: PHARMAC 4A03

PHARMAC 4B03 DRUGS AND BEHAVIOUR
Behavioural measures to study drug action and the use of drugs to study the organization and physiochemical mechanisms in normal and abnormal behaviour.
One tutorial (three hours); one term
Prerequisite: PHARMAC 3A06 or BIOLOGY 3AA3 and permission of the instructor. Application for permission must be received by March 31st of the previous year.
Cross-list: HTH SCI 4Q03
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PHARMAC 4C03 PRINCIPLES OF TOXICOLOGY
General principles of toxicology, adverse effects of selected agents on man and other organisms.
One tutorial (one hour), one tutorial (two hours); one term
Prerequisite: PHARMAC 3A06

PHARMAC 4D03 DRUG DESIGN
Principles of drug design based on drug transport, metabolism and selectivity of action at the target sites with emphasis on quantitative structure-activity relationships.
One tutorial (one hour), one tutorial (two hours); one term
Prerequisite: PHARMAC 3A06, 4A03

PHARMAC 4E03 SOCIAL PHARMACOLOGY
Epidemiological analysis of drug use in humans; adverse drug reactions; legal and economic aspects of drug utilization, prescribing patterns in national and international contexts.
One tutorial (one hour), one tutorial (two hours); one term
Prerequisite: PHARMAC 3A06

PHARMAC 4F09 SENIOR THESIS
A thesis based upon a research project carried out under the direction of a member of the Faculty.
Prerequisite: PHARMAC 3A06
Antirequisite: BIOLOGY 4C03, 4F06, HTH SCI 3H03, 4A09, 4B06, MOL BIOL 4F09

PHILOSOPHY
WEB ADDRESS:
http://www.humanities.mcmaster.ca/~philos/philhome.htm
University Hall, Room 209 Ext. 24275

Faculty as of January 15, 2001

Chair
Spiro Panagiotou

Professors
Barry Allen/B.A., (Lethbridge), Ph.D. (Princeton)
Nicholas Griffin/B.A. (Leicester), Ph.D. (Australian National)
Willard Waluchow/B.A., M.A. (Western Ontario), D.Phil. (Oxford)

Associate Professors
Samuel Ajzenstat/B.A., M.A. (Toronto), Ph.D. (Pennsylvania)
Catherine Beattie/B.A. (McMaster), M.A. (Guelph), Ph.D. (London)
Elisabeth Boetzkes/B.A., M.A. (Alberta), Ph.D. (Calgary), MTh. (Newman Theological College)
David L. Hitchcock/B.A., M. (McMaster), Ph.D. (Claremont)
Phil Krenser/Sc. (Tokyo), Ph.D. (Pittsburgh)
Jill LeBlanc/B.A., M. (McMaster), Ph.D. (Toronto)
Sami M. Najm/A.A. (Beirut), B.A. (Wesleyan), M.A., Ph.D. (Yale)
Spiro Panagiotou/B.Sc., M.A., Guelph), Ph.D. (St. Andrews)
Mark Vorobej/B.A. (Carleton), M.A., Ph.D. (Toronto)

Assistant Professor
Brigitte Sassen/B.A. (Toronto), M.A., Ph.D. (Pennsylvania State)

Associate Members
Caroline Bayard/B.A. (French), L. ete L., M. ete L. (Toulouse), M.A., Ph.D. (Toronto)
Howard Jones/Classics, B.A. (London), M.A., Ph.D. (Indiana)

Professors Emeriti
Gary B. Madison/B.A. (St. Joseph's College), M.A. (Marquette), Ph.D. (Paris)
James H. Noxon/B.A., M.A. (Queen's), Ph.D. (Edinburgh)
Evan Simpson/A.B. (Amherst), Ph.D. (Duke)

Department Notes:
1. The Department of Philosophy offers courses in four major areas of Philosophy, namely History of Philosophy, Logic, Ethics and Theory of Value, and Theory of Knowledge and Metaphysics. Students are advised to include courses from each of these areas in their programmes.
2. Students who do not meet the specified prerequisites for a course may, in exceptional circumstances, obtain permission of the instructor to take the course.
3. An Undergraduate Philosophy Handbook is available in the Departmental Office.
4. Students interested in registering in PHLOS 3W03, 4W03 or 4Z06 are strongly encouraged to obtain permission from the Departmental Undergraduate Counselor by the end of May of the preceding year. Access to these courses cannot be guaranteed beyond that date.
PHILOS 1A03  PHILosophical texts
An introduction to philosophy through the close reading of selected classical texts. Authors to be considered may include Plato, Descartes, Hobbes, Hume, Marx, Mill, Nietzsche, Russell, and De Beauvoir.
Two lectures, one tutorial; two terms
Antirequisite: PHILOS 1B06, 1D06
Alternates with PHILOS 1C03.

PHILOS 1B03  phylosophy, law and society
An introduction to social, political, legal, and moral philosophy. Topics to be discussed may include ecology, health-care ethics, civil rights, and alternative views of human nature, the state, social conflict, inequality and justice.
Two lectures, one tutorial; one term
Antirequisite: PHILOS 1B06, 1D06
Alternates with PHILOS 1C03.

PHILOS 1C03  philosophy in literature
An introduction to philosophy through the study of literature. The course shows how works of literary art treat such philosophical issues as the nature of morality, the possibility of freedom, human nature, the self, and religious belief.
Two lectures, one tutorial; one term
Antirequisite: PHILOS 1B06, 1D06

PHILOS 2A06  ancient greek philosophy
A study of Western philosophical thought from its earliest beginnings to late Roman times, with emphasis on Plato and Aristotle.
Three lectures; two terms
Prerequisite: Registration in Level II and above
Cross-list: CLASSICS 2P06

PHILOS 2B03  introductory logic
Sentential and quantification logics are introduced and applied to arguments in English.
Three lectures; one term
Prerequisite: Registration in Level II and above

PHILOS 2C06  descartes to hume
A comprehensive survey of early modern philosophy, concentrating on the metaphysical and epistemological innovations of the period.
Three lectures; two terms
Prerequisite: Registration in Level II and above

PHILOS 2D03  moral issues
An introduction to moral philosophy, through a consideration of issues in health care ethics. Topics such as abortion, human experimentation, euthanasia, and genetic screening will be investigated.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II and above
Cross-list: RELIG ST 2C03
Enrolment is limited to 475 students.

PHILOS 2E03  philosophical psychology
A consideration of such questions as: In what terms might human nature be described? How do intentional and unintentional behaviour differ? How do physical and mental states differ? When is action free? Can intelligence be duplicated artificially?
Three lectures; one term
Prerequisite: Registration in Level II and above

PHILOS 2F03  social and political issues
A philosophical examination of some contemporary issues in public policy, such as environmental problems, the question of a just distribution of society's goods and services, and problems of liberty and coercion.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II and above
Cross-list: PEACE ST 2F03

PHILOS 2H03  aesthetics
An introduction to some main theories of the nature of art, criticism, and the place of art in life and society.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: ART HIST 2H03, CMST 2N03
Offered in alternate years.

PHILOS 2N03  business ethics
An analysis of ethical issues arising in contemporary business life. Sample topics include: fair and unfair competition; responsibilities towards employees, society and the environment; honesty and integrity in business; the moral status of corporations.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II and above

PHILOS 3A06  from kant to hegel
The philosophies of Kant and Hegel viewed in relation to each other and to other philosophies of the period, such as those of Rousseau or Schelling.
Three lectures; two terms
Prerequisite: PHILOS 2C06

PHILOS 3B03  philosophies of existence
An examination of the 19th-century forerunners of contemporary existential philosophy, concentrating primarily on the thought of Kierkegaard and Nietzsche.
Three lectures; one term
Prerequisite: At least six units of Philosophy, and registration in Level III or IV of any programme
Offered in alternate years.

PHILOS 3C03  advanced bioethics
An advanced study of the application of ethical theory to selected problems in health care, such as our reproductive practices, care of the dying, the therapeutic relationship.
Three lectures; one term
Prerequisite: PHILOS 2D03 or RELIG ST 2C03 with a grade of at least B, and at least three additional units of Philosophy, or registration in Level III or IV of an Honours programme in Philosophy
Offered in alternate years.

PHILOS 3E03  philosophy of language
A survey of philosophical problems concerning language. Topics to be considered include reference, synonymy, truth, and linguistic knowledge.
Three lectures; one term
Prerequisite: At least six units of Philosophy, and registration in Level III or IV of any programme
Cross-list: CMST 3Y03
Offered in alternate years.

PHILOS 3F03  intermediate logic
Selected topics in the study of formal languages and their interpretations, metalogic, and the philosophy of logic.
Three lectures; one term
Prerequisite: PHILOS 2B03
Offered in alternate years.

PHILOS 3G03  ethics
An introduction to the major types of ethical theory and the problem of their justification.
Three lectures; one term
Prerequisite: At least six units of Philosophy, and registration in Level III or IV of any programme

PHILOS 3H03  philosophy of religion
An analysis of the concept of religion in light of the philosophical claims of religious experience, practice, and belief.
Three lectures; one term
Prerequisite: Registration in Level III or IV of any programme and six units of Philosophy or WOMEN ST 1A06
Offered in alternate years.

PHILOS 3I03  philosophy and feminism
A study of philosophical issues in feminist thought.
Three lectures; one term
Prerequisite: Six units of Philosophy or WOMEN ST 1A06 and registration in Level III or IV of any programme
Cross-list: WOMEN ST 3I03
Offered in alternate years.

PHILOS 3J03  philosophy of education
A systematic account of education through a critical analysis of the concepts of teaching, learning, and subject matter.
Two lectures, one tutorial; one term
Prerequisite: At least six units of Philosophy
Offered in alternate years.
PHILOS 3N03  POLITICAL PHILOSOPHY
A study of major political concepts and issues, such as social contract, ideology, justice, freedom vs. equality, reform vs. revolution, state vs. individual.
Three lectures; one term
Prerequisite: At least six units of Philosophy, and registration in Level III or IV of any programme
Offered in alternate years.

PHILOS 3P03  THEORY OF KNOWLEDGE
A study of scepticism and certainty, knowledge and belief, perception, memory, and truth.
Three lectures; one term
Prerequisite: PHILOS 2C06

PHILOS 3P03  PHILOSOPHIES OF WAR AND PEACE
A philosophical appraisal of the rationality and morality of the conduct of war and proposals for fostering peace among nations.
Three lectures; one term
Prerequisite: At least six units of Philosophy, and registration in Level III or IV of any programme; or registration in Level III or IV of the Combined Honours in Peace Studies Programme
Cross-list: PEACE ST 3M03
Offered in alternate years.

PHILOS 3Q03  PHILOSOPHY OF LAW
An investigation of the nature of law and of issues arising within legal systems. These issues include legal reasoning, equality, legal insanity, punishment, and the Charter of Rights and Freedoms.
Three lectures; one term
Prerequisite: At least six units of Philosophy and registration in Level III or IV of any programme

PHILOS 3W03  READING COURSE
A tutorial course in which individual students meet regularly with an instructor on a list of readings outside normally available course offerings. It is the student's responsibility to secure the agreement of an instructor and to complete a proposal form (available in the Philosophy Department office), before attempting to register in the course.
Prerequisite: Registration in Level III or IV of any programme in Philosophy, with a Cumulative Average of at least 6.5 and permission of the Department

PHILOS 4A03  EARLY MODERN PHILOSOPHY
A critical study of one or more 17th or 18th-Century European or British philosophers, such as Descartes, Leibniz, Hume.
Seminar (Two hours); one term
Prerequisite: PHILOS 2C06, and registration in Level III or IV of any programme
Offered in alternate years.

PHILOS 4B03  THEORY OF VALUE
A study of human practices of evaluation in morality, politics, art, religion, and economics.
Seminar (Two hours); one term
Prerequisite: PHILOS 3Q03, and registration in Level III or IV of any programme
Cross-list: PEACE ST 4C03
Offered in alternate years.

PHILOS 4D03  20TH-CENTURY ANALYTIC PHILOSOPHY
A study of some main currents of 20th-Century philosophy, including the work of such figures as Russell, Wittgenstein, Quine, and Davidson.
Seminar (Two hours); one term
Prerequisite: At least six units of Philosophy, and registration in Level III or IV of any programme
Offered in alternate years.

PHILOS 4E03  EXISTENTIALISM AND PHENOMENOLOGY
A study of selected texts of major existential and phenomenological philosophers in the 20th-century, such as Camus, Heidegger, Jaspers, Marcel.
Seminar (Two hours); one term
Prerequisite: At least six units of Philosophy, and registration in Level III or IV of any programme
Offered in alternate years.

PHILOS 4F03  RECENT EUROPEAN PHILOSOPHY
Contemporary trends in European Philosophy as represented by such writers as Derrida, Foucault, and Habermas.
Seminar (Two hours); one term
Prerequisite: At least six units of Philosophy, and registration in Level III or IV of any programme
Offered in alternate years.

PHILOS 4G03  BERTRAND RUSSELL
An introduction to various aspects of Russell's philosophical thought. Each year two or three topics in his theory of knowledge, metaphysics, philosophy of language and social philosophy will be selected for special attention.
One lecture (Two hours), one seminar (One hour); one term
Prerequisite: PHILOS 2B03 and registration in Level III or IV of any programme
Offered in alternate years.

PHILOS 4H03  METAPHYSICS
An investigation of metaphysical concepts, such as substance, individuation, identity, essence, quality, process, mind, time and causality. Some contemporary criticisms of metaphysics will be discussed.
Seminar (Two hours); one term
Prerequisite: PHILOS 2A06 and 2C06, and registration in Level III or IV of a programme in Philosophy

PHILOS 4I03  MEDIEVAL PHILOSOPHY
A study of one or more central medieval philosophers, such as Augustine, Aquinas, or William of Ockham.
Seminar (Two hours); one term
Prerequisite: One of PHILOS 2A06, 2C06
Offered in alternate years.

PHILOS 4K03  ANCIENT PHILOSOPHY
A critical study of one or more ancient Greek philosophers such as Parmenides, Plato, Aristotle.
Seminar (Two hours); one term
Prerequisite: PHILOS 2A06 and registration in Level III or IV of any programme
Antirequisite: PHILOS 4C03, 4J03
Cross-list: CLASSICS 4K03
Offered in alternate years.

PHILOS 4W03  INDEPENDENT STUDY
In consultation with a member of the Department of Philosophy, students will prepare an essay on an approved topic, on the basis of a list of readings outside normally available course offerings. It is the student's responsibility to secure the agreement of an instructor and to complete a proposal form (available in the Philosophy Department office), before attempting to register in the course.
Prerequisite: Registration in Level IV of any Honours programme in Philosophy, with a Cumulative Average of at least 8.5 and permission of the Department
Antirequisite: PHILOS 4Z06

PHILOS 4Z06  THESIS
Research and under the supervision of two members of the Department. A major paper is required as well as a formal examination. It is the student's responsibility to secure the agreement of an instructor and to complete a proposal form (available in the Philosophy Department office), before attempting to register in the course.
Prerequisite: Registration in Level IV of any Honours programme in Philosophy, with a Cumulative Average of at least 8.5 and permission of the Department
Antirequisite: PHILOS 4W03

PHYSICS AND ASTRONOMY

WEB ADDRESS:  http://www.physics.mcmaster.ca/
A.N. Booms Science Building, Room 241
Ext. 24559

Faculty as of January 15, 2001

Chair
A.J. Berlinsky

University Professor
Jules P. Carbotte/B.Sc. (Manitoba), M.Sc., Ph.D. (McGill), D.Sc. (Waterloo), F.R.S.C.

Associate Chair
D.E. Venus

Professors
A. John Berlinsky/B.Sc. (Fordham), M.Sc., Ph.D. (Pennsylvania)
David R. Chettle/B.Sc., M.Sc., Ph.D. (Birmingham)
Malcolm F. Collins/M.A., Ph.D. (Cambridge)
Hugh M. Couchman/B.A., M.A., Ph.D. (Cambridge)
Bruce D. Gaulin/B.Sc. (McGill), Ph.D. (McMaster), Brockhouse Chair in the Physics of Materials
William E. Harris/B.Sc. (Alberta), M.Sc., Ph.D. (Toronto)
Harold K. Haugen/B.Sc. (Acadia), M.Eng. (McMaster), Ph.D. (Aarhus)
Catherine Kallin/B.Sc. (British Columbia), A.M., Ph.D. (Harvard)
William V. Prestwich/B.Sc., Ph.D. (McMaster)
Ralph E. Pudritz/B.Sc. (British Columbia), M.Sc. (Toronto), Ph.D. (British Columbia)
ASTRON 3Y03 STELLAR STRUCTURE

The physics of stellar interiors. The main sequence and the life cycle of a star. Stellar evolution, including white dwarfs, neutron stars, and black holes.

Three lectures; one term
Prerequisite: One of PHYSICS 2D03, 2K03 and one of PHYSICS 2A03, 2B06, and either one of PHYSICS 2H04, CHEM 2P06, 2P03 or both CHEM 2P03 and 2P33.

Alternates with ASTRON 3Y03.
Offered in 2001-2002.

ASTRON 2X03 GALAXIES AND COSMOLOGY

Basic stellar evolution, the interstellar medium. The Milky Way Galaxy; normal and active galaxies and large scale structure in the universe; modern ideas in cosmology.

Three lectures and occasional lab periods; one term
Prerequisite: One of PHYSICS 2D03, 2K03 and one of PHYSICS 2A03, 2B06, and either one of PHYSICS 2H04, CHEM 2P06, 2P03 or both CHEM 2P03 and 2P33.

Alternates with ASTRON 3Y03.

PHYSICS...
PHYSICS 2B06  ELECTRICITY AND MAGNETISM
Electrostatics, D.C. and A.C. circuits, the magnetic field; Faraday's law of induction; Maxwell's equations.
Three lectures, first term; two lectures, second term; one lab (three hours)
every other week; two terms
Prerequisite: PHYSICS 1B03 or 1C03
Corequisite: MATH 2A03 and either 2C03 or 2003
Antirequisite: PHYSICS 2A03

PHYSICS 2C03  MODERN PHYSICS
Special Relativity. Introductory quantum physics.
Three lectures; first term
Prerequisite: PHYSICS 1B03 or 1B03
Antirequisite: PHYSICS 2K03, 3M03

PHYSICS 2D03  MECHANICS
Dynamics of a particle, central field problem, many-particle systems, the mechanics of rigid bodies, Lagrange's equations.
Three lectures, first term
Prerequisite: Registration in a programme in Physics, Medical and Health Physics or Engineering Physics
Antirequisite: PHYSICS 2K03

PHYSICS 2H04  THERMODYNAMICS
An introduction to thermodynamics and its statistical basis at the microscopic level, with applications.
Three lectures, one lab (three hours), tutorial every other week; two terms
Prerequisite: MATH 1B03 or 1C03
PHYSICS 1B03 (or 1C03) and credit or registration in PHYSICS 1B03 (or 1BB3)
Antirequisite: CHEM 2P06, 2PA3, 2R03, ENGINEER 2H03
Cross-list: ENG PHYS 2H04

PHYSICS 3A03  RELATIVITY
An introduction to general relativity.
Three lectures; one term
Prerequisite: PHYSICS 2C03 or 2K03 and registration in any Honours programme in Science or any programme in the Faculty of Engineering
Offered in alternate years.

PHYSICS 3B06  ELECTRONICS
Circuit theorems, principles of semiconductors and devices, bipolar junction transistor (DC biasing and AC model), amplifier circuits (single and multi-stage), field effect transistors and circuits, difference amplifier, feedback, oscillators, operational amplifier and applications.
Two lectures, one lab (two hours); two terms
Prerequisite: PHYSICS 2B06 or both ENG PHYS 2A03 and 2E04
Antirequisite: PHYSICS 3B03, 3BB3

PHYSICS 3BA3  ELECTRONICS I
Circuit theorems, principles of semiconductors and devices, bipolar junction transistor (DC biasing and AC model), amplifier circuits (single and multi-stage).
Two lectures, one lab (two hours); first term
Prerequisite: PHYSICS 2B06 or both ENG PHYS 2A03 and 2E04
Antirequisite: PHYSICS 3B06

PHYSICS 3BB3  ELECTRONICS II
Field effect transistors and circuits, difference amplifier, feedback, oscillators, operational amplifier and applications.
Two lectures, one lab (two hours); second term
Prerequisite: PHYSICS 3BA3
Antirequisite: PHYSICS 3B06

PHYSICS 3C03  ANALYTICAL MECHANICS
Stability theory; Lagrange's equations, conservative Hamiltonian systems; transformation theory and action angle variables; perturbation theory, resonances; non-integrable systems and chaos.
Three lectures; one term
Prerequisite: Credit or registration in, MATH 3C03 and registration in any Honours programme in Science or any programme in the Faculty of Engineering; or registration in Honours Mathematics and Physics; or permission of the instructor.
Offered in alternate years.
Offered in 2001-2002.

MATH 3D03  MATHEMATICAL PHYSICS II
Functions of a complex variable, probability and statistics, boundary value problems, Bessel functions.
Three lectures; one term
Prerequisite: MATH 2C03
Antirequisite: MATH 3K03
Not open to students with credit or registration in MATH 3J04, 3X03.
Not open to students registered in Honours Mathematics and Physics.

PHYSICS 3H04  INTERMEDIATE LABORATORY
Experiments in atomic physics, neutron physics, optics, spectroscopy, mechanics.
One lecture, one term; one lab (three hours) two terms
Prerequisite: PHYSICS 2B06 and credit or registration in one of PHYSICS 2C03, 3M03, 3003

PHYSICS 3HA2  INTERMEDIATE LABORATORY (CO-OP) I
Experiments in atomic physics, neutron physics, optics, spectroscopy, mechanics.
One lecture, one lab (three hours); first term
Prerequisite: PHYSICS 2B06, credit or registration in one of PHYSICS 2C03, 3M03, 3003, and registration in Level III of a Physics or Medical and Health Physics Co-op programme

PHYSICS 3HB2  INTERMEDIATE LABORATORY (CO-OP) II
The continuation of PHYSICS 3HA2.
One lab (three hours); second term
Prerequisite: PHYSICS 3HA2

PHYSICS 3I01  SEMINAR I
Preparation and presentation of report on first work term.
One seminar (one hour); first term
Prerequisite: Registration in Level IV of Honours Physics Co-op
Antirequisite: MED PHYS 3I01

PHYSICS 3K03  THERMODYNAMICS AND STATISTICAL MECHANICS
The laws of thermodynamics, with emphasis on the mathematical structure of the theory; classical and quantum statistical mechanics.
Three lectures; one term
Prerequisite: PHYSICS 2H04, MATH 2A03, and one of MATH 2C03, 2003; or registration in Honours Chemistry and Physics
Antirequisite: CHEM 4Y03, PHYSICS 3K04

PHYSICS 3M03  QUANTUM MECHANICS AND ITS APPLICATIONS I
Phenomenological basis for quantum physics, topics from atomic and photon physics; wave phenomena; Schrödinger equation for one dimensional systems, barriers, harmonic oscillator.
Three lectures; one term
Prerequisite: One of MATH 3C03, 3I03 and either one of PHYSICS 2B06, ENGINEER 2M03 or both ENG PHYS 2A03 and 2E04; or registration in Honours Mathematics and Physics. MATH 3C03 or 3I03 may be taken concurrently.
Antirequisite: PHYSICS 2C03

PHYSICS 3MM3  QUANTUM MECHANICS AND ITS APPLICATIONS II
Schrödinger equation for 3D systems with applications to atomic and modern physics.
Three lectures; one term
Prerequisite: MATH 3C03 and one of PHYSICS 2C03, 3M03

PHYSICS 3PN3  PHYSICAL OPTICS
Interference; Fraunhofer and Fresnel diffraction; Maxwell's equations and the electromagnetic character of light; polarization and double refraction; interference of polarized light; selected topics in modern optics.
Three lectures; one term
Prerequisite: One of MATH 2A03, 2004 and one of MATH 2C03, 2003,
2P04; and either PHYSICS 2B06 or both ENG PHYS 2A03 and 2E04

MED PHYS 3T03  RADIOACTIVITY AND RADIATION INTERACTIONS
Formerly: Physics 3T03
Radioactivity and radiation phenomenology: interaction of radiations with matter, dosimetry, radiation in medicine, biological effects, radiation levels and regulations, radiation protection.
Three lectures; one term
Prerequisite: One of PHYSICS 1B03, 1BB3 or permission of the instructor.
Antirequisite: BIOLOGY 3L03, PHYSICS 3T03
PHYSICS AND ASTRONOMY

GEO 3V03 ENVIRONMENTAL GEOPHYSICS
Introduction to principles and applications of geophysics in groundwater and environmental investigations. Practical demonstrations in magnetics, gravity, shallow seismic, radar, borehole logging, surface EM and electrical methods.
Two lectures, one lab (three hours); one term
Prerequisite: PHYSICS 1E03 and one of ENVIR SC 1G03, GEO 1G03

PHYSICS 4A03 INQUIRY IN PHYSICS
Independent study of the scientific literature, including the preparation of seminars and reports on assigned topics.
Two lectures or seminars; two terms
Prerequisite: Registration in a programme in which PHYSICS 4A03 is required or is a specified option

PHYSICS 4B03 ELECTROMAGNETIC THEORY
Two lectures; two terms
Prerequisite: PHYSICS 2B06 or ENG PHYS 2A03 and 2E04, and MATH 3D03; or registration in Honours Mathematics and Physics

PHYSICS 4D06 DIGITAL LOGIC AND COMPUTER SYSTEMS
The design and use of digital logic systems and their application to data acquisition and control techniques. The project-oriented laboratory involves both hardware and software.
Two lectures, one lab (three hours); two terms
Prerequisite: PHYSICS 2B06, or ENG PHYS 2A03 and 2E04
Antirequisite: COMP ENG 3D04, 3HB3, PHYSICS 4D3A, 4D3B

PHYSICS 4D03 DIGITAL LOGIC AND COMPUTER SYSTEMS II
The continuation of PHYSICS 4D3A
Two lectures, one lab (three hours); second term
Prerequisite: PHYSICS 4D03

PHYSICS 4E03 NUCLEAR PHYSICS
Nuclear masses and stability; radioactivity and nuclear reactions; elementary nuclear models.
Three lectures; one term
Prerequisite: PHYSICS 3M03, or a grade of at least B- in PHYSICS 3Q03 or registration in Level IV of an Honours Medical and Health Physics programme

PHYSICS 4F03 QUANTUM MECHANICS
A sequel to Physics 3M03, including general structure of quantum mechanics, matrix mechanics, scattering, perturbation theory and the variational method.
Three lectures; one term
Prerequisite: PHYSICS 3M03, and MATH 3D03; or registration in Honours Mathematics and Physics

PHYSICS 4G03 COMPUTATIONAL PHYSICS
A course using microcomputers to solve selected problems in physics. The emphasis is on applying computational methods to physics, rather than numerical methods or computer programming.
One lab (three hours); one term
Prerequisite: PHYSICS 3M03

PHYSICS 4I01 SEMINAR II
Preparation and presentation of report on second work term.
One seminar (one hour); second term
Prerequisite: Registration in Level IV Honours Physics Co-op
Antirequisite: MED PHYS 4I01

PHYSICS 4J04 ADVANCED LABORATORY
Projects in atomic, nuclear and solid state physics. Four projects are required, one of which may be associated with a faculty research programme.
One lab (three hours); two terms
Prerequisite: Registration in a programme in which PHYSICS 4J04 is required or is a specified option; or permission of the Chair of the Department

PHYSICS 4J02 ADVANCED LABORATORY (CO-OP) I
Projects in atomic, nuclear and solid state physics. Two projects are required.
One lab (three hours); first term
Prerequisite: Registration in a programme in which PHYSICS 4J02 is required or is a specified option

PHYSICS 4J03 SOLID STATE PHYSICS
Crystal structure and binding; lattice vibrations; electron energy bands; metals and semiconductors; magnetism.
Three lectures; one term
Prerequisite: PHYSICS 3M03 or a grade of at least B- in 3Q03 and 3Q03 or registration in Level IV of an Honours Medical and Health Physics programme

PHYSICS 4K04 RESEARCH PROJECT
An experimental or theoretical project to be carried out under the supervision of a faculty member. A report will be required.
Lab (six hours); two terms
Prerequisite: Registration in Level IV of any Physics programme, a CA of at least 6.0 and permission of the Chair of the Department. Application for permission must be received by March 31 of the academic year prior to registration.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

MED PHYS 4T03 CLINICAL APPLICATIONS OF PHYSICS IN MEDICINE
Formerly: Physics 4T03
Basic physical concepts underlying medical imaging, nuclear medicine, physiological measurement, radiation therapy and biomedical laser applications with an overview of their technical implementation.
Three lectures; one term
Prerequisite: One of MATH 2A03, 2Q04 and one of MATH 2C03, 2Q03, 2P04; and one of BIOLOGY 3L03, ENG PHYS 3D03, MED PHYS 3T03
Antirequisite: PHYSICS 4T03

PHYSIOOTHERAPY

(SEE OCCUPATIONAL THERAPY AND PHYSIO THERAPY)

POLISH

(SEE MODERN LANGUAGES AND LINGUISTICS, POLISH)

POLITICAL SCIENCE

WEB ADDRESS: http://www.soscsci.mcmaster.ca/~polisci

Kenneth Taylor Hall, Room 527
Ext. 24741

Faculty as of January 15, 2001

Chair
Richard W. Stubs

Professors
Janet Ajzenstat/B.A. (Toronto), M.A. (McMaster), Ph.D. (Toronto)
Barbara A. Carroll/B.A. (Manitoba), M.A. (Carleton), Ph.D. (American)
William D. Coles/R.A. (Carleton), Ph.D. (Chicago)
Henry J. Jack/B.S.S. (Fairfield), M.A., Ph.D. (Georgetown)
Thomas J. Lewis/B.A. (Carleton), M.A., Ph.D. (SUNY-Buffalo)
Kim Richard Nossal/B.A., M.A., Ph.D. (Toronto)
Mark Sprule-Jones/B.Sc. (London), M.A., Ph.D. (Indiana/V.K. Copp)

Chair in Urban Studies
Michael B. Stein/B.A. (McGill), M.A., Ph.D. (Princeton)
Richard W. Stubs/B.Sc. (Wales), M.A. (Lancaster), Ph.D. (Alberta)

Associate Professors
George B. Breckenridge/M.A. (Glasgow and Duke), Ph.D. (Duke)
Nalbido H. Galleguillas/B.A. (Chile), M.A., Ph.D. (Toronto)
Stefania Szlek Miller/M.A. (McMaster), Ph.D. (Toronto)
Tony Porter/B.A. (McGill), M.A., Ph.D. (Carleton)
John W. Seaman/B.A. (Mount Allison), M.A. (Dalhousie), Ph.D. (Toronto)
Donald M. Wells/B.A. (Western Ontario), M.A. (British Columbia), Ph.D. (Toronto)
Charlotte A. B. Yates/B.A. (Winnipeg), M.A. (Queen's), Ph.D. (Carleton)

Assistant Professors
Karen Bird/B.A. (Wilfrid Laurier), Ph.D. (Minnesota)
Leah F. Vosko/B.A. (Trent), M.A. (Simon Fraser), Ph.D. (York)
POLITICAL SCIENCE 251

Associate Members:
- Rhoda E. Howard (Sociology) B.A., M.A., Ph.D. (McGill)
- Julie O'Connor (Sociology) B.A., M.Soc.Sci. (Ireland), Ph.D. (Toronto)
- James J. Rice (Social Work) B.A. (Sir George Williams), B.S.W., M.S.W. (Calgary), Ph.D. (Exeter)

Professors Emeriti:
- Adam Bromke M.A. (St. Andrews), Ph.D. (Montreal and McGill)
- William M. Chandler B.A. (Cornell), Ph.D. (North Carolina)
- Marshall N. Goldstein B.A. (Florida), Ph.D. (North Carolina)
- Gordon P. Means B.A. (Reed College), M.A., Ph.D. (Washington)
- Derry Novak B.A. (Toronto)
- Peter J. Polchynsky B.A. (Temple), M.A., Ph.D. (Columbia)
- Klaus H. Pringsheim B.A. (California-Los Angeles), M.A. (Columbia)

Department Notes:
1. The Department of Political Science offers courses in Canadian Politics, Comparative Politics, Political Theory, International Politics and Research Methods.
2. Not every Political Science course listed in this Calendar is offered every year. Students should consult the Department after April 1st for the list of courses that will be offered in the following academic year.
3. All students are encouraged to seek advice from members of the Department in developing a programme of study. All Honours students are strongly advised to discuss their programme with an undergraduate advisor to ensure that it meets Departmental requirements.
4. POL SCI 3N06 (previously 2F06) and 2006 are required for students in Honours Political Science programmes. These two courses are recommended for students in B.A. programmes.
5. Students should be alerted to those Level II and III courses that are required to qualify for a number of Level IV courses. Students who wish to enter courses but who lack the necessary prerequisites must obtain the permission of the instructor.
6. Level III courses identified as Enrolment is limited have a limit of 50 students. Although priority is given to Political Science students, many Level III courses have spaces for other students.
7. There are no course prerequisites for Level III courses. However, students without related Level II courses should contact one of the Department's undergraduate advisors or the course instructor to determine whether they have the appropriate academic background for any specific Level III course.
8. With the exception of POL SCI 4206, enrolment in all Level IV courses is limited. In courses cross-listed in the Graduate Calendar (4E66, 4E06, 4F06, 4F06), the limit is 14 undergraduate students; in all others, the limit is 16. Admission to Level IV limited enrolment courses is by preregistration preferential ballot.

Courses:

POL SCI 1G06 POLITICS AND GOVERNMENT
An introduction to the study of politics with the spotlight on Canada, emphasizing critical discussion of issues before us today: social conflict, prospects for democracy, citizens' rights and responsibilities and Canada's future as a nation.
Antirequisite: POL SCI 1A06, 1B03, 1C03, 2G06

POL SCI 2A06 COMPARATIVE POLITICS
An introduction to comparative politics with emphasis on the different forms of government in a number of selected countries including Canada.
Three hours (lectures and tutorials); two terms

POL SCI 2B06 U.S. POLITICS
A study of the development, nature, and functioning of the political system of the U.S.A.
Three hours (lectures and tutorials); two terms

POL SCI 2E06 GLOBAL POLITICS
A study of the institutions and processes of the international political system.
Three hours (lectures and tutorials); two terms

POL SCI 2H03 GLOBALIZATION AND THE STATE
An overview of the impact that globalization has had on the powers of the state and an assessment of how states have tried to preserve their authority in the face of globalization.
Three hours (lectures and tutorials); one term

POL SCI 2G06 POLITICAL THEORY
An introduction to political theory that includes Classical Greek thought, early modern natural right theory and contemporary political theory.
Three hours (lectures and tutorials); two terms
(See Note 4 above.)

POL SCI 2XX3 POLITICS OF THE THIRD WORLD
An examination of major theoretical approaches to the study of development and underdevelopment, such as modernization, politics of order, dependency and modes of production.
Three hours (lectures and tutorials); one term
Antirequisite: POL SCI 3XX3

POL SCI 3A05 HISTORY OF POLITICAL IDEAS
A study of the political ideas of some eminent thinkers from classical times to the 19th century.
Three hours; two terms
Enrolment is limited.

POL SCI 3A33 INTERNATIONAL POLITICAL INSTITUTIONS IN THE POSTWAR PERIOD
A survey of international relations from 1945 focusing on the various approaches to international politics.
Three hours; one term
Enrolment is limited.

POL SCI 3C03 GOVERNMENT AND POLITICS OF INDIGENOUS PEOPLES
An historical examination of the leadership and politics in Canada's indigenous communities, with a particular focus on pre-contact political structures, the Indian Act and its consequences, and contemporary social questions.
Three hours; one term
Cross-list: INDIG 3J03
Enrolment is limited.

POL SCI 3D03 POLITICS OF RESTRUCTURING: THE STATE AND THE ECONOMY
An examination of the politics of economic restructuring in selected industrialized countries during the past decade; major issues include privatization, labour policies, and trade agreements.
Three hours; one term
Enrolment is limited.

POL SCI 3DD3 PARTICIPATION AND ELITISM IN CANADA
An analysis of the changing impact of citizen participation and of elitist politics on major Canadian political institutions and on the overall performance of the Canadian political system.
Three hours; one term
Antirequisite: POL SCI 3D06
Enrolment is limited.

POL SCI 3E03 THE POLITICS OF INTERNATIONAL ECONOMIC ORGANIZATIONS
An analysis of the structure, function and politics of the principal multilateral organizations governing the postwar international economy.
Three lectures; one term
Enrolment is limited.

POL SCI 3EE3 INTERNATIONAL RELATIONS: NORTH-SOUTH
An examination of recent North-South relations concentrating on such issues as commodity trade, protectionism, the debt crisis and negotiations over a new International economic order.
Three hours; one term
Enrolment is limited.

POL SCI 3F03 CONTEMPORARY SOCIAL MOVEMENTS AND POPULAR COALITIONS
An examination of selected social movements and popular coalitions primarily in Canada and the United States. Movements may include the labour, environmental, peace, feminist, indigenous rights, and/or religious fundamentalist movements.
Three hours; one term
Enrolment is limited.
POL SCI 3F03  CANADIAN FOREIGN POLICY
An analysis of recent issues in Canada's external relations designed to
indicate themes, problems and constraints in the making and execution
of foreign policy in Canada.
Three hours; one term
Enrolment is limited.

POL SCI 3G03  FEDERALISM: THEORETICAL,
CONSTITUTIONAL AND INSTITUTIONAL ISSUES
An analysis of the constitutional framework, evolution, and structure of
the federal system in Canada and/or other Western countries.
Three hours; one term
Enrolment is limited.

POL SCI 3H03  INTERGOVERNMENTAL POLICY
ISSUES IN CANADA
A survey of the policy processes and substantive policy concerns in the
operation of the federal system of Canada, including economic, social
and ethno-cultural policy areas.
Three hours; one term
Enrolment is limited.

POL SCI 3I03  TOPICS IN AMERICAN POLITICS
The study of a central component of the U.S. political system.
Three hours; one term
Enrolment is limited.

POL SCI 3J03  ELECTIONS AND ELECTORAL
BEHAVIOUR IN CANADA
A study of the development, nature and functioning of the electoral process
in Canada and the basis of voters' decisions.
Three hours; one term
Enrolment is limited.

POL SCI 3KJ3  PROVINCIAL POLITICS IN CANADA
A study of the development, nature and functioning of the political systems
of the Canadian provinces.
Three hours; one term
Enrolment is limited.

POL SCI 3KK3  GENOCIDE: SOCIOLOGICAL
AND POLITICAL PERSPECTIVES
An examination of genocide and other extreme crimes against humanity.
Three hours; one term
Antirequisite: SOC SCI 2C03
Cross-list: SOC SCI 3KK6
Enrolment is limited.

POL SCI 3LL3  THE AMERICAN PRESIDENCY
An examination of the office of the American presidency and the ideological
and institutional environment within which it functions.
Three hours; one term
Enrolment is limited.

POL SCI 3M06  RESEARCH METHODS, STATISTICS
AND POLITICAL ANALYSIS
An introduction to the study of concept and theory formation, and an overview
of the scope, research methods and statistical techniques of political science.
Three hours; two terms
Antirequisite: POL SCI 2F06
(See Note 4 above.)

POL SCI 3NN6  PUBLIC LAW
A study of the nature and function of public law, with special reference to
constitutional law and judicial behaviour.
Three hours; two terms
Enrolment is limited.

POL SCI 3006  MODERN POLITICAL THOUGHT
A critical analysis of modern political ideas, from the early nineteenth
century to the present time, with special emphasis on the theories of
modern conservatism, liberalism, socialism, fascism and democracy.
Three hours; two terms
Enrolment is limited.

POL SCI 3P03  THE POLITICAL ECONOMY
OF REGIONAL INTEGRATION
An examination of regional integration in Europe, the Americas and Asia-
Pacific and the implications for global politics and global economics.
Three hours; one term
Enrolment is limited.

POL SCI 3Q03  THE CAUSES OF WAR
An examination of theoretical perspectives on the causes of war and
conditions for peace between and within political communities.
Three hours; one term
Enrolment is limited.

POL SCI 3R03  POLITICAL PSYCHOLOGY
Psychological explanations for the political behaviour of elites and masses.
Three hours; one term
Enrolment is limited.

POL SCI 3S03  LOCAL GOVERNMENT AND
POLITICS IN CANADA
A description of the laws and institutions of local government; examination
of relationships with citizens and other levels of government; the dy-
namics of local politics.
Three hours; one term
Enrolment is limited.

POL SCI 3T03  PROBLEMS OF POSTCOMMUNIST TRANSITION
An examination of the legacy of communism and system transformation
in selected countries, including Poland and the successor states of Czecho-
slovakia and the former Yugoslavia.
Three hours; one term
Antirequisite: POL SCI 3M06, 4J06
Enrolment is limited.

POL SCI 3U03  POLITICS IN EUROPE
Politics, government and policies of the European Union and/or selected
countries within Europe.
Three hours; one term
Enrolment is limited.

POL SCI 3UU3  READING COURSE
Topics to be arranged between an individual student and instructor.
One term
Prerequisite: Registration in Level III or IV of any programme in Political
Science, and the written permission of an Undergraduate Advisor on behalf
of the Department. A written proposal must be submitted to the Depart-
ment by the instructor prior to the term in which the course is to be taken.

POL SCI 3W03  WOMEN AND POLITICS
An introduction to a broad range of theoretical and empirical approaches to
the study of women and politics, including feminist theory and the history
and evolution of the organized women's movement.
Three hours; one term
Enrolment is limited.

POL SCI 3W3  POLITICS IN BRITAIN
A study of the development and functioning of the British political system,
including political culture, political parties and parliamentary institutions.
Three hours; one term
Enrolment is limited.

POL SCI 3W3  ISSUES IN COMPARATIVE POLITICS
An examination of emerging theoretical and substantive issues in a
comparative context.
Three hours; one term
Enrolment is limited.

POL SCI 3X03  POLITICS AND SOCIETY IN AFRICA
An examination of the problems of democratic institutions in Sub-Sahara
Africa.
Three hours; one term
Enrolment is limited.

POL SCI 3Y03  DEMOCRATIZATION AND HUMAN RIGHTS
A review of the process of democratization and the forces that drive it and
an assessment of the place of human rights in emerging democracies.
Three hours; one term
Enrolment is limited.

POL SCI 3YY3  TOPICS IN PUBLIC POLICY
An examination of emerging theoretical and substantive issues in the field
of public policy studies.
Three hours; one term
POL SCI 3YY3 may be repeated, if on a different topic, to a total of six units.
Enrolment is limited.

POL SCI 3Z03  PUBLIC ADMINISTRATION:
STRUCTURES AND PROGRAMME DELIVERY
The organizational arrangements for implementing public policies in
Canada, including an assessment of their efficiency, effectiveness and
accountability.
Three hours; one term
Antirequisite: POL SCI 3Z06
Enrolment is limited.
POL SCI 32Z3 **PUBLIC ADMINISTRATION: THEORY AND DECISION-MAKING**
Explanations of organizational design, bureau resources and other public management issues in Canada. Three hours; one term
Prerequisite: POL SCI 3206
Enrolment is limited.

POL SCI 4AA6 **PROBLEMS IN AMERICAN POLITICS**
An examination in depth of one of the important dimensions of the American political system. Three hours (seminar); two terms
Prerequisite: One course in American or Comparative Politics and permission of the Department
Enrolment is limited.

POL SCI 4BB6 **THE TRIAL OF SOCRATES**
Plato's understanding of the status of philosophy with respect to politics and rhetoric on the basis of the dialogues thematically connected to the trial and death of Socrates. Three hours (seminar); two terms
Prerequisite: Registration in Level IV of any programme, a course in Political Theory and permission of the Department
Enrolment is limited.

POL SCI 4D06 **HUMAN RIGHTS AND INTERNATIONAL POLITICS**
An examination of the concept of human rights as reflected in international declarations and practices. Three hours (seminar); two terms
Prerequisite: POL SCI 2E06 and permission of the Department
Antirequisite: POL SCI 4D03, 4F06
Enrolment is limited.

POL SCI 4E06 **ISSUES IN LIBERAL-DEMOCRATIC THEORY**
An analysis of liberal and liberal-democratic approaches to a select issue, such as justice, religion, education, political authority or community. Three hours (seminar); two terms
Prerequisite: Registration in Level IV of any programme, a course in Political Theory and permission of the Department
Not open to students with credit in POL SCI 4U06 if taken in 1995-1996.
Enrolment is limited.

POL SCI 4G06 **COMPARATIVE PUBLIC POLICY**
A critical analysis of the formation, content and impact of public policy within advanced industrial societies. Three hours (seminar); two terms.
Prerequisite: Six units of Comparative Politics and permission of the Department
Enrolment is limited.

POL SCI 4H03 **ADVANCED STATISTICAL ANALYSIS**
An outline of advanced levels of measurement and descriptive statistics, and a study of the logic of statistical inference and its applications. Three hours (lectures and labs); one term.
Prerequisite: POL SCI 3N06 and permission of the Department
Antirequisite: SOCIOL 4203

POL SCI 4M06 **TOPICS IN INTERNATIONAL POLITICS**
An examination of selected topics in international politics and foreign policy. Three hours (seminar); two terms
Prerequisite: A course in International Relations and permission of the Department
Enrolment is limited.

POL SCI 4MM6 **TOPICS IN INTERNATIONAL POLITICAL ECONOMY**
An examination of the major international and regional economic and strategic issues that currently preoccupy the governments and peoples of the Pacific Rim. Three hours (seminar); two terms
Prerequisite: A course in International Relations and permission of the Department
Enrolment is limited.

POL SCI 4O06 **CANADIAN PUBLIC POLICY**
An examination of the patterns of public policy in Canada and a critical evaluation of several types of explanation. Three hours (seminar); two terms
Prerequisite: One of POL SCI 1G06 or 2G06; registration in Level IV of any programme and permission of the Department
Enrolment is limited.

POL SCI 4006 **POLITICS AND SOCIETY IN LATIN AMERICA**
An examination of Latin America's longstanding hegemonic crisis and corresponding ideologies such as populism, corporatism, and authoritarianism. Three hours (seminar); two terms
Prerequisite: POL SCI 3XX3 and permission of the Department
Enrolment is limited.

POL SCI 4506 **CANADIAN POLITICAL THEORY**
An investigation into the character of Canadian liberalism and the various critiques of liberalism found in the works of G.P. Grant, C.B. Macpherson, George Woodcock and other Canadian political theorists. Three hours (seminar); two terms
Prerequisite: Two courses from Political Theory, Canadian Politics, or Philosophy and permission of the Department
Enrolment is limited.

POL SCI 4W06 **QUEBEC POLITICS**
The political Ideology of Quebec-based parties and movements, the impact of industrialization upon Quebec culture, and the economic implications of separation. Three hours (seminar); two terms
Prerequisite: One of POL SCI 1G06 or 2G06 and permission of the Department
Enrolment is limited.

POL SCI 4206 **HONOURS ESSAY**
A major research paper, supervised by a faculty member. The subject matter is to be different from that covered in 3UU3, if the student is registered or has credit in that course. Prerequisite: Registration in Level IV of any Honours programme in Political Science. For registration in the summer, written permission of the Course Coordinator is also required.

**PSYCHOLOGY**

**WEB ADDRESS:**
http://www.science.mcmaster.ca/psychology/psych.html

**Psychology Building, Room 102**
Ext. 23000

**Faculty as of January 15, 2001**

**Chair**
Betty A. Levy

**University Professor**
Shepard Siegel/A.B. (New York), M.S., Ph.D. (Yale)

**Professors**
Lorraine G. Allan/B.A., M.A. (Toronto), Ph.D. (McMaster)
Lee R. Brooks/A.B. (Columbia), M.S., Ph.D. (Brown)
Martin DeM/B.A. (Toronto), M.A. (McGill), Ph.D. (Toronto)
Denys deCatalan/B.A., M.A., Ph.D. (British Columbia)
Bennett G. Galef/A.B. (Princeton), M.A., Ph.D. (Pennsylvania)
Betty A. Lary/B.A. (Dalhousie), M.A., Ph.D. (Toronto)
Daphne M. Maurer/B.A. (Tharommore), M.A., Ph.D. (Minnesota)
John R. Plat/B.A. (Kansas), Ph.D. (Texas)
Ronald J. Racine/B.Sc. (Oregon), M.Sc., Ph.D. (McGill)
Larry E. Roberts/B.A., Ph.D. (Minnesota)
Harvey Weinart/B.Sc. (McGill), M.Sc., M.Phil., Ph.D. (Yale)

**Adjunct Professors**
Mertice M. Clark/B.A. (McMaster)
Terri L. Lewis/B.A. (Toronto), Ph.D. (McMaster)
Bruce A. Linden/B.E.S. (Minnesota), Ph.D. (McMaster)

**Associate Professors**
Sue Becker/B.A., M.Sc. (Queen's), Ph.D. (Toronto)
Richard B. Day/B.A. (Massachusetts), M.A. (Iowa), Ph.D. (McMaster)
Bruce Miliken/B.A., Ph.D. (Waterloo)
Kathryn M. Murphy/B.A. (Western Ontario), M.A., Ph.D. (Dalhousie)
Judith M. Sharron/B.Sc. (Alberta), M.S., Ph.D. (Pittsburgh)
Laurel J. Traino/B.Mus., M.A., Ph.D. (Toronto)
# PSYCHOLOGY

## Assistant Professors
- Sigal Belechone-Earn, B.Sc. (Toronto), Ph.D. (Cambridge)
- Louis A. Schmidt, B.A. (Maryland), M.S. (Baltimore), Ph.D. (Maryland)
- David I. Sheskey, B.Sc. (McMaster), M.A., Ph.D. (British Columbia)
- Honglin Sun, B.Sc., M.Sc. (Peking), M.A. (Western Ontario), Ph.D. (Queen’s)

## Associate Members
- Suzanne M. Archie, B.Sc., M.D. (McMaster), F.R.C.P.C.
- Charles E. Cunningham, F.R.C.P. (California State), M.A. (San Diego State), Ph.D. (The American University)
- John R. Davis, B.A. (George Washington), M.A., Ph.D. (Wayne State)
- Joseph M. Ducharme, B.A., M.A. (Windsor), Ph.D. (Toronto)
- Jan E. Fleming, B.Sc., M.D. (Toronto)
- Eleni Hapdou, B.A. (The American College of Greece), M.A. (New Brunswick), Ph.D. (McMaster)
- Joel P. Huenif, B.A., M.A. (McMaster), Ph.D. (Western Ontario)
- David G. Jones, Computing and Software B.Sc. (Western), Ph.D. (Stanford)

## Ellen Lipman
- B.Sc. (Western Ontario), M.D., M.Sc. (McMaster)
- Harriet L. MacMillan, M.D., Queen’s, Ph.D. (McMaster), F.R.C.P.
- William Mahoney, M.D. (McMaster)
- Catherine L. Mancini, B.Sc., M.Sc., M.D. (Western Ontario)
- Allison G. Nichols, B.A., M.A., Ph.D. (York)
- Geoff R. Norman, Clinical Epidemiology and Biostatistics, B.Sc. (Manitoba), M.A. (Michigan State), Ph.D. (McMaster)
- Christopher David Rollo, B.Sc., M.Sc. (Guelph), Ph.D. (British Columbia)

## Patricia R. Rosebusch
- B.Sc.N., M.Sc.N., M.D. (McMaster), F.R.C.P.C.
- Mark N. Sanford, M.B., Ph.D. (Ottawa)
- Karen L. Shue, B.A. (Hood College), Ph.D. (McGill)
- William Sullie, B.Sc. (Carleton), M.D., M.A., Ph.D. (Western Ontario), F.R.C.P.C.
- Henry Szechman, B.Sc., Ph.D. (Pittsburgh)
- Larry Tuft, B.Sc., Ph.D. (McMaster)
- Michael A. Van Ameringen, B.Sc., M.D. (McMaster)
- Piyanthi Weerasekera, B.A. (McMaster), M.Ed. (Harvard)
- Trevor Young, B.Sc. (Manitoba), M.Sc., Ph.D. (Toronto)

### Professors Emeriti
- Ian M. Bagg, B.A., M.A., Ph.D. (Western Ontario)
- D. William Carment, B.A. (Saskatchewan), M.A., Ph.D. (Toronto)
- Larry L. Jacoby, B.A. (Washburn), M.A., Ph.D. (Southern Illinois)
- Herbert M. Jenkins, B.A. (Oberlin), Ph.D. (Harvard)
- Alfred B. Kristofferson, B.S., M.A., Ph.D. (Michigan)
- Stephen W. Link, B.A. (Colorado), Ph.D. (Stanford)
- G. Rolfe Morrison, B.Sc., M.Sc. (McGill), Ph.D. (Brown)
- Roy M. Pritchard, B.Sc., Ph.D. (Reading)
- Grant K. Smith, B.Sc., Ph.D. (McGill)

## Courses

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<td>PSYCH 1A06</td>
<td>Personality</td>
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<td>PSYCH 1A07</td>
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<td>PSYCH 1A11</td>
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### Department Notes:

1. The University reserves the right to limit enrolment in any course. Where priorities have to be established first consideration will be given to Honours B.Sc. and M.Sc. Psychology students.
2. Registration in all courses with a course code ending "**" (ie. selected topics, independent research, individual readings and honours essays) requires written permission of the Department. Registration with appropriate permission must be obtained no later than the last day for registration as stated in the Calendar under "Sessional Dates".
3. In certain cases students lacking the specific prerequisites listed for a course may be admitted by the course instructor, to have equivalent qualifications. In such cases permission to register in the course may be requested from the instructor.
4. Students who entered Level I Honours B.A. Psychology before September 1994, may, in Level IV register for PSYCH 1D06 (Psychology Thesis) with permission of the course coordinator. These students will be transferred to Honours Psychology (Specialist Option).
5. The following courses may be applied towards degree requirements in an Honours Psychology program:

- **BIOLOGY 4T03** Neurobiology
- **KINESIOLOG 3E03** Neural Control of Human Movement
- **KINESIOLOG 4P03** The Brain and Human Movement

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If no prerequisite is listed, the course is open.

### PSYCH 1A03

**Introduction to Experimental Psychology**

This course introduces experimental psychology, and includes basic research methods in psychology, the relationship between the brain and behaviour, sensation and perception, conditioning and learning, and memory and reasoning.

Three hours (lectures and tutorials); one term

Prerequisite: PSYCH 1A06

### PSYCH 1A06

**The Psychology of Interpersonal Behaviour**

A discussion of phenomena and theory in areas of psychology related to interpersonal behaviour. Topics include child development, personality, abnormal psychology, social psychology, and sociobiology.

Three hours (lectures and tutorials); one term

Prerequisite: PSYCH 1A03

### PSYCH 1A07

**Survey of Developmental Psychology**

A general survey of theories and mechanisms of development, illustrated through examples from neural, perceptual, cognitive, social and emotional development. This course is designed for students not registered in a psychology programme or not wishing to do further work in developmental psychology. Others are referred to PSYCH 3G33.

Three lectures; one term

Prerequisite: PSYCH 1A03 or 1A06

Antirequisite: Psych 2A03, 3G32, 3G33

### PSYCH 2B03

**Personality**

An introduction to the scientific study of personality which will consider theory, assessment and research in five approaches to personality: psychodynamic, biological, trait, behavioural and humanistic.

Three lectures; one term

Prerequisite: PSYCH 1A03 and 1A03 or registration in Honours Biology and Psychology

### PSYCH 2C03

**Introduction to Social Psychology**

An overview of research and theory in areas such as social perception, attitude and attitude change, social influence, interpersonal attraction, altruism, aggression, small group processes.

Three lectures; one term

Prerequisite: PSYCH 1A03 and 1A03 or registration in Honours Biology and Psychology

### PSYCH 2E03

**Sensory Processes**

General processes mediating sensation and perception. Topics include neural principles of sensory pathways, the measurement of perception and the role of sensory processes in social behaviour.

Three lectures; one term

Prerequisite: PSYCH 1A03 and 1A03 or registration in Honours Biology and Psychology

### PSYCH 2F03

**Fundamentals of Neuroscience**

Fundamentals of nervous system and endocrine function in humans and animals, including neurophysiology, neural transmission and neuroanatomy.

Prerequisite: PSYCH 1A03 and 1A03 or registration in Honours Biology and Psychology, and BIOLOGY 1A03 (or 1A08) or 1K03

### PSYCH 2H03

**Human Learning and Cognition**

The psychological study of knowledge and how people use it. Topics include pattern recognition, remembering and reasoning.

Three lectures; one term

Prerequisite: PSYCH 1A03 and 1A03 or registration in Honours Biology and Psychology

### PSYCH 2Q03

**Research Practice**

Independent research practicum that provides students the opportunity to participate in experimental psychology projects in a research laboratory. Students must obtain permission from a faculty supervisor and the course coordinator.

One lab; one or two terms

Prerequisite: PSYCH 1A03 with a grade of at least B. In Level II of an Honours Psychology programme, and permission of the course coordinator. Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.
PSYCH 2RR3 RESEARCH DESIGN AND STATISTICS FOR PSYCHOLOGISTS

Advanced statistical principles in the design and analysis of experiments in psychology. Parametric and non-parametric techniques for two sample and multi sample designs.

Three lectures; one term
Prerequisite: STATS 1CC3 and registration in an Honours Psychology programme, or STATS 1CC3 with a grade of at least C+ and registration in a Psychology program, B.Sc. Life Science, or the Honours Science (Complementary Studies Option) Stream B programme; or PSYCH 2R03 and registration in a Psychology program, B.Sc. Life Science, or the Honours Science (Complementary Studies Option) Stream B programme
Antirequisite: STATS 2BM3, 2R06

PSYCH 2T73 INTRODUCTION TO ANIMAL LEARNING AND BEHAVIOUR

Evolutionary and associationist approaches to the study of adaptive behaviour of animals.

Three lectures; one term
Prerequisite: PSYCH 1A03 and 1AA3 or registration in Honours Biology and Psychology
Antirequisite: PSYCH 2T03, 3R03

PSYCH 3A03 AUDITION

An introduction to auditory perception. The emphasis is on the application of classical and modern psychoacoustical methods to the development of theories of hearing.

Three lectures; one term
Prerequisite: PSYCH 2E03 or 2V03

PSYCH 3A33 PERCEPTION AND COGNITION OF MUSIC

The perception and neural basis of melody, harmony, rhythm and expectancy will be considered in relation to innate and experiential factors.

Three lectures; one term
Prerequisite: PSYCH 3A03 or SCIENCE 2J03 or permission of the instructor
First offered in 2001-2002.

PSYCH 3B03 SPECIAL POPULATIONS

Discusses selected topics related to normal and abnormal development in children, including behavioral and affective disorders, developmental disability, and perceptual or cognitive disorder.

Three lectures; one term
Prerequisite: One of PSYCH 2A03, 3GG3, 3N03 or and six units from PSYCH 2E03, 2F03, 2H03, 2T03, 2TT3, or 2V03; and one of PSYCH 2G03, 2R03, STATS 1A03, 1CC3

PSYCH 3B33 PSYCHOLINGUISTICS

The course discusses biological foundations of language and the way language is represented and processed in the brain (in norm and pathology). Special attention is paid to methods of psycho- and neurolinguistic research and to their connections to theoretical linguistics.

Three lectures (lectures and discussion); one term
Prerequisite: LINGUIST 3N03 or 3M03; or LINGUIST 1A06 (or 1AA3 and 1A03) and PSYCH 2H03; or permission of the Department
Cross-list: LINGUIST 3B03

PSYCH 3BL3 LABORATORY IN HUMAN ELECTROPHYSIOLOGY

Principles of acquisition and analysis of functional brain imaging data (EEG, ERP, MEG, etc.) applied to the design, conduct and analysis of experiments on human cognition and behaviour.

One lab (three hours); one term
Prerequisite: Six units from PSYCH 2H03, 2E03, 2F03 and one of PSYCH 2R03, 2T03, 2TT3 or 2V03, or permission of the Instructor
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 3BN3 BEHAVIOURAL NEUROSCIENCE I: SURVEY

An introduction to the behavioural neurosciences, which are aimed at the study of psychological, computational, and neuroscientific bases of perception and cognition. The course will focus on behavioural neuroscience methods and their application to contemporary research issues.

Three lectures; one term
Prerequisite: Six units from PSYCH 2H03, 2E03, 2F03 and one of PSYCH 2R03, 2T03, 2TT3 or 2V03, or permission of the Instructor
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 3EE3 PERCEPTION LABORATORY

Students will conduct experiments in visual and auditory perception with an emphasis on research methods, data analysis and writing skills.

One lab (three hours); one term
Prerequisite: PSYCH 2E03 and registration in Level III or IV of an Honours Psychology programme
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 3F03 EVOLUTION AND HUMAN BEHAVIOUR

The study of human social psychology and Behaviour in light of evolutionary analyses. Topics include family relations, sex differences, mate choice, cooperation and conflict, and universality and diversity across cultures.

Three lectures; one term
Prerequisite: One of PSYCH 2T03, 2TT3, 3R03 or six units of Level I Biology

PSYCH 3FA3 THE NEUROBIOLOGY OF LEARNING AND MEMORY

Learning and memory mechanisms will be discussed from several perspectives ranging from cognitive neuroscience to synaptic physiology.

Three lectures; one term
Prerequisite: PSYCH 2F03 or 2V03

PSYCH 3GG3 ESSENTIALS OF DEVELOPMENTAL PSYCHOLOGY

This course concentrates on theories and mechanisms of development. The evidence for biological and environmental influences on development are examined and the principles and mechanisms of development are illustrated through examples from neural, perceptual, cognitive, social and emotional development.

Three lectures; one term
Prerequisite: Six units from PSYCH 2E03, 2F03, 2H03, 2TT3 or 2V03, and one of PSYCH 2G03, 2R03, STATS 1CC3
Antirequisite: PSYCH 2A03, 2AA3, 3GG3

PSYCH 3H03 DEVELOPMENT DURING INFANCY

An intensive examination of development during the first year of life, with an emphasis on perceptual development.

Three lectures; one term
Prerequisite: PSYCH 2E03, and one of PSYCH 2A03, 3GG3
Antirequisite: PSYCH 3GG3
Offered in alternate years.


PSYCH 3I06 PRACTICA IN PSYCHOLOGY

Supervised laboratory and field placements will be arranged for a maximum of 16 students each year. The placements may vary from year to year, but will include cognitive, language, perceptual, memory, neuropsychological and behavioral disorders. A 20 page final report must be submitted to the coordinator by April 1. Applications must be submitted to the coordinator by February 1 of the preceding year, with selection for placements announced by March 15.
Prerequisite: PSYCH 2RR3; registration in Level III or IV of an Honours Psychology, or Combined Honours Psychology programme and permission of the coordinator. This course cannot be combined with any independent study course under the same supervisor.
Antirequisite: PSYCH 3I03
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 3I33 COGNITIVE DEVELOPMENT

The development of attention, concepts, memory, reasoning and language.

Three lectures; one term
Prerequisite: PSYCH 2H03, and one of PSYCH 2A03, 3GG3
Antirequisite: PSYCH 3H03
Offered in alternate years.

Offered in 2001-2002.

PSYCH 3I3 VISUAL NEUROSCIENCE

Visual perception and visual cognition as revealed by studies of human and animal behaviour, examining anatomy, structure, circuitry, and visual processing systems throughout retinal, subcortical, and cortical pathways.

Three lectures; one term
Prerequisite: PSYCH 2V03, or PSYCH 2E03 and 2H03

PSYCH 3J03 SOCIO-EMOTIONAL DEVELOPMENT

Discusses historical and contemporary topics related to socio-emotional development from infancy to middle childhood, with an emphasis on the development of maladaptive social behaviours.

Three lectures; one term
Prerequisite: PSYCH 2C03, and one of PSYCH 2A03, 3GG3
Offered in alternate years.

Offered in 2001-2002.
PSYCH 3K03
PSYCHOLOGICAL MEASUREMENT
Theory of psychological testing and measurement. Topics include the statistical bases and assumptions of measurement, test validity and reliability and the measurement of human characteristics.

Three lectures; one term
Prerequisite: PSYCH 1A03 and 1A93 and one of PSYCH 2G03, 2F03, STATS 1CC3. Students with grades less than B- in PSYCH 2G03 are advised not to enrol in this course.

PSYCH 3L03
NEUROSCIENCE LABORATORY
Seminars and laboratory experience in current problems in neurobiology. Two hours, seminar; three hours lab; one term
Prerequisite: One of PSYCH 2E03, 2F03, BIOLOGY 3P03 and registration in Level III or IV of an Honours programme
Antirequisite: PSYCH 4G03
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 3L3
GENERAL EXPERIMENTAL
PSYCHOLOGY LABORATORY
Students undertake to learn critical appraisal skills and to answer general and specific questions by manipulating and analyzing real or simulated data sets drawn from a variety of areas in psychology. Tutorials, lab by appointment; one term
Prerequisite: PSYCH 2RR3 and registration in an Honours Psychology programme

PSYCH 3M03
MOTIVATION AND EMOTION
Theory and data concerning human and nonhuman motivation and emotion, drawing on perspectives from evolution, physiology, learning, and culture.

Three lectures; one term
Prerequisite: One of PSYCH 2F03, 2T03, 2T13, 2V03

PSYCH 3N03
ABNORMAL PSYCHOLOGY I (FUNDAMENTALS)
Fundamentals of clinical psychology, including viewpoints on the nature of behavioural disorder, diagnostic systems, clinical judgement, and treatment approaches.

Three lectures; one term
Prerequisite: Six units from PSYCH 2E03, 2F03, 2H03, 2Q03, 2T03, 2T13 or 2V03 or registration in Level III or IV of a Nursing or Social Work programme
Antirequisite: PSYCH 3N06

PSYCH 3N13
ABNORMAL PSYCHOLOGY II (MAJOR DISORDERS)
A review of the major forms of mental disorder including dementia, neuropsychological disorder, schizophrenia, mood and anxiety disorders, psychophysiological disorders, addiction, and problems of sexual adaptation.

Three lectures; one term
Prerequisite: Credit or registration in PSYCH 3N03
Antirequisite: PSYCH 3N06

PSYCH 3P03
PSYCHOLOGICAL TOPICS IN THINKING
Areas to be examined include decision making, inference and problem solving. Particular attention will be paid to the informal reasoning and heuristics that are crucial to everyday decisions.

Three lectures; one term
Prerequisite: One of PSYCH 2H03, 2V03 and one of PSYCH 2G03, 2F03, STATS 1A03, 1CC3 (or an equivalent course in statistics)

PSYCH 3Q03**
INDIVIDUAL STUDY I
A library project that may extend over both terms. Students intending to register must first consult a faculty member and the course coordinator. Prerequisite: Registration in Level III or IV and permission of the course coordinator. Application for permission must be received by March 31st of the previous year.
Antirequisite: PSYCH 3Q03**

PSYCH 3Q03**
INDIVIDUAL LAB STU. I
A laboratory project that may extend over both terms. Students intending to register must first consult a faculty member and the course coordinator. Prerequisite: Registration in Level III or IV and permission of the course coordinator. Application for permission must be received by March 31st of the previous year.
Antirequisite: PSYCH 3Q03**

PSYCH 3R3
ADVANCED CONDITIONING AND LEARNING
Contemporary investigations of conditioning and learning, primarily focused on the results of research with non-human animals.

Three lectures; one term
Prerequisite: PSYCH 2T13 or 2T03 and registration in Level III or IV of an Honours Psychology programme
First offered in 2001-2002.

PSYCH 3S03
ANIMAL BEHAVIOUR LABORATORY
Laboratory and field studies involving a wide variety of species.
One lab (three hours); one term
Prerequisite: Registration in Level III or IV of an Honours programme in Psychology or Biology, and one of PSYCH 2T03, 2T13, 3F03, 3R03, or 6 units of Level I Biology.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 3T03
SOCIOBIOLOGY
Social behaviour from the perspective of evolutionary theory. Topics include aggression, altruism, kinship, parent-offspring interaction, sex and reproduction.
Three lectures; one term
Prerequisite: One of BIOLOGY 2C03, 3F03, PSYCH 2T13, 3R03

PSYCH 3U03
HUMAN LANGUAGE PROCESSING
Cognitive processes involved in encoding, storing and retrieving spoken and written language will be discussed in terms of information processing models.
Three lectures; one term
Prerequisite: PSYCH 2H03 or 2V03 and registration in Level III or IV of a Psychology, Computer Science, or Linguistics programme, B.Sc. Life Science, or the Honours Science (Complementary Studies Option) Stream B programme

PSYCH 3V03
LABORATORY IN HUMAN MEMORY AND COGNITION
Experiments illustrating important issues in human memory and cognition. Problems in the design, analysis, and reporting of experiments will be emphasized. Individual projects required.
One lab (three hours); one term
Prerequisite: PSYCH 3V03, and STATS 2R06, or credit or registration in PSYCH 2R03 and registration in Level III or IV of an Honours Psychology programme
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 3V13
HUMAN MEMORY
Cognitive processes involved in encoding, storage and retrieval will be discussed in terms of current theories of memory and information processing.
Three lectures; one term
Prerequisite: PSYCH 2H03 or 2V03 and registration in Level III or IV of a Psychology programme, B.Sc. Life Science, or the Honours Science (Complementary Studies Option) Stream B programme

NEURCOMP 3W03
NEURAL COMPUTATION
An introduction to the use of neural network computational models for understanding the neural bases of psychological processes, and for solving real-world problems.
Three lectures; one term
Prerequisite: COMP SCI 1MC3 or COMP SCI 1SA3 with a grade of at least B+ and one of MATH 1A03, 1N03, ARTS&SCIENCE 1D06, MATH 1B03 is strongly recommended.

PSYCH 3W3
MEASURING THE MIND
The course reviews, discusses, and illustrates how psychophysical theories and experiments about discrimination, preference and choice, are crucial to the development of modern experimental psychology.

Three lectures; one term
Prerequisite: PSYCH 2E03 or 2V03 and PSYCH 2RR3

PSYCH 3Y03
HORMONES AND BEHAVIOUR
Steroids, peptides, monoamines, and interacting neural structures are considered in relation to feeding, reproductive behaviour, aggression, stress, and learning in humans and other vertebrates.
Three lectures; one term
Prerequisite: PSYCH 2F03 and one of PSYCH 2T13, 3R03

PSYCH 3Z03
CONCEPTUAL AND ASSESSMENT ISSUES FOR PEOPLE WITH DEVELOPMENTAL DISABILITIES
Conceptual and assessment issues related to interventions for problems associated with children and adults with developmental disabilities.
Three lectures; one term
Prerequisite: Credit or concurrent registration in PSYCH 3N03 and registration in a Psychology programme

PSYCH 3Z03
TREATMENT APPROACHES FOR PEOPLE WITH DEVELOPMENTAL DISABILITIES
Treatment issues related to problems associated with children and adults with developmental disabilities.
Three lectures; one term
Prerequisite: PSYCH 3Z03 and registration in a Psychology programme

PHYS 2093
MAGNETIC RESONANCE IMAGING
The principles of magnetic resonance imaging and applications of MRI in biological systems.
Three lectures; one term
Prerequisite: PHYSICS 2C03

PSYCH 256
SOCIAL PSYCHOLOGY
Social psychology examines the psychological processes involved in human interaction, and the influence of social factors on psychological functioning.

Three lectures; one term
Prerequisite: Registration in Level III or IV of an Honours programme in Psychology, Psychology and Biology, or Psychology and Life Science.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 3R03
PSYCHOLOGICAL ASSOCIATION AND COGNITION
Research methods and issues in psychological association and cognition, with emphasis on how psychological processes are associated with cognitive processes.
Three lectures; one term
Prerequisite: PSYCH 2R03 and registration in Level III or IV of an Honours Psychology programme
First offered in 2001-2002.
PSYCH 4B03 HISTORY OF PSYCHOLOGY
An historical account of the main lines of development of psychology. Three lectures; one term
Prerequisite: Registration in Level IV of an Honours Psychology programme

PSYCH 4BN3 BEHAVIOURAL NEUROSCIENCE II:
SPECIAL TOPICS
Seminar course on one or more selected topics in cognitive neuroscience, including biological and computational models of learning and memory, neuropsychology, and functional brain imaging. Three lectures; one term
Prerequisite: PSYCH 3HN3 or permission of the instructor
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 4C03 LANGUAGE DISORDERS IN CHILDHOOD
Seminar with student presentations on selected language disorders. Papers will be required. Three hours (seminar); one term
Prerequisite: Registration in Level IV of an Honours Psychology programme and PSYCH 5U03
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar. Not offered in 2001-2002.

PSYCH 4D06 PSYCHOLOGY THESIS
Students conduct an individual research project under the supervision of a faculty member.
Prerequisite: Registration in Level IV of an Honours (Specialist Option) or Combined Honours (B.Sc.) programme in Psychology for which this course is required. If space permits, students in the non-specialist Honours Psychology programmes may be permitted to register. Permission must be requested from the course coordinator by March 1. If PSYCH 3Q03**, 3Q03**, 4Q03**, or 4Q03** is taken concurrently with PSYCH 4D06, a different faculty member must supervise each course. (See Note 4 above.)
Antirequisite: BIOLOGY 4C09, HTH SCI 3H03, 4A09, 4B06, PSYCH 4E09
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 4E09 PSYCHOLOGY THESIS
Students conduct an individual research project in behavioural neuroscience under the supervision of a faculty member.
Prerequisite: Registration in Level IV of Honours Psychology in Behavioural Neuroscience. If PSYCH 3Q03**, 3Q03**, 4Q03**, or 4Q03** is taken concurrently with PSYCH 4E09, a different faculty member must supervise each course. (See Note 4 above.)
Antirequisite: BIOLOGY 4C09, HTH SCI 3H03, 4A09, 4B06, PSYCH 4D06
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 4J03 INQUIRY IN PSYCHOLOGY
This course will provide students with an opportunity to develop skills required to launch investigations of selected psychological themes. Seminar and discussions (three hours); one term
Prerequisite: Registration in Level IV of an Honours Psychology programme. Students registered in Honours Psychology (Complementary Studies Option) will be given preference.
Antirequisite: INQUIRY 4SH3
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 4Q03* INDIVIDUAL STUDY II
A project that may extend over both terms. Students intending to register must first consult a faculty member and the course coordinator.
Prerequisite: Registration in Level IV of a Psychology programme and a CA of at least 6.0 and permission of the course coordinator. Application for permission must be received by March 31 of the academic year prior to registration.
Antirequisite: PSYCH 4Q03
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 4Q03** INDIVIDUAL LAB STUDY II
A laboratory project that may extend over both terms. Students intending to register must first consult a faculty member and the course coordinator.
Prerequisite: Registration in Level IV of an Honours Psychology programme and permission of the course coordinator. Application for permission must be received by March 31 of the previous year.
Antirequisite: PSYCH 4Q03
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 4R03 SPECIAL TOPICS IN ANIMAL BEHAVIOUR
An advanced seminar focusing on selected topics in animal behaviour. Seminar and discussions (three hours); one term
Prerequisite: PSYCH 2TT3 or 3R03, and one of PSYCH 3F03, 3S03, 3T03, and registration in an Honours Psychology programme
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOLOGY 4T03 NEUROBIOLOGY
Selected topics in neurobiology at the molecular and cellular level including growth factors, neuronal development, ion channels, neurotransmitter functions, learning and memory, and neurological disorders. Two (or one) lecture(s), one (or two) tutorial(s); one term
Prerequisite: BIOLOGY 3P03 or permission of the instructor. One or more of BIOLOGY 3H03, 3H3, 3U05, PSYCH 2F03, 3FAS are also recommended.
Cross-list: HTH SCI 4R03

PSYCH 4Z03 TOPICS IN PSYCHOLINGUISTICS
Consult the Department of Modern Languages and Linguistics for topics to be offered.
Prerequisite: LINGUIST 3B03 or PSYCH 3BB3
Cross-list: LINGUIST 4Z03
PSYCH 4Z03 may be repeated if on a different topic to a total of six units.

RELEIGIOUS STUDIES

WEB ADDRESS: http://www.socsci.mcmaster.ca/relstud
University Hall, Room 105
Ext. 24567

Faculty as of January 15, 2001
Chair
Eileen Schuller

Professors
Phyllis Granoff/B.A. (Radcliffe College), Ph.D. (Harvard)
Alan Mendelson/A.B. (Kenyon College), M.A. (Brandeis), Ph.D. (Chicago)
Adele Reinhardt/B.A. (Toronto), M.A., Ph.D. (McMaster)
John C. Robertson/B.A. (Texas Wesleyan College), B,D. (Southern Methodist University), S.T.M., M.A., Ph.D. (Yale)
Koichi Shinohara/B.L., M.L. (Tokyo), Ph.D. (Columbia)

Adjunct Professor
David B. Waterhouse/B.A. (Cantab) M. A. (Cantab), F.R.S.C.

Associate Professors
Ellen Badone/B.A., M.A. (Toronto), Ph.D. (California-Berkeley)
P. Travis Kroeber/B.A. (Winningen), M.A. (Manitoba), Ph.D. (Chicago)
Stephen R. Westerholm/B.A., M.A. (Toronto), D.Th. (Lund)
Wayne K. Whiller/B.A. (Sir George Williams), Ph.D. (McMaster)/part-time
Peter Widicome/B.A. (Manitoba), M.Phil. (Oxford), M.Div. (Toronto), D.Phil. (Oxford)

Adjunct Associate Professors
Neil McMullin/B.A. (St. Francis Xavier), S.T.B. (St. Michael's, Toronto), Th.M. (Harvard), Ph. D. (British Columbia)
Stella M. Sandahl/M.A. (Stockholm), M.A. (Sorbonne), Ph.D. (Sorbonne)

Adjunct Assistant Professor
Kay Koppedrayer/B.A. (McGill), M.A. (McMaster), Ph.D. (McMaster)

Associate Member
Virginia Aksan/(History) B.A. (Allegheny College), M.L.S. (California-Berkeley), M.A., Ph.D. (Toronto)

Professors Emeriti
John G. Arapura/B.A. (Sarampore College, and Bishop's College, Calcutta), S.T.M. (Union Theological Seminary), M.A., Ph.D. (Columbia)
A. Eugene Combs/B.A. (Trinity, San Antonio), M.Div. (Union Theological Seminary), Ph.D. (Columbia)
Department Notes:

Students are advised to consult both the Department's Handbook (available in University Hall 105) and the Undergraduate Timetable for a list of the courses offered in the current year. It is especially important that students interested in the Level IV Advanced Reading courses (4A3, 4B3, 4CC3, and 4DD3) consult a departmental undergraduate advisor.

Fields of Study:

The Department offers courses in four fields of study. Students are encouraged to specialize in any one of these fields: Level II, III and IV courses are allocated to the fields as follows:

I. ASIAN RELIGIONS
   RELIG ST 2E03, 2F03, 2I03, 2L03, 2P06, 3A03, 3E03, 3L03, 3S03, 3U03, 3UU3, 3V03
   SANSKRIT 3A06, 4B06

II. BIBLICAL STUDIES
   RELIG ST 2B03, 2D03, 2EE3, 2GG3, 2HH3, 2IV3, 2V03, 2Y03, 2Z03, 3D03, 3M03, 3N03, 3R03, 3T03
   HEBREW 2A03, 2B03, 3A03, 3B03

III. WESTERN RELIGIOUS THOUGHT
   RELIG ST 2C03, 2I03, 2J03, 2K03, 2M03, 2U03, 2Z03, 3D03, 3I03, 3K03, 3L03, 3M03, 3N03, 3R03, 3Z03

IV. CONTEMPORARY AND COMPARATIVE RELIGIONS
   RELIG ST 2A03, 2B03, 2E03, 2G03, 2H03, 2M03, 2N03, 2P03, 2Q03, 2S03, 2V03, 2W03, 2WW3
   Students wishing to specialize in Asian Religions should consider beginning language training in Sanskrit or Japanese or both early in their programme (see the calendar offerings listed under these headings). Students wishing to specialize in Biblical Studies should consider work in Greek (see offerings under Classics, Greek) or Hebrew or both. For further study of the Hebrew Bible, RELIG ST 2D03, 2EE3, 3M03 are recommended.

Courses

If no prerequisite is listed, the course is open.

RELIG ST 1B06 WORLD RELIGIONS
A comparative study of religions such as Hinduism, Buddhism, Islam, Christianity, and Judaism with special reference to selected texts, traditions and thought.
Two lectures, one tutorial; two terms

RELIG ST 1D06 MODERN STUDY OF THE BIBLE
An introduction to the discipline of modern biblical criticism focusing on the development of selected central themes.
Two lectures, one tutorial; two terms

RELIG ST 1E03 LOVE IN WESTERN CIVILIZATION
A discussion of the variety of accounts of love in Western civilization from the time of the ancient Greeks and the rise of Christianity to modernity.
Two lectures, one tutorial; one term
Antirequisite: RELIG ST 1E06

RELIG ST 1H03 RELIGIOUS DISSERTATION AND REVITALIZATION
A study of recent dissent from establishment religion as exemplified in feminist thought, liberation theology, and ecological spirituality.
Two lectures, one tutorial; one term

RELIG ST 1I03 RELIGIOUS THEMES IN MODERN LITERATURE
An introduction to religious themes, imagery and issues through a study of selected modern literature.
Two lectures, one tutorial; one term
Antirequisite: RELIG ST 1I06

RELIG ST 2A03 MYSTICISM IN HINDU AND CHRISTIAN TRADITIONS
An exploration of the unique and common characteristics of mysticism in the Hindu and Christian traditions, both in its philosophical and popular expression through the study of selected texts.
Two lectures, one tutorial; one term

RELIG ST 2B03 WOMEN IN THE BIBLICAL TRADITION
This course will focus on the portrayal of women in the Hebrew Scriptures and the New Testament. Among the texts to be dealt with are examples of biblical narrative and legal material, the gospels, the letters of Paul and extra-biblical material.
Two lectures, one tutorial; one term

RELIG ST 2B03 IMAGES OF THE DIVINE FEMININE
An examination of goddesses and female religious symbols in a variety of cultures: tribal, eastern and western.
Two lectures, one tutorial; one term

RELIG ST 2C03 MORAL ISSUES
An introduction to moral philosophy accenting biomedical ethics. Issues such as abortion, human experimentation, euthanasia, and genetic screening will be investigated in cooperation with members of the Faculty of Health Sciences.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II and above
Cross-list: PHILOS 2D03
Enrollment is limited to 475 students.

RELIG ST 2D03 THE FIVE BOOKS OF MOSES
An examination of selected texts from the Pentateuch and their significance for Ancient Israelite religion and modern thought.
Two lectures, one tutorial; one term

RELIG ST 2E03 ENGAGED BUDDHISM
A study of contemporary Buddhist thinkers from Asia and the West who have advocated a renewed, socially engaged Buddhism that addresses issues of war, oppression and the destruction of the environment.
Two lectures, one tutorial; one term

RELIG ST 2EA3 ISLAM AND MEDITERRANEAN SOCIETY, 600-1300
An introduction to Islamic civilization from its beginnings in Arabia to the period of the Crusaders, with an emphasis on Mediterranean culture of the period.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: HISTORY 2EA3
Antirequisite: RELIG ST 2C06

RELIG ST 2EB3 ISLAM IN THE WORLD, 1300-1800
A survey course which emphasizes the role of Islam in the global setting in the period of the great Islamic empires.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: HISTORY 2EB3
Antirequisite: RELIG ST 2C06

RELIG ST 2EE3 THE PROPHETS
The role and teaching of biblical prophets in their ancient setting and their impact on modern religious life and thought.
Two lectures, one tutorial; one term

RELIG ST 2F03 STORYTELLING IN EAST ASIAN RELIGIONS
An in-depth study of selected examples of story literature in China and Japan with attention to the way religion is represented.
Two lectures, one tutorial; one term
Cross-list: JAPAN ST 3H03
Antirequisite: RELIG ST 3H03

RELIG ST 2GG3 EARLIEST PORTRAITS OF JESUS
A study of the Gospels of Matthew, Mark, and Luke. Special attention will be given to the possible literary relationships among them as well as to the distinctive features of their Jesus stories.
Two lectures, one tutorial; one term

RELIG ST 2HH3 PAUL AND CHRISTIAN ORIGINS
Two lectures, one tutorial; one term

RELIG ST 2I03 STORYTELLING IN INDIAN RELIGION
A survey of some of the many stories that were told by Buddhists, Jains and Hindus as a form of popular religious instruction and of the various uses made of humour and wit in religious teaching.
Two lectures, one tutorial; one term
Antirequisite: RELIG ST 3I03
RELIG ST 2103  CHRISTIANITY IN THE PATRICIAN PERIOD (100-600)
The development of Christianity in the first centuries C.E. in relation to competing
alternatives such as Judaism, Graeco-Roman cults and philosophies.
Two lectures, one tutorial; one term

RELIG ST 2203  CHURCH IN MEDIEVAL PERIOD (800-1500)
The development of Christianity in the Middle Ages and Its relation to the
political and intellectual context. Primary texts will illustrate typical aspects
of medieval religion, learned and popular.
Two lectures, one tutorial; one term

RELIG ST 2K03  RELIGION IN THE REFORMATION PERIOD
The place of the Reformation in the development of Christian thought and
practice -its background, context and sequels. Attention is given to such
figures as Martin Luther, John Calvin, the Anabaptists, the reformation in England, the Catholic Reformation.
Two lectures, one tutorial; one term

RELIG ST 2L03  LIFE, WORK AND TEACHINGS OF MAHATMA GANDHI
A study of the central religious and ethical ideas of Gandhi in the context of
his life; in particular: his doctrines of Non-violent Struggle and Truth-act;
his place in contemporary consciousness, particularly in the struggle for
human harmony and preservation of the earth and its living species; and
his revolutionary view of Truth itself as God.
Two lectures, one tutorial; one term

RELIG ST 2M03  DEATH AND DYING: COMPARATIVE VIEWS
A comparative survey of the diversity of social and ritual practices, religious
beliefs, and emotional responses surrounding death in a variety of non-
Western cultural contexts.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II and above

RELIG ST 2M03  WAR AND PEACE IN THE CHRISTIAN TRADITION
Christian thinking and practice on militarism, the restraint of war and paths
to peace, including just war, nonviolence, pacifism and revolution.
Two lectures, one tutorial; one term

RELIG ST 2N03  DEATH AND DYING: THE WESTERN EXPERIENCE
Drawing on theoretical perspectives and evidence from anthropology and
sociology, this course examines death and dying in Western contexts,
focussing on biomedical, social and cultural themes.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II and above

RELIG ST 2P06  JAPANESE CIVILIZATION
Introduction to Japanese history, society, and culture through a study of the
religious traditions, literature, and art of Japan.
Two lectures, one tutorial; two terms
Cross-list: JAPAN ST 2P06

RELIG ST 2Q03  INTRODUCTION TO ISLAM
The origins and early history of Islam with an emphasis on the Koran and
the early Muslim community.
Two lectures, one tutorial; one term

RELIG ST 2Q03  CULTS IN NORTH AMERICA
An examination of recent religious trends in North America. The Hare
Krisha Movement, the Church of Scientology, the "Family" Branch
Davidians and Satanism will be covered.
Two lectures, one tutorial; one term

RELIG ST 2S03  WOMEN AND RELIGION
A study of the status and roles of women in several religions, such as
Hinduism, Buddhism, Confucianism, Christianity, Judaism, and Islam. Im-
portant women religious figures and feminist theology will also be studied.
Two lectures, one tutorial; one term

RELIG ST 2U03  RELIGION AND THE MORAL IMAGINATION
An exploration of religious and ethical themes/symbols/practices in selected
ancient and modern literature (including plays, stories, poetry) and art in
the western traditions.
Two lectures, one tutorial; one term
Antirequisite: RELIG ST 2U03

RELIG ST 2V03  ISLAM AND THE MODERN WORLD
The spread of Islam, Islam as a minority community, the role of women in
Islam and fundamentalism.
Two lectures, one tutorial; one term

RELIG ST 2V03  BIBLE AS STORY
An examination of narratives from the Hebrew Bible, Intertestamental
literature, and New Testament, from a literary perspective. Attention is
paid to narrative features such as character, plot, irony and symbolism,
as well as to the dynamics of the reading experience.
Two lectures, one tutorial; one term

RELIG ST 2W03  RELIGION AND ECOLOGY
Attitudes toward nature or the environment in Native, Asian and Western
Religious Traditions; the underlying assumptions of our contemporary view
of the natural world.
Two lectures, one tutorial; one term

RELIG ST 2W03  HEALTH, HEALING AND RELIGION
An examination of the different ways in which religion and health are related.
Ideas of sickness and techniques of healing will be studied in a variety of
traditional and modern religious contexts.
Two lectures, one tutorial; one term

RELIG ST 2Y03  THE BIBLE AND FILM
An examination of the use of the Bible in film. A variety of film genres will be
studied including the Disney cartoon, biblical epic, horror film, contemporary
comedy and drama and the rock music video. Issues to be discussed in-
clude the transformation of biblical images in popular media and film as a
vehicle for conveying religious values.
Two lectures, one tutorial; one term

RELIG ST 2Z03  GREEK AND ROMAN RELIGION
A study of the role of religion in Greek and Roman public and private life.
Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: CLASSICS 2Z03

RELIG ST 2Z03  SHAKESPEARE: RELIGIOUS AND POLITICAL THEMES
An examination of ethical, political and religious themes in several of
Shakespeare's plays, including The Merchant of Venice.
Two lectures, one tutorial; one term

RELIG ST 3A03  POPULAR RELIGION IN INDIA
The Music, Dance and Festivals of Indian Temples will be analyzed in
terms of their social, psychological and political implications.
Two lectures, one tutorial; one term

RELIG ST 3D03  GOD, REASON AND EVIL
An examination of understandings of reason and evil in ancient Greek,
médieval Christian and modern times, and of how these understandings
are related to accounts of the nature of God.
Two lectures, one tutorial; one term

RELIG ST 3D03  THE JEWISH WORLD IN NEW TESTAMENT TIMES
A study of Judaism in the Greco-Roman world. The course will explore
selected questions in political history, the development of sects and parties, the role of the temple, apocalypticism, and the Dead Sea Scrolls.
Two lectures, one tutorial; one term
Cross-list: HISTORY 3D03
Antirequisite: RELIG ST 2NN3

RELIG ST 3E03  JAPANESE RELIGION
Topics will include Shinto, Shamanism, Ancestor Worship, Japanese
Buddhism and the New Religious Movements.
Two lectures, one tutorial; one term
Cross-list: JAPAN ST 3EG3

RELIG ST 3F03  APPROACHES TO THE STUDY OF RELIGION
A study of the various ways religious phenomena can be studied, e.g.
psychologically, sociologically, philosophically, theologically, comparatively, etc.
Attention is also given to the history of the discipline of religious studies.
Two lectures, one tutorial; one term
Prerequisite: Six units of Religious Studies courses above Level I

RELIG ST 3I03  RELIGION AND SOCIAL JUSTICE
An examination of conceptions of justice, ancient and modern, and their
relationship to religious understandings of human nature and society.
Two lectures, one tutorial; one term
Antirequisite: RELIG ST 2I03

RELIG ST 3K03  CHRISTIANITY IN THE MODERN PERIOD
Topics in Christianity (Catholic and Protestant) from the 17th to the 20th
centuries. Attention is given to the interaction between secular and
religious thought.
Two lectures, one tutorial; one term
RELIG STUDIES

RELIG ST 3L03  THE INDIAN RELIGIOUS TRADITION
Readings of Indian religious texts in translation will concentrate on themes such as the nature of human nature; free will and determinism; personal identity and the quest for perfection; renunciation and social action; violence and non-violence; altruism and selfishness.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level III and above
Cross-list: ARTS&SCI 3L03

RELIG ST 3LL3  RELIGION AND HUMAN NATURE
What is the nature of human nature and its fulfillment? A study of recent philosophical, scientific and religious anthropology.
Two lectures, one tutorial; one term

RELIG ST 3M03  SONGS OF DAVID: POETRY IN THE HEBREW BIBLE
A study of poetry in the Hebrew Bible (In translation). The course will give primary attention to the study of the psalms. Some examples of early epic poetry and wisdom poetry will also be included.
Two lectures, one tutorial; one term

RELIG ST 3MM3  SCEPTICISM, ATHEISM AND RELIGIOUS FAITH
What is authentic human existence and is religious faith essential, irrelevant or inimical? A study of the struggle of several remarkable outsiders with questions of life's meaning and God: Pascal, Nietzsche, Sube and Simone Weil.
Two lectures, one tutorial; one term

RELIG ST 3N03  JOHN'S PORTRAIT OF JESUS
An examination of the Gospels of John, with emphasis on its historical background, its literary character and its distinctive theology. The history of the Johannine community will also be considered.
Two lectures, one tutorial; one term
Antirequisite: RELIG ST 2003

RELIG ST 3NN3  THE ENCOUNTER OF SCIENCE AND RELIGION
A study of contemporary discussions of: (a) methods of inquiry in science and religion, (b) the human being's relation to nature and (c) God's relation to nature.
Two lectures, one tutorial; one term

RELIG ST 3R03  DEATH AND THE AFTERLIFE IN EARLY JUDAISM AND CHRISTIANITY
An examination of the variety of ways in which physical death and the afterlife were understood in biblical and post-biblical Judaism as well as in the New Testament and early Christianity. Among the topics to be considered are the netherworld, immortality and resurrection, as well as the relationship of these concepts to issues of faith and morality.
Two lectures, one tutorial; one term

RELIG ST 3S03  THE CHINESE RELIGIOUS TRADITION
Readings in East Asian religious texts in translation will concentrate on themes such as culture vs. nature, virtue vs. power, social responsibility vs. personal cultivation, bookish learning vs. meditation.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level III and above
Cross-list: ARTS&SCI 3S03, JAPAN ST 3S03

RELIG ST 3T03  THE QUEST FOR THE HISTORICAL JESUS
A look at the continuing scholarly effort to reconstruct the career and teaching of the historical Jesus.
Two lectures, one tutorial; one term

RELIG ST 3U03  THE BUDDHIST TRADITION IN INDIA
A study of the origins and early development of Indian Buddhism, largely through readings in Buddhist scripture (pre-Mahayana and Mahayana) in translation.
Two lectures, one tutorial; one term

RELIG ST 3U03  BUDDHISM IN EAST ASIA
An examination of myth, history, doctrine, monastic culture, and ritual practices in East Asian Buddhism.
Two lectures, one tutorial; one term
Cross-list: JAPAN ST 3U03

RELIG ST 3V03  INDIAN PHILOSOPHY
Exploration of select themes in Indian philosophy through a reading of primary texts in English translation. Possible topics include: an examination of Indian concepts of the soul, free will and determinism, origins of the universe and Indian debates concerning the existence and function of an omnipotent god.
Two lectures, one tutorial; one term
Antirequisite: RELIG ST 2T03

RELIG ST 3W03  PLATO: RELIGIOUS AND POLITICAL THEMES
An examination of ethical, political, philosophic and religious themes in selected Platonic dialogues, including the Apology of Socrates, Phaedo, Symposium, Gorgias and Republic.
Two lectures, one tutorial; one term

RELIG ST 3Z03  JUDAISM, THE JEWISH PEOPLE AND THE BIRTH OF THE MODERN WORLD
On the lures and threats of the modern world from the early eighteenth to the early twentieth century. Topics include: Jewish philosophy in the Age of Reason, new Jewish denominations, assimilation, early Zionism, Yiddish socialism, the beginnings of modern anti-semitism, movements of cultural renewal.
Two lectures, one tutorial; one term
Cross-list: HISTORY 3Z03
Antirequisite: RELIG ST 2X03

RELIG ST 3ZZ3  JUDAISM AND THE JEWISH PEOPLE IN THE TWENTIETH CENTURY
Jews and Judaism in a century of catastrophe and renewal. The progress of Emancipation: Jews in Canada and the U.S.; the Jewish catastrophe in Europe; the Jewish state; Jewish identities in literature and the arts.
Two lectures, one tutorial; one term
Cross-list: HISTORY 3ZZ3
Antirequisite: RELIG ST 2X03

RELIG ST 4A06  HONOURS SEMINAR
A seminar in selected topics in the study of religion, including a presentation and discussion of research conducted by students in the Honours Research Course (4J06).
Seminar (three hours); two terms
Prerequisite: Registration in Level IV Honours Religious Studies
Corequisite: RELIG ST 4J06

RELIG ST 4A03  ADVANCED READING: ASIAN RELIGIONS
Independent study of special topics in Asian Religions.
Prerequisite: Registration in Level IV of an honours programme and written permission of the supervising instructor

RELIG ST 4B03  ADVANCED READING: BIBLICAL STUDIES
Independent study of special topics in Biblical Studies.
Prerequisite: Registration in Level IV of an honours programme and written permission of the supervising instructor

RELIG ST 4C03  ADVANCED READING: WESTERN RELIGIOUS THOUGHT
Independent study of special topics in Western Religious Thought.
Prerequisite: Registration in Level IV of an honours programme and written permission of the supervising instructor

RELIG ST 4D03  ADVANCED READING: CONTEMPORARY AND COMPARATIVE RELIGION
Independent study of special topics in Contemporary and Comparative Religion.
Prerequisite: Registration in Level IV of an honours programme and written permission of the supervising instructor

RELIG ST 4J06  HONOURS RESEARCH COURSE
Students in this course will work closely with faculty members who specialize in the fields in which they plan to write their honours essay.
Two terms
Prerequisite: Registration in Level IV Honours Religious Studies
Corequisite: RELIG ST 4A06

RELIG ST 4W06  GUIDED READING IN RELIGIOUS STUDY
Independent study on a topic approved by the instructor.
Two terms
Prerequisite: Registration in Level IV of an honours programme in Religious Studies and permission of the instructor.

HEBREW

HEBREW 2A03  INTRODUCTION TO BIBLICAL HEBREW I
An introduction to the basics of grammar, syntax and vocabulary of the language of the Hebrew Bible. The student will begin to read in the Hebrew Bible.
Four hours (two lectures); one term
Antirequisite: HEBREW 2A06

HEBREW 2B03  INTRODUCTION TO BIBLICAL HEBREW II
An introduction to more grammar, syntax and vocabulary of the language of the Hebrew Bible. The knowledge acquired should enable the student to read the simple prose and poetry of the Hebrew Bible.
Four hours (two lectures); one term
Prerequisite: HEBREW 2A03, or permission of the instructor
Antirequisite: HEBREW 2A06
HEBREW 3A03 INTERMEDIATE HEBREW I
A reading course in classical (biblical) Hebrew. Sample texts will be read from some or all of the following: the Hebrew Bible, Mishnah, ancient Hebrew inscriptions and the Dead Sea Scrolls. Four hours (two lectures); one term
Prerequisite: HEBREW 2B03, or permission of the instructor
Antirequisite: HEBREW 3A06

HEBREW 3B03 INTERMEDIATE HEBREW II
Further sample texts will be read from some or all of the following: the Hebrew Bible, the Mishnah, ancient inscriptions and the Dead Sea Scrolls. Four hours (two lectures); one term
Prerequisite: HEBREW 2B03, or permission of the instructor
Antirequisite: HEBREW 3A06

SANSKRIT ...

SANSKRIT 3A06 INTRODUCTION TO SANSKRIT GRAMMAR
Basic course in the elements of Sanskrit grammar. No previous knowledge of Sanskrit is required.
Three lectures; two terms

SANSKRIT 4B06 READINGS IN SANSKRIT TEXTS
Intermediate course with readings in selected texts.
Three lectures; two terms
Prerequisite: SANSKRIT 3A06

RUSSIAN

(SEE MODERN LANGUAGES AND LINGUISTICS, RUSSIAN)

SANSKRIT

(SEE RELIGIOUS STUDIES, SANSKRIT)

SCHOOL OF THE ARTS

(FORMERLY SCHOOL OF ART, DRAMA AND MUSIC)

WEB ADDRESS:
http://www.humanities.mcmaster.ca/-sota/index.html
Togo Salmon Hall, Room 414
Ext. 27671

Faculty as of January 15, 2001

Director
James Deaville

Professors

Associate Professors
Donald F. Carr/B.A. (Guelph), M.F.A. (Chicago) (Art)
Susan Fast/B.M. (Western Washington), M.A., Ph.D. (Iowa) (Music)
Hugh G. Galloway/Dipl. Art (Edinburgh) (Art)
Frederick A. Hall/Assoc. Dipl., B.Mus. (McGill), M.A., Ph.D. (Toronto) (Music)
Hugh K. Hartwell/Assoc. Dipl., B. Mus. (McGill), A.M., Ph.D. (Pennsylvania) (Music)
Keith W. Kindr/Dipl. (Calgary), B.Mus. (Western Ontario), M.Mus. (Northwestern), Ph.D. (Colorado) (Music)
William Renwick/B.Mus. (British Columbia), Ph.D. (CUNY), A.A.G.O., F.R.C.C.O. (Music)
Geoffrey Rockwell/B.A. (Haverford College), M.A., Ph.D. (Toronto) (Multimedia)
Graham Todd/L.I.A.D. Dip. (Chelsea School of Art), M.F.A. (Guanajuato) (Art)
Valerie Tryon/L.R.A.M., F.R.A.M., A.R.C.M., Artist in Residence (Music) (part-time)

Assistant Professors
Joanne Buckley/B.A., M.A., Ph.D. (Western Ontario) (Multimedia)
Christie Carson/B.A. (Queen's), M.A. (Toronto), Ph.D. (Glasgow) (Drama and Multimedia)
Catherine Graham/B.A., M.A., Ph.D. (McGill) (Drama)

Kenneth McLeod/B.Mus. (British Columbia), M.A. (McMaster), Ph.D. (McGill)
Alison McQueen/B.A., M.A., Ph.D. (Pittsburgh)
Paul Rivers/B.A. (McMaster), M.F.A. (Victoria) (Drama)
Joseph Sokalski/B.E. (Alberta), M.A., Ph.D. (Toronto) (Drama)

Adjunct Assistant Professor
Kim Nass/Museology/B.A. (McMaster), M.Litt. (Edinburgh), M.MSt. (Toronto)

Associate Members
Katherine M.D. Dunbabin/Classics M.A., D.Phil. (Oxford)
Michele G. George/Classics B.A. (Toronto), M.A., Ph.D. (McMaster)
Gretchen Umholz/Classics A.B. (Bryn Mawr), M.A., Ph.D. (California-Berkeley)

Lecturers
Andrew Macavich/B.A. (Mount Saint Vincent), M.A. (Dalhousie), Ph.D. (Alberta) (Multimedia)

Sessional Lecturers
Renee Baillargeon (Drama)

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Andrew Macavich/B.A. (Mount Saint Vincent), M.A. (Dalhousie), Ph.D. (Alberta) (Multimedia)

Sessional Lecturers
Renee Baillargeon (Drama)

SCHOOL OF THE ARTS 261

Togo Salmon Hall, Room 414 Ext. 27671

Faculty as of January 15, 2001

Director
James Deaville

Professors

Associate Professors
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Assistant Professors
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Assistant Professors
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Christie Carson/B.A. (Queen's), M.A. (Toronto), Ph.D. (Glasgow) (Drama and Multimedia)
Catherine Graham/B.A., M.A., Ph.D. (McGill) (Drama)
The introduction to the systematic investigation of an issue develops skills considered conclusions, using, as content, a topic central to research in the Faculty of Science.

One hour, term one; two hours, term two
Prerequisite: Registration in Science I
Enrolment is limited.

SCIENCE 1A00  WHMIS, HEALTH AND SAFETY
Introduction to safety guidelines at McMaster University, acceptable safety practices and positive safety attitudes and practices in laboratories and Workplace Hazardous Materials Information System (WHMIS). Evaluation: one multiple choice examination graded Pass or Fail; students who fail will be required to attend the course again during the same academic year.
One session (one hour)

SCIENCE 1D03  ASTRONOMY
A survey of modern and historical concepts in astronomy. Light and the telescope; distance measurement in space; the structure and evolution of stars, galaxies, cosmology.
Three lectures; one term
Prerequisite: Open to students registered in any faculty other than Science or Engineering. Grade 12 Mathematics required.
Antirequisite: ASTRON 1F03, SCIENCE 2D03

SCIENCE 2A03  THE NATURE OF MATTER
Contemporary ideas about the structure of atoms and molecules; the collective behaviour of large numbers of atoms in solids, liquids, and gases and the technological implications of such behaviour.
Three lectures; one term
Prerequisite: Registration in Level II, III, or IV of a non-science or non-engineering programme.
No mathematics is required.
Offered in alternate years.
Offered in 2001-2002.

SCIENCE 2B03  THE RIGHT TO FOOD
Human food requirements; how food is produced; alternative approaches to alleviating world hunger.
Three lectures or two lectures, one tutorial; one term
Prerequisite: Registration in Level II, III, or IV of any programme
Enrolment is limited to 100. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

SCIENCE 2H03  THE MOLECULAR BASIS OF LIFE
A survey of the molecular basis of life; the current revolution in biology caused by recombinant DNA technology and its implications for the future.
Three lectures; or two lectures, one tutorial; one term
Prerequisite: Registration in Level II, III, or IV of any programme
Antirequisite: BIOLOGY 1A03, 1A06, 1A03
Offered in alternate years.
Offered in 2001-2002.

SCIENCE 2J03  PHYSICS OF MUSICAL SOUND
Sound waves, production of sound by musical instruments; properties of the ear, musical scales and intervals; auditorium acoustics.
Three lectures with demonstrations; one term
Prerequisite: Registration in Level II, III or IV of a non-science programme.
Antirequisite: PHYSICS 2J03
Knowledge of Grade 12 Mathematics would be helpful.

SCIENCE 2K03  HEREDITY, EVOLUTION AND THE ENVIRONMENT
Introduction to the principles of human genetics and evolutionary biology, the adaptation of organisms to their environment, biological diversity and integrated ecosystems.
Three lectures or two lectures and one tutorial; one term
Prerequisite: Registration in Level II, III or IV of any programme
Antirequisite: BIOLOGY 1A06, 1A03, 1A03
Offered in alternate years.

SCIENCE, TECHNOLOGY, AND PUBLIC POLICY
(SEE THEMES SCHOOL ON SCIENCE, TECHNOLOGY, AND PUBLIC POLICY)

SOCIAL SCIENCES

Note:
All students are strongly recommended to complete SOC SCI 2E00. Beginning in September 2002, completion of SOC SCI 2E00 will be required for students who participate in an internship.
INQUIRY IN (Toronto)

This introduction to the systematic investigation of an issue develops skills that will serve students well in their university careers. Students learn how to formulate questions, gather and interpret evidence, and reach well-considered conclusions, using, as content, a topic central to research in the Faculty of Social Sciences. Topics may vary from session to session.

Three hours; one term

Prerequisite: Registration in Social Sciences I or Kinesiology I

SOC SCI 2E03
INTRODUCTION TO EXPERIENTIAL LEARNING AND CAREER DEVELOPMENT

Provides a bridge between students' academic studies and their career and educational planning through a variety of hands-on activities that include skills assessment, goal setting and career exploration.

Lectures/workshop (six sessions); first term or second term

Prerequisite: Registration in a Kinesiology or Social Sciences programme Antirequisite: SOC SCI 3E01

Note above.

SOC SCI 2E03
SELECTED TOPICS IN INTERDISCIPLINARY STUDIES I

2001-2002: Canadian Children

This course deals with a spectrum of issues related to Canadian children such as family, socialization, identity formation, moral development, abuse and strategies for a better future.

Three hours (lectures and discussion); one term

SOC SCI 2E03 may be repeated, if on a different topic, to a total of six units.

SOC SCI 2F03
SELECTED TOPICS IN INTERDISCIPLINARY STUDIES II

2001-2002: Canadian Adolescents

This course deals with a spectrum of issues related to Canadian adolescents such as identity formation, sexuality, peer groups and power and the social politics of career formation. (This course should not normally be considered as an extension of SOC SCI 2E03.)

Three hours (lectures and discussion); one term

SOC SCI 2F03 may be repeated, if on a different topic, to a total of six units.

SOC SCI 2J03
INTRODUCTION TO STATISTICS

An introduction to basic statistical concepts and their application to the analysis of data from the Canadian Children. (This course should not normally be considered as an extension of SOC SCI 2E03.)

Three hours; one term

Prerequisite: Registration in Level II and above

Not open to students with credit or registration in COMMERC 2A03, ECON 2B03, 3006, 3U03, GEOG 2E03, GEOG 2L03, 2N03, KIN 1B03, 1B06, 3C03, POL SCI 2F06, 3N06, PSYCH 2G03, 2B03, 2F03, 2R03, SOCIOL 2Y03, 3H08 or STATS 1A03, 1C03, 3MA3, 3M03, 2R08

SOCIAL WORK

WEB ADDRESS: http://www.socsci.mcmaster.ca/~socwork

Kenneth Taylor Hall, Room 319
Ext. 23795

Faculty as of January 15, 2001

Director
Ralph A. Brown

Professors
Jane Aronson/B.Sc. (New University of Ulster), B.S.W., M.S.W. (McGill), Ph.D. (Toronto)

Adjunct Professor
Ramesh Mishra/(York), B.Sc., Ph.D. (London)

Associate Professors
Ralph A. Brown/B.A., M.S.W. (Waterloo Lutheran), D.S.W. (UCLA)
Roy Cain/B.S.W., M.S.W., Ph.D. (McGill)
Patricia M. Daenzer/B.A., B.S.W., M.S.W., Ph.D. (Toronto)
James W. Gladstone/B.A. (McGill), M.S.W. (British Columbia), Ph.D. (Toronto)
L. William Lee/B.A. (St. Thomas, Texas), M.S.W., Adv. Dip. S.W., Ed.D. (Toronto)
James J. Rice/B.A. (Sir George Williams), B.S.W., M.S.W. (Calgary), Ph.D. (Exeter)
Sheila Sammon/B.A. (Nazareth College, New York), M.S.W. (Toronto)

Assistant Professor
Donna Baines/B.S.W. (Calgary), M.S.W. (Ottawa), Ph.D. (Toronto)

Associate Members
N.C. Agarwal (Business), B.A., M.A. (Delhi), Ph.D. (Minnesota)
M. Dooley (Economics) B.A. (Indiana), M.S., Ph.D. (Wisconsin-Madison)

Practice Instructors
Michael Balkwill/B.A., B.S.W. M.A. (McMaster)
Suzanna Brown/B.A. (Wilfrid Laurier), B.S.W., M.S.W. (McMaster)
Donna Burtis/B.A. (Guelph), M.S.W. (Toronto)
Chris Cardy/B.A., B.S.W. (McMaster), M.S.W. (Toronto)
Janice Chaplin/B.A. (Mount Allison), B.S.W., M.S.W. (McMaster)
Shawn Chisholm/B.Sc., (Toronto), B.S.W., M.S.W. (McMaster)
Mary Ciotti/B.S.W. (Western Ontario), M.S.W. (Toronto), C.C.W. (Fanshaw)

Leslie Cunningham/B.A. (Wilfrid Laurier)
Andrew Debicki/B.A., B.S.W., M.S.W. (McMaster)
Mark Fraser/B.A. (Acadia), B.S.W. (McMaster), M.S.W. (Toronto)
M. Heather Gardner/B.A., B.S.W. (McMaster), M.S.W. (Toronto)
Rocco Gizzarelli/B.A., B.S.W. (McMaster), M.S.W. (York)
Niki Gomez-Peralles/B.A. (Winnipeg), B.S.W. (McMaster), M.S.W. (Toronto)
Gordon Greenway/B.A., M.S.W. (Carleton)
Rosemary Hilbert/B.A., B.S.W., M.S.W. (McMaster), M.S.W. (York)
Barbara Hill/B.S.W. (Western Ontario), M.S.W. (Wilfrid Laurier)
Liz Lamb/B.A., B.S.W. (McMaster), M.S.W. (Carleton)
Maxine Lane/B.A., B.S.W. (McMaster), M.Ed. (Brock)
Kelly Lazure-Valcon/B.A., B.S.W., M.S.W. (McMaster), M.S.W. (York)
Linda Learn/B.S.W. (McMaster), M.S.W. (Toronto)
Gillian McClosky/B.A. (Queen's), M.S.W. (Toronto)
Carol McKenna/B.S.W. (Western Ontario), M.S.W. (Toronto)
Anna Marie Pietrantonio/B.A. (McMaster), M.S.W. (Toronto)
Cindy Player/B.A. (Victoria), M.S.W. (Carleton)
Tony Quick/B.A. (St. Mary's), M.S.W. (Dahlhouse)
Shelley M. Rempe/B.A. (Toronto), B.S.W., M.A. (McMaster)
Randy Scott/B.S.W. (Calgary), M.S.W. (Wilfrid Laurier)
Gerald Smith/B.S.W., M.S.W. (Windsor)
Darlene Sykes/B.A., B.S.W., M.S.W. (McMaster)
Brenda Symons-Moulton/B.A., B.S.W. (McMaster), M.S.W. (Wilfrid Laurier)
Helen Tobias/B.A., B.S.W. (McMaster), M.S.W. (Carleton)
Karen Van Dyke/B.A. (Dordt College), M.S.W. (SunY-Buffalo)
Jane Vock/B.A. (Wilfrid Laurier), M.A. (McMaster), M.S.W. (Wilfrid Laurier)
Susan West/B.A. (Alberta), M.A. (McMaster)

Professors Emeriti
Cyril Greenland/M.Sc. (North Wales), Ph.D. (Birmingham)
Sally Palmer/B.A. (Western Ontario), B.S.W., M.S.W., Ph.D. (Toronto)
Harry L. Penny/Dip. Thel. (Union College, British Columbia), B.A., M.S.W. (British Columbia), LL.D. (McMaster)

Notes:
1. SOC WORK 1A06 is available to all students.
2. The following courses are available for elective credit for students enrolled in Level III or above of a non-Social Work programme. SOC WORK 1A06 is a prerequisite. Enrolment for such students is limited and places are assigned on a first come basis.

SOC WORK 3C03 Social Aspects of Health and Illness
SOC WORK 3H03 Justice and Social Welfare
SOC WORK 3Q03 Human Sexuality in Social Context
SOC WORK 4B03 Adult Family Violence
SOC WORK 4C03 Racism and Social Marginalization in Canadian Society
SOC WORK 4F03 Child Abuse
SOC WORK 4G03 Selected Topics
SOC WORK 4I03 Social Work and Indigenous Peoples
SOC WORK 4J03 Social Change: Social Movements and Advocacy
SOC WORK 4L03 Social Work with an Aging Population
SOC WORK 4M03 International and Comparative Social Welfare
SOC WORK 4R03 Social Work with Women
SOC WORK 4W03 Child Welfare
Courses

All courses are open only to Social Work students unless otherwise specified. (See Notes 1 and 2 above.)

**SOC WORK 1A06 INTRODUCTION TO SOCIAL WORK**
General introduction to the values, perspectives, ideologies, settings and methods of social work within the broad field of social welfare. This course combines a practical and theoretical orientation to the field. Lectures and discussions; two terms
(See Note 1 above.)

**SOC WORK 2A05 THEORY, PROCESS AND COMMUNICATION SKILLS FOR SOCIAL WORK**
Knowledge, value base and intervention methods of social work practice; basic skill development in interpersonal communication and interviewing. Lectures, discussions, exercises; two terms
Antirequisite: SOC WORK 2C06, 2C03, 2003
Enrolment is limited.

**SOC WORK 2B03 SOCIAL WELFARE I: GENERAL INTRODUCTION**
Purpose, values underlying development of social welfare programmes; Canada's social security system in historical perspective. Lectures, discussion; one term
Cross-list: LABR ST 2B03
Antirequisite: SOC WORK 2B06
Students in a Social Work program must register for this course as SOC WORK 2B03.

**SOC WORK 2B03 SOCIAL WELFARE II: POLICY AND PROCESS**
Analysis of key concepts in the process and dynamics of social policy development in Canada. Examination of current issues and strategies influencing social policy formation in selected areas. Lectures, discussion; one term
Prerequisite: SOC WORK 2B03
Cross-list: LABR ST 2B03
Antirequisite: SOC WORK 2B06, 3G03
Students in a Social Work program must register for this course as SOC WORK 2B03.

**SOC WORK 2E03 HUMAN GROWTH AND DEVELOPMENT IN THE SOCIAL ENVIRONMENT**
Human development throughout the life span with emphasis on the interaction between the personal and social contexts and social work concerns at each developmental stage. Lectures, discussion; one term
Prerequisite: SOC WORK 2B06
Cross-list: LABR ST 2B03
Antirequisite: SOC WORK 2B06, 3G03
Students in a Social Work program must register for this course as SOC WORK 2B03.

**SOC WORK 3A03 SOCIAL WORK WITH INDIVIDUALS AND GROUPS**
Examination of theories of social work intervention and current practice models of intervention with individuals and groups. Seminars; one term
Antirequisite: SOC WORK 3N03, 3R03, 4N03

**SOC WORK 3C03 SOCIAL ASPECTS OF HEALTH AND ILLNESS**
Exploration of the meaning of health and sickness in our society. Organization and delivery of health care. Consideration of ethical and other issues. Prerequisite: SOC WORK 1A06 or registration in a Social Work program. Lectures, discussion and selective use of community resources; one term
This course may be taken as elective credit by undergraduates in Level III or above of a non-Social Work program who have completed SOC WORK 1A06.
Enrolment is limited.

**SOC WORK 3D06 GENERAL SOCIAL WORK I**
Social work intervention processes; interviewing; development of basic skills in formation of relationships with individuals, families and communities. Seminars, workshops; two terms
Option of equivalent summer block in combination with SOC WORK 3D06(summer). Priority for summer block given to B.S.W. students.
Prerequisite: SOC WORK 2B06, or 2B03 and 2BB3; 2C03 and 2C03 or 2A08; PSYC 2A03 or SOC WORK 2E03 and registration in SOC WORK 3D06
Antirequisite: SOC WORK 3D09
Credit in this course is dependent on achieving a minimum grade of C+ and a Pass in SOC WORK 3D06
Enrolment is limited.

**SOC WORK 3D06 FIELD PRACTICUM I**
Field practicum to develop basic intervention and interviewing skills, particularly in the formation of relationships with individuals, families, groups and communities. Students participate in defining learning goals and experiences. Field experience equivalent to 15 hours per week; two terms
Option of equivalent summer block placement in combination with SOC WORK 3D06 taken in the summer. Priority for summer block given to B.S.W. students.
Prerequisite: Registration in SOC WORK 3D06.
This course is evaluated on a Pass/Fail basis
Credit in this course is dependent on receiving a Pass and a minimum grade of C+ in SOC WORK 3D06.
Enrolment is limited.

**SOC WORK 3H03 JUSTICE AND SOCIAL WELFARE**
Human rights and the role of law in enhancing civil liberties in Canada. Social work, law and social change. Study of selected issues and review of administrative discretion. Seminars; one term
Prerequisite: SOC WORK 1A06 or registration in a Social Work program. This course may be taken as elective credit by undergraduates in Level III or above of a non-Social Work program who have completed SOC WORK 1A06.
Enrolment is limited.

**SOC WORK 3L03 HUMAN SEXUALITY IN SOCIAL CONTEXT**
Basic information on anatomy, physiology, psychology and sociology of sexuality and fertility. Attitudinal self-awareness, communication skills, values regarding sexual identity and roles; analysis of policy issues. Seminars; one term
Prerequisite: SOC WORK 1A06 or registration in a Social Work program. This course may be taken as elective credit by undergraduates in Level III or above of a non-Social Work program who have completed SOC WORK 1A06.
Enrolment is limited.

**SOC WORK 4B03 ADULT FAMILY VIOLENCE**
To assist students in acquiring knowledge and perspectives concerning social policy issues pertaining to adult violence with emphasis on violence against women. Seminars; one term
Prerequisite: SOC WORK 1A06 or registration in a Social Work program. This course may be taken as elective credit by undergraduates in Level III or above of a non-Social Work program who have completed SOC WORK 1A06.
Not open to students with credit or registration in SOC WORK 4Z03 selected issues in Social Welfare Policy, if the issue was Family Violence.
Enrolment is limited.

**SOC WORK 4C03 RACISM AND SOCIAL MARGINALIZATION IN CANADIAN SOCIETY**
This course involves critical analysis of the construction of social relations in Canadian society. Students will have the opportunity to examine variables such as race, ethnicity and cultural specificity in the social ascription and adaptation process. Seminars; one term
Prerequisite: SOC WORK 1A06 or registration in a Social Work program. This course may be taken as elective credit by undergraduates in Level III or above of a non-Social Work program who have completed SOC WORK 1A06.
Not open to students with credit or registration in SOC WORK 4Z03 selected issues in Social Welfare Policy, if the issue was Race and Cultural Issues in Canadian Welfare.
Enrolment is limited.

**SOC WORK 4D06 GENERAL SOCIAL WORK II**
Seminars to deepen understanding and further develop practice skills. Two terms
Option of equivalent block placement in combination with SOC WORK 4D06
Prerequisite: SOC WORK 3D06, 3D06 and registration in SOC WORK 4D06
Antirequisite: SOC WORK 4D12
Credit in this course is dependent on achieving a minimum grade of C+ and a Pass in SOC WORK 4D06.
Enrolment is limited.

**SOC WORK 4D06 FIELD PRACTICUM II**
Field experience to refine practice skills. Students spend the equivalent of two days per week in social agencies, or with other organizations, in supervised practice.
Option of equivalent block placement in conjunction with SOC WORK 4D06.
Prerequisite: Registration in SOC WORK 4D06. This course is evaluated on a Pass/Fail basis
Credit in this course is dependent on receiving a Pass and a minimum grade of C+ in SOC WORK 4D06.
Enrolment is limited.
SOC WORK 4F03  CHILD ABUSE
Societal and familial context; types of child abuse; child welfare policies; prevention, protection and treatment.
Seminars; one term
Prerequisite: SOC WORK 1A06 or registration in a Social Work programme Not open to students with credit in SOC WORK 4G03, SELECTED TOPICS, if the topic was Child Abuse.
This course may be taken as elective credit by undergraduates in Level III or above of a non-Social Work programme who have completed SOC WORK 1A06.
Enrolment is limited.

SOC WORK 4G03  SELECTED TOPICS
Critical examination of social work practice in respect to selected social issues. Topics will vary from year to year and the School should be consulted for details for any particular year.
Seminars; one term
Prerequisite: SOC WORK 1A06 or registration in a Social Work programme SOC WORK 4G03 may be repeated, if on a different topic.
This course may be taken as elective credit by undergraduates in Level III or above of a non-Social Work programme who have completed SOC WORK 1A06.
Enrolment is limited.

SOC WORK 4H03  SOCIAL WORK AND INDIGENOUS PEOPLES
Examination of structural and cultural variables underlying the complex relationships between Indigenous communities and mainstream society, with particular attention to how they are played out in social work practice.
Seminars; one term
Prerequisite: SOC WORK 1A06 or registration in a Social Work programme Not open to students with credit in SOC WORK 4G03, SELECTED TOPICS, if the topic was Social Work and Indigenous Peoples.
This course may be taken as elective credit by undergraduates in Level III or above of a non-Social Work programme who have completed SOC WORK 1A06.
Enrolment is limited.

SOC WORK 4J03  SOCIAL CHANGE: SOCIAL MOVEMENTS AND ADVOCACY
Critical examination of the meaning of social change as a concept and event. Review of strategies of social change and of attempts to effect social change.
Seminars; one term
Prerequisite: SOC WORK 1A06 or registration in a Social Work programme This course may be taken as elective credit by undergraduates in Level III or above of a non-Social Work programme who have completed SOC WORK 1A06.
Enrolment is limited.

SOC WORK 4L03  SOCIAL WORK WITH AN AGING POPULATION
Analysis of the context of aging within Canadian society; examination of selected themes related to social welfare policies and models of social work practice with the elderly.
Seminars; one term
Prerequisite: SOC WORK 1A06 or registration in a Social Work programme Prerequisite: SOC WORK 4A03, 4V03
This course may be taken as elective credit by undergraduates in Level III or above of a non-Social Work programme who have completed SOC WORK 1A06.
Enrolment is limited.

SOC WORK 4M03  INTERNATIONAL AND COMPARATIVE SOCIAL WELFARE
Comparative perspective on problems of social structures in shaping social welfare institutions. Scope and limits of international collaboration.
Seminars; one term
Prerequisite: SOC WORK 1A06 or registration in a Social Work programme This course may be taken as elective credit by undergraduates in Level III or above of a non-Social Work programme who have completed SOC WORK 1A06.
Enrolment is limited.

SOC WORK 4N03  SOCIAL WORK WITH COMMUNITIES
Analysis of major community work strategies, historical antecedents, current developments and future potential in Canada. Student participation in the analysis of a community project is expected.
Seminars; one term
Prerequisite: Registration or credit in SOC WORK 3D06 and 3D06, or 3D08; or permission of the instructor

SOC WORK 4R03  SOCIAL WORK WITH WOMEN
Critical examination of the potential of social policies and programmes, community organizations and service practices to challenge women's systemic disadvantage and enhance women's welfare.
Seminars; one term
Prerequisite: SOC WORK 1A06 or registration in a Social Work programme Prerequisite: SOC WORK 4E03, 4T03
This course may be taken as elective credit by undergraduates in Level III or above of a non-Social Work programme who have completed SOC WORK 1A06.
Enrolment is limited.

SOC WORK 4W03  CHILD WELFARE
This course analyzes the Canadian child welfare system, its policies and programmes and teaches skills for working with children, families and substitute caregivers.
Lectures, discussions, skills development; one term
Prerequisite: SOC WORK 1A06 or registration in a Social Work programme This course may be taken as elective credit by undergraduates in Level III or above of a non-Social Work programme who have completed SOC WORK 1A06.
Enrolment is limited.

SOC WORK 4X03  SOCIAL WORK WITH FAMILIES
Examination of relevant aspects of family theory for social work practice; models of family intervention.
Seminars; one term
Prerequisite: Credit or registration in SOC WORK 3D06 and 3D06, or 3D09; or permission of the instructor
Prerequisite: SOC WORK 4G03, 4T03
Enrolment is limited.

SOCILOGY

WEB ADDRESS:
http://www.mcmaster.ca/socsocdocs/socchome.htm

Faculty as of January 15, 2001

Chair
Victor Satzewich

Professors
W. Peter Archibald/B.A. (Mt. Allison), M.A. (British Columbia), Ph.D. (Michigan)
Carl J. Cuneo/B.A., M.A., Ph.D. (Waterloo)
John Fox/B.A., M.A., Ph.D. (Michigan)
Cynthia H. Levine/B.A., M.A., Ph.D. (Freie Universität, Berlin)
Carolyn Rosenenthal/B.A. (Toronto), M.A., Ph.D. (McMaster)
V. Satzewich/B.A., M.A. (Saskatchewan), Ph.D. (Glasgow)
William B. Shuttle/B.A., M.A., Ph.D. (McGill)
Vivienne Walters/B.A., M.A. (Sheffield), Ph.D. (McGill)

Associate Professors
Ant Budros/B.A. (San Jose State), M.A. (UCLA), Ph.D. (UCLA)
Scott Davies/B.A. (Toronto), M.A. (McMaster), Ph.D. (Toronto)
Margaret Daren/B.A., M.A., Ph.D. (McMaster)
Graham K. Knight/B.A. (Kent), M.A., Ph.D. (Carleton)
Rhonda Lenton/B.A. (Winnipeg), M.A. (Manitoba), Ph.D. (Toronto)
Charlene Mai/B.A. (Ottawa), M.A. (Calgary), Ph.D. (York) (Toronto)
Jack Richardson/B.A., M.A., Ph.D. (Toronto) (part-time)
Robert H. Storey/B.A. (Toronto), M.A. (Dalhousie), Ph.D. (Toronto)
Pamela Sugman/B.A., M.A., Ph.D., (Toronto)
Jane Syng/M.A. (Aberdeen), Ph.D. (London)

Assistant Professors
Neil McLaughlin/B.A., M.A. (Cleveland State), Ph.D. (City University of New York)
Dorothy Pawluch/B.A. (Laurentian), M.A., Ph.D. (McGill)

Associate Members
Jane Aronson/Social Work) B.Sc. (New Univ. of Ulster) B.S.W., M.S.W. (McGill), Ph.D. (Toronto)
Ray Cain/Social Work) B.S.W., M.S.W., Ph.D. (McGill)
C. Charles (Clinical Epidemiology and Biostatistics) B.A., M.A. (Toronto), M.Phil, Ph.D. (Columbia)
SOCIOL 2V06  SOCIOLOGY OF ORGANIZATIONS I
A theoretical and empirical analysis of formal and informal organizational structures and processes in the major sectors of modern industrial society. Three hours (lectures and discussion); two terms
Prerequisite: SOCIOl 1A06
Cross-list: LABR ST 2106
Antirequisite: LABR ST 2103, 3103, SOCIOl 2103
SOCIOl 2P06  SOCIOLOGY OF EDUCATION
A comprehensive analysis of educational institutions in modern society. Three hours (lectures and discussion); two terms
Prerequisite: SOCIOl 1A06
Enrolment is limited.

SOCIOl 2R03  THEORIES OF CLASS AND STRATIFICATION
This course will introduce the student to major theories of social inequality, such as the Marxist, Weberian and structural-functionalist perspectives. Three hours (lecture and discussion); one term
Prerequisite: SOCIOl 1A06
Antirequisite: SOCIOl 2006

SOCIOl 2R3  EMPIRICAL STUDIES OF CLASS AND STRATIFICATION
This course will introduce the student to the empirical literature on social inequality. Depending on the year, the focus will be on class, status, power and ethnicity, income, education, region, age, gender and race/ethnicity. Three hours (lecture and discussion); one term
Prerequisite: SOCIOl 1A06. SOCIOl 2R03 is strongly recommended. Antirequisite: SOCIOl 2006

SOCIOl 2S06  INTRODUCTION TO SOCIOLOGICAL THEORY
An introduction to the foundations, rise and development of sociological theory. Three hours (lectures and discussion); two terms
Prerequisite: SOCIOl 1A06 and registration in any programme in Sociology. Antirequisite: SOCIOl 2Q06, 3A06

SOCIOl 2U06  SOCIOLOGY OF THE FAMILY
An analysis of kinship and family units in comparative, historical, and contemporary perspective. Three hours (lectures and discussion); two terms
Prerequisite: SOCIOl 1A08
Enrolment is limited.

SOCIOl 2V06  OCCUPATIONS AND PROFESSIONS
An examination of the occupational structure of industrial society, the changing nature of work, and problems associated with such change. Three hours (lectures and discussion); two terms
Prerequisite: SOCIOl 1A06

SOCIOl 2X03  PSYCHOANALYTIC APPROACHES TO LITERARY TEXTS
The basic assumptions and methods of psychoanalytic criticism will be studied with reference to selected texts in drama, fiction and poetry from Shakespeare to the present. Three lectures; one term
Prerequisite: Registration in Level II and above
Cross-list: ENGLISH 3B03

SOCIOl 2Z03  INTRODUCTION TO SOCIOLOGICAL RESEARCH
This course is designed to develop those skills necessary to pursue and understand research. Several general methods of sociological research will be examined. Three hours (lectures and discussion); one term
Prerequisite: Registration in any programme in Sociology or Social Work
Cross-list: ANTHROP 2Z03
Antirequisite: GEO 2HR3, GERCNTL 2C03, HEALTHST 2B03

SOCIOl 3A03  EUROPEAN SOCIOLOGICAL THEORY
An advanced examination of classical and contemporary European sociological theory. Three hours (lectures and discussion); one term
Prerequisite: SOCIOl 2S06 and registration in Level III or IV of an Honours Sociology programme
Enrolment is limited. However, the Department of Sociology guarantees that all third and fourth level Honours Sociology students will have access to either this course, SOCIOl 3P03 or 3PP3.
SOCIOLOGY

SOCIO 3AA3  SOCI OCY OF MASS MEDIA
The development of the mass media (the press, magazines, radio, television), with particular attention to their social organization, how information and news are produced, and effects upon social attitudes and behaviour.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOL 1A06 and registration in any Social Sciences programme
Enrolment is limited.

SOCIO 3B03  SELECTED TOPICS IN THE SOCIOLOGY OF EDUCATION
An examination of selected topics in the sociology of education.
Three hours (lectures and discussion); one term
Prerequisite: At least 18 units of Sociology
Enrolment is limited.

SOCIO 3CC3  SPECIAL TOPICS IN THE SOCIOLOGY OF THE FAMILY AND THE LIFE CYCLE
An advanced course allowing detailed study of the family and the life cycle. Special attention will be paid to the mid and later years.
Three hours (lecture and discussion); one term
Prerequisite: SOCIOL 2U06 or registration in a Combined Honours in Sociology and Gerontology programme
Alternates with SOCIOL 3D03.
Enrolment is limited.

SOCIO 3D03  SPECIAL TOPICS IN THE SOCIOLOGY OF THE FAMILY
An advanced course allowing detailed study of selected topics in the sociology of the family.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOL 2U06
Alternates with SOCIOL 3CC3.
Enrolment is limited.

SOCIO 3E03  SELECTED TOPICS IN THE SOCIOLOGY OF WOMEN
An advanced course allowing detailed study of selected topics in the sociology of women.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOL 1A06 and 2U06
Enrolment is limited.

SOCIO 3G03  SOCIOLOGY OF HEALTH CARE
Selected issues concerning forms of providing health care.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOL 1A06
Enrolment is limited.

SOCIO 3G03  SPECIAL TOPICS IN THE SOCIOLOGY OF DEVIANCE
An advanced course allowing detailed study of selected topics in the Sociology of Deviance. Topics will vary from year to year.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOL 2U06
SOCIO 3G03 may be repeated, if on a different topic, to a total of six units.
Enrolment is limited.

SOCIO 3H06  RESEARCH TECHNIQUES AND DATA ANALYSIS
A comprehensive introduction to statistical principles of research design and data analysis in the social sciences.
Three hours (lectures and labs); two terms
Prerequisite: Registration in any programme in Sociology. Students in Honours Anthropology, Gerontology and Labour Studies will have second priority.
Not open to students with credit or registration in any six units of Research Methods as prescribed by all other Social Science programmes: SOCIOL 2Y03; all STATS courses except 1A03, 1L03, 2D03, 3SO3, 3JU3, 4H03
Enrolment is limited.

SOCIO 3H03  SOCIOLOGY OF HEALTH
Sociological approaches to the study of health and illness.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOL 1A06
Enrolment is limited.

SOCIO 3I03  SURVEY METHODS
An introduction to survey research methods in the social sciences, including issues of research design, data collection, and data analysis.
Three hours (seminar and discussion); one term
Prerequisite: SOCIOL 2SP06 and registration in any Honours Sociology programme.
Alternates with SOCIOL 3I03.
Enrolment is limited. However, the Department of Sociology guarantees that all Third and Fourth Level Honours Sociology students will have access to either this course, SOCIOL 3A03 or 3PP3.

SOCIO 3J03  SPECIAL TOPICS IN SOCIOLOGICAL ANALYSIS I
An examination of selected topics of contemporary interest to sociologists. Students should consult the Department concerning the topics to be examined.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOL 1A06
SOCIO 3J03 may be repeated, if on a different topic.
Enrolment is limited.

SOCIO 3K03  SPECIAL TOPICS IN SOCIOLOGICAL ANALYSIS II
Same as SOCIOL 3J03.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOL 1A06
SOCIO 3K03 may be repeated, if on a different topic.
Enrolment is limited.

SOCIO 3K03  GENOCIDE: SOCIOLOGICAL AND POLITICAL PERSPECTIVES
An examination of genocide and other extreme crimes against humanity.
Three hours (lectures and discussion); one term
Cross-list: POL SCI 3K03
Prerequisite: SOC SCI 2C03
Enrolment is limited.

SOCIO 3L03  SELECTED TOPICS IN OCCUPATIONAL SOCIOLOGY
An advanced course allowing detailed study of one or more topics of special interest in the sociology of occupations.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOL 1A06
Enrolment is limited.

SOCIO 3L03  SOCIOLOGY OF WORK AND LABOUR MARKETS
A consideration of the manner in which labour markets are structured and how they influence the access that people have to employment.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOL 1A06
Enrolment is limited.

SOCIO 3M03  SOCIOLOGY OF KNOWLEDGE AND CULTURE
An analysis of the origins, development and functions of ideas, images, and other cultural representations through which knowledge about society, its institutions and practices is formed, distributed and used.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOL 1A06
Enrolment is limited.

SOCIO 3N03  QUALITATIVE RESEARCH METHODS
This course will provide a detailed study of selected qualitative methods in Sociology.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Honours Sociology
Enrolment is limited. However, the Department of Sociology guarantees that all Level III and Level IV Honours Sociology students will have access to either this course, SOCIOL 3N03 or 3W03.

SOCIO 3P03  AMERICAN SOCIOLOGICAL THEORY
An advanced examination of classical and contemporary American sociological theory.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOL 2SP06 and registration in Level III or IV of an Honours Sociology programme.
Alternates with SOCIOL 3PP3.
Enrolment is limited. However, the Department of Sociology guarantees that all Third and Fourth Level Honours Sociology students will have access to either this course, SOCIOL 3A03 or 3PP3.
SOCIOL 3PP3  CANADIAN SOCIOLOGICAL THEORY
An examination of the more or less unique contributions of English Canadians to sociological theory. Emphasis is on the Toronto school, and its left-nationalist provenance and critiques.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOL 2S06 and registration in Level III or IV of an Honours Sociology programme.
Alternates with SOCIOL 3P03.
Enrolment is limited; however, the Department of Sociology guarantees that all Third and Fourth Level Honours Sociology students will have access to either this course, SOCIOL 3A03 or 3P03.

SOCIOL 3W03  HISTORICAL METHODS IN SOCIOLOGY
An examination of methods for incorporating historical data and archival sources into sociological argument.
Three hours (seminar and discussions); one term
Prerequisite: Registration in Honours Sociology
Enrolment is limited. However, the Department of Sociology guarantees that all Third and Fourth Level Honours Sociology students will have access to either this course, SOCIOL 3I03 or 3O03.

SOCIOL 3X03  SOCIETY OF AGING
This course deals with changing population structure, economic support of the aged, family of later life, the sociology of retirement, widowhood, death, bereavement, and institutionalization.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOL 1A06
Not open to students registered in a Gerontology programme as of September 1998.
Enrolment is limited.

SOCIOL 3203  ETHNIC RELATIONS
An analysis of political, social and economic change in selected locales.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOL 1A06
Enrolment is limited.

SOCIOL 4A03  ETHNIC/RACIAL TENSIONS
The course will investigate the processes by which racial and/or ethnic tensions develop in various societies.
Three hours (seminar); one term
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.
Enrolment is limited.

SOCIOL 4AA3  SELECTED TOPICS IN THE SOCIOLOGY OF THE FAMILY
An intensive examination of selected problems in the sociology of the family.
Three hours (seminar); one term
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.
Not open to students with credit in SOCIOL 4GG3, SPECIAL TOPICS IN THE SOCIOLOGY OF DEVIANCE, if on a similar topic.
Enrolment is limited.

SOCIOL 4B06  FIELD STUDY METHODOLOGY
This course provides students with an opportunity to engage in first-hand sociological research using field study methods, particularly participant observation.
Three hours (seminar); two terms
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.

SOCIOL 4BB3  SELECTED TOPICS IN THE SOCIOLOGY OF EDUCATION
This advanced course offers an intensive examination of selected problems involving the relationship between schooling and society.
Three hours (seminar); one term
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.
Not open to students with credit in SOCIOL 4JJ3, SELECTED TOPICS IN SOCIOLOGY I, or SOCIOL 4K03, SELECTED TOPICS IN SOCIOLOGY II, if on a similar topic.
Enrolment is limited.

SOCIOL 4C03  SELECTED PROBLEMS IN QUANTITATIVE RESEARCH
Students will undertake a class project that involves the application of statistical methods to a research problem.
Three hours (seminar); one term
Prerequisite: SOCIOL 3H06 and registration in Level IV Honours Sociology.
Students wishing to register in this course must seek the permission of the Department.
Antirequisite: SOCIOL 4C06
Enrolment is limited.

SOCIOL 4D03  CRITIQUES OF SOCIOLOGICAL THEORY
A discussion of various sociological and non-sociological critiques of sociological theory.
Three hours (seminar); one term
Prerequisite: SOCIOL 2S06 and registration in Level IV Honours Sociology.
Students wishing to register in this course must seek the permission of the Department.
Enrolment is limited.

SOCIOL 4E03  SELF AND IDENTITY
A consideration of theoretical and empirical questions relating to self and identity viewed from historical, cross-cultural and cross-disciplinary perspectives.
Three hours (seminar); one term
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.
Enrolment is limited.

SOCIOL 4F03  THE SOCIAL PRODUCTION OF ILLNESS
An examination of the social bases of illness. In different years consideration may be given to topics such as gender, social class and occupational and environmental health issues.
Three hours (seminar); one term
Enrolment is limited.

SOCIOL 4G03  SPECIAL TOPICS IN THE SOCIOLOGY OF DEVIANCE
An advanced course allowing detailed study of selected topics in the Sociology of Deviance. Topics will vary from year to year.
Three hours (seminar); one term
Prerequisite: SOCIOL 2C06 and registration in Level IV Honours Sociology.
Students wishing to register in this course must seek the permission of the Department.
SOCIOL 4G03 may be repeated, if on a different topic, up to a total of six units.
Enrolment is limited.

SOCIOL 4H03  SELECTED TOPICS IN THE SOCIOLOGY OF ORGANIZATIONS
An advanced course allowing detailed study of aspects of organizational analysis of special interest.
Three hours (seminar); one term
Prerequisite: One of SOCIOL 2D03, 2I06 and registration in Level IV Honours Sociology.
Students wishing to register in this course must seek the permission of the Department.
Enrolment is limited.

SOCIOL 4J03  SELECTED TOPICS IN SOCIOLOGY I
Topics of contemporary interest to sociologists, with emphasis upon current theory and research. Students should consult the Department concerning the topics to be examined.
Three hours (seminar); one term
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.
SOCIOL 4J03 may be repeated, if on a different topic.
Enrolment is limited.

SOCIOL 4J13  SOCIOLOGY OF CYBERSPACE/INTERNET
The purpose of this course is to examine the economic, political, and social organization of the Internet, and its social effects, in such areas as education, work, and leisure.
Three hours (seminar); one term
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.
NOTE: Students entering this course should be well-versed in basic Internet navigation skills, such as the use of e-mail, usenet, listservs, and the World Wide Web. Such skills are required to complete the research paper using Internet electronic sources of information.
Enrolment is limited.

SOCIOL 4K03  SELECTED TOPICS IN SOCIOLOGY II
Topics of contemporary interest to sociologists, with emphasis upon current theory and research. Students should consult the Department concerning the topics to be examined.
Three hours (seminar); one term
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.
SOCIOL 4K03 may be repeated, if on a different topic.
Enrolment is limited.
SOCIOl 4M03  DIRECTED RESEARCH I  
FOR HONOURS STUDENTS  
Directed study of a research problem through published materials and/or field inquiry and/or data analysis. Students will be required to write up the results of their inquiry in a scholarly form.  
One term  
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.  

SOCIOl 4M05  DIRECTED RESEARCH II  
FOR HONOURS STUDENTS  
Directed study of a research problem through published material and/or field inquiry and/or data analysis. Students will be required to write up the results of their inquiry in a scholarly form.  
Two terms  
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.  

SOCIOl 4N03  DIRECTED RESEARCH III  
FOR HONOURS STUDENTS  
Same as SOCIOl 4M03.  
One term  
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.  

SOCIOl 4P03  ISSUES IN THE SOCIOLOGY OF AGING  
A study of selected issues in the sociology of aging such as sociodemographic changes, changes in the family, social and health services, retirement, political economy, and theoretical approaches in aging.  
Three hours (seminar); one term  
Prerequisite: One of SOCIOl 3X03 or GERONTOL 1A06; and registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.  
Antirequisite: SOCIOl 4P03  
Enrolment is limited.  

SOCIOl 4Q03  INDIVIDUAL AND SOCIETY I  
An intensive examination of selected problems involving the relationship of individuals to social structures.  
Three hours (seminar); one term  
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.  

SOCIOl 4R03  INDIVIDUAL AND SOCIETY II  
An intensive examination of selected problems involving the relationship of individuals to social structures.  
Three hours (seminar); one term  
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.  

SOCIOl 4U03  SPECIAL TOPICS IN THE SOCIOLOGY OF WOMEN  
An intensive examination of selected problems concerning women. Depending upon the instructor, topics may include: stratification, inequality, political participation, sexuality, health and work.  
Three hours (seminar); one term  
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.  
SOCIOl 4U03 may be repeated, if on a different topic, to a total of six units.  
Enrolment is limited.  

SOCIOl 4V03  ISSUES IN THE SOCIOLOGY OF OCCUPATIONS AND THE PROFESSIONS  
An advanced course allowing detailed study of one or more topics of special interest.  
Three hours (seminar); one term  
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.  

SOCIOl 4W03  SOCIAL PROBLEMS  
The focus of the course will be theories concerning social problems or an empirical examination of specific issues that have become the object of public debate and discussion.  
Three hours (seminar); one term  
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.  

SOCIOl 4X03  LABOUR AND SOCIETY  
The course will focus on the emergence of labour organizations during the course of modernization and the factors determining the political outlook of labour.  
Three hours (seminar); one term  
Prerequisite: Registration in Level IV Honours Sociology. Students wishing to register in this course must seek the permission of the Department.  
Enrolment is limited.  

SOFTWARE ENGINEERING  
(SEE COMPUTING AND SOFTWARE)  

SPANISH  
(SEE MODERN LANGUAGES AND LINGUISTICS, HISPANIC STUDIES)  

STATISTICS  
(SEE MATHEMATICS AND STATISTICS)  

TECHNOLOGY  
(SEE MANUFACTURING TECHNOLOGY AND ENGINEERING TECHNOLOGY)  

THEME SCHOOL ON GLOBALIZATION, SOCIAL CHANGE AND THE HUMAN EXPERIENCE  

Faculty as of January 15, 2001  

Director  
William Coleman (Political Science)  
Caroline Bayard (French and Philosophy)  
Kenneth Chen (Economics)  
Daniel Coleman (English)  
Jasmin Habib (Postdoctoral Fellow)  
Graham Knight (Sociology)  
Gary Madison (Philosophy)  
Susie O'Brien (English)  
Tony Porter (Political Science)  
Peta Rethmann (Anthropology)  
Geoffrey Rockwell (Modern Languages and Linguistics)  
William Scarth (Economics)  
Stephen Streeter (History)  
Imre Szeman (English)  
John Weaver (History)  
Jean Wilson (Modern Languages and Linguistics)  

Note:  
The last intake for this Theme School was September 1999. Students not enrolled in the Theme School, but interested in taking Theme School courses as electives are welcome and can gain entry to the courses through permission of the Director or the instructor. For information on the Theme School on Globalization, Social Change and the Human Experience, see Theme Schools section of this Calendar.
THEME SCHOOLS

Courses

GSCH 3H03 ECONOMIC ISSUES IN THE ASIA-PACIFIC REGION
An examination of the economic conditions and factors influencing economic growth in selected countries in the Asia-Pacific region. Topics include government policies pertinent to trade, exchange rates and development, and the institutional and cultural aspects of business practices in Southeast Asia.
Three hours (seminar)
Prerequisite: GSCH 2A06 or permission of the Director
Preference will be given to Level III or IV Theme School students.

GSCH 4C03 GLOBALIZATION, TRADE AND ECONOMIC DEVELOPMENT
This course examines the economic impacts in developing countries of exports, effective protection, commercial policies, financial development, regionalism and direct investments.
Three hours (seminar)
Prerequisite: GSCH 2A06 or permission of the Director
Preference will be given to Level III or IV Theme School students.

GSCH 4D03 SPECIAL TOPICS IN GLOBALIZATION, SOCIAL CHANGE AND THE HUMAN EXPERIENCE I
Topics will vary from year to year.
Three hours (seminar)
Prerequisite: GSCH 2A06 or permission of the Director
Preference will be given to Level III or IV Theme School students.

GSCH 4E03 SPECIAL TOPICS IN GLOBALIZATION, SOCIAL CHANGE AND THE HUMAN EXPERIENCE II
Topics will vary from year to year.
Three hours (seminar)
Prerequisite: GSCH 2A06 or permission of the Director
Preference will be given to Level III or IV Theme School students.

GSCH 4G03 VIOLENT CONFLICT AND THE GLOBAL RESPONSE
An examination of conflict theories and the complex connections of local actions and global responses, including the role of the global media and transnational peace and human rights NGOs working in conflict sites. Particular emphasis will be on the Middle East.
Three hours (seminar)
Prerequisite: GSCH 2A06 or permission of the Director
Preference will be given to Level III or IV Theme School students.

GSCH 4H03 HISTORY OF THE VIETNAM WAR
The history of the First and Second Indochina Wars (1945-1973) is examined from multiple perspectives. Explores how and why the war was fought, as well as its global legacy.
Three hours (seminar)
Prerequisite: GSCH 2A06 or permission of the Director
Preference will be given to Level III or IV Theme School students.

The last Intake for this Theme School was September 1999. Students not enrolled in the Theme School, but interested in taking Theme School courses as electives are welcome and can gain entry to the courses through permission of the Director. For further information on the Theme School on Science, Technology and Public Policy, see Theme Schools section of this Calendar.

Note:

Courses

STPP 4B03 PUBLIC POLICY AND DRUG USE
The interactive roles of science, history, law, and politics in the formulation of policy with respect to the use of illicit drugs.
Three hours (lectures, discussion, group projects, seminars); one term
Prerequisite: STPP 2A06 or permission of the Director
Preference will be given to Level IV Theme School students.

STPP 4C03 SPECIAL TOPICS IN SCIENCE, TECHNOLOGY AND PUBLIC POLICY
2001-2002: The Internet, Society and Change
The Internet in terms of government, corporate and community policies, the social participation of individuals and groups, and societal consequences, such as in education and work. Research conducted using the Internet as a resource. Some Internet skills assumed.
Three hours (lectures, discussion, group projects, seminars); one term
Prerequisite: STPP 2A06 or permission of the Director
Preference will be given to Level IV Theme School students.

STPP 4D03 SPECIAL TOPICS IN SCIENCE, TECHNOLOGY AND PUBLIC POLICY
2001-2002: Technology, Policy and Development
The course explores the dilemma of policies about technology which assist development but at the same time create inequalities in developing countries. One term
Prerequisite: STPP 2A06 or permission of the Director
Preference will be given to Level IV Theme School students. STPP 4D03 may be repeated, if on a different topic.

WOMEN'S STUDIES

WEB ADDRESS: http://www.humanities.mcmaster.ca/~womensst
Office of Interdisciplinary Studies
Togo Salmon Hall, Room 726
Ext. 23112

The Honours B.A. Women's Studies and Another Subject Programme is taught by an interdisciplinary Committee of Instruction.

Director
Elisabeth Boetzkes (Philosophy) B.A., M.A. (Alberta), Ph.D. (Calgary), MTh. (Newman Theological College)

Academic Advisory Committee
Maroussia Ahmed (French) L. ès L., M. ès L., D. de l'U (Paris-Sorbonne)
Jane Aronson (Social Work) B.Sc. (New University of Ulster), B.S.W., M.S.W. (McGill), Ph.D. (Toronto)
Donna Baines (Labour Studies) B.S.W. (Calgary), M.S.W. (Carleton), Ph.D. (Toronto)
Nancy Bouchier (Kinesiology) B.A., M.A., Ph.D. (Western Ontario)
Sylvia Bowerbank (Arts & Science and English) B.A. (McMaster), B.Ed. (Toronto), M.A. (Simon Fraser), Ph.D. (McMaster)
Vera Chouinard (Geography) B.A. (Western Ontario), M.A. (Toronto), Ph.D. (McMaster)
Patricia M. Daenzer (Social Work) B.A., B.S.W. (York), M.S.W., Ph.D. (Toronto)
Joanne Fox-Threlkild (Nursing) B.N. (New Brunswick), M.Sc., Ph.D. (Queen's), R.N.
Ruth Frager (History) B.A. (Rochester), M.A., Ph.D. (Toronto)
Kathy Garay (Archives) B.A. (East Anglia), M.A. (McMaster), Ph.D. (Toronto)
Donald Goalnicht (English) B.A. (Queen's), M.A., Ph.D. (McMaster)
Janice Hladik (York) B.A., M.A., Ph.D. (Toronto)
Rhonda Lenton (Sociology) B.A. (Winnipeg), M.A., Ph.D. (Toronto)
Mary O'Connor (English) B.A. (McGill), M.A., Ph.D. (Toronto)
Brigitte Sassen (Philosophy) B.A. (Toronto), M.A., Ph.D. (Pennsylvania State)
Mark Vorobej (Carleton), M.A., Ph.D. (Toronto)
L. Vosko (Labour Studies) B.A. (Trent), M.A. (Simon Fraser), Ph.D. (York)
Jean Wilson (Modern Languages and Linguistics) B.A. (McMaster), B.Ed., M.A., Ph.D. (Toronto)

Faculty as of January 15, 2001

Director
Robert Hudspith (Mechanical Engineering)
Alex Berezin (Engineering Physics)
Barbara Carroll (Political Science)
Carl Cuncic (Sociology)
And Jurgensen (Theme School) part-time
Travis Kroeker (Religious Studies)
Shepard Siegel (Psychology)
Bradley White (Biology)
Committee of Instruction as of January 15, 2001

Maureen Connolly/B.P.E., M.P.E. (Memorial), Ph.D. (Alberta)
Nicolete DiFrancesco/B.A. (Carleton), M.A. (McMaster)
Ruth Fraser (History) B.A. (Rochester), M.A., Ph.D. (Toronto)
Naim Galvin/B.A., M.A. (McMaster)
Kathy Garvey/Archives) B.A. (East Anglia), M.A., Ph.D. (Western Ontario)
Janice Hadiki/B.A. (York), M.A. (Toronto), Ph.D. (Toronto)
Grace Kehler/B.A. (Regina), M.A., Ph.D. (Western Ontario)
Carole LeClair/B.A. (McMaster), M.A. (Guelph)
Katarzyna Rukstzio/B.A., M.A. (York)
Patricia Simpson/B.A., M.Ed. (Toronto)
Lorraine York/English) B.A., M.A., Ph.D. (McMaster)
Isik Zeytinoglu (Business) B.A., M.A., M.S., Ph.D. (Pennsylvania)

WOMEN'S STUDIES

WOMEN ST 1A06 WOMEN IN CANADIAN SOCIETY
An interdisciplinary introduction to Women's Studies, focusing on critical analysis of women's position in Canadian society. Possible areas of enquiry include health, law, sexualities, spirituality, history, work, literature and the arts.
Three hours (two lectures, one tutorial); two terms
Prerequisite: Registration in Level II
Note: Some background in Biology is recommended.

WOMEN ST 2A03 HISTORY OF WOMEN AND SOCIAL MOVEMENTS
The course explores the history of women's collective efforts to improve social conditions.
Three hours (seminar and discussion); one term
Prerequisite: WOMEN ST 1A06 or permission of the Director of Women's Studies
Antirequisite: WOMEN ST 2A06

WOMEN ST 2A03 FEMINIST THEORIES
An introduction to the range of feminist theories and their epistemological foundations.
Three hours (seminar and discussion); one term
Prerequisite: WOMEN ST 1A06 or permission of the Director of Women's Studies
Antirequisite: WOMEN ST 3A06

WOMEN ST 2B06 WOMEN'S ROLE IN WESTERN EUROPEAN SOCIETY
An examination of the contribution of women to Western European society from classical times to the early twentieth century. Whether examined from a historical, sociological or cultural perspective, the female role is seen in relation to major political changes taking place during this period.
Prerequisite: Registration in Level II and above
Cross-list: HISTORY 2B06
This course is administered by the Department of History.

WOMEN ST 2C03 PERSPECTIVES ON GENDER
An interdisciplinary overview of debates and research on the shaping of gender identity.
Three hours (seminar and discussion); one term
Prerequisite: Registration in Level II and above. WOMEN ST 1A06 is recommended.
Antirequisite: WOMEN ST 2C06

WOMEN ST 2D03 WOMEN AND TECHNOLOGY
An attempt to situate women within technological change, focusing on theoretical aspects of technology, new gender theorists and feminist assessment strategies. Includes an introduction to women's Internet resources.
Three hours (seminar and discussion); one term
Prerequisite: Registration in Level II and above

WOMEN ST 2H03 REPRODUCTIVE BIOLOGY
A medical study of human reproductive anatomy and physiology, with particular emphasis on control and regulation of reproduction. Topics may include effects of stress, exercise and aging on the reproduction of both sexes.
Three hours; lectures, tutorials and guided reading; one term
Note: Since this course will be taken in conjunction with Nursing students, some background in Biology is recommended.
Prerequisite: Registration in Level II and above. WOMEN ST 1A06 is recommended.
Enrolment is limited

WOMEN ST 2H03 WOMEN'S HEALTH: A SOCIO-CULTURAL PERSPECTIVE
Topics may include biomedicine and social construction of gender, women as paid and unpaid health workers, consequences of discrimination for women's health and historical analysis of female healers.
Three hours (seminar and discussion); one term
Prerequisite: Registration in Level II and above. WOMEN ST 1A06 is recommended.
Antirequisite: SOCIO 4U03

WOMEN ST 2K06 STUDIES IN WOMEN WRITERS
A closely focused course on women's writing in English. The topic for the course varies, sometimes concentrating on specific issues, sometimes on an historical period or national literature. Relevant feminist theory is a component of the course.
Three hours; two terms
Prerequisite: WOMEN ST 1A06, or permission of the Director of Women's Studies
Cross-list: ENGLISH 2K06
This course is administered by the Department of English.

WOMEN ST 2L03 FEMINIST UTOPIAS
An examination of literary texts offering women's visions of social change.
Three hours (seminar and discussion); one term
Prerequisite: Registration in Level II and above. WOMEN ST 1A06 is recommended.

WOMEN ST 3A03 FEMINIST METHODS
This course critically examines a range of feminist methodologies, focusing on issues of power/knowledge/research.
Three hours (seminar and discussion); one term
Prerequisite: WOMEN ST 2A03, or permission of the Director of Women's Studies
Antirequisite: WOMEN ST 3A06

WOMEN ST 3A03 FEMINIST THEORIES AND RESEARCH
An advanced inquiry into feminist theory, as it shapes the conduct of knowledge production.
Three hours (seminar and discussion); one term
Prerequisite: WOMEN ST 2A03, or permission of the Director of Women's Studies
Antirequisite: WOMEN ST 3A06

WOMEN ST 3B03 IMAGES OF WOMEN: READING, ART, MEDIA, AND POPULAR CULTURE
2001-2002: Images of Women: Reading, Art, Media and Popular Culture
This course explores the roles of women in any one of the following fields: music, visual arts, film or theatre, whether as subjects or creators. Approaches may be practical, historical and/or theoretical, and interrelationships between the fields will be examined where appropriate.
Three hours (seminar and discussion); one term
Prerequisite: Registration in Level II and above. WOMEN ST 1A06 is recommended.
Cross-list: CMST 3X03
WOMEN ST 3B03 may be repeated, if on a different topic, to a total of six units.

WOMEN ST 3C03 WOMEN AND ECOLOGY
An exploration of women's roles in the ecology movement, examining the various meanings of ecofeminism. Possible areas of enquiry: environmental ethics, anti-militarism, earth-goddess religions and the nature/culture debate.
Three hours (seminar and discussion); one term
Prerequisite: Registration in Level II and above. WOMEN ST 1A06 is recommended.

WOMEN ST 3C03 WOMEN AND THE URBAN ENVIRONMENT
An interdisciplinary examination of women's experiences of urban living with a focus on such issues as women's responses to urban change, women's housing problems and struggles for socially safer environments.
Three hours (seminar and discussion); one term
Prerequisite: Registration in Level II and above. WOMEN ST 1A06 is recommended.

WOMEN ST 3D03 WOMEN IN CROSS-CULTURAL PERSPECTIVE
An interdisciplinary exploration of women's experiences in different cultures, examining social and historical conditions, and symbolic systems. Topics may include women and development, women's rights, reproductive freedom, women and religion.
Three hours (seminar and discussion); one term
Prerequisite: Registration in Level II and above. WOMEN ST 1A06 is recommended.
Cross-list: CMST 3W03
Antirequisite: WOMEN ST 3D06
WOMEN ST 3D03  WOMEN IN A MULTICULTURAL SOCIETY
An interdisciplinary exploration of women's experiences in sub-cultures
within a multicultural society, examining social and historical conditions,
policies, and personal narratives. Topics may include immigration, voice,
 mobility, identity, hybridity.
Three hours (seminar and discussion); one term
Prerequisite: Registration in Level II and above. WOMEN ST 1A06 is
recommended.
Cross-list: CMST 3WW3
Antirequisite: WOMEN ST 3D06

WOMEN ST 3E03  SPECIAL TOPICS IN WOMEN'S ISSUES
Three hours (seminar and discussion); one term
Prerequisite: Registration in Level II and above. WOMEN ST 1A06 is
recommended.
WOMEN ST 3E03 may be repeated, if on a different topic, to a total of six
units.

WOMEN ST 3G03  HISTORY OF WOMEN IN CANADA
AND THE U.S. TO 1920
This course examines key areas of women's history, such as indigenous
cultures, slavery, immigration, religion, "witchcraft", the family, sexuality,
paid and unpaid labour, and the first wave of the women's movement.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above
Cross-list: HISTORY 3W03
Antirequisite: WOMEN ST 3X03
This course is administered by the Department of History

WOMEN ST 3G03  HISTORY OF WOMEN IN CANADA
AND THE U.S. FROM 1920
This course examines key areas of women's history, such as the impact of
the Great Depression and the Second World War, the civil rights movement,
the sexual revolution, and the second wave of the women's movement.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II and above
Cross-list: HISTORY 3W03
Antirequisite: WOMEN 3X03
This course is administered by the Department of History

WOMEN ST 3I03  PHILOSOPHY AND FEMINISM
A study of philosophical issues in feminist thought.
Three hours; one term
Prerequisite: Registration in Level III or IV of any programme or six units
of Philosophy. WOMEN ST 1A06 is recommended.
Cross-list: PHILOS 3I03
Offered in alternate years.
This course is administered by the Department of Philosophy.

WOMEN ST 3I06  GERMAN WOMEN WRITERS
A study of selected works by German women writers from the eighteenth
century to the present.
Three lectures (seminar and discussion); one term
Prerequisite: Registration in Level II and above
Cross-list: COMP LIT 3W03
This course is administered by Comparative Literature.

WOMEN ST 4A03  INDEPENDENT RESEARCH
Students develop their own research projects, in regular conversation with
a faculty supervisor. Upon completion, students present their results at a
one-day open forum, and submit a written report.
Prerequisite: Registration in Level IV of the Women's Studies Programme

WOMEN ST 4B03  TOPICS IN WOMEN AND THE ECONOMY
An analysis of economic policies and realities as they impact on women's
lives. Topics may include women's access to capital, the distribution of
wealth, access to health care, poverty and aging, and employment.
Three hours (seminar and discussion); one term
Prerequisite: Registration in Level III or IV of the Combined Honours in Wom-
en's Studies Programme, or permission of the Director of Women's Studies
Antirequisite: WOMEN ST 4B06
Enrolment is limited.

WOMEN ST 4B03  TOPICS IN WOMEN AND THE STATE
An analysis of the role of the State in Canadian social policies, including the
responses of law, labour, education, immigration or health to women in Canada.
Three hours (seminar and discussion); one term
Prerequisite: Registration in Level III or IV of the Combined Honours in Women's
Studies Programme, or permission of the Director of Women's Studies
Antirequisite: WOMEN ST 4B06
Enrolment is limited.

WOMEN ST 4B13  GENDER ISSUES IN BUSINESS
This course discusses the successes and challenges of women in business
in an international context, across various professions and as entrepreneurs
and business owners.
Prerequisite: Registration in Level III or IV of the Combined Honours in
Women's Studies Programme
Cross-list: COMMERCE 4B13
Enrolment is limited.

WOMEN ST 4C03  TOPICS IN FEMINIST SCHOLARSHIP:
WOMEN IN CANADA
An intensive seminar in a field reflecting the instructor's research inter-
est. Students benefit from current scholarship, and learn research methods
temporary to those used in WOMEN ST 4A06.
Three hours; one term
Prerequisite: Registration in Level III or IV of the Combined Honours in
Women's Studies Programme, or permission of the Director of Women's
Studies
Antirequisite: WOMEN ST 4C06
Enrolment is limited.

WOMEN ST 4C03  TOPICS IN FEMINIST SCHOLARSHIP:
WOMEN IN AN INTERNATIONAL CONTEXT
An intensive seminar in a field reflecting the instructor's research interests.
Students benefit from current scholarship, and learn research methods
complementary to those used in WOMEN ST 4A06.
Three hours; one term
Prerequisite: Registration in Level III or IV of the Combined Honours in
Women's Studies Programme, or permission of the Director of Women's
Studies
Antirequisite: WOMEN ST 4C06
Enrolment is limited.

Note:
The following courses, offered by other departments, may be used to help
fulfill Women's Studies programme requirements, provided that the prereq-
quisite requirements of the home department are fulfilled:

ANTHROP 2R03  Religion, Magic, and Witchcraft
ANTHROP 3R03  The Anthropology of Gender
COMP LIT 4E03  Topics in Comparative Literature (when the topic
is Twentieth-Century Women Writers)
HISTORY 4H06  Canadian Women's History
HUMAN 2F03  Selected Interdisciplinary Topics in Medieval Life
KINESIOL 4T03  Gender, Sport and Leisure
LABR ST 2D03  Different Labours, Different Voices
LABR ST 3E03  Women, Work and Trade Unionism
RELIG ST 2B03  Women in the Biblical Tradition
RELIG ST 2B03  Images of the Divine Feminine
RELIG ST 2S03  Women and Religion
SOC WORK 4R03  Social Work with Women
SOCIOI 2W06  Sociology of Gender
SOCIOI 2J06  Sociology of the Family
SOCIOI 3D03  Special Topics in the Sociology of Women
SOCIOI 3E03  Selected Topics in the Sociology of Women
SOCIOI 3X03  Sociology of Aging
SOCIOI 4U03  Special Topics in the Sociology of Women
ACADEMIC FACILITIES,
STUDENT SERVICES
AND ORGANIZATIONS

ACADEMIC FACILITIES

THE UNIVERSITY LIBRARY

Web Address
http://www.mcmaster.ca/library/

E-mail Address
libinfo@mcmaster.ca (Business, Humanities, Social Sciences, Science and Engineering)
library@fhs.mcmaster.ca (Health Sciences)

University Librarian
Graham R. Hill, B.A., M.A., M.L.S.

Systems Development
Marju Drynan, B.A., M.S./Associate University Librarian

Health Sciences Library
Dorothy Fitzgerald, B.A., M.L.S./Director

Reader Services
Sheila Pepper, B.A., M.A., B.L.S./Assistant University Librarian

Thode Library of Science and Engineering
Kathryn Ball, B.A., M.L.S./Librarian

Innis Library
Vivian Lewis, B.A., M.L.S./Librarian

Collections Management and Development
Charlotte Stewart, B.A., M.A., M.L.S./Assistant University Librarian

Bibliographic Services
Cheryl Martin, B.Mus., M.A., M.L.I.S.

Administrative Services
Mary Ruth Linkert/Administrator

The University Library System consists of Mills Memorial Library (Humanities and Social Sciences), the Innis Library in Kenneth Taylor Hall, containing a collection of business materials, the H.G. Thode Library of Science and Engineering, and the Health Sciences Library in the Health Sciences Centre. An on-line catalogue covering the holdings of all libraries is available and stacks are open to all library users.

The collection in 2000 contained more than 1,875,000 volumes, 1,483,546 microform items, over 1,000 electronic journals and 11,386 linear feet of archival material. Current periodical titles number about 10,800.

To help readers, service is maintained at key Reference points in the various libraries and at the Data/Text Centre in Mills Library. Introductory library tours, subject-related seminars and instructional sessions in electronic tools are conducted. Pamphlets describing the hours and services of the different areas are available in each library and on the library's website.

Mills Library has several collections - Reference, Periodicals, Government Publications, Music and Maps, which contain materials of significance for both Undergraduates and Researchers; and Reserve, which is used mainly by Undergraduates.

The William Ready Division of Archives and Research Collections in Mills Library contains rare books, manuscripts and special book and archival collections, which afford many opportunities for original research. Of outstanding interest are the Bertrand Russell Archives, a massive collection of correspondence and manuscripts supported by books, journal articles, secondary literature, tapes, films and personal memorabilia.

The Eighteenth-Century Collection of British material numbers over 35,000 volumes and is the major Canadian collection in the field. Library fellowships in Eighteenth-Century Studies are offered annually. Among more modern materials are the papers of Vera Brittain, Anthony Burgess, Marian Engel, Robert Fulford, Farley Mowat, Peter Newman, Matt Cohen and many others.

Business interests are reflected in such files as the General Steel Wares Archives, the Macmillan of Canada Archives, the Clarke Irwin Archives, and the McClelland and Stewart Archives. Canadian social and political interests are documented in papers from the Canadian Union of Students, the Canadian Youth Congress, the SUPA/CUCIND papers and other related collections. There are holdings of the records of a number of labour unions, including USWA Local 1005, USWA, District 5, United Glass and Ceramic Workers (Canada), and the Hamilton and District Labour Council.

Publications

McMaster Library News

COMPUTING AND INFORMATION SERVICES (CIS)

Web Address
http://www.mcmaster.ca/cis

E-mail Address
helpline@mcmaster.ca

Assistant Vice-President, IST
Marvin Ryder, B.A., B.Sc., M.B.A.

Director, CIS
Pat O'Day, B.A.

Client Services-Research
Robin Griffin, B.Sc., Ph.D./Senior Manager

Data Services
Eric Matthews, B.A., B.Ed./Senior Manager

System Support
Brian McEntegart, B.Sc./Senior Manager

Client Services
Heather Grigg/Senior Manager

Administration
Barb Campbell, B.A./Senior Manager, Departmental

CIS provides computing services in support of both academic (instruction and research) and administrative activities. The facilities available for academic use include several microcomputer and workstation laboratories. CIS manages a campus-wide network which is linked to the Internet, allowing access to resources throughout the world. Administrative computing is run on an IBM S/390 system and several SUN UNIX systems. MUGS provides students access to their academic and personal data via the WWW.

Student computer laboratories for academic use, equipped with Pentiums, are located in the Burke Sciences Building, Rooms 240-245, the John Hodgins Engineering Building, Room 234, the Arthur Bourns Building, Room 166, Kenneth Taylor Hall, Rooms B110, B111, B120 and B123 and the Health Sciences Library. All labs provide access to the world wide web, popular wordprocessing and spreadsheet packages as well as various computing languages, statistical applications and specialized course software provided by instructors. Student consultants are available to assist customers in most of these computer labs. Assistance is also available in the Main CIS Office located in Arthur Bourns Building, Room 132. Each Faculty has a Service Coordinator, who is familiar with that Faculty's particular requirements, to assist faculty and student members and to undertake projects of interest to the Faculty.

Every undergraduate and graduate student can register for an account, free of charge, with full access to the Internet. Students may dial in from home using the enhanced modem pool. Rates are currently $0.50 per hour for 56k access and $0.40 for 33k access with full access to the WWW and email provided. A limited modem pool is also available free of charge. All of the McMaster residences have network wiring allowing students to access the Internet from the convenience of their room. This service is included in the residence fee.

In addition to the facilities operated by CIS, there is computer equipment located in Departments to support academic programmes.
CENTRE FOR LEADERSHIP IN LEARNING

- General Sciences Building, Room 217, ext. 24540

Web Address
http://www.mcmaster.ca/learning

E-mail Address
riseleys@mcmaster.ca

Academic Director
Dick Day, Ph.D.

Executive Director
Dale Roy, B.A., M.A.

Educational Consultants
Erika Kustra, Ph.D.

Administrative Assistant
Sylvia Riseley

The primary goal of the Centre for Leadership in Learning is to be a resource centre for people who teach at McMaster. The Centre serves individual instructors, departments, and other groups directly affecting teaching and learning at McMaster. Our main goals are:

1. To provide opportunities for faculty and graduate students to develop teaching skills and, in particular, to develop skills in self-directed learning, inquiry and other innovative teaching models.
2. To support faculty in investigating and using new technologies to enhance learning for our students.
3. To offer advice on policy and projects that support good teaching (e.g., award programmes and the evaluation of teaching).
4. To assist individual faculty members and groups of faculty in conducting educational research to understand how students learn and what makes for effective teaching within a university environment.
5. To support and encourage innovation.
6. To assist and support the testing and evaluation of new learning models that build upon the inquiry approach and other innovative teaching models pioneered by McMaster University.
7. To share our knowledge of best teaching practices in higher education to improve the quality of education locally, nationally and internationally.
8. To enable the circulation of teaching and learning insights.

The Centre's activities include:

- **The Inquiry Project:** The CLL assists and supports the development, evaluation and dissemination of the McMaster Inquiry Project as part of its larger Program for Active Learning. The central goal is to incorporate the concept of *student as active learner* throughout the entire undergraduate experience.

- **Learning Innovation Grants** These grants will assist faculty to develop teaching projects and innovative educational strategies and will support applied research into teaching and learning in higher education.

- The Centre invites applications for projects aimed at the improvement of teaching and learning at McMaster. Groups of individual instructors, teaching assistants, students, or departments may apply. Applications for grants up to $1,000 may be submitted at any time. Applications for grants over $1,000 are solicited annually, usually in January, with a deadline of mid-February. Detailed criteria are available on request.

- A Special Grant for New Faculty of $10,000 to refine courses after the first three years.

- Five Departmental Grants of $25,000/year will be available to assist major departmental initiatives that take place over several years.

- **Learning Technologies:** Characteristics of technology offer a new tool to promote learning, and to complement active and self-directed learning. The University proposes to establish a resource centre, and to create teaching space that can incorporate new technologies. The CLL will be able to put you in contact with people who have expertise in technology and its use in education.

- **Activities for Teaching Assistants:** The Centre plans to organize T.A. Day, a campus-wide welcome and orientation programme for teaching assistants. It also offers a series of mini-courses designed for graduate students who are about to apply for or take up their first position as a faculty member or a non-academic professional. The Centre also offers a credit course in teaching to help graduate students become familiar with the literature on university teaching and to develop some basic skills in the practical aspects of teaching.

Workshops, Seminars and Conferences: A wide variety of events are offered, conducted by McMaster faculty, visiting resource people and CLL staff. Generally, the topics are ones requested by instructors or departments and typically include subjects such as teaching large classes, self-directed learning, research on learning and teaching methods, lecturing, small group discussion, simulations and the use of technology in education.

**Library Resources:** The CLL Library is a collection of over 3,500 books, articles and journals on university teaching and learning. It is an excellent way to find ideas for improving and promoting active learning. You can visit the CLL library in the General Sciences Building, Room 217 between the hours of 9:00 a.m. and 5:00 p.m. Alternatively, you can use keywords to search much of our library from our web site.

CCL Home Page: A selection of teaching tips and other information about the CLL are available at the following website: http://www.mcmaster.ca/learning/

MCMOSTER MEDIA PRODUCTION SERVICES

Web Address
http://www.media.mcmaster.ca

E-mail Address
knowies@mcmaster.ca

AUDIO VISUAL DIVISION

- **Health Sciences Centre, Room 1G1, ext. 22301 or Burke Sciences Building, Room 2B31, ext. 22761**

McMaster Audio Visual Services provides a complete media service to faculty, staff and students at McMaster. These services include: television production, analog and digital editing and tape duplication; audio recording, tape and cassette editing, and high-speed tape duplication; A/V equipment distribution (all kinds of projectors, audio and video tape recorders, video/data projectors, etc.); film reservations; A/V equipment repair; creative services - for design, charts and graphs for publication, display or poster presentations, and digital imaging and CD production, colour laser prints and high-resolution 35mm colour slides; full line of desktop publishing services offered; photographic services, including location and studio photography, black-and-white and colour photofinishing, 35mm slides, film processing and slide duplication, and a wide range of film and supply sales. Full Videoconferencing services are available.

PRINTING SERVICES DIVISION

- **Michael G. DeGroote School of Business, Room B111, ext. 24447 or Health Sciences Centre, Room 175, ext. 22348**

Printing is staffed and equipped to provide a comprehensive, efficient service to the university at low cost. The service includes: creative design and typesetting; full range of high speed digital photocopying and offset printing; binding (folding, collating, stitching, drilling).

Printing Services will reproduce a wide range of printed matter from business cards to a multi-page brochure and will provide technical assistance for any printing jobs.
GERONTOLOGICAL STUDIES

There are three Gerontology components at McMaster: the Centre for Gerontological Studies; The R. Samuel McLaughlin Centre for Research and Education in Aging and Health; and Undergraduate Degree Studies in Gerontology. Further information concerning the two Centres mentioned above can be obtained by contacting Carolyn Rosenthal in Kenneth Taylor Hall, Room 226, ext. 24449.)

MCMASTER CENTRE FOR GERONTOLOGICAL STUDIES

- Kenneth Taylor Hall, Room 226, ext. 24449

Director
Carolyn J. Rosenthal, B.A., M.A., Ph.D.

The McMaster Centre for Gerontological Studies is involved in the promotion and development of multidisciplinary research and educational programmes within the University and the local community. The Centre also provides a forum for research, education, and service projects with other community organizations. The mandate of the Centre is to foster research and education in aging. The Centre's activities are supported by University foundations, or user fees. The Undergraduate Degree in Gerontology programme is administered by this Centre. The Centre's objectives are as follows:

1. to serve as an information and referral centre regarding gerontological education and research activities at McMaster University. Regular information about gerontological activities is provided through the newsletter Aging, Health and Society: News and Views and the Directory of Research on Aging at McMaster University;

2. to coordinate and plan multidisciplinary initiatives in gerontology across all faculties and administrative units of the University. (Social Sciences, Health Sciences, Humanities, Science, Business, Engineering, Continuing Education);

3. to organize multidisciplinary educational events in gerontology for the university community, professionals and the general public, e.g. the McMaster Summer Institute on Gerontology;

4. to advance gerontology at McMaster and in Canada by actively participating in provincial and national gerontological organizations and initiatives;

5. to initiate and support the development of new gerontological projects with older adults, community agencies, students, staff and faculty.

OFFICE OF INTERNATIONAL AFFAIRS

- Kenneth Taylor Hall, Room 241, ext. 24700

Web Address
http://www.mcmaster.ca/oia

International Admissions Inquiries E-mail Address
inadin@mcmaster.ca

Executive Director
Luke Chan

Senior Project/International Liaison Officer
Ni Jadon

Project Officer
May Zhai

Administrative Coordinator
Laurne Mollinga

McMaster University has become increasingly involved around the world in exchange agreements, institutional linkages and externally funded international programmes concerned with collaborative research, education and human resource development, and with improving the delivery of services in such sectors as business, environmental protection, community health, engineering and technology development and transfer. The Office of International Affairs (OIA) has taken on an expanded international role that seeks to coordinate and facilitate McMaster's expertise in a highly complex and changing global environment. OIA will be participating in four broad areas including International student recruitment, development of international projects, international programmes and international fund-raising and development. OIA facilitates and coordinates the development of international agreements with other institutions, research and education agencies, including government and non-government organizations.

The Office of International Affairs is situated within the Office of the Vice-President, Research and International Affairs.

MCMASTER MUSEUM OF ART

- University Avenue, ext. 23081

Director and Curator
K.G. Ness, B.A., M.Litt., MMST
E-mail:nesskg@mcmaster.ca

Special Programmes Officer/Assistant to the Director
Appointment Pending

Collections and Operations Manager
G. Loveys, B.A.
E-mail: loveys@mcmaster.ca

Installations/Preservation Officer
J. Pettitplace, B.A.
E-mail: jpettie@mcmaster.ca

Director's Assistant
Z. McLachlan, B.A., B.Ed.
E-mail: mcclachz@mcmaster.ca

Assistant Curator/Exhibitions Manager
Appointment Pending

Communications Officer
R.A. Prevec, B.A.
E-mail: prevecr@mcmaster.ca

Gallery Attendant/Information Staff
K. Hogue, B.A.
E-mail: hoguek@mcmaster.ca
N. Knibb, B.A.
E-mail: knibbn@mcmaster.ca
G. Rennick, B.A.
Appointment Pending

A new facility was officially opened to the public in June 1994. Located at the west end of Mills Library on University Avenue, the new Museum contains five Exhibition Galleries, a Paper Centre and an Educational Access Gallery. The Museum offers a year-round programme of exhibitions ranging from the historical past to present-day artistic investigations either organized by the McMaster Museum or loaned by such institutions as the Art Gallery of Ontario or the National Gallery of Canada, as well as a regular programme of public events including lunchtime talks, Visiting Artist talks, seminars and concerts.

McMaster's permanent art collection contains close to 6,000 Canadian, American and European art works with a specialized collection of over 250 German Expressionist prints and the Levy Collection of Impressionist and Post Impressionist paintings as a teaching collection. The central emphasis is on collections access and use of the collection as a cultural learning resource.

Contact the Museum for exhibition listings. Hours: Tuesday to Friday, 11:00 a.m. - 6:00 p.m.; Thursday evening, 7:00 p.m. - 9:00 p.m.; Sunday, 12:00 p.m. - 5:00 p.m. Voluntary admission fee of $2.00; free for students and seniors. Museum Memberships available. Wheelchair accessible.
STUDENT SERVICES

ASSOCIATE VICE-PRESIDENT
(STUDENT AFFAIRS)

Gilmour Hall, Room 207, ext. 27455.
Mary E. Keyes, Ph.D.

The Associate Vice-President (Student Affairs) leads a variety of specialized student service offices and is happy to meet with individuals and representatives of student organizations with problems, concerns, questions or suggestions on any matter relating to student life and services on campus.

CENTRE FOR STUDENT DEVELOPMENT

Hamilton Hall, Room 409, ext. 24711
Effective Fall 2001: McMaster University Student Centre Room B107

Counsellor
Bill Wilkinson

Academic Skills Counsellor/Coordinator
David Palmer

Administrative Assistant
Noreen Myers

Accommodations Assistant/Receptionist
Julia Shelly

The Centre provides services to McMaster students to promote their academic effectiveness and personal well-being. It also provides specific kinds of assistance to students with disabilities. (For more details see Students with Disabilities below.)

Students are encouraged to seek assistance from the Centre if they experience any of the following:

- Personal, emotional, social, family or relationship concerns.
- Feelings of stress, anxiety, loneliness, depression, low self-esteem or loss of motivation.
- Concerns about academic performance, study habits, time management, effective learning, reading, remembering, concentration, tests and exams, writing essays, making class presentations.
- The need for disability-related support services.

The Centre also provides services to international students wishing to improve their English. Counselling, individual help, skill-development workshops and short courses are available. Peer helpers (trained and experienced students) provide some services, under staff supervision. Contacts between students and counsellors are voluntary and confidential. Students in urgent situations are given priority and seen as soon as possible. Students are given assistance in locating other specialized help on- or off-campus when required. All personal, health or disability-related information will be treated as confidential.

Students with Disabilities

All students are expected to satisfy the normal requirements for courses and programmes (including final examinations), but the Associate Deans (Studies) may authorize special arrangements to assist students with disabilities in the completion of assignments, tests, examinations and other course requirements.

The Centre for Student Development can provide advice to potential students and applicants with disabilities. Once admitted to the University, students with disabilities are encouraged to contact the Centre at an early date (two or three months prior to registration) to ensure sufficient time to make arrangements regarding their needs. Even if accommodation or assistance is not immediately required, students are encouraged to maintain contact with the Centre in case a need for assistance should arise at a later date.

The Centre assists students with issues concerning the accessibility of campus facilities, the provision of special equipment and alternative media formats, screening/assessment for suspected learning disabilities and attention deficit disorders, and referral to professional services or community resources. It provides counselling, advice, support and workshops to help students meet their educational objectives.

SEXUAL HARASSMENT/ANTI-Discrimination OFFICE (S.H.A.D.O.)

Kenneth Taylor Hall, Room 118, ext. 23641

Cindy Player
ext. 23641
E-mail: playerc@mcmaster.ca

Tony Conte
ext. 23641
E-mail: contea@mcmaster.ca

Elaine Hay
ext. 27581
E-mail: hayelain@mcmaster.ca

This office administers the Sexual Harassment and Anti-Discrimination policies for McMaster University. The goal of this office is to ensure that students, staff and faculty can learn and work in an environment free from all forms of harassment and discrimination.

Sexual Harassment and Anti-Discrimination Officer (SHADO Officer) is available to any member of the university community with questions or concerns regarding situations that may involve sexual harassment or human rights. Tony Conte is the Human Rights Educator at McMaster. In that role, he is responsible for the development and implementation of training workshops and educational programmes dealing with human rights, anti-discrimination and sexual harassment. In addition, there are two liaisons within the Faculty of Health Sciences: Dr. David Groves (905) 522-1155, ext. 5016 and Dr. Anne Niec (905) 522-2100, ext. 73268. Assistance is provided for complaint resolution and the design and facilitation of workshops concerning all forms of harassment and discrimination.

The Safer Space Programme is also run out of the S.H.A.D.O. Office and offers a number of services including a network of First Contacts, an After Hours Help Line and an Off-Campus Shelter. The Safer Space Programme is available to all women of the McMaster community—students, staff, faculty and their partners. The After Hours Help Line (719-7786) operates Monday through Friday 5:00 pm to 9:00 am and 24 hours on weekends, during the school year. During business hours callers will be assisted by the S.H.A.D.O. Officer (905) 522-3149, ext. 23641. The fax number for the office is (905) 522-7102 and TTY is (905) 522-8709. Wheelchair accessible.
ATHLETICS AND RECREATION

Web Address
http://www.athrec.mcmaster.ca

E-mail Address
iwynne@mcmaster.ca (Customer Service Line)

Director of Athletics and Recreation
Thérèse A. Quigley

The Department of Athletics and Recreation provides a wide variety of opportunities for students involved in high performance athletic competition, intramural and club competition as well as recreation, fitness and instructional and outdoor recreation programs. A diverse programme of recreational activities is available for those who wish to keep fit, compete in active pursuits at their own level, and enjoy sports and active living opportunities of their choice. Access to the various facilities on campus is open to all McMaster students. The facilities include a 50-metre pool, an outdoor 400-metre chevron track, eight tennis courts, several gyms, dance studio and a fitness centre, covering 7,700 square feet, known as The Pulse. It features computerized cardiovascular equipment, circuit training, aerobic floor and a comprehensive strength training area. An additional aerobics floor of 2,464 square feet in the Activity Centre completes the Pulse programming.

Many different club activities are available, along with instructional assistance. Off-campus field trips in canoeing, rock climbing, horseback riding, hiking and many other opportunities are offered.

A highly developed intramural programme is a very popular outlet for student activity. Intramurals run from early fall until late spring and provide students with a competitive environment that still fosters social interaction.

The varsity programme at McMaster fields 30 teams competing at the provincial (OUA) and national (CIAU) level. There are also five inter-university club teams competing at various levels. Highly skilled coaches help McMaster athletes achieve their potential while competing against other universities in Ontario and across Canada. The outstanding efforts of McMaster’s student-athletes and the social involvement of student supporters are focal points of student life on campus. Varsity events are a major source of school spirit for competitors and spectators alike. The Department of Athletics and Recreation takes pride in the quality programmes and services provided to the McMaster Community, and invites you to be A Part of the Action.

BOOKSTORE

Web Address
http://www.bookstore.services.mcmaster.ca

E-mail Address
bookstr@mcmaster.ca

The University Bookstore is owned and operated by the University. First year textbooks are located in the Mezzanine at the Ivor Wynne Centre. Second and third year textbooks are located in the auxiliary store located in Togo Salmon Hall, Room B203. Fourth year, and grad textbooks are located in the lower level of Gilmour Hall. A Microcomputer Centre and a Post Office are located within the Bookstore. A Health Sciences Branch is located in the McMaster University Medical Centre. In addition to course books, the Bookstore maintains a wide range of supplementary reading materials, both academic and general. Stationery and computer supplies and other items are also stocked. Charge accounts may be opened after registration.

POST OFFICE

The McMaster University Sub-Post Office is located in the Bookstore. The Post Office offers full postal service, Monday to Friday, from 9:00 a.m. to 4:00 p.m. Post Office boxes may be rented by faculty, staff, and students for the duration of their stay at McMaster.

CAREER PLANNING AND EMPLOYMENT CENTRE

> Hamilton Hall, Room 302, ext. 24253
> Effective Fall 2001: Gilmour Hall, Room 110

Web Address
http://careers.mcmaster.ca/

E-mail Address
cpec@mcmaster.ca

Career Counsellors
David Lawson
Laurie Barlow Cash

Career Information Coordinator
Cate Walker Hammond

Student Development Coordinator
Arlene Fajutrao Dosen

Employer Development Coordinator
Steven Beierl

Office Coordinator
Amanda McFarland

Employment Services Coordinator
Gisela Oliveira

The Career Planning and Employment Centre (CPEC) offers a wide range of programmes and services to meet the needs of McMaster students and alumni. For a virtual CPEC tour, please visit our web site (http://careers.mcmaster.ca). There you will find a full introduction to our services, our staff and our many available resources. Our state-of-the-art on-line job posting service offers some 3,500 plus job opportunities a year.

CPEC offers assistance in all aspects of career planning, educational planning and the employment search process. Our staff are experienced, knowledgeable professionals with a strong track record of assisting students in pursuing their career and educational goals. Our services and programmes include:

- help in identifying and choosing career and educational goals;
- interest and personality type testing to help students make educational and career plans;
- workshops on applying to graduate and professional schools such as teaching, law and medicine;
- individual, confidential counselling;
- web-based on-line job postings, available from any internet connection, on-campus or off, 24 hours a day, 365 days a year;
- help in applying to full-time, summer and part-time jobs;
- workshops and assistance with resume writing, job search and interview skills;
- a resource centre with career, educational and job search information;
- information about government employment programmes.

We also offer help and resources for students to get connected with what is out there in the world of work including:

- Career Links, a network organization that connects students with recent McMaster graduates;
- referrals to volunteer opportunities both on-and-off-campus;
- Our Peer Helper Programme, which offers opportunities to gain training and hands-on experience working directly with CPEC in service roles like Career Information, Work Search and Student Coordinator.

The office is open 8:30 a.m. to 4:30 p.m. Monday to Friday. The phone number is (905) 525-9140, ext. 24253 and the fax number is (905) 529-8972.
OFFICE OF THE INTERNATIONAL STUDENTS' ADVISOR/STUDENT EXCHANGES/ WORK AND STUDY ABROAD

Web Address
http://www.acces.mcmaster.ca/international

Office of the International Students' Advisor

- Hamilton Hall, Room 405, ext. 24748
- Effective Fall 2001: Gilmour Hall, Room 104

The major purpose of the Office is to assist international students, visiting scholars, post-doctoral fellows and faculty. The Office provides a number of services such as:

- reception and orientation for newly arriving students
- preliminary information concerning immigration matters
- liaisons with sponsoring agencies, foreign governments, consulates and embassies
- general advising and counselling regarding personal, financial and academic problems

The Office produces the International Students' Handbook which provide basic information for International students in preparation for their life in Canada. The International Students' Advisor is also the Plan Administrator for the University Health Insurance Program (UHIP) which is mandatory for all International students.

Student Exchanges/Work and Study Abroad

- Hamilton Hall, Room 405, ext. 24748
- Effective Fall 2001: Gilmour Hall, Room 104

The Office provides information on a range of options from independent study and externally sponsored programs, to summer session and McMaster's formal student exchanges. As well, information concerning opportunities for working and volunteer abroad is provided.

McMaster University has formal student exchanges with universities in 26 countries abroad and participates in the Canada Scholars Exchange Program (CANEX), formerly known as the Group of Ten Student Exchange Program (GOTSEP), includes the following 10 Canadian universities:

- McMaster University
- McGill University
- Queen's University
- Université de Montréal
- University of Alberta
- University of British Columbia
- University ofToronto
- Université de Laval
- University of Waterloo
- University of Western Ontario

STUDENT FINANCIAL AID AND SCHOLARSHIPS

- Hamilton Hall, Room 404, ext. 24319
- Effective Fall 2001: Gilmour Hall, Room 120

Manager

E. Seymour

The Office administers a variety of programs which are accessed by over half of all full-time students as well as a large number of part-time students attending University. These programs include the Ontario Student Loan Program, Canada Student Loan Programmes, Part-Time Canada Student Loan Plan, Undergraduate Scholarships Programmes, Ontario Work Study Programme, Ontario Special Bursary Programme, University Bursary and Emergency Loan Programmes. In addition, the Office provides administrative support to outside agencies providing scholarships and bursaries to students attending McMaster.

The Office offers financial and budget counselling, assessment and information service to current and potential students designed to help identify and address post-secondary education expenses. All discussions with students are voluntary, private and confidential.Drop-in style counselling is available.

For more detailed profiles of programme offerings, please refer to Undergraduate Academic Awards and Student Financial Aid sections in this Calendar.

STUDENT HEALTH SERVICE

- McKay Hall, ext. 27700
- Effective Fall 2001: McMaster University Student Centre Room B101

Web Address
http://www.mcmaster.ca/shs

Medical Director

Jan Young

Clinic Director

Julie Fair

Health care is available to all university students year-round at the Student Health Service (SHS), located on the ground floor of McKay Hall Residence. (Effective Fall 2001, the Service will be moving to the McMaster University Student Centre, Room B101.) Appointments can be made by calling (905) 525-9140 ext. 27700.

Staffed by family physicians and registered nurses, the Student Health Service provides comprehensive primary medical care. Services include medical assessment and treatment; annual health examinations (physicals); birth-control counselling; assessment and treatment of depression, eating disorders, anxiety and other mental health problems; allergy injections; immunization; on-site laboratory; pregnancy tests; and information or counselling for any personal health concerns. A specialist in sports medicine is available for sports related injuries. Physiotherapy for sports injuries is also available at Ivor Wynne Centre on referral from one of the physicians. Chiropractic services are available by self or physician referral. A staff psychiatrist is available to students on referral from the Health Educator.

The SHS Health Educator can be reached at (905) 525-9140, ext. 27619. The Health Educator is available for lectures, seminars, or small group discussions on health-related issues, on request by students. A smoking cessation group is offered a few times each year. As well, an education and support group for students with eating disorders is conducted for six weeks during either fall or winter session. (Both control pills and condoms) are dispensed at a reduced cost to patients of SHS. Further information can be obtained by calling the Student Health Service office at (905) 525-9140, ext. 27700.

HOSPITALITY SERVICES

- Commons Building, Room B1015, ext. 24836

Web Address
http://hospitality.mcmaster.ca/hospitality

Director, Hospitality Services

Albert Y. Ng

McMaster Hospitality Services is a self-supporting department that strives to ensure that dining on campus is a positive experience. Our goal is to provide high quality food services, convenience and value.

Students living in residence (except Bates) are required to purchase a meal plan. The MAC Express Patron Card works on a debit or credit system and offers a variety of meal plans options for residence and off-campus students. This allows students to use one card at all Hospitality Services locations (except Hava Java) and depending on the meal plan, includes off-campus outstanding fees. For 2000-2001 these included East Side Mario's, Kelsey's, Pizza Plus, Swiss Chalet and Pizza Pizza. Off-campus students and other members of the University community may purchase an off-campus meal plan at the MAC Express Centre, located in the Commons Building, Room B104.

Hospitality Services has five full-service dining locations conveniently located across campus. During the regular academic year from September to December, Friday meals can be obtained anytime from 7:00 am-12:00 midnight and weekends from 10:00 am - 12:00 midnight or can be delivered by one of our off-campus vendors even later.

• The Commons Marketplace provides students with a varied dining experience and is home to Your Healthy Choice, Pacific Rim, Chef's Table, Pillar's Deli and Pizza Plus.

• The Refectory serves the west quad of campus and is known for its home cooked classics and friendly staff. The Refectory also offers Pillar's Deli and a soup and salad bar.
The newest location, in the McMaster University Student Centre will feature many exciting new concepts; from Japanese Sushi, to an International Grill, Tomasso's Pasta Station, Pizza Pizza and Tim Hortons.

The Café 2000 is located in the Institute for Applied Health Sciences and features Mr. Sub, Pizza Pizza, Tim Hortons, a fresh pasta bar, and more.

The Wokery located in Kenneth Taylor Hall is a popular lunch destination for Chinese food prepared fresh to order.

MAC Express locations are conveniently found in J.H. Engineering Building and Chester New Hall. Hava Java, located on the second floor of Burke Science Building features Starbucks coffee in addition to a variety of delicious desserts.

Visit our website for our Dining on Campus menus, hours of operation, meal plan information and more.

HOUSING AND CONFERENCE SERVICES

Web Address
http://housing.mcmaster.ca

E-mail Address
housing@mcmaster.ca

Director, Housing and Conference Services
Catherine Miller

RESIDENCES

The University owns and operates ten on-campus residence buildings, accommodating a total of 2,788 students. The nine traditional-style residences consist of two women's residences and seven co-educational residences. A variety of theme and lifestyle options are available: International House and La Maison Française for those interested in learning about other cultures; Halcyon (Quiet) House and quiet floors; Wellness House and substance-free lifestyle for those wishing to balance healthy living with academic studies. Housing and Conference Services will expand the opportunity for lifestyle options based on interest and demand.

Eighty percent of the spaces in traditional residences are reserved for incoming first-year students. Admission offers to residence are based on a student's admission average to his/her academic programme. All students with a 75% admission average are guaranteed a space in residence provided they meet the residence application and deposit deadline.

First-year students will receive a residence application and instructions regarding application procedures with their offer of acceptance from the University. To accept the offer of residence, students must return their completed Residence Application form and a deposit to the Residence Admissions Office before the specified deadline. This deposit will then be applied to the student's residence fees if they remain in residence for the full year. Students who do not receive an offer of residence with their offer of admission to the University, may apply to the residence waiting list. The waiting list is ordered by specified deadline date. After this date, students will be added to the waiting list in order of date received. No deposit is required from students who apply to be on the waiting list. If a student is guaranteed a residence space but no longer requires it, the student is responsible for advising Housing and Conference Services in writing by the specified deadline. Failure to do so by the specified deadline will result in forfeiture of the full amount of the deposit. Refer to Campus Living 2001 available through Housing and Conference Services, Commons Building, Room 101, (905) 525-9140 ext. 24223, email housing@mcmaster.ca, for detailed information.

All students in the traditional-style residences are required to purchase one of the following meal plans: light, small, regular, large and extra-large. Residents use their student ID cards as a debit card for food purchases made at all Hospitality Services locations on campus as well as designated local off-campus restaurants. (Note: Residence fees and meal plans do not include the December holiday break.)

Fifty percent of the spaces in traditional residences are reserved for upper-year students. In addition, apartment-style residence (Bates Residence) accommodates approximately 500 male and female students. All apartments are furnished (except for a television). Bates students can purchase a meal plan directly from the Mac Express Centre, Commons Bldg., Room B104, ext. 27448.

The responsibility for policy, budget and the overall administration of the University residence system lies with the Director of Housing and Conference Services. The department has four distinct functional units: Admissions, Residence Life, Facilities and Conference Services.

Please visit our website to learn more about each residence, the Residence Discipline Code, MacOnline and the other services available to McMaster's residence students at http://housing.mcmaster.ca.

RESIDENCE ADMISSIONS

This area is responsible for residence admission policies and procedures, including: the Residence Agreement/Contract; residence applications, deposits and room assignments; the waiting list and withdrawal procedures; medical and grade appeals; and various Housing publications. Enquiries about residence should be directed to Residence Admissions, Housing and Conference Services, Commons Building, Room 101, (905) 525-9140 ext. 24223, email: housing@mcmaster.ca.

RESIDENCE LIFE

This area is responsible for programmes designed to provide students with a positive living and learning environment and to assist them with the transition to university. Living in residence provides students with the opportunity to participate in educational and personal development interest programmes, and positive and inclusive social activities. Residence Life also provides leadership opportunities including student staff, peer helper and elected residence council positions.

All students agree to be bound by the Residence Agreement/Contract and the Residence Discipline Code as a condition of applying to residence at McMaster University.

RESIDENCE FACILITIES

The Residence Facilities Team is responsible for repairs and maintenance, student damages, safety and security needs, furnishings, cleaning, residence recreational facilities, and the 24 hour Housing and Conference Service Centres located in Moulton Hall (west campus, ext. 24896) and the Commons Building (north campus, ext. 27222).

CONFERENCE SERVICES

Conference Services is responsible for booking all indoor and outdoor non-academic events on campus.

During the summer months Conference Services arranges accommodation, food and meeting facilities on campus for conferences, conventions, and touring groups. Residence accommodation is also available for summer students and casual guests. The Conference Services office is located in the Commons Building, Room 129B, (905) 525-9140, ext. 24781. All reservations can be made by email to confs@mcmaster.ca.

OFF-CAMPUS HOUSING

Web Address
http://www.maccoho.com

E-mail Address
maccoho@mcmaster.ca

The Off-campus Housing Office (OCHO) maintains updated lists of available accommodation in Hamilton and the surrounding area. It also provides free bus route maps, zone maps, free telephones for students to contact landlords, information on housing by-laws and Tenant Protection Act, and personal assistance with the housing search. OCHO is operated on a year-round basis and is located in Wentworth House, Room 118, (905) 525-9140 ext. 24086. (Effective Fall 2001, the office will be moving to the McMaster University Student Centre, Room B112.) Visit our website to see all the listings of available rental units by zone and category.
PARKING

➤ E.T. Clarke Centre, ext. 24232 or 24921

Web Address
http://parking.mcmaster.ca

Campus parking facilities are limited and the availability of spaces cannot be assured.

Travel to and from the University on foot, by public transportation and in car pools is encouraged.

Students wishing to park a motor vehicle or motorcycle on campus are required to complete and submit a parking application. Applications are accepted between June 1 and the last business day of July. It is now possible to apply electronically using the following web address: http://parking.mcmaster.ca. Completed application forms, accompanied by a Visa or MasterCard number and authorizing signature or a cheque or money order, payable to McMaster University, in the amount required for the full period must be forwarded to: Parking and Transit Services, E.T. Clarke Centre, McMaster University Hamilton, Ontario L8S 4K1. Cheques post-dated after July 31 will not be accepted.

If any applicable zone is oversubscribed, there will be a lottery draw.

Undergraduate students not in residence may apply for available spaces in Zone 6 only. The procedure for allocation of these spaces will be developed in consultation with the MSU Executive.

Students in residence requiring parking can apply for Zone 7 only, and may apply at any time of the year.

Special arrangements can be made for disabled parking privileges. Copies of the complete rules and regulations concerning parking at McMaster University are available at the Parking and Transit Services Office.

The Parking and Transit Office has the overall responsibility for dealing with parking matters. If you have a problem, parking personnel will assist you. The office is located in the E.T. Clarke Centre and is open Monday to Friday from 9:00 a.m. to 4:00 p.m.

UNIVERSITY CHAPLAINS

➤ Wentworth House, Room 108, ext. 24207

➤ Effective Fall 2001: McMaster University Student Centre Room 231

Web Address
http://www.mcmaster.ca/chaplain

E-mail Address:
chaplain@mcmaster.ca

The McMaster Chaplaincy Centre, located in Wentworth House, Room 108 is open to all students and the campus community. (Effective Fall 2001, the office will be moving to the McMaster University Student Centre, Room 231.) The Chaplaincy Centre is staffed by Carol Wood, Ecumenical Chaplain; Michael Fallon, Christian Reformed Chaplain; Father Jack Hurley, Roman Catholic Chaplain and Donna White, Assistant to the Chaplains. The Office is usually open between 9:00 a.m. and 5:00 p.m., Monday through Friday and appointments outside of these hours can be arranged.

The Centre offers personal and confidential counselling for a wide range of concerns; groups to deal with topics such as bereavement support; and an experience of community through cost suppers, worship and discussion groups. In addition, the Chaplaincy Centre provides advocacy for students in need; works cooperatively with a variety of student groups; and promotes interfaith events and dialogue on campus.
MCMASTER ASSOCIATION OF PART-TIME STUDENTS (MAPS)

- Kenneth Taylor Hall, Room 102, ext 22021
- Effective Fall 2001: McMaster University Student Centre Room 234

Web Address
http://www.mcmaster.ca/maps/index.html

E-mail Address
maps@mcmaster.ca

MAPS exists to look after the special interests of part-time degree (taking less than 18 units) and certificate students, who have a different educational experience than full-time students. University fees for these students include an assessment to support the Association.

The Association's lounge and office are open all year, Monday to Thursday, from 10:00 a.m. to 8:55 p.m., and Friday, from 10:00 a.m. to 2:00 p.m., when classes are in session. During exams, the office hours are Monday to Thursday, from 10:00 a.m. to 7:00 p.m. and Friday from 10:00 a.m. to 2:00 p.m.

MAPS Executive Director is available to help students. If you have a question pertaining to university procedure or a problem of any kind the MAPS staff can either supply the answer or put you in touch with someone who can. A handbook is published annually to help guide you through the University system and will be mailed to you.

The part-time student newsletter, The Link, is published on a regular basis, and will be mailed to you. If you do not receive a copy, call or drop by the office. Essay writing, exam preparation and research seminars are offered through MAPS. Watch the newsletter, The Link, for classes and times.

MAPS provides the opportunities and methods for part-time students to communicate their needs and ideas to university officials, by ensuring representation on university governing bodies and committees, and by the Association's direct contact with university administrators on matters such as course availability, evening services, tuition and ancillary fees.

MAPS is also pleased to offer four awards: two Centennial Awards, the Martin W. Johns Award and a Gold Medal. MAPS has also established bursaries to assist students who have demonstrated financial need.

In addition, there is a MAPS Work Study Programme available to part-time students who have demonstrated financial need. This programme allows part-time students to work for eight to ten hours a week for ten weeks. Contact Student Financial Aid and Scholarship Office, ext. 24319, for information.

There are two computers in the office for your use where you can access your student record, surf the Web, use email, WordPerfect or Word.

If you are a part-time student, MAPS is for you. It is a way to bridge the gap between you and the University, by helping you feel a part of McMaster's student body. We urge you to participate as often as possible in the academic and social events which will be available to you at McMaster.

MCMASTER UNIVERSITY ALUMNI ASSOCIATION

- Gilmour Hall, Room 110, ext 23900
- Effective Fall 2001: Location to be announced

Web Address
http://www.mcmaster.ca/ua

E-mail Address
alumni@mcmaster.ca

Following convocation, all graduates of McMaster University automatically become members of the McMaster Alumni Association (MAA) and join our over 100,000 alumni living in over 120 countries. The Association's mission statement addresses a number of goals: support of McMaster University, involvement of alumni, recognition of alumni achievements, alumni services and benefits, alumni communication, and involvement of current students.

Our alumni branch programme creates connections in geographic areas like Brantford, Vancouver, Ottawa, Toronto and Hong Kong. Branches also connect alumni to their faculty or department through groups like the Nursing Alumni Branch, Michael G. DeGroot School of Business Alumni Association, Humanities Alumni Branch, or Social Work Alumni Branch. Still other branches create connections among Mac grads who share a common interest or affinity, like the MSU Alumni Branch or Athletics Alumni Association, just to name a few.

The MAA also offers programmes in the greater Hamilton community. The McMaster Alumni Connection Luncheon Series brings high profile speakers to downtown Hamilton to talk with McMaster alumni and friends, and the Albert Lager Lecture Series expands your educational relationship with Mac into a lifelong affair by providing fun and unique opportunities to enjoy lectures, trips and seminars. Alumni Weekend occurs every year in June and is the largest single alumni event. It incorporates class reunions and other events like the Alumni Gallery Induction Ceremony designed to attract alumni to the McMaster campus.

The Association also gives its members the chance to obtain unique or discounted products or services through its Services and Benefits portfolio. Alumni can experience fantastic trips, obtain unique McMaster merchandise, use their McMaster MasterCard to help benefit the Association, receive high-quality home and auto insurance at group rates, or investigate the other services offered through the MAA.

The McMaster Alumni Association also acts as your advocate, with representatives on the University Senate and Board of Governors. These representatives, along with other elected alumni, compose the MAA Board of Directors which, along with hundreds of other alumni volunteers, provides alumni programming in conjunction with the Office of Alumni Advancement. Both the Office and the Association can be contacted in Gilmour Hall 110, or by phone at (905) 525-9140 ext 23900, or by fax at (905) 524-1733.

CAMPUS NAMES

The University's Board of Governors has made provision for naming buildings, facilities, spaces and streets after individuals or organizations who have some connection with the University. Recommendations made according to the criteria outlined below are considered by the Advisory Committee on Campus Names. Policy of the Board of Governors on Campus Names

1. The names of distinguished members of the McMaster University community who are no longer actively involved in the affairs of the University.
2. Others in the following groups:
   a) Outstanding scholars outside the University who have had a close relationship with McMaster and whose academic disciplines relate to the structure or area being named.
   b) Major benefactors of the University, including foundations and corporations.
   c) Names that bear a special relationship to McMaster University, Hamilton or district.

(Board of Governors, December 9, 1993) Information concerning the nomination can be obtained via the Vice-President (Administration), Chair, Advisory Committee on Campus Names, Gilmour Hall, Room 202.
STUDENT FINANCIAL AID

WEB ADDRESS: http://access.mcmaster.ca/financial_aid
E-MAIL ADDRESS: awards@mcmaster.ca

Manager, Student Financial Aid
Tracie Long
For information on any of the programmes which follow, contact:
Office of Student Financial Aid and Scholarships
Hamilton Hall, Room 404
McMaster University
Hamilton, Ontario, L8S 4K1
Telephone: (905) 525-9140, ext. 24319
Effective Fall 2001: Gilmour Hall, Room 120

ONTARIO STUDENT ASSISTANCE PROGRAM

Financial aid to help students meet the costs of post-secondary education is available from the federal and provincial governments through the Ontario Student Assistance Program (OSAP) which consists of four plans:
- Canada Student Loans Plan
- Part-Time Canada Student Loans Plan
- Ontario Student Loans Plan
- Ontario Special Bursary Plan
- Ontario Work-Study Plan
- Child Care Bursary Plan
- Bursaries for Students with Disabilities

To be eligible for assistance under each of these plans, a student must be a Canadian citizen or permanent resident of Canada and fulfill certain requirements for residency in Ontario. The amount of financial aid awarded is based on financial need.

It is strongly recommended that students apply for OSAP by June 30 to ensure their applications are processed by September. Currently, it takes six to eight weeks to process a regular OSAP application.

All of the government programmes described in this text are modified and restructured annually to reflect the changing needs of students from the Province of Ontario. It is, therefore, recommended that you discuss your specific financial requirements with a Student Loans and Awards Officer in the Student Financial Aid and Scholarships Office as early as possible.

Canada Student Loans Plan

This is a federal government plan, administered by the provincial government, which provides loans to students who can demonstrate financial need for completion of any level of study. Loans are available to full-time students enrolled at recognized post-secondary institutions anywhere in the world. The federal government also provides Canada Student Loans for part-time students who can demonstrate financial need. These loans cover a student's costs for tuition, books, transportation, day care and incidentals and are interest-bearing after 30 days.

Ontario Student Loans Plan

This plan provides loans to full-time students whose financial needs are not fully covered by the Canada Student Loans Plan.

Ontario Special Bursary Plan

This plan helps students who demonstrate exceptional levels of financial need who are unable to attend school full-time but need part-time training to improve their job prospects. Bursaries are available to such part-time students enrolled at recognized post-secondary institutions in Ontario only.

Ontario Work-Study Programme

The Work-Study Programme complements the original plans of OSAP. It offers part-time jobs to students who can demonstrate financial need during the school year to help them meet costs not recognized under regular federal and provincial financial aid programmes. In particular, programmes are intended to assist students who lack resources relative to their assessed financial need and those who do not wish to borrow further due to a high debt load. Costs of the plan are shared by the provincial government and the University.

Child Care Bursary Plan

Available to students who have three children or more and are studying on a full-time basis.

Bursaries for Students with Disabilities

Available to students who are disabled. For more information, contact the Centre for Student Development at http://csd.mcmaster.ca.

McMASTERWORK-STUDY PROGRAMMES

McMaster Work-Study Programmes offer part-time jobs to students demonstrating financial need during the school year to help them meet costs not recognized under regular federal and provincial financial aid programmes. In particular, programmes are intended to assist students who lack resources relative to their assessed financial need and those who do not wish to borrow further due to a high debt load.

To apply for the McMaster Work-Study Programmes identified below, students should obtain a Work-Study Application from the Office of Student Financial Aid and Scholarships.

THE R. ROSS CRAIG MEMORIAL FUND WORK-STUDY PROGRAMME

Established in 1997 in memory of R. Ross Craig. A variable number of employment opportunities made available to students demonstrating financial need. These jobs will provide an opportunity for students to pursue research and/or assist with activities sponsored by the Centre for Studies of Children at Risk, McMaster University. To be eligible for consideration, students must be approved for Work-Study through the Office of Student Financial Aid and Scholarships. (90783725)

THE HAMLIN FAMILY FOUNDATION WORK-STUDY PROGRAMME

Established in 1996 by the Hamlin Family Foundation. A variable number of employment opportunities made available in disciplines related to the fields of Health Sciences and Engineering to assist students who demonstrate financial need. To be eligible for consideration, students must be approved for Work-Study through the Office of Student Financial Aid and Scholarships. (90656)

THE SALLY HORSFALL WORK-STUDY PROGRAMME

Established in 1996, the Centre for Studies of Children at Risk, McMaster University has a variable number of employment opportunities made available to students demonstrating financial need. These jobs will provide an opportunity for students to pursue research and/or assist with activities sponsored by the Centre. To be eligible for consideration, students must be approved for Work-Study through the Office of Student Financial Aid and Scholarships. (90657)

THE HUMANITIES COMMUNICATIONS CENTRE WORK-STUDY ENDOWMENT

Established in 1997 by Edward and Margaret Lyons, McMaster alumni of the Class of '49 and later augmented by friends of the Centre. A variable number of employment opportunities will be made available in the fields of Health Sciences and Engineering. To assist students demonstrating financial need, these jobs will provide an opportunity for students to pursue research and/or assist with activities sponsored by the Centre. To be eligible for consideration, students must be approved for Work-Study through the Office of Student Financial Aid and Scholarships. (90658)

THE McMASTER "McWORK" PROGRAMME

Established in 1996 by the University with the goal of creating meaningful employment opportunities for current full-time students who demonstrate financial need. (90659)

SHORT-TERM EMERGENCY LOANS

Assistance in the form of short-term loans is sometimes available to undergraduate or undergraduate students. Such loans cannot be given to pay tuition, bookstore, residence or other university expenses. Repayment of any loan is expected within 90 days or before the end of the academic year.

Any student interested in obtaining a short-term loan must complete an application which is available in the Office of Student Financial Aid and Scholarships. Once completed, the student will meet with a representative from this office to discuss the possibility of receiving a loan. A number of funds exist to provide assistance to students in financial need.

EDITH M. GRIFFEN LOAN FUND

Established in 1957 by Paardeburg Chapter, IOGE, in honour of Mrs. H.S. Griffen.
MURIEL CLARK RIDDELL LOAN FUND
Established in 1964 by the Right Honourable Stanley Baldwin Chapter, IODE.

MARGARET B. SUTTERBY MEMORIAL FUND
Established in 1955 by the 67th University Battery Chapter, IODE.

THE MCLROY LOAN FUND
Established in 1956 by the University Women's Club of Hamilton. To assist female students in the final level of any programme.

THE IVOR WYNN MEMORIAL LOAN FUND
Established in 1971 in memory of Ivor Wynne, Dean of Students. To assist students in any programme.

THE UNIVERSITY LOAN FUNDS
Small short-term emergency loans from the University funds are available to assist students in any programme. These funds have been supported through contributions from a number of local Chapters, Imperial Order Daughters of the Empire, including the Emma Frances Pratt, Princess Marina and Sovereign Chapters.

BURSARIES

Bursaries are granted by the University Bursary Selection Committee on the basis of demonstrated financial need. They are intended to supplement resources when the student's own financial contribution, parental assistance and government aid leave the student with insufficient funds to complete the academic year.

Application forms are available from the Office of Student Financial Aid and Scholarships, Hamilton Hall, Room 404, or on our website at http://access.mcmaster.ca/financial_aid. Any government-sponsored student loan applicant who is registered and in good standing as a student of McMaster University is eligible to apply. The first term deadline is in early November and the second term deadline is in February. Students may submit one application only and are assessed for their full academic year regardless of the date of application.

Bursaries have been grouped according to category and/or Faculty.

GENERAL BURSARIES

THE 4 WINDS BURSARIES
Established in 1997 by John F. Evans and Patricia Peacock-Evans in recognition of John's long-standing association with McMaster as Chair of The President's Club Executive Committee. The Bursary is named after the island where the family's cottage is located. A variable number of bursaries to be granted to students who demonstrate financial need. (90708 670)

THE AINSWORTH BURSARIES
Established in 1996. To be granted to undergraduate students in any programme who demonstrate financial need. Preference to be given to female students. (90578 402)

THE PHYLLIS MAY AITKEN BURSARY FUND
Established in 1997 by the bequest of Phyllis May Aitken. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90653 520)

THE AMEX CANADA BURSARY
Established in 1997 by AMEX Canada Inc. in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted to a student enrolled in any programme who demonstrates financial need. (90805 822)

THE JOY BÁBY BURSARY
Established in 1997 by Joy Báby under the McMaster Student Opportunity Fund initiative. To be granted to a student enrolled in any programme who demonstrates financial need. (90805 822)

THE CHARLES MURRAY BALL BURSARIES
Established in 1993 by bequest of May Alexandra Ball in memory of her brother Charles Murray Ball. To assist students in any programme who demonstrate financial need. (90560 392)

THE DR. C. HOWARD BENTALL AND DR. SHIRLEY F. BENTALL BURSARIES
Established in 1999 by Dr. C. Howard Bentall (Class of '37) and Dr. Shirley F. Bentall (Class of '46) under the McMaster Student Opportunity Fund initiative. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90855 851)

THE BETZNER FAMILY MEMORIAL BURSARIES
Established in 1996 by the Betzner Family of Dundas, Ontario. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90580 404)

THE BIRKS FAMILY FOUNDATION BURSARY FUND
Established in 1987 by The Birks Family Foundation in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to students annually who demonstrate financial need. (90980)

THE BOWES FAMILY BURSARIES
Established in 1996 by Eleanor and Terence Aurini of Cambridge. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. Preference to be given to female students. (90581 405)

BURSARIES FOR IN-COURSE VISA STUDENTS
Established in 1982 by the University to assist visa students in any programme. (90547)

BURSARIES FOR VISA STUDENTS
Established in 1999. A variable number of bursaries to be granted to visa students in any programme who demonstrate financial need. (90533)

THE BUSINESS MANAGEMENT SERVICES BURSARIES
Established in 1996 by staff of McMaster's Business Management Services who through their leadership, guidance and support, enable the University community to deploy its financial resources to the greatest advantage. A variable number of bursaries to be granted to students in any programme who demonstrate financial need. (90584 408)

THE JAMES CALVIN BURSARIES
Established in 1997 by bequest of James Calvin. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90831 809)

THE CAMCO INC. BURSARIES
Established in 1997 by Camco Inc. in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90817 638)

THE BETTY TAYLOR CAMPBELL BURSARIES
Established in 1999 by William F. Campbell of Ottawa, Ontario in memory of his wife Betty Taylor Campbell, a 1937 McMaster graduate, an Olympic medalist in 1936 and a 1990 inductee to the Athletics Hall of Fame. To be granted to students who demonstrate financial need. Preference will be given to the recipient of the Betty Taylor Campbell Scholarship. (90832 804)

THE ANNE AND HAROLD CHALK MEMORIAL BURSARIES
Established by bequest of Anna Maria Luise Chalk and Harold Henry Chalk of Ottawa. A variable number of bursaries to be granted to students in any programme who demonstrate financial need. (90586 410)

THE CHAWKERS FOUNDATION BURSARIES
Established in 1996 by The Chawkers Foundation, Ottawa, Ontario in support of its belief that all students should be able to pursue their educational goals. To provide assistance to students who demonstrate financial need. Value: $1,800. (90587 411)

THE CIBC BURSARIES
Established in 1997 by the Canadian Imperial Bank of Commerce under the McMaster Student Opportunity Fund initiative. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90683 645)

THE SAM M. CINO BURSARY
Established in 1997 by Sam Cino in support of McMaster students. To be granted to a student enrolled in any programme who demonstrates financial need. (90684 646)

THE HUGH CLARK BURSARIES
Established in 1997 by Hugh Clark in support of McMaster students. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. Preference will be given to the recipient of the Hugh Clark Scholarship. (90685 647)

THE CLASS OF '35 BURSARIES
Established in 1985 by the Class of '35 in honour of their 50th class reunion and augmented in 1999 in conjunction with the McMaster Student Opportunity Fund initiative. To be awarded to a student in good academic standing who is a Canadian citizen or permanent resident. (90507 160)

THE CLASS OF '46 GOLDEN ANNIVERSARY BURSARIES
Established by the Year '46 in honour of their fiftieth reunion on June 1, 1996. A variable number of bursaries to be granted to students enrolled in any programme at McMaster who demonstrate financial need and are in good academic standing. (90586 337)
THE CLASS OF '47 GOLDEN ANNIVERSARY BURSARIES
Established in 1997 by the Class of '47 in honour of their 50th Anniversary Reunion. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90590 414)

THE CLASS OF '48 GOLDEN ANNIVERSARY BURSARIES
Established by the Class of '48 in honour of their 50th Anniversary Reunion in 1999. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90591 415)

THE CLASS OF '51 GOLDEN ANNIVERSARY BURSARIES
Established by the Class of '51 in honour of their 50th Anniversary Reunion in 2001. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90686 648)

THE CLASS OF '57 BURSARIES
Established in 1997 by the Class of '57 in honour of their 40th Anniversary Reunion. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90687 649)

THE CLASS OF 1960 GOLDEN ANNIVERSARY BURSARIES
Established by the Class of 1960 in honour of its 50th reunion. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90942)

THE DORIS PARTRIDGE COLE BURSARY
Established in 1981, this bursary is to be granted to a worthy student in memory of Doris Partridge Cole (Class of '45). (90508 002)

THE CONNOR, CLARK & LUNN BURSARY
Established in 1996 by Connor, Clark & Lunn in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted to a McMaster student in any programme who demonstrates financial need. (90666 483)

THE IAN AND JILL COWAN BURSARY
Established in 1997 by Ian Cowan (Class of '71) and Jill (nee Robinson) Cowan (Class of '74) in support of McMaster students. To be granted to a student enrolled in any programme who demonstrates financial need. (90693 655)

THE THOMAS DALY BURSARIES
Established in 1996 by family, friends and colleagues of Thomas Daly. A variable number of bursaries to be granted to students in any undergraduate programme who demonstrate financial need. (90592 416)

THE JOHN DEERE BURSARIES
Established in 1997 by John Deere in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted to students enrolled in any programme who demonstrate financial need. (90698 660)

THE DOFASCO INC. BURSARIES
Established in 1996 by Hamilton-based Dofasco Inc., one of Canada's and North America's leading steelmakers in support of students pursuing their post-secondary studies at McMaster. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90599 422)

THE EVANS, PHILP BURSARIES
Established in 1996 by the partners of Evans, Philp in support of McMaster students. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90671 468)

THE ELEANOR EWIN BURSARY
Established in 1997 by the Canadian Federation of University Women (Burlington) under the McMaster Student Opportunity Fund Initiative, in honour of Eleanor Ewing, who was instrumental in establishing the Burlington Chapter of the Canadian Federation of University Women. To be granted to a full-time student in any programme who demonstrates financial need. Preference to be given to a mature female student. (90704 666)

THE EILEEN GRAY FARLEY BURSARY
Established in 1998 by Eileen Gray Farley (Class of '43) and winner of the D.E. Thompson Scholarship, in her memory. To be granted to students in any programme who demonstrate financial need. (90688 468)

THE EDITH E. FERRE BURSARIES
Established in 1965 by the late Edith E. Ferrie. To be granted to students in any programme who demonstrate financial need. (90511 289)

THE FORRESTER/GREGORY BURSARY
Established in 1997 by Shelley Forrester and Douglas Gregory in support of McMaster students. To be granted to a student in any programme who demonstrates financial need. (90707 669)

THE JOHN C. FORSTER BURSARIES
Established by bequest of John Clifton Henry Forster of Windsor, Ontario. A variable number of bursaries to be granted to students in any programme who demonstrate financial need. (90600 424)

THE EMMA FOX BURSARIES
Established in 1961 by the Wallingford Hall Committee of which Emma Fox was treasurer from 1918 to 1958. To assist female students in any programme. (90512 830)

THE GENERAL ELECTRIC CANADA INC. BURSARY
Established in 1997 by General Electric Canada Inc. under the McMaster Student Opportunity Fund Initiative. To be granted to a student enrolled in any programme who demonstrates financial need. (90711 673)

THE GRAND & TOY BURSARIES
Established in 1996 by Grand & Toy in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90719 681)

THE LELAND GREGORY BURSARIES
Established in 1997 by the bequest of Leland Andrew Gregory. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90728 690)

THE HAMILTON SPECTATOR BURSARY
Established in 1997 by The Hamilton Spectator in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted to a student enrolled in any programme who demonstrates financial need. (90727 699)

THE HAMILTON PORCELAINS BURSARY
Established in 1997 by Hamilton Porcelains Limited in the belief that all students should have the opportunity to pursue their educational goals. To be granted to a student enrolled in any programme who demonstrates financial need. (90743 796)

THE EDWINW. HILBORN BURSARY
Established in 1965 by bequest of Edwin W. Hilborn. To be granted to a student in any programme. (90520 831)

THE LLOYD ANDREW HILGARTNER BURSARIES
Established in 1997 by Lloyd Andrew Hilgartner. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90634 806)

THE INTER-RESIDENCE COUNCIL BURSARIES
Established in 1996 by the Inter-Residence Council in support of McMaster students. To be granted to a student in any programme who demonstrates financial need. (90680 489)

THE JADDCO ANDERSON BURSARY
Established in 1997 by Jadcco Anderson Limited in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted to a student enrolled in any programme who demonstrates financial need. (90798 700)

THE JONES-TURNER BURSARY
Established in 1997 by Sheila Lang (Class of '53) in honour of her family's long-standing association with the University. To be granted to a student enrolled in any programme who demonstrates financial need. (90743 705)
THE MURIEL McBRiEN KAUFFMAN BURSARIES
Established in 1997 by the Muriel McBrien Kauffman Foundation in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted annually to students enrolled in any programme who demonstrate financial need. (90744 706)

THE ROBERT A. KENNEDY BURSARIES
Established in 1997 by Robert A. Kennedy under the McMaster Student Opportunity Fund initiative. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90746 708)

THE KHAKI UNIVERSITY AND YOUNG MEN'S CHRISTIAN ASSOCIATION MEMORIAL BURSARIES
Established in 1921 by the Khaki University of Canada and the Young Men's Christian Association. To assist students in any programme, preference to be given to children of war veterans. (90523 284)

THE LAIDLAW INC. BURSARIES
Established in 1996 by Laidlaw Inc., a major provider of transportation services to school boards, municipalities and the general public throughout Canada and the United States, in support of students pursuing their post-secondary studies at McMaster. A variable number of bursaries to assist students in any programme who demonstrate financial need. (90608 432)

THE BETTY MAY LAMB MEMORIAL BURSARY
Established in 1991 by family, friends, colleagues in memory of Betty May Lamb, an employee at McMaster University for 22 years, most recently as Executive Assistant to the Faculty Association from 1988-91. To assist students in any programme who demonstrate financial need. (90555 301)

THE LANCASTER SHEET METAL LIMITED BURSARY
Established in 1997 under the McMaster Student Opportunity Fund initiative. To be granted to students enrolled in any programme who demonstrate financial need. (90751 715)

THE LANDMARK CONSULTING GROUP BURSARIES
Established in 1997 by LANDMARK Consulting Group Inc. in support of its belief that all students should have the opportunity to pursue their educational aspirations. A variable number of bursaries to be granted to students in any programme who demonstrate financial need. (90609 433)

THE LANG FAMILY BURSARIES
Established in 1996 by H. Murray Lang (Class of '44) of Etobicoke, Ontario in honour of his family's connection to McMaster. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90611 435)

THE GARY LAUTENS MEMORIAL BURSARIES
Established in 1996 by Mrs. Jackie Lautens, the Toronto Star, family and friends, in memory of Gary Lautens (Class of '50), columnist and editor of the Toronto Star (1962-92), the Hamilton Spectator (1950-62) and the Toronto Star, 28th anniversary of the McMaster Association of Young Men's Christian Associations. Preference will be given to the recipient of The Gary Lautens Memorial Scholarship. (90613 437)

THE BERTRAM LEGGAT MEMORIAL BURSARIES
Established in 1996 by his family and friends in memory of Bertram Leggat, Q.C., as a tribute to his dedication to the community, his esteem in the legal profession and his devotion to his family. A variable number of bursaries to be granted to students who demonstrate financial need. (90614 438)

THE LINCLUDEN MANAGEMENT BURSARIES
Established in 1997 by Lincluden Management Ltd. under the McMaster Student Opportunity Fund initiative. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90755 717)

THE LONDON GUARANTEE BURSARIES
Established in 1997 by London Guarantee Insurance in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted annually to McMaster students who demonstrate financial need. (90757 719)

THE MASEKSTEEL BURSARY
Established in 1997 by Maseksteel Inc. in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted to students enrolled in any programme who demonstrate financial need. (90761 722)

THE LINDA MATTHEWS BURSARIES
Established in 1998 by Linda Matthews (Class of '69). A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. Preference to be given to female students. (90684 461)

THE ANDREW McFARLANE BURSARIES
Established in 1988 by bequest of Andrew McFarlane of Hamilton. To be granted to a student or students who are in good standing and have demonstrated fine academic performance. (90780 583)

THE McMASTER BURSARIES
Established in 1980 by the University to assist undergraduate students in any programme. (90527)

THE McMASTER GENERAL BURSARIES
Established in 1996 by the University to assist undergraduate students in any programme who demonstrate financial need. (90624)

THE McMASTER ALUMNIAE CENTENNIAL BURSARIES
Established in 1988 by the McMaster Women's Alumni, Hamilton Branch, to be granted to a mature student in his or her graduating year, who is a Canadian citizen or permanent resident and who exhibits financial need. Preference will be given to a single parent. (90529 214)

THE McMASTER ALUMNI ASSOCIATION BURSARIES
Established in 1997 by the McMaster Alumni Association in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries will be granted annually to McMaster students who demonstrate financial need. (90662 858)

THE McMASTER ASSOCIATION OF PART-TIME STUDENTS BURSARIES
Established in 1988 in celebration of McMaster's Centennial celebration to assist students currently enrolled in a degree or certificate programme who, without such assistance, would be unable to continue their studies. Consideration may also be given to students who would not otherwise enrol without such assistance. Applications will be reviewed by the MAPS Centennial Bursary Selection Committee. (90529 290)

THE McMASTER ASSOCIATION OF PART-TIME STUDENTS 20TH ANNIVERSARY BURSARY
Established in 1999 in honour of the 20th anniversary of the McMaster Association of Part-Time Students. The bursary was further augmented by friends and colleagues of Helen Barton, MAPS' first President and founding member, in recognition of her 27 years of service and retirement as Senior Associate Registrar at McMaster. To be granted to students currently enrolled in a part-time basis, in a degree, diploma or certificate programme who demonstrate financial need. Applications will be reviewed by the MAPS Bursary Selection Committee. (90835 807)

THE McMASTER SAVINGS AND CREDIT UNION LIMITED BURSARIES
Established in 1997 by McMaster Savings and Credit Union Limited in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted annually to McMaster students enrolled in any programme who demonstrate financial need. (90822 767)

THE McMASTER STUDENT OPPORTUNITY FUND BURSARIES
Established in 1996 by McMaster University from general donations to the Student Opportunity Fund initiative. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90627 451)

THE McMASTER STUDENTS' UNION BURSARIES
Established in 1982 by the McMaster Students' Union. To assist those undergraduate MSU members who demonstrate financial need. (90530 292)

THE McMASTER UNIVERSITY FACULTY ASSOCIATION BURSARIES
Established in 1997 by the McMaster Faculty Association under the McMaster Student Opportunity Fund initiative based on the assumption that all students should have access to educational opportunities. To be granted to a student enrolled in any programme who demonstrates financial need. (90768 792)

THE A.J. MELLOR MEMORIAL FUND
To be granted to a student in any programme. (90532 883)

THE MELOCHE MONNEX INC. BURSARY
Established in 1997 by Meloche Monnex Inc., the University to assist undergraduate students in any programme who demonstrate financial need. (90776 738)

THE EDNA C. AND FRANK CHARLES MILLER BURSARY
Established in 1997 by Frank C. Miller in memory of his parents, Edna C. and Frank Charles Miller, in support of McMaster students. To be granted to a student enrolled in any programme who demonstrates financial need. (90778 741)

THE WALLACE R. Morris Bursary Fund
Established in 1997 by bequest of Wallace Ronald Morris. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90780 743)
THE JOHN DOUGLAS MOYER BURSARY
Established in 1986 by bequest of John Douglas Moyer to assist needy students. (90534 834)

THE MARJORIE AND BILL NELSON BURSARY
Established in 1997 by Marjorie and Bill Nelson under the McMaster Student Opportunity Fund Initiative. In support of the Hamilton community, and in support of the efforts of McMaster University to ensure that all students have the opportunity to achieve their educational goals. To be granted to a student enrolled in any programme who demonstrates financial need. (90781 744)

THE NELSON STEEL BURSARY
Established in 1997 by Nelson Steel in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted to students in any programme who demonstrate financial need. (90782 745)

THE PETRO-CANADA BURSARIES
Established in 1996 by Petro-Canada, the leading refiners and marketers of petroleum products, in support of its belief that all students should have the opportunity to pursue their educational aspirations. A variable number of bursaries to be granted to students in any programme who demonstrate financial need. (90334 483)

THE ROBERT AND RUTH PHILIP STUDENT BURSARIES
Established in 1996 by Robert and Ruth Philip of Hamilton, Ontario. A variable number of bursaries to be granted to students in any programme who demonstrate financial need. (90386 484)

THE KATHERINE PULFORD BURSARY
Established in 1997 by Katherine Pulford. To be granted to a student enrolled in any programme who demonstrates financial need. Preference to be given to a sole-support parent. (90941 769)

THE REDPATH SUGARS BURSARY
Established in 1997 by Redpath Sugars, Division of Redpath Industries Limited, in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted to a student enrolled in any programme who demonstrates financial need. (90824 769)

THE JAMES AND ELIZABETH ROBERTS BURSARIES
Established in 1957 by R.H. Roberts in memory of his parents to assist any male student of good academic standing. (90538 835)

THE HUGH AND ALICE ROBERTSON MEMORIAL BURSARIES
Established in 1997 by R.G. Hamish Robertson in honour of his parents Hugh and Alice Robertson under the McMaster Student Opportunity Fund Initiative. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90758 758)

THE HELEN LENORE ROSZELL MEMORIAL BURSARIES
Established in 2000 by bequest of Helen Lenore Roszell. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90961 760)

THE ROYAL BANK BURSARY FUND
Established in 1997 by the Royal Bank of Canada in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to students in any programme who demonstrate financial need. (90797 760)

THE ROYAL & SUNALLIANCE BURSARIES
Established in 1997 by Royal & SunAlliance Canada in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries will be granted annually to McMaster students who demonstrate financial need. (90799 762)

THE HELEN SANSONE BURSARIES
Established in 1986 by bequest of Helen Sansone of Hamilton, Ontario. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90641 490)

THE MYKOLA SEMENIUK BURSARIES
Established in 1991 by bequest of Mykola Semeniuk to assist students who demonstrate financial need and augmented in 1996 in conjunction with the McMaster Student Opportunity Fund Initiative. (90551 286)

THE ALBERT EDWARD SMITH AND JEAN McTVASH SMITH BURSARY
Established in 1998 by Mrs. Jean McTavish Smith (Class of '31), in memory of Albert Edward Smith (Class of '29) under the McMaster Student Opportunity Fund Initiative. To be granted to a student in any programme who demonstrates financial need. (90836 808)

THE SAM SMURLICK BURSARY
Established in 1978 by the Smurlick family in memory of Sam Smurlick (Class of '35). To be granted to a student in any programme who demonstrates financial need. (90541 836)

THE SOMERVILLE BURSARY
Established in 1997 under the McMaster Student Opportunity Fund Initiative. Preference will be given, if financial need is demonstrated, to a recipient of The Somerville Scholarships. (90881)

THE TARBUTT CONSTRUCTION LTD. BURSARY
Established in 1997 by Tarbutt Construction Ltd. under the McMaster Student Opportunity Fund Initiative. To be granted to a student enrolled in any programme who demonstrates financial need. (90792 694)

THE TD BANK FINANCIAL GROUP BURSARIES
Established in 1999 by the TD Bank Financial Group in support of its commitment to helping students succeed in their post-secondary studies. A variable number of bursaries to be granted to students in any programme who demonstrate financial need. (90939)

THE RAY AND JOYCE TRUILL BURSARY
Established in 1996 by Roger and Janet Truill and their children in honour of Ray and Joyce Truill. To be granted to a student in any programme who demonstrates financial need. (9086 758)

THE EDITH H. TURNER FOUNDATION BURSARIES
Established in 1996 by The Edith H. Turner Foundation in support of students pursuing their post-secondary studies at McMaster. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90648 497)

THE TYNOWSKI BURSARY
Established in 1997 under the McMaster Student Opportunity Fund Initiative. Preference will be given, if financial need is demonstrated, to the recipient of the Young Scholarship. (90553)

THE VALLEY CITY BURSARY
Established in 1996 by Valley City in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted to a student in any programme who demonstrates financial need. (90662 459)

THE WALLINGFORD HALL BURSARIES
Established through anonymous donations to assist students in any programme who demonstrate financial need. (90548)

THE G.S. WARK LTD. BURSARY
Established in 1996 by G.S. Wark Ltd. in support of its belief that all students should have the opportunity to pursue their educational goals. To be awarded to a student in any programme who demonstrates financial need. (90589 413)

THE LLOYDWERDEN MEMORIAL BURSARIES
Established in 1996 by bequest of Lloyd Werden of Bonavista in the Township of Louth in the County of Lincoln, former Physician. To be granted to students enrolled in any programme who demonstrate financial need. (90651 500)

THE YATES BURSARIES
Established in 1995 by bequest of William Henry Yates of Hamilton. To assist students in any programme. (90549)

THE GLADYS A. YOUNG BURSARY
Established in 1997 under the McMaster Student Opportunity Fund Initiative. Preference will be given, if financial need is demonstrated, to the recipient of The Gladys A. Young Scholarship. (90878)

BURSARIES FOR STUDENTS WITH DISABILITIES

THE AUBREY DALGLEISH BURSARY
Established in 1985. To be granted to a student in any programme who demonstrates financial need with special preference given to handicapped students and/or students in the Faculty of Business. (90558)

THE JAMES R. (JAMIE) GREILICH MEMORIAL BURSARY
Established in 1991 in memory of Jamie Greilich (Class of '98) by the Operating Committee on the Disabled through its Awareness Week Activities. To be granted to a disabled student in any programme who demonstrates financial need. Students should have registered with the Centre for Student Development. (90553 287)

THE RICHARD KONRAD BURSARIES
Established in 1997 by Richard Konrad under the McMaster Student Opportunity Fund Initiative in the belief that all students should have the opportunity to achieve their academic goals. A variable number of bursaries to be granted based upon demonstrated financial need in each of the following areas:

a) The Richard Konrad Bursaries for students enrolled in any programme.

b) The Richard Konrad Bursaries for physically challenged students registered with the Centre for Student Development, who are enrolled in any programme. (90750 712)
THE DIANNE MacISAAC MEMORIAL BURSARY
Established in 1994 by friends and family of Dianne Macisaac and augmented in 1996 in conjunction with the McMaster Student Opportunity Fund initiative. To be granted to a student or students enrolled in a program in Sociology who demonstrate financial need. Preference to be given to students with disabilities. (90571 721)

THE SERTOMA CLUB BURSARY
Established in 1989 by the Sertoma Club of Hamilton. To be granted to a hearing disabled student in any programme who demonstrates financial need. In a year that a suitable candidate is not found, the bursary will be granted to a student with another disability provided they demonstrate financial need. Students must have registered with the Centre for Student Development. (90540 221)

THE LILLIAN R. STEGNE MEMORIAL BURSARIES
Established in 1990 in memory of Lillian Rose Stegne (Class of '62) by family, friends and colleagues. Two or three bursaries to be granted to handicapped students in any programme who demonstrate financial need. (90543 137)

ATHLETIC BURSARIES
All athletic bursaries are only applicable to students in Level II or higher who meet the OUA and the CIAU regulations for Athletic Bursaries. Verification of eligibility will be done in consultation with the Department of Athletics.

THE CROSS COUNTRY BURSARY
Established in 1997 by coaches, former team members and supporters of the McMaster Cross Country running team under the McMaster Student Opportunity Fund Initiative. To be granted to a student who demonstrates financial need and who is a member of the varsity men's or women's cross country team. (90695 657)

THE SAM DARRAGH GENERAL ATHLETIC BURSARY
Established in 1997 by friends of Sam Darragh under the McMaster Student Opportunity Fund Initiative. To be granted to a student enrolled in any academic programme who demonstrates financial need and who is a member of any McMaster interuniversity team. (90697 659)

THE SAM DARRAGH MEMORIAL BURSARY
Established in 1997 by friends of Sam Darragh under the McMaster Student Opportunity Fund Initiative. To be granted to a student enrolled in any programme who demonstrates financial need and who has demonstrated outstanding athletic achievement in InterVarsity football. (90837 659)

THE SADIE LUDLOW BURSARIES
Established in 1996 by family and friends of Sadie Ludlow, former McMaster employee from 1957 to 1977, and an outstanding athlete who loved sports. A variable number of bursaries to be granted to students who have demonstrated financial need and involvement in either McMaster Interuniversity football or Interuniversity women's tennis. (90615 439)

McMASTER MEN'S ATHLETICS BURSARY
Established by past and present student-athletes and friends of McMaster Interuniversity Athletics to assist students in any academic programme who demonstrate financial need and who demonstrate outstanding athletic participation in men's interuniversity athletics. (90625 449)

McMASTER MEN'S BASKETBALL BURSARY
Established by past and present student-athletes and friends of McMaster Men's Basketball to assist students in any academic programme who demonstrate financial need and who demonstrate outstanding athletic participation in the sport of men's basketball. (90770 732)

McMASTER SQUASH AND GOLF BURSARY
Established by past and present student-athletes and friends of McMaster Golf and Squash to assist a student in any academic programme who demonstrates financial need and who demonstrates outstanding athletic participation in the sport of golf or squash. (90771 733)

McMASTERWOMEN'S BASKETBALL BURSARY
Established by past and present student-athletes and friends of McMaster Women's Basketball to assist a student in any academic programme who demonstrates financial need and who demonstrates outstanding athletic participation in the sport of women's basketball. (90772 734)

McMASTERWOMEN'S VOLLEYBALL BURSARY
Established by past and present student-athletes and friends of McMaster Women's Volleyball to assist a student in any academic programme who demonstrates financial need and who demonstrates outstanding athletic participation in the sport of women's volleyball. (90773 735)

THE NHL PLAYERS' ASSOCIATION BURSARY
Established in 1999 by The NHL Players' Association Alumni. To be granted to a student enrolled in any programme who demonstrates financial need and who has demonstrated outstanding athletic achievement in an intervarsity sport. (90889 674)

THE THOMAS ALEXANDER PAIN BURSARY
Established by past and present student-athletes and friends of McMaster Football to assist students in any academic programme who demonstrate financial need and who demonstrate outstanding participation in the sport of football. (90777 798)

THE LES PRINCE BURSARIES
Established in 1996 in memory of Leslie A. Prince, dedicated teacher, coach and administrator at McMaster University remembered for his outstanding leadership and service in Athletics and Recreation, Student Life as well as the community-at-large. To assist student-athletes who demonstrate financial need. Preference to be given to students who demonstrate qualities of leadership and service to the community through programmes such as Athletes helping Athletes. (90637 486)

COMMUNITY SERVICE BURSARIES

THE ERIC JOHN BRETZLER BURSARY
Established in 1997 by family and friends in memory of Eric John Bretzler (Class of '62). To be granted to a student enrolled in any programme who demonstrates financial need and a sense of social awareness and shown interest in, and concern for, others. It is hoped that recipients, after graduation, will reimburse the fund to the extent of their award so that increasing numbers of students may be assisted. (90655 358)

THE ARCHIBALD R. CROZIER BURSARIES
Established in 1992 in memory of Archibald (Archie) Crozier (Class of '35), former professional football player and Chair of the Ontario Energy Board for 17 years. To be granted to a student who has demonstrated financial need and a sense of social awareness and shown interest in, and concern for, others. It is hoped that recipients, after graduation, will reimburse the fund to the extent of their award so that increasing numbers of students may be assisted. (90655 358)

THE GWEN GEORGE UNDERGRADUATE BURSARIES
Established in 1997 in loving memory of Gwen George by her family and friends under the McMaster Student Opportunity Fund Initiative. To be granted to students in any academic programme who have demonstrated financial need. Preference to be given to students who have demonstrated leadership and service to McMaster University and/or the Hamilton-Wentworth, surrounding or world communities. (90713 675)

THE RAYMOND C. LABARGE MEMORIAL BURSARIES
Established in 1973 by friends and associates in memory of Raymond C. Labarge (Class of '36) of Ottawa. Four bursaries are available for senior undergraduate students. Applicants should have a record of academic performance that has normally been at the upper second-class level or higher. They should also have demonstrated a sense of social awareness, shown interest in and concern for others and been an active participant in University, general community affairs. Students should describe their qualifications for this bursary in the covering letter. (90524 212)

THE LYNDEY LIONS CLUB BURSARY
Established in 1997 by the Lynden Lions Club under the McMaster Student Opportunity Fund Initiative to exemplify the Lions International objective to take an active interest in the civic, cultural, social and moral welfare of the community. To be granted to a student enrolled in any programme who has demonstrated commendable service to the community-at-large. Preference to be given to students who currently reside in the Lynden or Troy area. (90758 720)

REGIONAL BURSARIES

THE JAMES N. ALLAN FOUNDATION BURSARY
Established in 1988 from funds donated by the James N. Allan Foundation, Dunnville, Ontario, in support of its belief that all students should have the opportunity to achieve their educational goals. To provide assistance to McMaster students who demonstrate financial need. Preference will be given to students from Haldimand Norfolk County. (90803 621)

THE ANCASTER LIONS CLUB BURSARY
Established in 1997 by the Ancaster Lions Club under the McMaster Student Opportunity Fund Initiative to exemplify the Lions International objective to take an active interest in the civic, cultural, social and moral welfare of the community. To be granted to a student enrolled in any programme who demonstrates financial need. Preference to be given to students who currently reside in the town of Ancaster. (90804 683)
THE AVESTEL CREDIT UNION LIMITED BURSARIES
Established in 1989 by members in celebration of 50 years of service in the Hamilton area. Two or three bursaries to be granted to students in any programme who, are from the Regional Municipality of Hamilton-Wentworth, City of Burlington or Town of Haldimand-Norfolk, who have demonstrated financial need. Value: $700 each (90504 199)

THE CANADIAN FEDERATION OF UNIVERSITY WOMEN’S (BURLINGTON) BURSARY
Established in 1988, a bursary to be granted to a female student who demonstrates financial need and who is a resident of Hamilton-Wentworth or Halton Region, preferably from the Burlington area. (90645 223)

THE CANADIAN FEDERATION OF UNIVERSITY WOMEN (HAMILTON) BURSARY
Established in 1997 by the Canadian Federation of University Women (Hamilton) in support of the McMaster Student Opportunity Fund initiative. To be granted to a student in any academic programme who demonstrates financial need. (90682 784)

THE CITY OF HAMILTON BURSARIES
Established in 1959 by the City of Hamilton to commemorate the visit of Her Majesty Queen Elizabeth II and His Royal Highness Prince Philip to Hamilton in July 1959. To assist Hamilton students who demonstrate financial need. (90515)

THE WILLIAM A. DETENBECK BURSARIES
Established in 1996 by William Detenbeck in honour of the Detenbeck Family. A variable number of bursaries to be granted to students who demonstrate that they are residents of an Aboriginal community in Canada and who demonstrate financial need. (90597 421)

THE DUNDAS BURSARIES
Established in 1996 from funds donated anonymously for the purpose of providing students with an opportunity to achieve their educational goals. To provide assistance to McMaster students in financial need. Preference will be given to students from the Dundas area. (90599 423)

THE CURYS EATON FOUNDATION BURSARY
Established in 2000 by the Cyrus Eaton Foundation of Cleveland, Ohio, in support of McMaster students. To be granted to a student in any programme who demonstrates financial need. Preference will be granted to students from Nova Scotia. (90644)

THE HAMILTON ALUMNI BRANCH BURSARIES
Established in 1997 by the McMaster Alumni Association, Hamilton Branch, in honour of the long-standing accomplishments of the Hamilton Alumni Branch. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. Preference will be given to students graduating from a high school in the Hamilton-Wentworth Region. (90725 697)

THE HAMILTON CITIZENS’ MEMORIAL BURSARIES
Established in 1947 by the Hamilton Citizens’ Committee for War Services. Proceeds to be used to assist undergraduate students who are residents of the Hamilton-Wentworth Region. (90516 207)

HAMILTON COMMUNITY FOUNDATION BURSARIES
Established in 1996-97 by Hamilton Community Foundation from the income of funds generously donated by citizens of this community, notably the late sisters Genevive Chaney and Cordelia Ensign, and the late Mr. Ross F. Webb. A variable number of bursaries to be awarded to full-time students, registered in any year of any undergraduate programme who have graduated from publicly-funded secondary schools in Hamilton-Wentworth and who demonstrate financial need. The criteria established for these bursaries are consistent with the intention of the original donors. (90723 685)

THE MARY A. HILL BURSARY
Established in 1976 by bequest of Mary A. Hill. To be granted to a female student in any programme who demonstrates financial need. Preference to be given to one who has graduated from a secondary school in Hamilton. (90921 837)

THE CLIFFORD JACKSON MEMORIAL BURSARIES
Established in 1997 by family and friends in memory of Clifford Jackson. A variable number of bursaries to be granted annually to students in any programme who demonstrate financial need. Preference will be given to children and grandchildren of employees and retirees of The Hamilton-Wentworth Regional Police. (90737 699)

THE KIWANIS CLUB OF HAMILTON EAST BURSARY
Established in 1997 by the Kiwanis Club of Hamilton East under the McMaster Student Opportunity Fund Initiative. To be granted to a student enrolled in any programme who demonstrates financial need. Preference to be given to members and former members of the Hamilton East Kiwanis Boys’ and Girls’ Club. (90749 711)

THE LEFLAR FOUNDATION BURSARY
Established in 1997 by The Leflar Foundation in support of its belief that all students should be able to pursue their educational goals. To be granted to students enrolled in any programme who demonstrate financial need. Preference to be given to students who are from the Owen Sound area. (90753 715)

THE PAUL R. MACPHERSON BURSARY
Established in 1998 by Paul R. MacPherson (Class of ’57) in support of his belief that all students should be able to pursue their educational goals. To be granted to full-time students enrolled in any Level I programme who demonstrate financial need. Preference to be given to students from Muskoka Lakes Secondary School. (90938 810)

THE MALLOCH FOUNDATION BURSARIES
Established in 1996 by the Malloch Foundation, Hamilton, in the belief that all students should be able to achieve their educational goals. A variable number of bursaries to be granted to students in any programme who demonstrate financial need. Preference to be given to students from the Hamilton area. (90618 442)

THE McMaster Savings and Credit Union Ltd. BURSARIES
Established in 1993 by the McMaster Credit Union Limited. To assist students in any programme. To be granted to students who are members of the McMaster Savings and Credit Union or, in the absence of such members, children of employees of McMaster University or Chedoke-McMaster Hospitals. (90561 334)

THE MOULTON COLLEGE ALUMNAE ASSOCIATION BURSARY
Established in 1994. To be granted to a student who resides in Moulton Hall and who demonstrates financial need. (90936)

THE LILLIAN AND leroy page BURSARIES
Established in 1997 by the Lillian and Leroy Page Foundation to enable students to pursue their educational goals. A variable number of bursaries to be granted to students from the Hamilton-Wentworth Region who demonstrate financial need. Preference to be given to students in the Faculty of Science. (90786 749)

THE REGIONAL MUNICIPALITY OF HAMILTON-WENTWORTH BURSARIES
Established in 1997 by The Regional Municipality of Hamilton-Wentworth in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries will be granted to students enrolled in any programme who demonstrate financial need. Preference will be given to students who permanently reside in the Hamilton-Wentworth Region. (90794 757)

THE ELEANOR AND wilfred Ryder BURSARY
Established in 1999 by Marvin Ryder in honour of Eleanor and Wilfred Ryder. To be granted to students enrolled in any programme who demonstrate financial need. Preference will be given to students from Oxford County or Norfolk County. (90894)

FACULTY-SPECIFIC BURSARIES

ARTS AND SCIENCE PROGRAMME

THE ARTS AND SCIENCE CLASS OF ’97 LEGACY BURSARY
Established in 1997 by the Arts and Science Class of ’97 under the McMaster Student Opportunity Fund Initiative. To be granted to a student in the Arts and Science Programme who demonstrates financial need. (90808 626)

THE BIRGIT AND ROBERT BATEMAN BURSARY
Established in 1997 by Birgit and Robert Bateman under the McMaster Student Opportunity Fund Initiative. To be granted to a student who demonstrates financial need and is enrolled in the Arts and Science Programme, the Faculty of Social Sciences or the Faculty of Science. Preference to be given to students who are studying Environmental Studies or Environmental Science. (90610 629)

THE LOUILA BRAYFORD MEMORIAL BURSARY
Established in 1998 by Mrs. Janet Leemaars in memory of her late mother, Mrs. Louila Brayford (nee Bingham, Class of ‘34). To be granted to a student enrolled in the Arts and Science Programme who demonstrates financial need. Preference will be given to a student enrolled in a course in Mathematics. (90839 811)
THE GERALDINE LORETTA COSFORD GENERAL BursARIES
Established in 1999 by Geraldine Loretta Cosford (Class of '35 and '39). To be granted to students enrolled in the Arts and Sciences Programmes, the Faculties of Business, Engineering, Humanities, Science and Social Sciences who demonstrate financial need and have attained a minimum CA of 7.0. (90870-866)

THE GORDON H. DEAN BursARIES
Established in 1996 by Gordon H. Dean of Stoney Creek. Two or more bursaries to be granted based upon financial need: a) one to a student enrolled in Level III of a programme in Arts and Science and b) one to a student enrolled in Level III of a programme in the Faculty of Humanities. Preference given to students currently on the Deans’ Honour List. (90594-418)

THE GEORGE P. GILMOUR MEMORIAL BursARY
Established in 1997 by the Class of ’82 in support of McMaster students. To be granted to a student enrolled in the Arts and Science Programmes who has demonstrated financial need. Preference will be given to the student who wins the George P. Gilmour Memorial Scholarship. (90714-676)

THE HAMILTON INTERNATIONAL AIRPORT BURSARY
Established in 1997 by the Hamilton International Airport. To be granted to a student who has demonstrated financial need and is enrolled in a programme in Engineering, Geography, Business or Economics and has demonstrated an interest in a career in transportation. Preference to be given to a student who elects to undertake a fourth year thesis on a topic related to the study of transportation. (90666-495)

THE JOHNS FAMILY BURSARIES
Established by Martin W. Johns and family. A variable number of bursaries to be granted to students enrolled in the Arts and Science programmes who demonstrate financial need. (90586-432)

THE SAM AND IRENE WATSON BURSARY FUND
Established in 1998 by the estate of Irene Mary Watson. To be granted to students who demonstrate financial need and who have completed their second year with a Cumulative Average of at least 8.0 in the Arts and Science Programmes or any of the Faculties of Business, Engineering, Humanities, Science and Social Sciences. Value: $2,000 (90840-812)

THE GARY ALLEN MEMORIAL BURSARY
Established in 1987 by friends and family of the late Gary Allen (Class of ’84) and augmented in 1996 in conjunction with the McMaster Student Opportunity Fund initiative, to assist a Commerce student in Year III or IV whose major area of study is accounting and who demonstrates financial need. Preference will be given to a mature student. (90501-234)

THE MATT CASEY BURSARY
Established in 1997 by Mr. Matthias Casey (Class of ’83) under the McMaster Student Opportunity Fund Initiative. To be granted to a student who demonstrates financial need and is enrolled in the Faculty of Business. Preference will be given to students enrolled in the MBA Programme in the Finance stream. (90568-643)

THE DAVID CLARK BURSARIES
Established in 1996 by David I. Clark and Marilyn D. Eustace. A variable number of bursaries to be granted to students enrolled in a programme in Commerce who demonstrate financial need. Preference to be given to students demonstrating interest in Asian Studies. (90588-412)

THE GERALDINE LORETTA COSFORD GENERAL BursARIES
Established in 1999 by Geraldine Loretta Cosford (Class of ’35 and ’39). To be granted to students enrolled in the Arts and Sciences Programmes, the Faculties of Business, Engineering, Humanities, Science and Social Sciences who demonstrate financial need and have attained a minimum CA of 7.0. (90870-866)

THE AUBREY DALLEY BEISH BURSARY
Established in 1991. To be granted to a student in any programme who demonstrate financial need with special preference given to handicapped students and/or students in the Faculty of Business. (90509)

THE DAUGHTERS OF THE EMPIRE CLUB, HAMILTON LTD. BURSARIES
Established in 1996 in honour of The Daughters of the Empire Club, Hamilton, Limited (1911-1996) in support of its belief that all students should have the opportunity to pursue their educational aspirations. A variable number of bursaries to be granted to students in financial need. Preference to be given to women enrolled in the Faculty of Business. (90593-417)

THE MICHAEL G. DEGROOTE SCHOOL OF BUSINESS BUSINESS ADVISORY COUNCIL BURSARY
Established in 1997 by the Michael G. DeGroote School of Business Business Advisory Council under the McMaster Student Opportunity Fund initiative. To be granted to a student who demonstrates financial need and is enrolled in Business I or in the first year of the MBA Programme at the Michael G. DeGroote School of Business. (90599-061)

THE GEORGE AND MARGARET EDRUPT BURSARY
Established in 1997 by Sandra Edrupt in honour of her parents George and Margaret Edrupt under the McMaster Student Opportunity Fund initiative. To be granted to a student who demonstrates financial need and is enrolled in either the Faculty of Business or the Computer Science programme in the Faculty of Science. (90701-663)

THE FACULTY OF BUSINESS BURSARIES
Established in 1997 under the McMaster Student Opportunity Fund initiative with proceeds from the Fundraising Auction held at Vineland Estates Winery Ltd. To be granted to students enrolled in the Faculty of Business who demonstrate financial need. (90705-667)

THE FINANCIAL EXECUTIVES INSTITUTE BURSARY
Established in 1997 by the Hamilton Chapter of the Financial Executives Institute in support of its belief that all students should have the opportunity to achieve their educational goals. To be granted to a student enrolled in Level II of the Commerce programme who demonstrates financial need, has attained a minimum CA of 6.0, and who plans to major in Accounting and/or Finance. The bursary is renewable for up to two additional years on condition that the student continues to demonstrate financial need and maintains a minimum CA of 6.0 in the Commerce programme. (90829-785)

THE WAYNE C. FOX BURSARIES
Established in 1999 by Wayne C. Fox in support of his belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries will be granted to students who demonstrate financial need and are enrolled in the Faculty of Humanities or the Faculty of Social Sciences or the Commerce programme at the Michael G. DeGroote School of Business. (90857-853)

THE ALLEN AND MILLI GOULD FAMILY FOUNDATION BURSARIES
Established in 1997 from funds donated by the Allen and Milli Gould Family Foundation, in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to McMaster students enrolled in the Faculty of Business who demonstrate financial need. Preference to be given to MBA Co-op students. (90716-678)

THE GARY GRAHAM BURSARY
Established in 1997 by Gary Graham under the McMaster Student Opportunity Fund initiative. To be granted to a student who demonstrates financial need and is enrolled in Business I, or in the first year of the MBA Programme, at the Michael G. DeGroote School of Business. (90717-679)

THE HAMILTON CHAPTER OF THE HUMAN RESOURCES PROFESSIONALS ASSOCIATION BURSARY
Established in 1999 by the Hamilton Chapter of the Human Resources Professionals Association under the McMaster Student Opportunity Fund initiative. To be granted to a Level III or Level IV Commerce student taking one or more of the Human Resource and Management Area courses who demonstrates financial need. (90860-856)

THE HAMILTON INTERNATIONAL AIRPORT BURSARY
Established in 1997 by the Hamilton International Airport. To be granted to a student who has demonstrated financial need and is enrolled in a programme in Engineering, Geography, Business or Economics and has demonstrated an interest in a career in transportation. Preference to be given to a student who elects to undertake a fourth year thesis on a topic related to the study of transportation. (90646-495)

THE M.A. (JACK) HASSAL BURSARY
Established by the Hamilton and District Chartered Accountants’ Discussion Group in 1982 in memory of M.A. (Jack) Hassal. To assist a student in Commerce or Commerce who is a Canadian citizen or permanent resident of Canada. It is hoped that recipients, after graduation, will reimburse the fund to the extent of their award so that the fund may assist increasing numbers of students. (90518-297)

THE HARISH JAIN HUMAN RIGHTS IN EMPLOYMENT BURSARIES
Established in 1996 by Professor Harish C. Jain. To be granted to a student enrolled in Level III or Level IV of a Commerce programme who demonstrates financial need. (90739-701)
THE IVISON FAMILY BURSARY FUND
Established in 1998 by Don and Betty Ivison in support of McMaster students under the McMaster Student Opportunity Fund initiative. A variable number of bursaries to be granted to students enrolled in the Faculty of Engineering, the Faculty of Business or the Schools of Medicine and Rehabilitation Science in the Faculty of Health Sciences who demonstrate financial need. (90841 813)

THE KELLEY ADVERTISING BURSARY
Established in 1997 by Kelley Advertising Inc., founded in Hamilton in 1913. This bursary to be granted to a student enrolled in Business I, or in the first year of the MBA Programme at the Michael G. DeGroote School of Business who demonstrates financial need. (90745 707)

THE KPMG BURSARIES
Established in 1996 by KPMG in support of its belief that students should have the opportunity to pursue their educational aspirations. A variable number of bursaries to be granted to students enrolled in the Faculty of Business who demonstrate financial need. (90607 431)

THE 3M CANADA INC. BURSARIES
Established in 1980, two bursaries to be granted annually; one to an M.B.A. student and one to a student in Business or Science. (90525 220)

THE MANULIFE FINANCIAL BURSARIES
Established in 1997 by Manulife Financial under the McMaster Student Opportunity Fund initiative. A variable number of bursaries to be granted to students who demonstrate financial need and are enrolled in the Faculty of Business or the Faculty of Health Sciences. (90762 724)

THE McMASTER MBA ALUMNI ASSOCIATION BURSARIES
Established in 1996 by the McMaster MBA Alumni Association. A variable number of bursaries to be granted to students enrolled in the first year of the Michael G. DeGroote School of Business MBA programme who demonstrate financial need. (90526 450)

THE MINICH FAMILY BURSARIES
Established in 1996 by E. A. Minich and family. A variable number of bursaries to be granted to students enrolled in Business I who demonstrate financial need. Preference to be given to students who demonstrate a lively interest in the University and community through their involvement in extra-curricular activities. (90828 452)

THE CLAIRE AND JOHN NOVAK BURSARY
Established in 1997 by Bruce Cumming (Class of '73) and Marie Cumming in honour of Claire and John Novak. To be granted to a student enrolled in the Faculty of Business who demonstrates financial need. (90794 747)

THE DR. ALFRED AND LAURA OAKIE BURSARIES
Established in 1996 by Dr. Alfred U. Oakie. A variable number of bursaries to be granted to students enrolled in Business I who demonstrate financial need. (90631 485)

THE PROCOR BURSARIES
Established in 1997 by Procor Ltd. in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted to students enrolled in Engineering or Commerce who demonstrate financial need and undertake service to McMaster University and the community-at-large. (90659 480)

THE RICOH CANADA INC. BURSARIES
Established in 1996 by Ricoh Canada Inc. in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to students enrolled in a programme in Business or Engineering who demonstrate financial need. (90637 440)

THE ROBERTSON-YATES CORPORATION BURSARIES
Established in 1996 by the Robertson-Yates Corporation of Hamilton in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to students enrolled in a programme in Business or Engineering who demonstrate financial need. (90540 489)

THE CARMEN AND DOROTHY RYDER BURSARY
Established in 1997 by Marilyn Ryder under the McMaster Student Opportunity Fund Initiative in honour of Carmen and Dorothy Ryder. To be granted to a student enrolled in the Faculty of Business who demonstrates financial need. Preference to be given to a student entering Level III or IV. (90800 763)

THE REBECKAH SCHNUR BURSARY
Established in 1998 by Rebeckah Schnur, Financial Advisor for the Berkshire Group, in the belief that all students should be able to realize their educational goals. To be granted to a student who demonstrates financial need. Preference to be given to a female student pursuing her studies in the Faculty of Business or the Faculty of Health Sciences who, because of extenuating family or personal circumstances, would be unable to continue her studies without such assistance. (90845 815)

THE SCOTTIAMCLEOD BURSARIES
Established in 1997 by ScotiaMcLeod in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. Preference to be given to students enrolled in the Faculty of Business. (90802 850)

THE TERRY SEAWRIGHT BURSARY
Established in 1996 by Terry Seawright, Lecturer in the Faculty of Business. To be granted to a student in the Commerce Programme who demonstrates financial need. Preference to be given to the student who has completed COMMERCE 2MA3 and attained a grade of at least B. (90643 482)

THE STELCO UNDERGRADUATE BURSARIES
Established in 1996 by Stelco-a market-driven, technologically advanced group of businesses committed to maintaining leadership roles as steel producers and fabricators-in support of students who, without financial aid, would be unable to pursue their educational goals. To be granted to students who demonstrate financial need and are enrolled in the Faculties of Business, Engineering or Science. Preference will be given to students who are enrolled in the Department of Materials Science and Engineering. (90644 493)

MOSSADIQ AND YASMIN UMEDELY BURSARIES
Established in 1999 by Mossadiq (MBA '74) and Yasmin Umedley under the McMaster Student Opportunity Fund initiative. To be granted to students enrolled in Business I for first year of the MBA program who demonstrate financial need. (90669 864)

THE SAM AND IRENE WATSON BURSARY FUND
Established in 1998 by the estate of Irene Mary Watson. To be granted to students who demonstrate financial need and who have completed their second year with a Cumulative Average of at least 8.0 in the Arts and Science Programme or any of the Faculties of Business, Engineering, Humanities, Science and Social Sciences. Value: $2,000 (90840 812)

THE WESTINGHOUSE CANADA INC. BURSARIES
Established in 1996 by Westinghouse Canada Inc. in support of students who, without financial support, would be unable to pursue their educational goals. A variable number of bursaries to be granted to students in a programme in the Faculty of Business and the Faculty of Engineering who demonstrate financial need. (90532 501)

THE ZONTA CLUB OF HAMILTON I BURSARIES
Established in 1997 by the Zonta Club of Hamilton I in support of the McMaster Student Opportunity Fund initiative and in the belief that all students, particularly women in non-traditional fields, should have the opportunity to pursue their educational goals. To be granted to a student who demonstrates financial need and is enrolled in the Faculty of Engineering, or in Business or is enrolled in a course in Indigenous Studies. Preference to be given to female students. (90560 037)

FACULTY OF ENGINEERING

THE ANDREW FOUNDATION BURSARIES
Established in 1997 by the Andrew Foundation under the McMaster Student Opportunity Fund initiative. A variable number of bursaries to be granted to students enrolled in a programme in Engineering who demonstrate financial need. Preference to be given to students who are studying Electrical Engineering or Mechanical Engineering. (90806 624)

THE A.H. ATKINSON BURSARIES
Established in 1989 by the A.H. Atkinson Education Fund Inc. of Hamilton and augmented in 1996 in conjunction with the McMaster Student Opportunity Fund initiative. A variable number of bursaries to be awarded to undergraduate students in a full-time programme in Engineering who demonstrate financial need. Value: $700 each. (90500 262)
THE BARTEK BURSARIES
Established in 1996 by Bartek Ingredients Inc. of Stoney Creek in support of McMaster students. A variable number of bursaries to be granted to students enrolled in the Faculty of Engineering who demonstrate financial need. Preference will be given to students currently on the Dean's Honour List. (90672 469)

THE CANADA TRUST BURSARIES
Established in 1996 by Canada Trust in support of its belief that students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to students who demonstrate financial need and are enrolled in the Environmental Science Programme, the Environmental Studies Programme or the Engineering and Society Programme. (90667 464)

THE CANADIAN SOCIETY FOR MECHANICAL ENGINEERING BURSARY
Established in 1997 by The Canadian Society for Mechanical Engineering in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted to a student enrolled in the Faculty of Engineering who demonstrates financial need. Preference will be given to a student enrolled in Mechanical Engineering. (90819 641)

THE CANON CANADA INC. - DIRECT SALES DIVISION BURSARIES
Established in 1997 by Canon Canada Inc. - Direct Sales Division in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries will be granted annually to McMaster students who demonstrate financial need and are enrolled in the Environmental Science Programme, the Environmental Studies Programme or an Engineering and Society Programme. (90820 642)

THE COMPSUMART BURSARIES FUND
Established in 1997 by JMG Compsumar in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted annually to students who demonstrate financial need. Preference will be given to McMaster students enrolled in a programme in Computer Science or Computer Engineering. (90741 703)

THE GERALDINE LORETTA COSFORD GENERAL BURSARIES
Established in 1999 by Geraldine Loretta Cosford (Class of '35 and '39). To be granted to students enrolled in the Arts and Sciences Programme, the Faculties of Business, Engineering, Humanities, Science and Social Sciences who demonstrate financial need and have attained a minimum CA of 7.0. (90870 866)

THE CRS ROBOTICS CORPORATION BURSARIES
Established in 1997 by CRS Robotics Corporation Inc. in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to students enrolled in the Faculty of Engineering who demonstrate financial need. (90696 658)

THE DR. RUDOLF DeBUDA BURSARY
Established in 1997 under the McMaster Student Opportunity initiative. Preference will be given, if financial need is demonstrated, to the recipient of the Dr. Rudolf DeBuda Scholarship. (90689)

THE ENGINEERING CLASS OF '97 LEGACY BURSARY
Established in 1997 by the graduating class in Engineering under the McMaster Student Opportunity Fund Initiative. To be granted to a student enrolled in the Faculty of Engineering who demonstrates financial need. (90686 650)

THE GENERAL CONTRACTORS ASSOCIATION OF HAMILTON BURSARIES
Established in 1997 by the General Contractors Association of Hamilton under the McMaster Student Opportunity Fund initiative. A variable number of bursaries to be granted to students enrolled in the Faculty of Engineering who demonstrate financial need. (90710 672)

THE GENNUM CORPORATION BURSARIES
Established in 1997 by the Gennum Corporation in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to students who are enrolled in the Faculty of Engineering and who demonstrate financial need. (90712 674)

THE GRAY FAMILY BURSARY
Established in 1997 by Donald Gray (Class of '70) and Glenn Gray (Class of '73) and Kerry Gray (Class of '77 and '82 (MBA)) under the McMaster Student Opportunity Fund initiative. To be granted to a third year student enrolled in the Engineering and Management programme who demonstrates financial need. Preference to be given to students who permanently reside in the Hamilton-Wentworth Region. (90718 680)

THE HAMILTON INTERNATIONAL AIRPORT BURSARY
Established in 1997 by the Hamilton International Airport. To be granted to a student who has demonstrated financial need and is enrolled in a programme in Engineering, Geography, Business or Economics and has demonstrated an interest in a career in transportation. Preference to be given to a student who elects to undertake a four year thesis on a topic related to the study of transportation. (90646 495)

THE HATCH ASSOCIATES BURSARY
Established in 1997 by Hatch Associates in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted to a student enrolled in the Faculty of Engineering who demonstrates financial need. (90730 692)

THE INGLIS BURSARIES
Established in 1996 by Paul F. Inglis of Mississauga. A variable number of bursaries to be granted to students enrolled in a programme in Commerce or Engineering Management who demonstrate financial need. Preference to be given to students enrolled in Engineering Management. (90606 430)

THE IVISON FAMILY BURSARIES FUND
Established in 1998 by Don and Betty Ivson in support of McMaster students under the McMaster Student Opportunity Fund initiative. A variable number of bursaries to be granted to students enrolled in the Faculty of Engineering, the Faculty of Business or the Schools of Medicine and Rehabilitation Science and the Faculty of Health Sciences who demonstrate financial need. (90841 813)

THE A.I. JOHNSON BURSARY
Established in 1997 under the McMaster Student Opportunity Fund initiative. Preference will be given, if financial need is demonstrated, to the recipient of the A.I. Johnson Scholarship. (90879)

THE SZE-WAI LEE MEMORIAL BURSARY
Established in 1997 under the Mcmaster Student Opportunity Fund initiative in honour of Sze-Wai Lee. To be granted to a student enrolled in the Faculty of Engineering who demonstrates financial need and has shown involvement in support of the community, particularly multicultural events. (90752 714)

THE LIBURDI ENGINEERING LIMITED BURSARY
Established in 1997 by Liburd Engineering Limited under the McMaster Student Opportunity Fund initiative. To be granted to a student enrolled in an Engineering programme who demonstrates financial need. (90754 727)

THE RONALD E. MATERICK BURSARY
Established in 1996 by Ronald E. Materick (Class of '70). To be granted to a student enrolled in the Faculty of Engineering who demonstrates financial need. Preference to be given to a student enrolled in Civil Engineering. (90665 462)

THE NEIL D. McARTHUR BURSARIES
Established in 1997 by the Anna and Neil McArthur Foundation in memory of Mrs. McArthur's parents, Joseph and Josephine Hryniszak. To be granted to students in any programme who demonstrate financial need. Preference to be given to students enrolled in either the Faculty of Science or the Faculty of Engineering. (90755 727)

THE McMASTER ENGINEERING SOCIETY BURSARY
Established in 1999 by the McMaster Engineering Society. To be granted to a student in the Faculty of Engineering who demonstrates financial need. (90863 859)

THE MERITOR AUTOMOTIVE INC. BURSARY
Established in 1999 by Meritor Automotive Inc. under the McMaster Student Opportunity Fund initiative. To be granted to a student enrolled in a Mechanical Engineering programme who demonstrates financial need. (90865 661)

THE DR. F.A. MIRZA BURSARY
Established in 1997 under the McMaster Student Opportunity Fund initiative. Preference will be given, if financial need is demonstrated, to the recipient of the Dr. F.A. Mirza Scholarship. (90895)

THE ROBERT JOHN MORRIS BURSARIES
Established in 1996 by family, friends and colleagues of Robert John Morris. A variable number of bursaries to be granted to students who demonstrate financial need and are enrolled in the Faculty of Engineering. Preference will be given to in-course recipients and/or entrance level recipients of The Robert John Morris Awards in the year they receive the award. (90930 454)

THE ARCHIE MOUGHALLIAN BURSARIES
Established by bequest in 1998. A variable number of bursaries to be granted to students enrolled in the Faculty of Engineering who demonstrate financial need. (90852 841)
THE NCR (WATERLOO) BURSARY
Established in 1998 by NCR (Waterloo) under the McMaster Student Opportunity Fund initiative. To be granted to a student enrolled in an Engineering and Management programme who demonstrates financial need. (90842 814)

THE ORLICK INDUSTRIES LIMITED BURSARIES
Established in 1997 by Orlick Industries in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to students enrolled in a Mechanical Engineering programme who demonstrate financial need. (90786 748)

THE OTIS CANADA BURSARIES IN ENGINEERING AND MANAGEMENT
Established in 1996 by OTIS Canada Inc., the world's largest elevator company with over 50,000 employees and more than 1,700 worldwide locations. A variable number of bursaries to be granted to students enrolled in Level II of a programme in Engineering and Management who demonstrate financial need. Preference to be given to students who demonstrate a lively interest in the university and community through their involvement in extracurricular activities. (90639 408)

THE PATRIOT FORGE INC. BURSARY
Established in 1997 by Patriot Forge Inc. in support of McMaster students. To be granted to a student enrolled in the Faculty of Engineering who demonstrates financial need. Preference will be given to a student enrolled in Mechanical, Chemical or Materials Engineering. (90788 751)

THE MARC ANDRE ARIEN PINEAULT BURSARY
Established in 1995 by family and friends in memory of Marc Pineault and augmented in 1996 in conjunction with the McMaster Student Opportunity Fund initiative. To be granted to a student enrolled in a programme in Engineering who has demonstrated financial need and involvement in University activities including the McMaster Choir, varsity wrestling, karate club and issues related to the environment and social justice. (90576 822)

THE PROCOR BURSARIES
Established in 1997 by Procör Ltd. in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted to students enrolled in Engineering or Commerce who demonstrate financial need and undertake service to McMaster University and the community-at-large. (90669 466)

THE RICOH CANADA INC. BURSARIES
Established in 1996 by Ricoh Canada Inc. in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to students who demonstrate financial need and are enrolled in the Faculty of Business or the Faculty of Engineering. (90639 486)

THE ROBERTSON-YATES CORPORATION BURSARIES
Established in 1996 by the Robertson-Yates Corporation of Hamilton in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to students enrolled in a programme in Business or Engineering who demonstrate financial need. (90640 489)

THE LESLIE AND ELIZABETH SHEMILT BURSARY
Established in 1997 under the McMaster Student Opportunity Fund initiative. To be granted to a student who demonstrates financial need and is enrolled in an Engineering program. (90683 469)

THE STELCO UNDERGRADUATE BURSARIES
Established in 1996 by Stelco - a market-driven, technologically advanced group of businesses committed to maintaining leadership roles as steel producers and fabricators in support of students who, without financial aid, would be unable to pursue their educational goals. To be granted to students who demonstrate financial need and are enrolled in the Faculty of Business, Engineering or Science. Preference will be given to students who are enrolled in the Department of Materials Science and Engineering. (90644 493)

THE TURKSTRA LUMBER CO. LTD. BURSARIES
Established in 1996 by the Turkstra Lumber Company Limited. A variable number of bursaries to be granted to students enrolled in either the Faculty of Engineering or the Faculty of Humanities who demonstrate financial need. Preference to be given to students attending a Sessional Average of at least 7.0 at the most recent review. (90647 496)

THE SAM AND IRENEWATSON BURSARY FUND
Established in 1998 by the estate of Irene Mary Watson. To be granted to students who demonstrate financial need and who have completed their second year with a Cumulative Average of at least 8.0 in the Arts and Science Programme or any of the Faculties of Business, Engineering, Humanities, Science and Social Sciences.

Value: $2,000 (90640 812)

THE WESTINGHOUSE CANADA INC. BURSARIES
Established in 1996 by Westinghouse Canada Inc. in support of students who, without financial support, would be unable to pursue their educational goals. A variable number of bursaries to be granted to students in a programme in the Faculty of Business and the Faculty of Engineering who demonstrate financial need. (90352 501)

THE ZONTA CLUB OF HAMILTON I BURSARIES
Established in 1997 by the Zonta Club of Hamilton I in support of the McMaster Student Opportunity Fund initiative and in the belief that all students, particularly women in non-traditional fields, should have the opportunity to pursue their educational goals. To be granted to a student who demonstrates financial need and is enrolled in the Faculty of Engineering, or in Business or is enrolled in a course in Indigenous Studies. Preference to be given to female students. (90550 097)

FACULTY OF HEALTH SCIENCES

THE DOUGLAS IAN BROWN BURSARY
Established in 1997 by Douglas A. and Lois Allen Brown in honour of their son Douglas Ian Brown. To be granted to a McMaster student enrolled in the Faculty of Health Sciences who demonstrates financial need. (90815 535)

THE ED BUFFETT BURSARY
Established in 1997 under the McMaster Student Opportunity Fund initiative. To be granted to students enrolled in a program in Health Sciences who demonstrate financial need. Preference will be given to students who have demonstrated leadership in their school and community. (90816 566)

COMMUNITY NURSING REGISTRY - HAMILTON BURSARIES
Established in 2000 by the Community Nursing Registry - Hamilton in support of students pursuing a professional career in nursing. A variable number of bursaries to be granted to students enrolled in the School of Nursing at both the undergraduate and graduate level who demonstrate financial need. Preference will be given to students from the Regional Municipality of Niagara. (90851 840)

THE MARGO AND FRASER FELL BURSARIES
Established in 1999 by Margot (Class of '52) and Fraser Fell (Class of '49). A variable number of bursaries to be granted to students enrolled in the School of Nursing in the Faculty of Health Sciences who demonstrate financial need. (90945)

THE JACK AND HILMA HEATH MEMORIAL BURSARIES
Established in 1985 by Norton Canada Inc. in memory of Jack and Helma Heath, former employees of the company, who were tragically killed in a boating accident. The fund provides up to four awards to assist students, with demonstrated financial need, in Level III or IV of the B.Sc.N. programme (basic and/or post-diploma stream). (90519 838)

THE HAZEL MAY HINKS BURSARIES
Established in 1996 by bequest of Hazel May Hinks of Burlington, Ontario. A variable number of bursaries to be granted to students enrolled in a programme in Nursing who demonstrate financial need. Preference will be given to students who have graduated from a high school located in the City of Burlington. (90604 428)

THE IVISON FAMILY BURSARY FUND
Established in 1998 by Don and Betty Ivison in support of McMaster students under the McMaster Student Opportunity Fund initiative. A variable number of bursaries to be granted to students enrolled in the Faculty of Engineering, the Faculty of Business or the Schools of Medicine and Rehabilitation Science in the Faculty of Health Sciences who demonstrate financial need. (90641 613)

THE KENTS FAMILY BURSARY
Established in 1997 by the Kents Family under the McMaster Student Opportunity Fund initiative. To be granted to a student who demonstrates financial need and is enrolled in the School of Medicine, the School of Nursing or the School of Rehabilitation Science. (90747 709)

THE PHILIPP GORDON KETTLE BURSARY
Established in 1996 in memory of Philip Gordon Kettle. To be granted to a student enrolled in a Nursing programme who demonstrates financial need. Preference to be given to a student studying herbal medicine as alternative therapies. (90678 475)
THE MANULIFE FINANCIAL BURSARIES
Established in 1987 by Manulife Financial under the McMaster Student Opportunity Fund initiative. A variable number of bursaries to be granted to students who demonstrate financial need and are enrolled in the Faculty of Business or the Faculty of Health Sciences. (90762 724)

THE JANET McKnight MEMORIAL BURSARIES
Established in 1996 in memory of Janet McKnight by the Pember Family. A variable number of bursaries to be granted to students enrolled in the final level of the Nursing programme who demonstrate financial need. (90623 447)

THE KATHERINE M. COLLYER McNALLY BURSARY
Established in 1997 by her children in honour of Katherine M. Collyer McNally under the McMaster Student Opportunity Fund initiative. To be granted to a student who demonstrates financial need and has completed at least 30 units in the Midwifery, Physiotherapy or Nursing programme. (90774 736)

THE McMaster Women's Club Bursary
Established in 1983 by the McMaster Women's Club and augmented in 1996 in conjunction with the McMaster Student Opportunity Fund initiative to assist a student beyond Level I in the University's Bachelor of Science in Nursing programme. (90531 291)

THE MDS Inc. Bursary
Established in 1997 by MDS Inc., under the McMaster Student Opportunity Fund initiative. To be granted to a student enrolled in the Faculty of Health Sciences who demonstrates financial need. (90775 737)

THE O'Shaughnessy Bursary
Established in 1986 by the family and friends of the late Margaret O'Shaughnessy, RN, this bursary is to be used to alleviate financial need for students pursuing an education in Nursing (basic or post-diploma stream) in Level II, III, or IV. (90535 218)

THE PASSI FAMILY Bursary
Established in 1997 by Chitra and Narendar Passi under the McMaster Student Opportunity Fund initiative in the belief that all students should have the opportunity to pursue their educational goals. To be granted to a student who demonstrates financial need and is enrolled in the Faculty of Health Sciences. Preference to be given to students enrolled in the Life Long Studies Full-Time Diploma Program. (90757 750)

THE DR. SUSAN Beverley Plane MemoriAL Bursary
Established in 1997 by Mr. William J. Plank, family and friends, in memory of Dr. Susan Beverley Plank (Class of '90). To be granted to a student who demonstrates financial need and is enrolled in the Faculty of Health Sciences, School of Medicine. (90791 754)

THE Salena FAMILY Bursary
Established in 1997 under the McMaster Student Opportunity Fund initiative by Dr. Bruno Salena (Class of '81), full-time faculty member in the Faculty of Health Sciences, and his family. To be granted to a student who demonstrates financial need and is enrolled in the Faculty of Health Sciences, School of Medicine. (90601 764)

THE REBECKAH SCHNURR Bursary
Established in 1998 by Rebeckah Schnurr, Financial Advisor for the Berkshire Group, in the belief that all students should be able to realize their educational goals. To be granted to a student who demonstrates financial need, Preference to be given to a female student pursuing her studies in the Faculty of Business or the Faculty of Health Sciences who, because of extenuating family or personal circumstances, would be unable to continue her studies without such assistance. (90843 815)

THE SYLVIA and BRIAN WALKER Bursaries
Established in 1996 by Sylvia (Hunt) and Brian Walker. Two bursaries to be granted to students demonstrating financial need: a) one to a student enrolled in Humanities I and; b) one to a student enrolled in Nursing I. Preference to be given to students who have demonstrated leadership and involvement in university and community activities. (90650 499)

THE AUDREY and BOB WAUGH Bursary
Established in 1997 by Audrey and Bob Waugh under the McMaster Student Opportunity Fund initiative. To be granted to a student enrolled in the Faculty of Health Sciences who demonstrates financial need. Preference to be given to a student involved in Gerontological research. (90796 759)

FACULTY OF HUMANITIES

THE JENNIFER and THEODORE arcAND ENGLISH Bursary
Established in 1987 by Theodore Arcand (Class of '57), in memory of his wife, Jennifer (Class of '57), whose interest was Baroque English poetry. To be granted to an undergraduate or graduate student enrolled in a programme in English, who demonstrates financial need. (90807 625)

THE MARJORIE E. (Watson) Beattie Bursary
Established in 1997 by William W. Beattie (Class of '68) in honour of his mother, Marjorie E. (Watson) Beattie (Class of '33), under the McMaster Student Opportunity Fund initiative. To be granted to a student enrolled in any programme who demonstrates financial need. Preference to be given to students enrolled in the Faculty of Humanities. (9061 631)

THE MARIE IRELAND BUSH MEMORIAL BURSARIES
Established in 1996 by Helen Ireland Caldwell in memory of Marie Ireland Bous, Class of '45 and dedicated teacher, who instilled in her students a love of learning. A variable number of bursaries to be granted to students enrolled in a programme in English who demonstrate financial need. (90583 407)

THE HELEN CALDwell Bursary
Established in 2000 by Helen Caldwell (Class of '42, Faculty of Humanities.) To be granted to a student enrolled in Level III or IV of the Women's Studies Programme who demonstrates financial need. (90940)

THE NORMAN NATHANIEL CASKEY Bursaries
Established in 1996 by June Caskey of Hamilton in memory of her father. A variable number of bursaries to be granted to students enrolled in a programme in Music who demonstrate financial need. (90585 409)

THE GERALDINE LoretTA COSFORD BURSARIES
Established in 1999 by Geraldine Loretta Cosford under the McMaster Student Opportunity Fund initiative. A variable number to be granted to students enrolled in the Faculty of Humanities who demonstrate financial need. Preference to be given to students who have completed Level I. (90692 854)

THE GERALDINE LoretTA COSFORD GENERAL BURSARIES
Established in 1999 by Geraldine Loretta Cosford (Class of '33 and '39). To be granted to students enrolled in the Arts and Sciences Programme, the Faculties of Business, Engineering, Humanities, Social Science and Social Sciences who demonstrate financial need and have attained a minimum CA of 7.0. (90870 866)

THE SUZANNE CRAVEN Bursary
Established in 1997 by Mrs. Suzanne Craven in support of McMaster students. To be granted to students enrolled in the Faculty of Humanities who demonstrate financial need. (90694 655)

THE EARL FRANKLIN DAMUDE Bursary
Established in 1995 by Dr. Christa Saas, in memory of Earl Franklin Damude (Class of '36). To be granted to a student who demonstrates financial need and has completed Level II of a programme in English or History. (90570 348)

THE GORDON H. DEAN BURSARIES
Established in 1996 by Gordon H. Dean of Stoney Creek. Two or more bursaries to be granted based upon need: a) one to a student enrolled in Level III of a programme in Arts and Science and b) one to a student enrolled in Level III of a programme in the Faculty of Humanities. Preference given to students currently on the Deans' Honour List. (90594 418)

THE ALAN and CLAIRE EATock Bursaries
Established in 1999 by Alan Eatock (Class of '47) and Claire Eatock under the McMaster Student Opportunity Fund initiative. A variable number of bursaries to be granted to students in the Faculty of Humanities who demonstrate financial need. (90856 852)

THE ENERSYSTEM INSULATION LTD. BURsary
Established in 1997 by EnerSystem Insulation Ltd. in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted to a student enrolled in the Faculty of Humanities who demonstrates financial need. (90702 664)

THE FESTITALIA CORPORATION BURSARY
Established in 1997 by the Festitalia Corporation under the McMaster Student Opportunity Fund initiative. To be granted, in alternating years, to a student who demonstrates financial need and is enrolled in the Department of Modern Languages and Linguistics, specializing in Italian, or is enrolled in the School of the Arts. (90706 668)

THE WAYNE c. FOX BURSARIES
Established in 1999 by Wayne C. Fox in support of his belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries will be granted to students who demonstrate financial need and are enrolled in the Faculty of Humanities or the Faculty of Social Sciences or the Commerce programme at the Michael G. DeGroote School of Business. (90657 853)

THE HAMILTON PERFORMING ARTS BURSARY
Established in 1997 by the Hamilton Performing Arts Foundation Inc. under the McMaster Student Opportunity Fund initiative. To be granted to a full-time student who has completed at least 30 units of a programme in Art,
Drama and Music, who has shown service to the community-at-large and who demonstrates financial need. Preference to be given to students who are currently on the Dean's Honour list. (90724 686)

THE MARGARET HARGREAVES BURSARIES
Established in 1997 by Susan Hargreaves Walker in loving memory of her mother, Margaret Hargreaves. A variable number of bursaries to be granted to Social Sciences and Humanities students who demonstrate financial need. Preference will be given to mature, female students. (90729 691)

THE HARWOOD BURSARIES
Established in 1990 by bequest of Dr. William Harwood of Hamilton in memory of his beloved wife Grace and devoted daughter Willa Ruth Laurie (Class of '50). A variable number of bursaries to be granted to students studying Music who demonstrate financial need. (90517 058)

THE GENERAL HUMANITIES BURSARY FUND
The General Humanities Bursary Fund, established in 1997 by Humanities alumni, will be granted to undergraduate students at McMaster registered in any Humanities programme who demonstrate financial need. (90734 696)

THE JULIA HURTG BURSARY
Established by family and friends of the late Julia Hurtig in 1985. This bursary will be granted to a student entering Level II of the Faculty of Humanities, in good standing, who has made a special contribution to the McMaster community through involvement in University affairs. Preference will be given to a female student. (90522 211)

THE IVEY BURSARY
Established in 1997 under the McMaster Student Opportunity Fund initiative. Preference will be given, if financial need is demonstrated, to the recipient of the Ivey Scholarship. (90972)

THE STUART AND MARJORIE IVISON BURSARIES
Established in 1997 by Donald Ivison (Class of '53) and Betty Ivison (Class of '32) in honour of his parents Stuart and Marjorie Ivison (Class of '28 (Arts)). A variable number of bursaries to be granted to students who demonstrate financial need. Preference will be given to students enrolled in a programme in the Department of English who demonstrate a lively interest in English studies and involvement in extra-curricular activities. (90736 698)

THE DAVID KINSLEY MEMORIAL BURSARY
Established in 2000 by family, friends, colleagues and former students of David Kinsley, Professor of Religious Studies at McMaster University from 1959 to 2000. To be granted to mature part-time students who have completed at least Level I of an undergraduate programme in either the Faculty of Social Sciences or the Faculty of Humanities. Preference to be given to students who have attained a minimum Cumulative Average of 7.0. (90962)

THE HAROLD J.L. KRUGEL BURSARY
Established in 2000 by Mrs. J. Beverly Krugel (Class of '53) in honour of her husband, Harold J.L. Krugel. To be granted to a student enrolled in the Department of Modern Languages and Linguistics who demonstrates financial need. Preference will be given to a student in German Studies. (90947)

THE JAMES R.A. LANGS BURSARIES IN THE ARTS
Established by family in memory of James R.A. Langs (Class of '37), a Hamilton business leader and great supporter of the Hamilton Community. A variable number of bursaries to be granted to students enrolled in a programme in Art, Drama or Music who demonstrate financial need. (90612 436)

THE DR. ALBERT MARTIN BURSARIES
Established in 1996 by Joyce Beverly Krugel, a former student of Dr. Albert Martin who was a Professor of German in the Faculty of Arts and Science from 1939 to 1961. A variable number of bursaries to be granted to students enrolled in a programme in Modern Languages who demonstrate financial need. (90620 444)

THE McMaster HISPANIC SOCIETY BURSARY
Established in 1999 by the McMaster Hispanic Society under the McMaster Student Opportunity Fund initiative. To be granted to a student enrolled in a Modern Languages programme and enrolled in Hispanic Studies courses who demonstrates financial need. Preference will be given to students who demonstrate a lively interest in the University and community through their involvement in extracurricular activities. (90864 860)

THE JAMES C. MOORE MEMORIAL BURSARY
Established in 1989 by family and friends in memory of James C. Moore. To be granted to a student in Humanities or Social Sciences who demonstrates financial need and involvement in student government. (90566 339)

THE DR. HOLLAND AND MRS. ELVIRA PETERSON BURSARY
Established in 1997 by Dr. Holland and Mrs. Elvira Peterson under the McMaster Student Opportunity Fund initiative. To be granted to a student who demonstrates financial need and is enrolled in Level II or higher of a Hispanic Studies or German programme in the Department of Modern Languages and Linguistics. (90789 752)

THE ELVIRA AND HOLLAND PETERSON BURSARY
Established in 2000 by Mrs. Elvira Peterson (Class of '69) and Dr. Holland Peterson. To be granted to a Level III student enrolled in the Honours Art History or Combined Honours Art History Programme who demonstrates financial need. (90946)

THE LILLIAN PLUMB BURSARY
Established in 1998 by David Plumb in honour of his mother, Lillian Plumb. To be granted to a student enrolled in a programme in the Department of English and who demonstrates financial need. (90853 842)

THE MARY ROMEO BURSARY
Established in 1987 by Mary Picone, a lifelong patron of the arts. To be granted to undergraduate and graduate students who have demonstrated financial need and are enrolled in a programme in Art History. (90668 465)

THE SMYRNIW BURSARY
Established in 1996 by Dr. and Mrs. W. Smyrniw. To be granted to students who are Canadian citizens or permanent residents who demonstrate financial need and are in good academic standing in any undergraduate programme of the Faculty of Humanities above Level I. (90661 458)

THE SALVATOIRE SPITALE MEMORIAL BURSARY
Established in 1984 and augmented in 1997 by the Spitale family in conjunction with the McMaster Student Opportunity Fund initiative. To be granted to a student in the Department of Modern Languages and Linguistics, Level II or higher, who demonstrates financial need and has completed a minimum of nine units of Italian courses. Preference to be given to a student who has demonstrated active involvement in community life. (90703 665)

THE H.B. SYMONS BURSARY
Established in 1997 under the McMaster Student Opportunity Fund initiative. Preference will be given, if financial need is demonstrated, to the recipient of the H.B. Symons Scholarship in Canadian Studies. (90882)

THE DONALD W. THOMAS BURSARIES
Established in 1996 by Donald W. Thomas of Dundas, Ontario. A variable number of bursaries to be granted to students in the Faculty of Humanities who demonstrate financial need. (90645 494)

THE DR. JOHN THOMAS MEMORIAL BURSARY
Established in 1996 in memory of Dr. John Thomas by family, friends and colleagues. This bursary fund is used to assist undergraduate or graduate students who are enrolled in a Philosophy programme, show interest in the field of applied ethics and demonstrate financial need. Undergraduate: Must have taken at least six units from applied ethics courses and have shown, in the view of the Department of Philosophy, promise in the field of applied ethics. Graduate: Must be working on a research thesis which, in the view of the Department of Philosophy, is making or promises to make, a useful contribution to the field of applied ethics. (90675 472)

THE GRAHAM RONALD TOOP BURSARY
Established in 1997 under the McMaster Student Opportunity Fund initiative. Preference will be given, if financial need is demonstrated, to the recipient of the Graham Ronald Toop Scholarship. (90863)

THE ROBERTA GRAY TROXEL BURSARY
Established in 1997 by Roberta Gray Troxel under the McMaster Student Opportunity Fund initiative. To be granted to a student enrolled in the Faculty of Humanities who demonstrates financial need. Preference to be given to a female undergraduate student enrolled in a History programme. (90735 597)

THE TRESSILATRUBY MEMORIAL BURSARY
Established in 1992 from the bequest of Tressila Truby (M.C.S.P.) and Past-President of the Zonta Club of Hamilton II. To be granted to a female student who has completed Level II of a programme in Music. (90556 200)

THE TURKSTRA LUMBER CO. LTD. BURSARIES
Established in 1996 by the Turkstra Lumber Company Limited. A variable number of bursaries to be granted to students enrolled in either the Faculty of Engineering or the Faculty of Humanities who demonstrate financial need. Preference to be given to students attaining a Sessional Average of at least 7.0 at the most recent review. (90847 496)

THE CATHERINE VASAS-BROWN BURSARIES
Established in 1996 by J. Allan Brown in honour of Catherine Vasas-Brown. A variable number of bursaries to be granted to students enrolled in the Faculty of Humanities who demonstrate financial need. (90649 498)
THE SYLVIA AND BRIAN WALKER BURSARIES
Established in 1996 by Sylvia (Hurt) and Brian Walker. Two bursaries to be granted to students demonstrating financial need: a) one to a student enrolled in Humanities I and; b) one to a student enrolled in Nursing I. Preference to be given to students who have demonstrated leadership and involvement in university and community activities. (90650 499)

THE SAM AND IRENE WATSON BURSARY FUND
Established in 1998 by the estate of Irene Mary Watson. To be granted to students who demonstrate financial need and who have completed their second year with a Cumulative Average of at least 8.0 in the Arts and Science Programme or any of the Faculties of Business, Engineering, Humanities, Science and Social Sciences. Value: $2,000 (90840 612)

THE CLIFFORD JOHNSTON WEBSTER MEMORIAL BURSARIES
Established in 1993 by Viola Webster in memory of her brother Clifford Johnston Webster (Class of ’41). To assist students who demonstrate financial need enrolled in the Honours English programme who are Canadian citizens or permanent residents and who have graduated from a public secondary school in Ontario. Applicants should have a record of academic performance that has normally been at the upper second-class level or higher. If sufficient applicants are not eligible in the Honours English programme, the bursaries are available, under similar conditions, to students in the Honours French programme. (90559 336)

THE MARY DRYDENWILLIS BURSARY
Established in 1997, in memory of Mary Willis (Class of ’26), by her daughter, Mary Lou Dingel and son-in-law Allan (both Class of ’58), under the McMaster Student Opportunity Trust Fund Initiative. To be granted to students enrolled in Level III or higher in the Faculty of Humanities who have attained a minimum CA of 7.0 and who demonstrate financial need. (90619 665)

THE KATHRYN A. WILSON BURSARIES
Established in 2000 by bequest of Kathryn A. Wilson. A variable number of bursaries to be granted to students enrolled in the Faculty of Humanities who demonstrate financial need. (90949)

THE SHEILA ZACK MEMORIAL BURSARY
The Sheila Zack Memorial bursary established by the 45th Annual Bnai Brith Sports Celebrity Dinner, to be awarded to a student with financial need enrolled in a programme in Drama at McMaster University. (90764 726)

FACULTY OF SCIENCE

THE BIRGIT AND ROBERT BATEMAN BURSARY
Established in 1997 by Birgit and Robert Bateman under the McMaster Student Opportunity Fund Initiative. To be granted to a student who demonstrates financial need and is enrolled in the Arts and Science Programme, the Faculty of Social Sciences or the Faculty of Science. Preference to be given to students who are studying Environmental Studies or Environmental Science. (90810 529)

THE CANADA TRUST BURSARIES
Established in 1996 by Canada Trust in support of its belief that students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to students who demonstrate financial need and are enrolled in the Environmental Science Programme or the Engineering and Society Programme. (90677 464)

THE CANON CANADA INC. - OE DIVISION BURSARIES
Established in 1997 by Canon Canada Inc. - OE Division in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries will be granted annually to McMaster students who demonstrate financial need and are enrolled in the Environmental Science Programme, the Environmental Studies Programme or an Engineering and Society Programme. (90820 642)

THE COMPUSMART BURSARIES FUND
Established in 1997 by JMG Compusmart in support of its belief that all students should have the opportunity to pursue their educational goals. To be granted to students who demonstrate financial need. Preference will be given to students enrolled in a programme in Computer Science or Computer Engineering. (90741 703)

THE GERALDINE LORETTA COSFORD GENERAL BURSARIES
Established in 1999 by Geraldine Loretta Cosford (Class of ’35 and ’39). To be granted to students enrolled in the Arts and Sciences Programme, the Faculties of Business, Engineering, Humanities, Science and Social Sciences who demonstrate financial need and have attained a minimum CA of 7.0. (90670 866)

THE GEORGE AND MARGARET EDRUP BURSARY
Established in 1997 by Sandra Edrup in honour of her parents George and Margaret Edrupt under the McMaster Student Opportunity Fund initiative. To be granted to a student who demonstrates financial need and is enrolled in either the Faculty of Business or the Computer Science Programme in the Faculty of Science. (90701 663)

THE JAMES EDWARD GRADER MEMORIAL BURSARY
Established in 1964 by his sister. To be granted to a student specializing in Geology. Application should be made to the Department of Geology. (90513 839)

THE ASMAHAN HAFEZ MEMORIAL BURSARY
Established in 1997 by her family in memory of Asmahan Hafez. To be granted to a student enrolled in Level I of the Faculty of Science who demonstrates financial need. (90721 693)

THE HAMILTON INTERNATIONAL AIRPORT BURSARY
Established in 1997 by the Hamilton International Airport. To be granted to a student who has demonstrated financial need and is enrolled in a programme in Engineering, Geography, Business or Economics and has demonstrated an interest in a career in transportation. Preference to be given to a student who elects to undertake a fourth year thesis on a topic related to the study of transportation. (90646 495)

THE JENSEN BURSARY
Established in 1997 by Dr. Doris E.N. Jensen in conjunction with the McMaster Student Opportunity Fund Initiative. To be granted to a student in the Faculty of Science, Level II or higher, who demonstrates financial need. Preference to be given to a student registered in a co-op programme in the Faculty of Science. (90740 702)

THE NORMAN D. LANE BURSARIES
Established in 1996 by family and friends in honour of Dr. Norman D. Lane, distinguished professor and member of the Department of Mathematics and Statistics from 1952 to 1987 and now Professor Emeritus. A variable number of bursaries to be granted to students enrolled in a programme in Mathematics who demonstrate financial need. (90610 434)

THE 3M CANADA INC. BURSARIES
Established in 1990, two bursaries to be granted annually, one to an M.B.A. student and one to a student in Business or Science. (90525 220)

THE JOHN AND HELEN MAXWELL BURSARIES
Established in 1996 by John and Helen Maxwell of Ottawa. A variable number of bursaries to be granted to students enrolled in the Faculty of Science who demonstrate financial need. Preference to be given to students enrolled in a programme in Geology or Chemistry. (90621 445)

THE NEIL D. McARTHUR BURSARIES
Established in 1997 by the Anna and Neil McArthur Foundation in memory of Mrs. McArthur’s parents, Joseph and Josephine Hrynizszak. To be granted to students in any programme who demonstrate financial need. Preference to be given to students enrolled in either the Faculty of Science or the Faculty of Engineering. (90785 727)

THE ERIC SCHUCLITZ MEMORIAL BURSARY
Established in 1966 by his family, classmates and friends. To assist a student in a programme in Geology or other field of Science, in that order of preference. Application should be made to the Department of Geology. (90539 219)

THE STELCO UNDERGRADUATE BURSARIES
Established in 1996 by Stelco- a market-driven, technologically advanced group of businesses committed to maintaining leadership roles as steel producers and fabricators-in support of students who, without financial aid, would be unable to pursue their educational goals. To be granted to students who demonstrate financial need and are enrolled in the Faculty of Business, Engineering or Science. Preference will be given to students who are enrolled in the Department of Materials Science and Engineering. (90644 493)

THE BROOKE P. TOWNSEND BURSARY
Established in 1996 by Brooke P. Townsend. To be granted to a student in any programme who has demonstrated financial need. Preference to be given to a female student enrolled in the Faculty of Science. (90670 467)

THE SAM AND IRENE WATSON BURSARY FUND
Established in 1998 by the estate of Irene Mary Watson. To be granted to students who demonstrate financial need and who have completed their second year with a Cumulative Average of at least 8.0 in the Arts and Science Programme or any of the Faculties of Business, Engineering, Humanities, Science and Social Sciences. Value: $2,000 (90840 612)
THE FRIDA AND JOACHIM WOLTER BURSARY
Established in 1997 under the McMaster Student Opportunity Fund initiative by Claus Wolter (Class of '80) in honour of his parents, Frida and Joachim Wolter. To be granted to a student enrolled in the Kinesiology programme who demonstrates financial need. (90790 753)

THE JOHN YARWOOD MEMORIAL BURSARY
Established in 1998 by family and friends in memory of Dr. A.J. Yarwood. To be granted to a Level II student enrolled in an Honours Chemistry programme who demonstrates financial need. (90844 616)

FACULTY OF SOCIAL SCIENCES

THE ANTHROPOLOGY BURSARY
Established in 1996 by faculty, alumni and other friends of the Department of Anthropology. To be granted to students who have completed Level II of a programme in Anthropology and who demonstrate financial need. Preference will be given to students entering Level III. (90579 403)

THE BIRGIT AND ROBERT BATEMAN BURSARY
Established in 1997 by Birgit and Robert Bateman under the McMaster Student Opportunity Fund initiative. To be granted to a student who demonstrates financial need and is enrolled in the Arts and Science Programme, the Faculty of Social Sciences or the Faculty of Science. Preference to be given to students who are studying Environmental Studies or Environmental Science. (90810 629)

THE NORMA BERTI BURSARY
Established in 1996 under the McMaster Student Opportunity Fund initiative by Norma Berti, active Stelco employee for 34 years and recognized by the Hamilton Council of Women as Woman of the Year for her charitable community contributions. To be granted to a student who demonstrates financial need and is enrolled in a programme in Labour Studies. (90812 632)

THE SIDNEY L. BLUM BURSARY
Established in 1998 by friends and associates in memory of Sidney L. Blum. To be granted on the recommendation of the Director of the School of Social Work to any student in good standing in Levels III or IV of the Bachelor of Arts/Social Work programme or Level II of the Bachelor of Social Work Programme. (90506 286)

THE DR. RICHARD A. BRYMER MEMORIAL BURSARY
Established in 1998, under the McMaster Student Opportunity Fund initiative, by Mrs. Isabelle Brymer in memory of her husband, Dr. Richard Brymer, who served as a faculty member in the Department of Sociology at McMaster University from 1969 to 1996. To be granted to a student enrolled in a programme in Sociology or Anthropology who demonstrates financial need. (90846 617)

THE JODIE ANNE BULL MEMORIAL BURSARIES
Established in 1996 by her family in memory of Jodie Anne Bull. A variable number of bursaries to be granted to students enrolled in the Faculty of Social Sciences who demonstrate financial need. At least one bursary to be granted to a student enrolled in Labour Studies. (90673 470)

THE CANADA TRUST BURSARIES
Established in 1996 by Canada Trust in support of its belief that students should have the opportunity to pursue their educational goals. A variable number of bursaries to be granted to students who demonstrate financial need and are enrolled in the Environmental Science Programme, the Environmental Studies Programme or the Engineering and Society Programme. (90667 464)

THE CANON CANADA INC. - OE DIVISION BURSARIES
Established in 1997 by Canon Canada Inc. - OE Division in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries will be granted annually to McMaster students who demonstrate financial need and are enrolled in the Environmental Science Programme, the Environmental Studies Programme or an Engineering and Society Programme. (90820 642)

THE ELEANOR TURNER CARMENT BURSARY
Established in 1997 under the McMaster Student Opportunity Fund Initiative. Preference will be given, if financial need is demonstrated, to the recipient of The Eleanor Turner Carment Prize. (90884)

THE CLASS OF '46 BURSARIES
Established by the Class of '46 in honour of their 40th class reunion. To be granted to a student in a programme in Gerontology. (90821 765)

THE STEWART COOKE BURSARY
Established in 1997 by the United Steelworkers of America in honour of Stewart Cooke, Hamilton staff representative from 1948-70, for his contributions to the labour movement which included appointments as Vice-President of the Ontario Federation of Labour, Treasurer of the New Democratic Party and Director of the Steelworkers, District 6 from 1977-81. To be granted to a student enrolled in a programme in Labour Studies who demonstrates financial need. (90891 653)

THE GERALDINE LORRETA COSFORD GENERAL BURSARIES
Established in 1999 by Geraldine Loretta Cosford (Class of '35 and '39). To be granted to students enrolled in the Arts and Sciences Programme, the Faculty of Business, Engineering, Humanities, Science and Social Sciences who demonstrate financial need and have attained a minimum GPA of 7.0. (90870 866)

THE BEN F. DESROCHES BURSARIES
Established in 1996 as a tribute to Ben F. DesRoches, Stelco employee from 1949 to 1966 and elected Municipal Councillor for Saltfleet and Stoney Creek from 1959 to 1978, in recognition of his outstanding contributions to labour and to men and women in the greater Hamilton area. A variable number of bursaries to be granted to students enrolled in a programme in Labour Studies who demonstrate financial need. The value of this award shall not be less than $300. (90595 419)

PATRICIA ANNE DICCIO MEMORIAL BURSARY
Established in 1988 this bursary is to be granted to a student or students enrolled in a programme which includes Gerontology as a major, who is a Canadian citizen or permanent resident and who exhibits financial need. (90510 204)

THE GERARD DOUCQUER BURSARY
Established in 1997 by the United Steelworkers of America in honour of Gerard Douquier, former National Director of the United Steelworkers in Canada, and founder of the Steelworkers' Humanity Fund in response to the famine in sub-Saharan Africa in 1984. To be granted to a student enrolled in a programme in Labour Studies who demonstrates financial need. (90700 682)

THE MARGARET E. DUNCAN BURSARY
Established in 1996 by Mr. and Mrs. J. Bruce Duncan in honour of his late mother who was a long-term volunteer in McMaster's Gerontology Programme as a Tutor and, subsequently, a Senior Class Assistant. A variable number of bursaries to be granted annually to students enrolled in a Gerontology course who demonstrate financial need. (90846 818)

THE MICHAEL EARL MEMORIAL BURSARY
Established in 1991 by family and friends in memory of Michael Earl. In 1997, the Graduating Class in Psychology further augmented this bursary as part of the McMaster Student Opportunity Fund initiative. This bursary is granted to a student enrolled in a psychology programme who demonstrates financial need. (90563 391)

THE WAYNE C. FOX BURSARIES
Established in 1999 by Wayne C. Fox in support of his belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries will be granted to students who demonstrate financial need and are enrolled in the Faculty of Humanities or the Faculty of Social Sciences or the Commerce programme at the Michael G. DeGroote School of Business. (90857 853)

THE BILL FULLER BURSARY
Established in 1996 in commemoration of the 50th anniversary of the historic 1946 Stelco strike by William E. (Bill) Fuller, recognized by the City of Hamilton for his volunteer work which included serving as Vice-President of Labour Community Services of the United Way for six years, member of the Hamilton Community Foundation Board from 1990-96, Chairman of the Finance Committee of the Holy Family Church and Hamilton's Citizen of the Year in 1991. To be granted to students enrolled in a programme in Labour Studies who demonstrate financial need. The value of this award shall be not less than $300. (90601 429)

THE REG GARDINER BURSARY
Established in 1997 by the United Steelworkers of America in honour of Reg Gardiner, long-time Stelco employee, active union member and President of Local 1005 for eight years. To be granted to a student enrolled in a programme in Labour Studies who demonstrates financial need. (90709 671)

THE REG GISBORN BURSARIES
Established in 1997 as a tribute to Reg Gibborn, valued Stelco employee, President of Local 1005 from 1961-62 and New Democratic Party Hamilton East M.P. for twenty years until 1975. A variable number of bursaries to be granted to McMaster students enrolled in a programme in Labour Studies who demonstrate financial need. (90715 677)

THE HAMILTON AND DISTRICT LABOUR COUNCIL BURSARY
Established in 1997 by the Hamilton and District Labour Council under the McMaster Student Opportunity Fund Initiative. To be granted to a student enrolled in the Labour Studies Programme who demonstrates financial need. (90728 688)
THE HAMILTON FOLLIES INC. (GERITOL FOLLIES) BURSARY
Established in 1997 by the Hamilton Follies Inc. (Geritol Follies) under the McMaster Student Opportunity Fund initiative. To be granted to a student in any programme who demonstrates financial need. Preference to be given to a student who has completed at least 30 units in the Gerontology programme. (90722 684)

THE HAMILTON INTERNATIONAL AIRPORT BURSARY
Established in 1997 by the Hamilton International Airport. To be granted to a student who has demonstrated financial need and is enrolled in a programme in Engineering, Geography, Business or Economics and has demonstrated an interest in a career in transportation. Preference to be given to a student who elects to undertake a fourth year thesis on a topic related to the study of transportation. (90646 495)

THE MARGARET HARGREAVES BURSARIES
Established in 1997 by Susan Hargreaves Walker in loving memory of her mother, Margaret Hargreaves. A variable number of bursaries to be granted to Social Sciences and Humanities students who demonstrate financial need. Preference will be given to mature, female students. (90729 691)

THE GORDON HOLSEY BURSARY
Established in 1996 under the McMaster Student Opportunity Fund initiative as a tribute to Gordon Holsey, founding member of Local Union 1005 and valued member of the Union’s Negotiations Committee. To be granted to a student enrolled in a Labour Studies programme who demonstrates financial need. (90733 695)

THE JOHN B. ISBISTER BURSARY
Established in 1996 under the McMaster Student Opportunity Fund initiative by John B. Isbister of Stoney Creek, valued member of the United Steelworkers of America for 39 years and honoured war veteran by Canada and the navy on four occasions. To be granted to a student enrolled in a programme in Labour Studies who demonstrates financial need. (90605 429)

THE JAMES A. JOHNSON CLASS OF ‘97 BURSARIES
Established by the Economics graduating Class of ‘97, faculty of the Department of Economics, and friends, under the McMaster Student Opportunity Fund initiative, in honour of Dr. James A. Johnson, to recognize his nine years as Dean of Social Sciences and his thirty-five years of dedicated service to the Department of Economics and McMaster University. A variable number of bursaries to be granted to students in a degree programme in Economics who demonstrate financial need. (90742 734)

THE DAVID KINSLEY MEMORIAL BURSARY
Established in 2000 by family, friends, colleagues and former students of David Kinsley, Professor of Religious Studies at McMaster University from 1969 to 2000. To be granted to mature part-time students who have completed at least Level I of an undergraduate programme in either the Faculty of Social Sciences or the Faculty of Humanities. Preference to be given to students who have attained a minimum Cumulative Average of 7.0. (90962)

THE LABOUR STUDIES CLASS OF ‘97 LEGACY BURSARY
Established in 1997 by the Labour Studies Class of ‘97 under the McMaster Student Opportunity Fund initiative. To be granted to a student in a Labour Studies programme who demonstrates financial need. (90659 651)

THE KELLY DAWN LAPP MEMORIAL BURSARY
Established in 1997 by family and friends under the McMaster Student Opportunity Fund initiative in memory of Kelly Dawn Lapp who received her BA/BSW degree from McMaster University in 1996. To be granted to a student enrolled in the Social Work programme who demonstrates financial need. Preference will be given to a student who has volunteered or worked in programmes related to violence against women and children, employment and affordable housing for women, advocacy and treatment of mental health patients, addiction treatment or prevention of cruelty to animals. (90647 619)

THE LISSON BROTHERS BURSARY
Established in 1997 under the McMaster Student Opportunity Fund as a tribute to Brian, Bill and John Lissom, valued Steico employees and members of the United Steelworkers of America. To be granted to a student enrolled in the Labour Studies programme who demonstrates financial need. (90756 718)

THE JOHN A. ‘JACK’ MACDONALD BURSARIES
Established in 1996 as part of the Hamilton Sesquicentennial Celebrations in honour of John A. ‘Jack’ MacDonald for his 45 years of outstanding service and leadership to Hamilton and the region. A variable number of bursaries to be granted to students enrolled in a Political Science programme who demonstrate financial need and interest in extracurricular or community activities. (90016 440)

THE EWAN MACINTYRE BURSARIES
Established in 1999 by the Social Work Alumni Branch, the Citizen Action Group, the Social Work Students Association, faculty (past and present), staff, friends, alumni, and various organizations associated with McMaster’s School of Social Work as a tribute to Dr. Ewan MacIntyre for his 29 years of service to the School, including 12 years of service as the School’s Director. A variable number of bursaries to be granted to students who demonstrate financial need and are enrolled in a Bachelor of Social Work programme. (90861 857)

THE BOB MacKENZIE BURSARY
Established in 1996 under the McMaster Student Opportunity Fund initiative by Bob MacKenzie, political organizer for the United Steelworkers Union and valued MPP for Hamilton East for twenty years. To be granted to a student enrolled in a programme in Labour Studies who demonstrates financial need. (90617 441)

THE BOB MacKENZIE - UNITED STEELWORKERS OF AMERICA BURSARY
Established in 1997 by the United Steelworkers of America in honour of Robert (Bob) MacKenzie, former Minister of Labour, former member of the Hamilton Social Planning and Research Council and current member of the Hamilton Philatelic Society. To be granted to a student enrolled in a programme in Labour Studies who demonstrates financial need. (90760 722)

THE ENRICO HENRY MANCINELLI BURSARIES
Established in 1996 by the Labourers’ International Union of North America, Local 837 in honour of Enrico Henry Mancinelli, LIUNA Canadian Director and the Hon. Senator and former President. Two bursaries to be granted to students enrolled in a programme in Labour Studies who demonstrate financial need. Preference to be given to students attaining a Sessional Average of at least 7.0 at the most recent review. (90619 443)

THE LAWRENCE McBREARY BURSARY
Established in 1996 under the McMaster Student Opportunity Fund initiative, by Lawrence McBreary, current National Director of the United Steelworkers of America and President of the Steelworkers’ Human Fund, the Union’s third world aid and development arm. To be granted to a student enrolled in a programme in Labour Studies who demonstrates financial need. The value of this award shall be no less than $300. (90766 728)

THE R. CRAIG McVOR BURSARIES
Established in 1996 as a tribute to Professor R. Craig McVor by his family, friends, colleagues and students. A variable number of bursaries to be granted to students enrolled in an Honours programme in Economics who demonstrate financial need. Preference to be given to students in Level II. (90622 446)

THE CHARLES MILLARD BURSARY
Established in 1997 by the United Steelworkers of America in memory of Charles H. Millard, a labour pioneer who played a pivotal role in the founding and consolidation of both the Autoworkers and Steelworkers’ Unions. To be granted to a student enrolled in a programme in Labour Studies who demonstrates financial need. (90759 740)

THE GARY JAMES MINNETT BURSARY
Established in 1999 in memory of Gary James Minnett (BA/DEE 72) by his wife, Barbara, and daughters, Samantha and Erin. To be awarded to a student enrolled in a Kinesiology programme who demonstrates financial need. Preference will be given to a student enrolled in Kinesiology I from a high school in the Hamilton area. (90866 861)

THE JAMES C. MOORE MEMORIAL BURSARY
Established in 1989 by family and friends in memory of James C. Moore, To be granted to a student in Humanities or Social Sciences who demonstrates financial need and involvement in student government. (90566 339)

THE HONOURABLE JOHN C. MUNRO BURSARIES
Established in 1998 by family, friends and colleagues of the Honourable John C. Munro for his outstanding years of service and commitment to the political life of Canada and to the Regional Municipality of Hamilton-Wentworth. A variable number of bursaries to be granted to students enrolled in a programme in Political Science who demonstrate financial need. (90484 820)

THE CAROLE AND ALEXANDER NAKEFF BURSARIES
Established in 2000 by Carol Anne Nakeff (Class of ‘69) and Dr. Alexander Nakeff. A variable number of bursaries to be granted to students enrolled in a Political Science or Environmental Studies programme who demonstrate financial need. (90946)

THE NEWCASTLE CAPITAL MANAGEMENT INC. BURSARIES
Established in 1997 by Newcastle Capital Management in support of its belief that all students should have the opportunity to pursue their educational goals. A variable number of bursaries will be granted annually to...
The Value: $2,000

THE MARION PEARCE BURSARIES
Established in 1990 by Dr. Sally Palmer in memory of her aunt Marion Pearce (Class of '20). Miss Pearce worked with New Canadians at the Beverly Street Baptist Church in Toronto. A variable number of bursaries to be granted to students enrolled in the Social Work programme who have demonstrated financial need. (90536 226)

THE PEVENSING BURSARIES
Established in 1996 by David Hannaford (Class of '84). A variable number of bursaries to be granted to students enrolled in the penultimate year of an Honours programme in Economics who demonstrate financial need. (90676 473)

THE GEORGE PLUMB MEMORIAL BURSARY
Established in 1996 by David Plumb in memory of his father George Plumb. To be granted to a student enrolled in a programme in Gerontology who demonstrates financial need. Preference to be given to a mature student. (90636 465)

THE HARRY POMEROY BURSARY
Established in 1997 by the United Steelworkers of America in memory of Harry Pomeroy, a Stelco employee for over 30 years and a Pickup Captain during the Stelco 1966-67 strike. To be granted to a student enrolled in a programme in Labour Studies who demonstrates financial need. (90791 755)

THE ROYAL CANADIAN LEGION BRANCH 165 BURSARY
Established in 1997 by the Royal Canadian Legion Branch 165 in support of the McMaster Student Opportunity Fund initiative and in keeping with the Legion's intention to support community service, education and leadership programmes in the country. To be granted to a student enrolled in a Gerontology programme who demonstrates financial need. (90798 781)

THE WILLIAM F. SCANDLAN BURSARIES
Established in the 50th anniversary year of the historical Stelco steel strike of 1946 by William F. Scandlan, valued member of the United Steelworkers of America for 44 years which included appointments as an International Representative in 1953 and Area Supervisor for the Union in the greater Hamilton area from 1976 to 1986. Two bursaries to be granted to students enrolled in a programme in Labour Studies who demonstrate financial need. The value of these bursaries shall be not less than $300. (90642 491)

THE ALEX SHARP BURSARY
Established in 1997 by the United Steelworkers of America in memory of Alex Sharp, a Stelco employee for 25 years, founding member of Stelco Finishing Works Credit Union and board member of the Niagara College of Applied Arts & Technology from 1966-75, being instrumental in its founding. To be granted to a student enrolled in a programme in Labour Studies who demonstrates financial need. (90748 710)

THE JOHN SHIPPERBOTTOM BURSARY
Established in 1997 by the United Steelworkers of America in memory of John Shipperbottom, a Stelco employee for over forty years and active labour organizer who led Local members in the historic 1946 strike. To be granted to a student enrolled in a programme in Labour Studies who demonstrates financial need. (90690 652)

THE GERALD AND VERN A SIMPSON BURSARY
Established in 1997 under the McMaster Student Opportunity Fund initiative. Preference will be given, if financial need is demonstrated, to the recipient of The Gerald and Verna Simpson Scholarship. (90886)

THE SOCIAL SCIENCES SOCIETY BURSARIES
Established in 1990 by the Social Sciences Society Executive in recognition of the outstanding efforts of Dr. Peter George in establishing the Social Sciences Society. A variable number of bursaries to be granted to full-time students enrolled in a Social Sciences programme involving Anthropology, Economics, Geography, Gerontology, Labour Studies, Political Science, Psychology, Religious Studies, Social Work or Sociology and who demonstrate financial need. (90542 229)

THE H.B. SYMONS BURSARY
Established in 1997 under the McMaster Student Opportunity Fund initiative. Preference will be given, if financial need is demonstrated, to the recipient of The H.B. Symons Scholarship in Canadian Studies. (90862)

THE SAM AND IRENE WATSON BURSARY FUND
Established in 1996 by the estate of Irene Mary Watson. To be granted to students enrolled in a Social Sciences programme and who have completed their second year with a Cumulative Average of at least 6.0 in the Arts and Science Programme or any of the Faculties of Business, Engineering, Humanities, Science and Social Sciences. Value: $2,000 (90840 812)

THE LYNN R. WILLIAMS BURSARY
Established in 1997 as a tribute to Lynn R. Williams, (Class of '44), International President of the United Steelworkers of America from 1983-1994, in recognition of his outstanding contributions to labour and labour studies. To be granted to a student who demonstrates financial need and is enrolled in a programme in Labour Studies. The value of this bursary shall be no less than $300. (90793 758)

THE FRIDA AND JOACHIM WOLTER BURSARY
Established in 1997 under the McMaster Student Opportunity Fund initiative by Claus Wolter (Class of '90) in honour of his parents, Frida and Joachim Wolter. To be granted to a student enrolled in the Kinesiology programme who demonstrates financial need. (90790 753)

THE ZONTA CLUB OF HAMILTON I BURSARIES
Established in 1997 by the Zonta Club of Hamilton I in support of the McMaster Student Opportunity Fund initiative and in the belief that all students, particularly women in non-traditional fields, should have the opportunity to pursue their educational goals. To be granted to a student who demonstrates financial need and is enrolled in the Faculty of Engineering, or in Business or is enrolled in a course in Indigenous Studies. Preference to be given to female students. (90850 097)

SUPPLEMENTARY BURSARY AID FOR AWARD RECIPIENTS
Several donors to McMaster's Undergraduate Scholarships Programme, in response to the Student Opportunity Trust Fund initiative of the Ontario Government, made donations in 1998-97 for the purpose of assisting a specific scholarship or award recipient who demonstrates financial need. To qualify for bursary support, scholarship and award recipients are required to demonstrate financial need in accordance with that required to applicants to the general McMaster Bursary Programme:

- The Rudolf de Buda Scholarship (90808)
- The Eleanor Turner Carment Prize (90804)
- The George P. Gilmore Memorial Scholarship
- The Ivey Scholarship (90872)
- The A.I. Johnson Scholarship (90879)
- The Gary Lautens Memorial Scholarship (90888)
- The Gerald and Verna Simpson Memorial Scholarship (90886)
- The Somerville Scholarships (90881)
- The T.H.B. Symons Scholarship in Canadian Studies (90882)
- The Graham Ronald Toop Scholarship (90883)
- The Tynowski Scholarship
- The Gladys A. Young Scholarship (90878)

TRAVEL BURSARY PROGRAMME
Travel bursaries assist students taking a McMaster course during the Spring/Summer semester which includes a placement requirement in a community outside Ontario. To apply, students must complete a McMaster bursary application, available in Hamilton Hall, Room 404, or on our website at: http://access.mcmaster.ca/financial_aid. Please note that travel bursaries do not apply to programmes where placement costs are an integral part of the normal study term, such as the School of Medicine within the Faculty of Health Sciences.

THE ENGINEERING AND SOCIETY TRAVEL BURSARY
Established in 1994 by the Department of Engineering and Society. To assist students with travel costs associated with their studies in the Engineering and Society Programme. To be granted to a student who demonstrates financial need and is enrolled in the Faculty of Engineering. Applications will be reviewed by the Director, Engineering and Society and the Office of Student Financial Aid and Scholarships. (90963)

EXCHANGE PROGRAMME BURSARIES
Bursary support may be available to students participating in McMaster approved exchange programmes. To be considered for this bursary support students must complete all application requirements for the exchange programme and submit an bursary application to the Student Exchanges Officer, Hamilton Hall, Room 405 by their deadline.

Final decisions regarding potential bursary support are contingent upon acceptance to participate in an exchange. For further information about exchange programmes, please refer to International Study in the General Academic Regulations section and Student Exchanges in the Academic Facilities, Student Services and Organizations section of this Calendar.
### THE BEALE-LINCOLN-HALL EXCHANGE PROGRAMME BURSARIES
Established in 1996 by Arnold A. Beale in memory of his parents, F. Arnold Beale and Margaret S. Beale and, Mr. and Mrs. Walter Gould Lincoln and Commander Harley H. Hall, U.S.N. To be granted to a student who demonstrates financial need and is enrolled in a programme in Commerce, Biochemistry, Biology, English, Chemistry, Geology, History, Material Science, Mathematics, Physics, Engineering Physics or Religious Studies who is participating in one of McMaster's formal international exchange programmes. Preference will be given to students who have demonstrated a lively interest in the humanities and the human and social implications of scientific developments. (90677 474)

### THE CHAN YIN CHAK BURSARY
Established in 1997 by Tak Chan in honour of his great grandfather, Mr. Chan Yin Chak. This bursary will be used to help defray expenses of Level III Commerce students or MBA students, who demonstrate financial need, and are participating in one of the international exchange programmes at the Michael G. DeGroote School of Business. (90682 644)

### THE FREEMAN FAMILY FOUNDATION BURSARY FUND FOR STUDY AT THE HEBREW UNIVERSITY OF JERUSALEM
Established in 1997 under the McMaster Student Opportunity Fund initiative in the belief that all students should have the opportunity to pursue their educational goals. To be granted, on the recommendation of the Religious Studies Department, to graduate students who demonstrate financial need and who have enrolled in sessions (at) study at the Hebrew University of Jerusalem. Applicants must have lived in Ontario for 12 consecutive months directly prior to commencing full-time post-secondary studies. (90818 640)

Value: Up to a maximum of $15,000 for graduate, $10,000 for undergraduate, and $5,000 for summer students.

### THE JAMES R.A. LANGS STUDENT EXCHANGE PROGRAMME BURSARIES
Established in 1996 by family in memory of James R.A. Langs (Class of '37), a Hamilton business leader and great supporter of the Hamilton Community. A variable number of bursaries to be granted to students enrolled in a programme in Humanities who demonstrate financial need and who are participating in a formal McMaster Exchange Programme. (90655 503)

### THE LVIV POLYTECHNIC STATE UNIVERSITY EXCHANGE PROGRAMME BURSARIES
Established in 2000 by the Hamilton Ukrainian Community. To be granted to visa students who have demonstrated financial need and are attending McMaster as participants in the L'viv Polytechnic State University Exchange Programme. (90954)

### THE MCLAY BURSARY
Established in 1997 by David and Jean McLay under the McMaster Student Opportunity Fund Initiative. To be granted to a student in any programme who demonstrates financial need and who is participating in one of McMaster's formal exchange programmes. Preference to be given to students who have been active in international clubs and associations. (90767 729)

### THE McLEAN FAMILY EXCHANGE BURSARIES
Established in 1997 by the McLean Family under the McMaster Student Opportunity Fund Initiative, in gratitude for the learning and relationship enrichment which they obtained first at McMaster University, and subsequently through international travel. To be granted to students who wish to participate in exchange programmes who demonstrate financial need and who are enrolled in Level II or III of a programme. Preference to be given to international exchanges, for students from the Faculty of Engineering or the Faculty of Humanities with a CA above 7.0 at the most recent review and who have shown leadership and involvement in university and/or community activities. (90649 821)

### THE RANDOLPH E. ROSS MEMORIAL BURSARY
Established in 1998 by family and friends in memory of Dr. Randolph E. Ross, who was a dedicated and cherished faculty member for over 25 years at McMaster University. To be granted to students enrolled in School of Business or the Engineering and Management Programme. Preference will be given to a McMaster student participating in an international exchange programme. (90854 850)

### THE JAMES MASON YOUNG BURSARY
Established in 1996 by James Mason Young in honour of his family's long-standing association with McMaster University. A variable number of bursaries to be granted to students enrolled in the Faculty of Business who demonstrate financial need. Preference to be given to students participating in a formal McMaster Exchange Programme. (90779 742)

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THE COMMUNITY CONTRIBUTION AWARDS

The Community Contribution Awards recognize contributions to the university or community-at-large. To be eligible, contributors must demonstrate leadership or innovative skills and have made a significant contribution through participation in campus and community activities. Preference will be given to students enrolled in any program who have demonstrated service to the community-at-large.

Eligible students may apply by demonstrating financial need. The Community Contribution Awards are awarded by a selection committee based on an application. For application forms and information regarding deadlines, contact the Office of Student Financial Aid and Scholarships, Hamilton Hall, Room 404.

**THE ATKINSON CHARITABLE FOUNDATION AWARD**
Established in 1996 by The Atkinson Charitable Foundation. To be awarded to students enrolled in any program who have demonstrated leadership or innovative skills and have made a significant contribution through participation in campus and community activities. Preference will be given to students enrolled in the Faculty of Social Sciences. (80022 541)

**THE AUBURN INDUSTRIAL SERVICES LTD. AWARDS**
Established in 1997 by Auburn Industrial Services Ltd. To be awarded to students enrolled in any program who display superior leadership or innovative skills. (80037 563)

**BRANTFORD ALUMNI BRANCH COMMUNITY CONTRIBUTION AWARDS**
Established in 2000 by the Brantford Alumni Branch of the McMaster Alumni Association. A variable number of awards is to be granted to students enrolled in any program who demonstrate leadership and innovative skills through participation in either university or community activities. Preference will be given to students enrolled in the Brantford alumni association. (90040)

**THE BRINSON PARTNERS INC. AWARDS**
Established in 1997 by Brinson Partners Inc. under the McMaster Student Opportunity Fund initiative. To be awarded to students enrolled in any program who have demonstrated leadership and innovative skills. Preference will be given to students enrolled in the Faculty of Social Sciences. (80036 555)

**THE ELVA CARROL AWARD**
Established in 1996 by Elva Carrol. To be awarded to students enrolled in any program who demonstrate leadership and innovative skills. Preference will be given to students enrolled in the Faculty of Social Sciences. (80029 547)

**THE EDWARD FRANK DAVIS MEMORIAL AWARD**
Established in 1996 by bequest in memory of Edward Frank Davis. A variable number of awards is to be granted to students enrolled in any program who have demonstrated community contributions and service to their community through volunteer work. (80066 619)

**THE DAMIAN MIGUEL HEADLEY AWARDS**
Established in 1997 by family and friends in memory of Damian Miguel Headley (Class of '89). To be awarded to students enrolled in any program who have demonstrated leadership and innovative skills. Preference will be given to students enrolled in the Faculty of Social Sciences. (80050 576)

**THE RUDY HEINZL AWARD**
Established in 1995 by family, friends, and colleagues upon the retirement of Rudy Heinzi as Dean of Student Affairs. To be awarded to students enrolled in any program who have demonstrated leadership and innovative skills. Preference will be given to students enrolled in the Faculty of Social Sciences. (80004 520)

**THE JAMES A. JOHNSON COMMUNITY CONTRIBUTION AWARD**
Established in 1997 by the McMaster Social Sciences Society Executive Committee to recognize Dr. James A. Johnson, Dean of Social Sciences (1989-97), for his outstanding service to the Faculty of Social Sciences and the broader campus community. One award to be granted annually to a Social Sciences student enrolled in a program involving Anthropology, Economics, Psychology, Sociology, Labour Studies, Political Science, Psychology, Religious Studies, Social Work or Sociology who, in the judgment of the appropriate selection committee in the Faculty of Social Sciences, has provided outstanding service to McMaster University or the community-at-large. Preference will be given to students enrolled in any program who have demonstrated service to the community-at-large. (80023 542)

**THE JUNIOR LEAGUE OF HAMILTON-BURLINGTON, INC. COMMUNITY CONTRIBUTION AWARD**
Established in 1997 by the Junior League of Hamilton-Burlington, Inc. under the McMaster Student Opportunity Fund initiative. To be awarded to students enrolled in any program who have demonstrated outstanding athletic participation. Preference will be given to students enrolled in any program who have demonstrated significant athletic participation. (80032 551)

**THE MACWIAK AWARD**
Established in 1997 by the Men’s Athletic Council and the Women’s Intercollegiate Athletics Council under the McMaster Student Opportunity Fund initiative. To be awarded to a student enrolled in any program who has demonstrated outstanding athletic participation. Preference will be given to students enrolled in any program who have demonstrated outstanding athletic participation. (80012 531)

**THE ROBERT JOHN MORRIS AWARDS**
Established in 1996 by family, friends, and colleagues of Robert John Morris. Six awards: three to students upon completion of Level I or higher who exhibit leadership and dedication to sport and prove to be an overall asset to their team(s). (80024 543)

**THE HELEN K. MUSSALLEM AWARD**
Established in 1996 by Dr. Helen K. Mussallem (C.C., B.N., Ed.D., LL.D (Queen’s), D.Sc., D.St.J., F.R.C.N., M.R.S.H.) to stimulate interest in professional nursing affairs through participation in meetings, conferences, professional associations and societies related to the field of nursing. A variable number of awards is to be granted to students who have completed Nursing I and who, in the judgment of the School of Nursing, have demonstrated notable involvement in extracurricular activities. (80009 528)

**THE ONCOLOGY NURSING PROGRAMME AWARDS**
Established in 1997 in recognition of the contributions of McMaster students. To be awarded to students enrolled in the Oncology Nursing Programme who display superior leadership or innovative skills. Preference to be given to students who are working in under-resourced communities and who must travel long distances to participate in the programme. (80040 566)

**THE PIONEER GROUP INC. LEADERSHIP AWARDS**
Established in 1997 by the Pioneer Group of Companies Inc. in recognition of the contributions of McMaster students. A variable number of awards is to be granted to students enrolled in any program who, in the judgment of a selection committee, have demonstrated leadership and community service. (80025 544)

**THE GORDON AND JANE PRICE AWARDS**
Established in 1997 by their sons in honour of Gordon and Jane Price. To be awarded to students enrolled in the Arts and Science program or in the Faculty of Health Sciences who demonstrate service to the community-at-large, outstanding athletic participation or who display superior leadership and innovative skills. (80048 574)

**THE GORDON RAYMOND AWARD**
Established in 1996 by the McMaster Association of Part-time Students and other friends and colleagues in honour of Gord Raymond in recognition of his 27 years of service to McMaster University including 15 years as Coordinator of Part-time Degree Studies. To be awarded to the part-time student who, in the judgment of a selection committee, demonstrates enthusiasm for life-long learning and/or has had an influence on the lives of part-time students. (80011 530)
THE ROTARY CLUB OF ANCASTER COMMUNITY CONTRIBUTION AWARD
Established in 1997 by the Rotary Club of Ancaster in keeping with Rotary’s mission to foster the ideal of service within the community. To be awarded to a student enrolled in any programme who demonstrates commendable service to the community-at-large. Preference to be given to a student enrolled in an Environmental Science Programme. (80044 570)

THE ROTARY CLUB OF BURLINGTON CENTRAL COMMUNITY CONTRIBUTION AWARD
Established in 1997 by the Rotary Club of Burlington Central in keeping with Rotary’s mission to foster the ideal of service within the community. To be awarded to a student enrolled in any programme who demonstrates involvement in extra-curricular or community activities. Preference will be given to a student from the Burlington area. (80041 567)

THE ROTARY CLUB OF HAMILTON A.M. COMMUNITY CONTRIBUTION AWARD
Established in 1997 by the Rotary Club of Hamilton A.M. in keeping with Rotary’s mission to foster the ideal of service within the community. To be awarded to a student enrolled in any programme who demonstrates outstanding service to the community-at-large. (80042 568)

THE ROTARY CLUB OF HAMILTON COMMUNITY CONTRIBUTION AWARD
Established in 1997 by the Rotary Club of Hamilton in keeping with Rotary’s mission to foster the ideal of service within the community. To be awarded to a student enrolled in any programme who demonstrates outstanding service to the community-at-large. (80043 569)

THE SATURN OF HAMILTON EAST ACHIEVEMENT AWARDS
Established in 1996 by SATURN of Hamilton East. To be awarded to McMaster students who promote the ideals of leadership and community service. One award to be granted in each Faculty. (80020 539)

THE SCIENCE CLASS OF '97 LEGACY AWARD
Established in 1997 by the Science Class of '97. To be awarded to a student enrolled in the Faculty of Science who, in the judgment of a selection committee, has demonstrated leadership, innovativeness and/or community service. Preference will be given to students entering Level III or IV. (80030 549)

THE ROSA MAUDE SHEARDOWN AWARDS
Established in 1997 by Gordon R. Baker, O.C., in honour of his foster mother, Rosa Maude Sheardown, and her belief in the importance of education and providing a helping hand to others. This award will be granted to students in any faculty. Preference will be given to students from single-parent families, foster or group homes, disadvantaged backgrounds, or King Township. (80038 554)

THE MEENA AND NARESH SINHA AWARD
Established in 1996 by Meena and Naresh Sinha. To be awarded to a student enrolled in the Faculty of Engineering who, in the judgment of the Department of Electrical and Computer Engineering, has demonstrated superior leadership or innovative skills through participation in either University and/or community activities. (80014 533)

THE LORNA AND DAVID SOMERS AWARD
Established in 1997 by Lorna Somers (Class of '81) and David Somers (Class of '88) under the McMaster Student Opportunity Fund Initiative. To be awarded to a student enrolled in the Faculty of Humanities who, in the judgment of a selection committee, has demonstrated one or more of the following: service to McMaster or the community-at-large; superior leadership or innovative skills; outstanding athletic or artistic participation. Preference will be given to a student enrolled in Art and Art History. (80031 550)

THE ADAM SUDAR PRINTMAKING AWARD
Established in 1997 in memory of Adam Sudar by his friends, this award fund will be used to assist students entering Level III or IV of the Honours Art Programme at McMaster who, in the judgment of the School of Art, Drama and Music, have demonstrated outstanding achievement or promise in the area of printmaking, and who have contributed significantly to the School’s cultural presentations within the community. (80054 580)

THE STEPHEN F.H. THRELKELD AWARD
Established in 1997 by friends and colleagues of Stephen F. H. Threlkeld. To be awarded to a student entering Level IV of an Honours programme in Biology who has demonstrated leadership or innovative skills through participation in either university and/or community activities. Preference will be given to students who have taken at least nine units of Genetics courses. (80026 545)

THE TKK INC. AWARDS
Established in 1997 by TKK Inc. in recognition of the contributions of McMaster students. To be awarded to students enrolled in the Faculty of Engineering who demonstrate outstanding athletic participation and display superior leadership or innovative skills. (80046 572)

THE ROGER TULL AWARD
Established in 1997 by friends and colleagues in recognition of Roger Tull’s ten years of outstanding service and commitment to the Advancement area and the McMaster University community in general. The award will be granted annually to a student who demonstrates solid academic standing and superior leadership in extra-curricular activities in the McMaster community. (80053 579)

THE SAM WATSON MEMORIAL AWARD
Established in 1996 by his wife Irene M. Watson and friends of Samuel Watson. One or two awards to be granted to students enrolled in a programme in Arts and Science who, in the judgment of the Arts and Science Programme Admissions, Awards and Review Committee, have made a notable contribution in the community-at-large through participation in extra-curricular activities. (80002 546)

THE WESCANT INDUSTRIES CONTINUOUS LEARNING AWARD
Established in 1997 by Wescast Industries Inc. in recognition of the contributions of McMaster students. To be awarded to a student enrolled in the Faculty of Engineering who is involved in activities displaying superior leadership or innovative skills. Preference will be given to a student enrolled in Materials Engineering. (80047 573)

THE ALLAN AND JOY WILLIAMS AWARD
Established in 1996 by Mary Williams (Class of '67), Anne Williams (Class of '89) and Ellen and Dan Walker in honour of their parents. To be awarded to a student enrolled in any programme who, in the judgment of the Department of English, has made a notable contribution to campus and community life and demonstrates a lively interest in English studies. (80019 536)

THE ZENON ENVIRONMENTAL AWARDS
Established in 1997 by Zenon Environmental Inc. in recognition of the contributions of McMaster students. To be awarded to students enrolled in the Faculty of Engineering who display superior leadership or innovative skills. Preference to be given to students enrolled in the Manufacturing Engineering and Society programme. (80051 577)

THE ZOOM MEDIA AWARDS
Established in 1997 by Zoom Media Inc. in support of McMaster students. A variable number of awards to be granted to students enrolled in any programme who, in the judgment of a selection committee, have demonstrated superior leadership and innovative skills through participation in either university and/or community activities. (80029 548)

COMMUNITY CONTRIBUTION AWARDS
UNDERGRADUATE ACADEMIC AWARDS

WEB ADDRESS: http://access.mcmaster.ca/financial_aid
E-MAIL ADDRESS: awards@mcmaster.ca

Directors: Student Financial Aid and Scholarships
Elizabeth Seymour

For information, please contact:
Office of Student Financial Aid and Scholarships
McMaster University
Hamilton, Ontario, L8S 4K1
Telephone: (905) 525-9140, ext. 24319
Effective Fall 2001: Gilmour Hall, Room 120

The University Senate, acting on behalf of generous benefactors and donors to the University, bestows academic awards on entering, in-course and graduating students to encourage and recognize high levels of scholarship. In recognizing such scholastic achievement, the University requires all recipients of academic awards to fulfill a set of generic conditions, in addition to meeting the specific terms attached to individual academic awards. The general conditions and terms have been established to ensure equity in competition and a high academic standing. Any interpretation of the conditions attaching to academic awards is solely the prerogative of the Undergraduate Council.

TERMINOLOGY

An explanation of the terminology used to describe Academic Awards is provided in the sections of the Calendar described below. Please refer to the Glossary section of this Calendar for definitions of Continuing Students, Cumulative Average (CA), Level, Full-time Students, Post-Degree Students, Review and Reviewing Period.

Baccalaureate Degrees are those listed in the Degrees and Programmes section of this calendar, the abbreviations of which start with the letter B, such as B.A., B.Com.

Failures are determined by reviewing period, not by session. They include failures in Extra courses.

Full Load is calculated for Undergraduate In-Course Academic Awards and is the number of units specified in the Calendar for an individual level of a programme (e.g. Astrophysics, Level II, 31 units). If the Calendar does not specify the programme requirements by individual levels, divide the total units for all levels by the number of levels, discarding the remainder. Full-time students must carry a full load of McMaster courses to be eligible for Undergraduate In-Course Academic Awards. A full load is not required to be eligible for graduate awards.

Graduate Awards are granted to eligible students on the completion of their graduating session.

In-Course Awards are granted to eligible students, based on academic achievement in other than their graduating session.

Part-time Studies Awards are referred to under Section 2, Category C. To be eligible for these awards, students must have been registered in at least 50% of all units attempted at McMaster, while fulfilling the University's definition of a part-time student as described in the Glossary section of this Calendar.

Session, for scholarship purposes, refers to the Fall/Winter session. The Fall/Winter session is the period from September to April as defined in the Sessional Dates section of this Calendar.

Full-load Average (FA) is the weighted average computed for Undergraduate In-Course Academic Awards. It is based on the successful completion of a full load of course units, as defined by programme and level. It includes only those courses taken in the Fall/Winter session. Overload courses, courses taken above full load and Extra courses taken during the Fall/Winter session are included in the Full-load Average.

Reviewing Period for scholarship purposes, normally refers to work completed during the Fall/Winter session. Please refer to the Glossary section of this Calendar.

GENERAL CONDITIONS FOR ACADEMIC AWARDS

1. The University Academic Awards listed below are provided exclusively for students entering, registered in, or graduating from baccalaureate degree programmes at McMaster University. Continuing Students, Post-degree Students, and students registered in the McMaster Medical programme are not eligible for these awards.

2. To ensure a wide distribution of the limited number of awards, there are restrictions on the number of awards that a student may receive. An eligible student may be granted:
   a) travel scholarships and awards such as books and medals; and
   b) awards continued from a previous year (including entrance scholarships), except as provided by the particular terms of an award; and
   c) either one award greater than or equal to the value of a Senate Scholarship ($300 in 1999-2000) and one award of less than the value of a Senate Scholarship, or two awards of less than the value of a Senate Scholarship. Students holding multi-year awards are eligible to receive either:
      a) one additional award equal to the value of a Senate Scholarship and one additional award less than the value of a Senate Scholarship, or
      b) two additional awards, each less than the value of a Senate Scholarship.

When a student is named the winner of an award but may not retain it because of the conditions listed above, the next eligible student will be granted the award.

3. The monetary benefits of travel scholarships, awards won by graduating students, and awards such as books and medals will be disbursed directly to the student.

4. The monetary benefits of other awards will be disbursed only if the recipient is registered in a baccalaureate degree programme, or a specific programme when explicitly required by terms of award, at McMaster University in the next Fall/Winter session after the award was earned and will be allocated in the following manner:
   a) the monetary benefits of award(s) will be credited to the student's academic fees account up to the value of the academic fees prescribed for a full load of work as specified in the Calendar for the level and programme in which the student is registered.
   b) the monetary benefits of award(s) which exceed the value of academic fees as prescribed for a full load of work for the level and programme in which the student is registered will be credited to one or more of the student's other University accounts (e.g. residence and/or bookstore, etc.). Amounts in excess of the student's monetary obligation to the University will be disbursed directly to the student in November or December.

5. Awards credited to the student's academic fees account are not refundable in cash under any circumstances.

6. Awards credited to the student's academic fees account may be used only to defray academic fees for baccalaureate degree courses taken during the Fall/Winter session in which the account is credited with the awards. Students wishing to defer the benefits of an award to a later session should apply to the Office of Student Financial Aid and Scholarships. Approval of applications is not automatic, and deferrals are not normally granted for more than one calendar year.

7. Students holding four-year, full-fees scholarships who choose to accelerate their programme and to complete their degree earlier than normal by completing Spring/Summer session courses and who wish to employ the benefits of their award to defray the academic fees for such courses should apply to the Office of Student Financial Aid and Scholarships. Approval of applications is not automatic.

8. The University reserves the right not to grant an award in the absence of a suitable candidate, and to limit the number of awards when there are too few suitable candidates. The University also reserves the right to withdraw, or amend the terms of, any award.

9. The particular terms for University Academic Awards are listed in TERMS OF AWARDS.

CATEGORIES OF AWARDS

1. Awards for Entering Students (page 306)
   a) Awards Requiring an Application:
      i) McMaster Scholar Awards
   b) Awards Not Requiring an Application:
      i) The Honour Awards
      ii) Music Awards
      iii) Other Awards
      iv) Awards Open to International Students
Awards for Entering Students (A)

1. These awards are provided exclusively for students qualifying for admission to Level I of a first baccalaureate degree in a full load programme in the Fall/Winter session. Note: Students who have registered at a post-secondary institution prior to their last year of secondary school will not be considered for an entrance award.

2. Canadian students (including permanent residents) are eligible for any entrance award regardless of where they complete their secondary school education. Any other student completing the final year of secondary school in Canada is also eligible, including CEGEP and IB students entering Level I.

International students studying outside Canada are not eligible for any entrance awards administered by the Office of Student Financial Aid and Scholarships.

3. To be considered for an entrance award, students must obtain at least a first-class average in the secondary school credits required for University admission. All students who meet this requirement and who apply for admission to the University not more than two years after completion of their secondary school studies will automatically be considered as applicants for entrance awards, unless a separate application is explicitly required by the particular terms of the award. Note: Summer courses completed after June 30, 2001 will not be used to calculate the final average for scholarship purposes.

4. Where explicitly required by the particular terms of an award, recipients must register and remain registered in a full course load in the Faculty Programme specified. Registration in, or transfer to, another programme of study at any time may result in forfeiture of the award. Students are advised to consult with the Office of Student Financial Aid and Scholarships about changing their programme of study or course load.

5. Students who withdraw or drop units before November 1, 2001, which is the last date for withdrawal without failure or default, will lose the scholarship.

6. In addition to meeting the General Conditions, entrance award recipients will begin their studies in the next Fall/Winter session. Students wishing to defer the benefits of an award to a later session should apply to the Office of the Registrar (Admissions) for deferral of both admission and scholarship. Approval of applications is not automatic, and deferments are not normally granted for more than one calendar year.

7. Unless otherwise specified, recipients may retain an entrance award which provides for awards beyond Level I while registered in a first baccalaureate degree programme and until graduation or for four years (five years if registered in a five-level programme), whichever is less. In order to retain such awards, students must complete during each successive Fall/Winter session at the University a full load corresponding at least to:

   a) either the minimum number of units specified in the Calendar for their level and programme;
   b) or, if the Calendar does not specify the programme work by individual levels, the average number of units per level; and
   c) a Full-load Average of 8.0 and no failures.

Awards for Full-Time In-Course Students (Full-Load) (B)

These awards are based on competition across the University or within a Faculty or programme.

1. These awards, which are granted in June or November, are provided exclusively for first baccalaureate degree students registered for a full load programme on the basis of work included at the May review (or deferred examinations resulting therefrom) in the Spring/Summer session and the Fall/Winter session immediately preceding the May review or (deferred examinations resuming therefrom). Normally, these awards will be granted to In-Course Students. A number of awards under this category are also listed under Category F for Second Degree Students.

2. In addition to meeting the General Conditions, a student must obtain, at the most recent review, a Cumulative Average of at least 8.0 and no failures.

3. The Cumulative Average will be used to break any tie in the competition for awards.

Specific Achievement Awards for Full-Time and Part-Time Students (D)

The following awards are granted based on competition across the University or within a Faculty or programme.

1. These awards, which are granted in June or November, are provided exclusively for part-time first baccalaureate degree students who qualify on the basis of work included at the most recent review in other than their graduating session.

2. In addition to meeting the General Conditions, a student must obtain, at the most recent review, a Cumulative Average of at least 8.0 and no failures.

3. The Cumulative Average will be used to break any tie in the competition for awards.

Awards for Graduating Students (E)

The following awards are based on competition across the University or within a Faculty or programme.

1. These awards, which are granted in May, are provided exclusively for graduating students qualifying on the basis of achievement in their first baccalaureate degree programme.

2. In addition to meeting the General Conditions, a student must obtain:

   a) Cumulative Average of at least 8.0;
   b) no failures in the courses last taken equal to:

      i) either the number of units specified in the Calendar for the final level of their programme;
      ii) or, if the Calendar does not specify the programme work by individual levels, the final 30 units of work.

Awards for Second Baccalaureate Degree Students (F)

The following awards are granted based on competition across the University or within a Faculty or programme.

1. These awards, which are granted in May, are provided for either full-time or part-time second baccalaureate degree students qualifying on the basis of achievement during the Spring/Summer or Fall/Winter sessions immediately preceding the May review or deferred examinations resulting therefrom.

2. In addition to meeting the General Conditions, a student must obtain, at the most recent review, a Cumulative Average of at least 8.0 and no failures.

3. The Cumulative Average will be used to break any tie in the competition for these awards.
AWARDS FOR ENTERING STUDENTS

AWARDS REQUIRING AN APPLICATION

◆ The McMaster Scholar Awards

These are McMaster's most prestigious scholarships. Students with an average of 90% or higher are encouraged to apply. Strong academic achievement as well as extracurricular activities and a 500-word essay are required for consideration.

- 5 McMaster Scholar Awards (University-wide) of $25,000 over four years.
- 7 McMaster Scholar Awards (Faculty or programme-specific) of $15,000 over four years.
- 15 McMaster Scholar Awards (University-wide) of $12,000 over four years.
- 50 McMaster Scholar Awards (Faculty or programme-specific) of $3,000 in the first year.

Students submit ONE application form only in order to be considered for all levels of the McMaster Scholar Awards. The application deadline is February 14, 2001. Students who receive a McMaster Scholar Award are not eligible for a McMaster Honour Award.

McMaster Scholar Awards ($25,000 Over Four Years)

Each year, up to five students may be awarded one of these scholarships.

THE ASHAUGH SCHOLARSHIPS
Established in 1989 by bequest of Frederick K. Ashbaugh of St. Petersburg, Florida. In memory of Mary Eliza Kingston. Value: $25,000 ($5,250 per year for up to four years) (20026)

THE GEORGE AND NORA ELWIN SCHOLARSHIPS
Established in 1975 by bequest of George and Nora Elwin of Hamilton. Value: $25,000 ($6,250 per year for up to four years) (20029)

THE EILEEN GRAY FARLEY SCHOLARSHIP
Established in 1998 by Eileen Gray Farley (Class of ’43 and winner of the D.E. Thomson Scholarship) in memory of Mr. D.E. Thomson who exemplified a generous spirit of giving throughout his life and established the D.E. Thomson Scholarship in 1909. To be awarded every four years to a student entering the Faculty of Humanities. Value: $25,000 ($5,250 per year for up to four years) (20102 824)

McMaster Scholar Awards ($15,000 Over Four Years)

Each year, up to seven scholarships to be awarded to students registered in a specific Faculty or Programme of study:

- McMaster Scholar in Arts & Science
- McMaster Scholar in Business
- McMaster Scholar in Engineering
- McMaster Scholar in Health Sciences
- McMaster Scholar in Humanities
- McMaster Scholar in Science
- McMaster Scholar in Social Sciences

The following named scholarships are part of the $15,000 McMaster Scholar Awards.

THE DR. HARRY LYMAN HOOKER ENTRANCE SCHOLARSHIPS
Established in 1981, and resulting from the bequest of Dr. H.L. Hooker. Value: $15,000 ($3,750 per year for up to four years) (20001)

THE LILLIAN AND LEROY PAGE SCHOLARSHIP
Established in 1982 by donation of the Lillian and Leroy Page Foundation for a student from the Hamilton area entering the Faculty of Science. Value: $15,000 ($3,750 per year for up to four years) (20030)

McMaster Scholar Awards ($12,000 Over Four Years)

Each year, up to fifteen scholarships to be awarded to students entering any programme of study.

- McMaster Scholar in the Arts
- McMaster Scholar in Business
- McMaster Scholar in Engineering
- McMaster Scholar in Health Sciences
- McMaster Scholar in Humanities
- McMaster Scholar in Science
- McMaster Scholar in Social Sciences

THE HELEN M. CURREY SCHOLARSHIP
Established in 1941 by bequest of Helen Maud Currey of Drumbo, Ontario. To be awarded every four years; the 15th award was made in 2000. Value: $12,000 ($3,000 per year for up to four years) (20005)

THE GOVERNORS' SCHOLARSHIPS
A variable number to be awarded to students entering a full-time programme of study. Value: $12,000 ($3,000 per year for up to four years) (20007)

THE NELLIE P. HOGG SCHOLARSHIP
Established in 1965 by bequest of Nellie P. Hogg of Hamilton. One scholarship to be awarded to a woman student entering a full-time programme of study. Value: $12,000 ($3,000 per year for up to four years) (20014)

THE LLOYD MEMORIAL SCHOLARSHIP
Established in 1986 in memory of Henry Hayes and Lizzie Lloyd by their children. OAC subjects to be included are: Physics, Chemistry, two credits of Mathematics, and either Biology or a third credit of Mathematics. Value: $12,000 ($3,000 per year for up to four years) (20015)

THE JOSEPHINE MAGEE SCHOLARSHIP
Established in 1959 by bequest of Josephine Magee of Hamilton. To be awarded on the basis of general proficiency in the subjects required for admission to students from any province or territory of Canada. Value: $12,000 ($3,000 per year for up to four years) (20012)

THE ALBERT MATTHEWS SCHOLARSHIP
Established in 1920. OAC subjects to be included are Latin and a language other than English. Value: $12,000 ($3,000 per year for up to four years) (20004)

THE HAROLD MATTHEWS MEMORIAL SCHOLARSHIP
Established in 1917. OAC subjects to be included are French and either German or Spanish. Value: $12,000 ($3,000 per year for up to four years) (20008)

THE ISABELLA CAMPBELL McNEE SCHOLARSHIP
Established in 1915 and augmented in 1928. OAC subjects to be included are three credits of Mathematics and Physics. Value: $12,000 ($3,000 per year for up to four years) (20010)

THE MOUTHON COLLEGE ENTRANCE SCHOLARSHIP
Established in 1980 from funds originally subscribed by the Alumnae of Moulton College during the years 1946 to 1949. To be awarded to a woman student entering a full-time programme of study. Value: $12,000 ($3,000 per year for up to four years) (20013 117)

THE D.E. THOMSON SCHOLARSHIP
Established in 1909 and augmented in 1915. OAC subjects to be included are English and either Latin or French. Value: $12,000 ($3,000 per year for up to four years) (20006)

THE TYNOWSKI SCHOLARSHIP
Established in 1989 by the University, friends and colleagues of Olga Tynowski, for her outstanding contributions to McMaster University during 40 years of service. To be awarded to an outstanding student entering a full-time programme of study. Value: $12,000 ($3,000 per year for up to four years) (20003)

The recipient of this award is eligible to receive additional aid through the corresponding Supplementary Bursary Aid Fund if he/she demonstrates financial need. Please see the section on Supplementary Bursary Aid for Award Recipients in the Student Financial Aid section of this Calendar.

THE WHEELER SCHOLARSHIP
Established in 1915. OAC subjects to be included are: History, English and a language other than English. Value: $12,000 ($3,000 per year for up to four years) (20016)

McMaster Scholar Awards ($3,000 Each)

Fifty scholarships to be awarded to students registered in a specific Faculty or Programme of study.

THE ANDREW FOUNDATION - McMASTER SCHOLARSHIPS
Established in 1997 by McMaster University in recognition of the Andrew Foundation and its commitment to McMaster students. A variable number of scholarships to be awarded to students entering any programme. Value: $3,000 each (20084 609)

THE A. H. ATKINSON EDUCATION FUND - McMASTER SCHOLARSHIP
Established in 1987 by McMaster University in recognition of the A. H. Atkinson Education Fund Inc. and its commitment to McMaster students. To be awarded to a student entering the Faculty of Engineering. Value: $3,000 (20091 616)

THE GORDON R. BAKER, Q.C. - McMASTER SCHOLARSHIPS
Established in 1997 by McMaster University in recognition of Gordon R. Baker, Q.C. and his commitment to McMaster students. A variable number of scholarships to be awarded to students entering any programme. Value: $3,000 each (20094 585)

THE CHARLES MURRAY BALL ENTRANCE SCHOLARSHIPS
Established in 1993 by bequest of May Alexandra Ball in memory of her brother. A variable number of scholarships to be awarded to students entering a full-time programme of study. Value: $3,000 (20044)
THE ARNOLD A. BEALE - McMaster Scholarships
Established in 1997 by McMaster University in recognition of Arnold A. Beale and his commitment to McMaster students. A variable number of scholarships to be awarded to students entering any programme.
Value: $3,000 each (20095 584)

THE H. G. BERTRAM Foundation - McMaster Scholarships
Established in 1997 by McMaster University in recognition of The H. G. Bertram Foundation and its commitment to McMaster students. A variable number of scholarships to be awarded to students entering any programme.
Value: $3,000 each (20093 618)

The Betzner Family - McMaster Scholarship
Established in 1997 by McMaster University in recognition of the Betzner Family and its commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 each (20061 586)

The Ed Buffett - McMaster Scholarship
Established in 1997 by McMaster University in recognition of Ed Buffett and his commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 each (20079 610)

The Canada Scholarship
Value: $3,000 each (20057 507)

The Canadian Friends of the Hebrew University - McMaster Scholarships
Established in 1997 by McMaster University in recognition of the Canadian Friends of the Hebrew University and its commitment to McMaster students. A variable number of scholarships to be awarded to students entering any programme.
Value: $3,000 each (20057 518)

The Geraldine Loretta Cosford - McMaster Scholarships
Established in 1997 by McMaster University in recognition of Geraldine Loretta Cosford and her commitment to McMaster students. A variable number of scholarships to be awarded to students entering any programme.
Value: $3,000 each (20097 601)

The Geraldine Loretta Cosford - McMaster Scholarships
Established in 1997 by McMaster University in recognition of Geraldine Loretta Cosford and her commitment to McMaster students. A variable number of scholarships to be awarded to students entering any programme.
Value: $3,000 each (20097 775)

The CRS Robotics Corporation - McMaster Scholarship
Established in 1997 by McMaster University in recognition of the CRS Robotics Corporation and its commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 each (20093 608)

The Daughters of the Empire (Hamilton) - McMaster Scholarships
Established in 1997 by McMaster University in recognition of the Daughters of the Empire (Hamilton) Ltd. and its commitment to McMaster students. A variable number of scholarships to be awarded to students entering any programme.
Value: $3,000 each (20077 622)

The Dofasco - McMaster Scholarships
Established in 1996 by McMaster University in recognition of Dofasco, one of Canada's and North America’s leading steelmakers, and its ongoing commitment to McMaster students. A variable number of scholarships to be awarded to students entering any programme.
Value: $3,000 each (20047 508)

The Dundas Scholarships
Established in 1984 from funds donated anonymously. A variable number of scholarships to be awarded to students from Dundas and surrounding area entering a full-time programme of study.
Value: $3,000 (20019 019)

The recipient of this award is eligible to receive additional aid through the corresponding Supplementary Bursary Aid Fund if he/she demonstrates financial need. Please see the section on Supplementary Bursary Aid for Award Recipients in the Student Financial Aid section of this Calendar.

The Ernest & Young - McMaster Scholarship
Established in 1997 by McMaster University in recognition of the Partners of Ernest & Young and their commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 each (20089 607)

The Eileen Gray Farley - McMaster Scholarships
Established in 1998 by McMaster University in recognition of Mrs. Eileen Gray Farley and her commitment to McMaster students and in grateful memory of Mr. D.E. Thomson who established the D.E. Thomson Scholarship in 1909. Three scholarships to be awarded to students entering the Faculty of Humanities.
Value: $3,000 each (20103 825)

The Fortinos Scholarship (B)
Established in 1990 by John Fortino. To be awarded to an outstanding full-time student entering the School of Business.
Value: $3,000 (20034 233)

The H.P. Frid Scholarship
Established in 1982 by the family of H.P. Frid in her memory. To be awarded to a promising student entering a full-time programme of study.
Value: $3,000 (20020 062)

The General Motors Entrance Scholarships
Established in 1999 by General Motors of Canada Limited. A variable number to be awarded to female students entering the Faculty of Engineering.
Value: $3,000 (20103 877)

The Gennum Corporation - McMaster Scholarship
Established in 1997 by McMaster University in recognition of the Gennum Corporation and its commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 each (20064 589)

The Allen and Milli Gould Family Foundation - McMaster Scholarship
Established in 1997 by McMaster University in recognition of the Allen and Milli Gould Family Foundation and its commitment to McMaster students. To be awarded to a student entering the Faculty of Business.
Value: $3,000 (20096 611)

The Guardian Capital Inc. - McMaster Scholarship
Established in 1996 by McMaster University in recognition of Guardian Capital Inc. and its commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20049 510)

The Hamilton Community Foundation - McMaster Scholarships
Established in 1997 by McMaster University in recognition of the Hamilton Community Foundation and its commitment to McMaster students. A variable number of scholarships to be awarded to Hamilton-Wentworth and Burlington post-secondary students entering any programme.
Value: $3,000 each (20090 614)

The Hawkrrigg Family - McMaster Scholarship
Established in 1997 by McMaster University in recognition of the Hawkrrigg Family's commitment to McMaster students. To be awarded alternately to a student entering the Faculty of Business or the Faculty of Social Sciences (Kinesiology) who has demonstrated outstanding academic, community and athletic achievement.
Value: $3,000 (20065 590)

The John Hodgins Memorial Scholarship
Established in 1985 by his wife, Jean, in memory of Dr. John W. Hodgins in recognition of his extraordinary contributions in founding the Faculty of Engineering which he served with distinction as the first Dean. To be awarded to an outstanding student entering the Faculty of Engineering.
Value: $3,000 (20021 078)
THE MURIEL MCBRIEN KAUFFMAN FOUNDATION -
McMASTER SCHOLARSHIPS
Established in 1997 by McMaster University in recognition of the Muriel McBrien Kaufman Foundation and its commitment to McMaster students. A variable number of scholarships to be awarded to students entering any programme.
Value: $3,000 each (20071 596)

THE ROBERT A. KENNEDY - McMASTER SCHOLARSHIP
Established in 1997 by McMaster University in recognition of Robert A. Kennedy and his commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20062 567)

THE KPMG - McMASTER SCHOLARSHIPS
Established in 1996 by McMaster University in recognition of KPMG’s longstanding and increasing financial support of McMaster students. A variable number of scholarships to be awarded to students entering the Faculty of Business.
Value: $3,000 each (20052 513)

THE J. BEVERLY KRUGEL - McMASTER SCHOLARSHIP
Established in 1997 by McMaster University in recognition of Beverly Krugel and her commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20063 586)

THE LAIDLAW - McMASTER SCHOLARSHIPS
Established in 1996 by McMaster University in recognition of Laidlaw and its ongoing commitment to McMaster students. A variable number of scholarships to be awarded to students entering any programme.
Value: $3,000 each (20065 514)

THE LINCLUDEN MANAGEMENT - McMASTER SCHOLARSHIP
Established in 1997 by McMaster University in recognition of Lincluden Management Ltd. and its commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20066 591)

THE EDWARD AND MARGARET LYONS -
McMASTER SCHOLARSHIPS
Established in 1997 by McMaster University in recognition of Edward and Margaret Lyons and their commitment to McMaster students. A variable number of scholarships to be awarded to students entering the Faculty of Humanities.
Value: $3,000 each (20071 612)

THE ALEC MACMILLAN - McMASTER SCHOLARSHIP
Established in 1996 in memory of Alec John Royston MacMillan of Toronto. To be awarded to a student entering Engineering I who, in the judgment of the Faculty of Engineering, demonstrates qualities of innovation, leadership and service to the community through participation in school and community programmes including athletics.
Value: $3,000 (20050 511)

THE MAXSTEEL - McMASTER SCHOLARSHIP
Established in 1997 by McMaster University in recognition of MaxSteel Inc. and its commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20065 592)

THE LINDA MATTHEWS - McMASTER SCHOLARSHIP
Established in 1996 by McMaster University in recognition of Linda Matthews (Class of ‘69), and her commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20051 512)

THE HELEN AND JOHN MAXWELL - McMASTER SCHOLARSHIP
Established in 1997 by McMaster University in recognition of Helen and John Maxwell and their commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20097 776)

THE NEIL D. MCArTHUR - McMASTER SCHOLARSHIP
Established in 1997 by McMaster University in recognition of Neil D. McArthur and Anne McArthur and their commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20074 599)

THE HOWARD AND JANET McLEAN-McMASTER SCHOLARSHIP
Established in 1997 by McMaster University in recognition of Howard and Janet McLean and their commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20081 575)

THE McMASTER ALUMNI ASSOCIATION - McMASTER SCHOLARSHIPS
Established in 1997 by McMaster University in recognition of the McMaster Alumni Association's ongoing commitment to McMaster students. A variable number of scholarships to be awarded to students entering any programme.
Value: $3,000 each (20088 613)

THE MELOCHE MONNEX - McMASTER SCHOLARSHIP
Established in 1997 by McMaster University in recognition of Melone Monnex Inc. and its commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20068 569)

THE ROBERT JOHN MORRIS -
McMASTER UNIVERSITY AWARDS
Established in 1996 by McMaster University in memory of Robert John Morris. Two awards to be granted to students entering Engineering I who, in the judgment of the Faculty of Engineering, have demonstrated outstanding academic achievement and an interest in the field of Engineering.
Value: $5,000 each (20058 519)

THE ALVIN I. OGILVIE SCHOLARSHIPS
Established in 1994 by bequest of Alvin I. Ogilvie of Hamilton. Five scholarships to be awarded to students entering a full-time programme of study.
Value: $3,000 (20017)

THE PETRO-CANADA - McMASTER SCHOLARSHIPS
Established in 1996 by McMaster University in recognition of Petro-Canada and its commitment to McMaster students. A variable number of scholarships to be awarded to students entering any programme.
Value: $3,000 each (20054 515)

THE PIONEER GROUP - McMASTER SCHOLARSHIP
Established in 1996 by McMaster University in recognition of The Pioneer Group’s longstanding and increasing financial support of McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20056 517)

THE GORDON AND JANE PRICE - McMASTER SCHOLARSHIPS
Established in 1997 by McMaster University in honour of the late Gordon and Jane Price and their commitment to McMaster students. A variable number of scholarships to be awarded to students entering any programme.
Value: $3,000 (20098 777)

THE PROCOR - McMASTER SCHOLARSHIP
Established in 1997 by McMaster University in recognition of Prococ Limited and its commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20069 954)

THE REGIONAL MUNICIPALITY OF HAMILTON-WENTWORTH -
McMASTER SCHOLARSHIPS
Established in 1997 by McMaster University in recognition of the Regional Municipality of Hamilton-Wentworth and its commitment to McMaster students. Six scholarships will be awarded to students entering any programme.
Value: $3,000 each (20073 596)

THE A.G. REILLY SCHOLARSHIPS
Established in 1991 by bequest of Lois E. Reilly of Toronto. A variable number of scholarships to be awarded to students entering a full-time programme of study.
Value: $3,000 (20040)

THE ROCHE CANADA - McMASTER SCHOLARSHIP
Established in 1997 by McMaster University in recognition of Richo Canada Inc. and its commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20070 595)

THE SCOTIAMcLEOD - McMASTER SCHOLARSHIP
Established in 1997 by McMaster University in recognition of ScotiaMcLeod Inc. and its commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20090 615)

THE SIEMENS-WESTINGHOUSE - McMASTER SCHOLARSHIPS
Established in 1996 by McMaster University in recognition of Westinghouse Canada Inc. and its ongoing commitment to McMaster students. A variable number of scholarships to be awarded to students entering any programme.
Value: $3,000 each (20055 516)

THE STELCO - McMASTER ENGINEERING SCHOLARSHIPS
Established in 1997 by McMaster University in recognition of Stelco and its ongoing commitment to McMaster students. Two scholarships to be awarded to students entering the Faculty of Engineering who demonstrate outstanding academic achievement.
Value: $3,000 each (20060 605)
THE TTCK INC. - McMaster Scholarship
Established in 1997 by McMaster University in recognition of the TTCK Inc. and its commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20072 597)

The Edith H. Turner Foundation - McMaster Scholarships
Established in 1996 by McMaster University in recognition of the Edith H. Turner Foundation and its commitment to McMaster students. A variable number of scholarships will be awarded to students entering any programme.
Value: $3,000 each (20046 599)

The United Steelworkers of America - McMaster Scholarship
Established in 1997 by McMaster University in recognition of the United Steelworkers of America and its commitment to McMaster students. To be awarded to a student entering any programme.
Value: $3,000 (20078 603)

The Wallingford Hall Entrance Scholarship
Established in 1993. To be awarded to a student entering a full-time programme of study.
Value: $3,000 (20043)

The Zonta Club of Hamilton - Roberta Bondar - McMaster Scholarships
Established in 1997 by McMaster University in recognition of the Zonta Club of Hamilton I and its commitment to McMaster students, and in recognition of Canada’s first female astronaut. A variable number of scholarships will be awarded to students entering any programme.
Value: $3,000 (20099 793)

Awards Not Requiring an Application

◆ The McMaster Honour Awards
McMaster University will reward students with high academic standing in their final year of secondary school based on their final admission average.

◆ Music Awards

The Joan Frances Bowling Entrance Scholarships
Established in 1997 from the estate of Marie Bowling in memory of her daughter, Joan Frances Bowling. Two scholarships will be awarded to students entering Music I, who in the judgment of the School of the Arts (formerly School of Art, Drama and Music), have demonstrated excellence in classical music.
Value: $1,800 each (20085 558)

The Merrill Francis Gage Entrance Scholarship
Established in 1992 from the estate of Merrill Francis Gage of Hamilton. To be awarded to a keyboard student entering Music I, who, in the judgment of the School of Art, Drama and Music, has attained outstanding musical proficiency.
Value: $1,000 (20031)

The Frank Thorolfson Memorial Scholarships
Established in 1978 in memory of Professor Frank Thorolfson, first Chair of the Department of Music. Two scholarships will be awarded to students entering Music I, who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), have attained high scholastic achievement and musical proficiency.
Value: $1,100 each (20028)

◆ Other Awards Not Requiring an Application

The Association of Professional Engineers Scholarship
Established in 1981 by the Ontario Professional Engineers Foundation for Education. Two scholarships will be awarded to students entering the Faculty of Engineering.
Value: $1,200 each (20027 232)

The Coca-Cola Merit Awards
Established in 1998 by Coca-Cola Bottling Ltd. Two awards will be granted to students entering any programme.
Value: $1,500 each (20031 802)

The Devilliers - Mahaffy Merit Awards
Established in 1991 in memory of Nina De Villiers and Leslie Mahaffy of Burlington, by contributions from the local community and the employees of several area companies including Searle Canada, Hoechst Canada, Smithkline Beecham, Monsanto and the Royal Bank. Two scholarships will be awarded to outstanding students graduating from a secondary school in the Halton Region; (a) to one student entering a full-time programme of study; and (b) one to a student entering full-time study in Science I or Music I. Preference will be given to women students.
Value: $1,000 each (20039 251)

The Cathryn E. Kaake Merit Award
Established in 1988 in memory of Cathryn E. Kaake (Class of ’78) by family and friends.
Value: $1,000 (20022 010)

The Raymond C. Labarge Merit Awards
Established in 1990 in memory of Raymond C. Labarge (Class of ’36) of Ottawa.
Value: $1,000 (20035 235)

The Amelia Morden, Paardeburg Chapter, IODE, Scholarship
Established in 1998 by the Paardeburg Chapter, IODE. To be awarded to a first-year student from a secondary school in Hamilton who attains a good standing in his or her final year of secondary school.
Value: $200 (20032 082)

The Nortel Networks Entrance Scholarships
Established in 1999 by Nortel Networks. Thirty scholarships will be awarded to students entering the Faculty of Engineering.
Value: $3,000 each (20010 678)

The Leslie A. Prince Merit Awards
Established in 1979 in memory of Leslie A. Prince, Dean of Students, by his friends and colleagues upon the occasion of his retirement and in recognition of his outstanding contribution to the University community. Two to be awarded.
Value: $1,000 each (20024 139)

◆ Awards Open to International Students

International Awards
Each year there are a number of International Awards provided exclusively for international students qualifying for admission to Level I of a first baccalaureate degree programme. All eligible international students are automatically considered by each Faculty/Programme Admissions Committee.
Value: $2,000 each

Administered by the Office of International Affairs (Kenneth Taylor Hall, Room 241; (905) 525-9140, ext. 24700; email: inadin@mcmaster.ca; web address: http://www.mcmaster.ca/oia)

IN-COURSE, GRADUAND AND SECOND DEGREE AWARDS

Legend

<table>
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<tr>
<th>Faculty (shown beside award value)</th>
<th>Category of Award</th>
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<td>A</td>
<td>In-course (Full-Load Awards)</td>
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<td>O</td>
<td>Open to all students</td>
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<td>S</td>
<td>Science</td>
</tr>
<tr>
<td>SS</td>
<td>Social Sciences</td>
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</tbody>
</table>

The Accenture Scholarship (E, S, B)
Established in 1998 by Andersen Consulting. To be awarded to a student entering the final year of study in Engineering, Science or Commerce who, in the judgment of a Selection Committee, demonstrates a strong interest in Management Information Systems and qualities of leadership through service to McMaster University and/or the community in athletic, professional or social organizations.
Value: $1,000 (30248 800) (B)

The Achievement Awards of Excellence (O)
Established in 1998. A variable number of scholarships will be awarded to students who, in the judgment of the Centre for Student Development, give evidence of outstanding academic achievement. Students who wish to be considered for this award should contact the Office of Student Financial Aid and Scholarships for information and an application.
Value: $600 (40085 794) (D)
<table>
<thead>
<tr>
<th>Award Name</th>
<th>Value</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>THE ACI (ONTARIO CHAPTER) SCHOLARSHIP (E)</td>
<td>$300 (30315 319)</td>
<td>Established in 1992 by the American Concrete Institute (Ontario Chapter). To be awarded to a student entering Level IV of the Civil Engineering programme who, in the judgment of the Department of Civil Engineering, has demonstrated outstanding academic achievement and knowledge of concrete technology.</td>
</tr>
<tr>
<td>THE AIR LIQUIDE CANADA INC. SCHOLARSHIPS (E)</td>
<td>$1,250 each (30258)</td>
<td>Established in 1999 by Air Liquide Canada. Two scholarships to be awarded to students in a Level II or III programme in Chemical Engineering, Material Sciences and Engineering and/or Mechanical and Manufacturing Engineering who, in the judgment of the Faculty of Engineering, have demonstrated outstanding academic achievement. The recipients must attain a minimum Sessional Average of 9.5 at the most recent Fall/Winter session.</td>
</tr>
<tr>
<td>THE A.G. ALEXANDER SCHOLARSHIPS (H)</td>
<td>$5,500 each (36174)</td>
<td>Established in 1991 by the McMaster University Alumni Association and a medal to a part-time student who has attained the highest Cumulative Average at the most recent review.</td>
</tr>
<tr>
<td>THE W.K. ALLAN MEMORIAL SCHOLARSHIP (SS)</td>
<td>$350 (30102 267)</td>
<td>Established in 1991 in memory of William Kellswig Allen (Class of '31) by his wife. To be awarded to a student entering the final level of a programme in Mathematics or Physics who attains the highest Full-load Average.</td>
</tr>
<tr>
<td>THE CAMERON D. ALLEN BOOK PRIZE (S, SS)</td>
<td>$400 each (60000)</td>
<td>Established in 1978 in memory of Cameron D. Allen. To be awarded to a student graduating from an Honours programme in Geography who, in the judgment of the School of Geography and Geology, shows outstanding achievement in studies in climatology.</td>
</tr>
<tr>
<td>THE ALUMNI ASSOCIATION SCHOLARSHIPS (O)</td>
<td>$150 for books</td>
<td>Established in 1974 by the McMaster University Alumni Association and later augmented by bequest of Harold E. Amy. One scholarship to be awarded to a part-time student who has attained the highest Cumulative Average at the most recent review.</td>
</tr>
<tr>
<td>THE ALUMNI CANADIAN GEOGRAPHY PRIZE (O)</td>
<td>$175 (40001 004)</td>
<td>Established in 1985 by the Geography Branch of the McMaster University Alumni Association in recognition of Dr. Lloyd G. Reeds for his contribution to teaching during more than 35 years of service. To be awarded to the student who attains the highest grade in GEO 2H3C (Canada).</td>
</tr>
<tr>
<td>THE ALUMNI SOCIAL WORK PRIZE (S, SS)*</td>
<td>$75 for books</td>
<td>Established in 1991 by the Social Work Branch of the McMaster Alumni Association. To be awarded to the student who attains the highest standing in SOC WORK 2B03.</td>
</tr>
<tr>
<td>THE AMBASSADOR OF SPAIN BOOK PRIZE (H)</td>
<td>$100 (40002 007)</td>
<td>Established in 1975 to be awarded to a graduating student in a programme in the Department of Modern Languages and Linguistics who, in the judgment of the Department, has demonstrated notable proficiency in Spanish.</td>
</tr>
<tr>
<td>THE E.H. AMBROSE GOLD MEDAL (B)</td>
<td>$500 (50004 005)</td>
<td>Established in 1971 by Clarkson Gordon in memorial of their former Hamilton partner, E.H. Ambrose, member of the University’s Board of Governors from 1957 to 1967 and its Chair, 1965 to 1967, and augmented by Mrs. E.H. Ambrose in 1987. To be awarded to the student in the graduating class of a programme in Commerce who, on the basis of scholarship and leadership, is judged to be the outstanding member of the class.</td>
</tr>
<tr>
<td>THE AMERICAN-STANDARD PRIZE (E)</td>
<td>$400 and a medal</td>
<td>Established in 1976. To be awarded to the student in the Ceramics stream of the Materials Engineering programme who attains the highest grade in GEO 2K03.</td>
</tr>
<tr>
<td>THE ANATOMY PRIZE (Hsc)</td>
<td>$350 (30102 257)</td>
<td>Established in 1992. To be awarded to a student who has completed Level III (or equivalent), has studied biological structure and who, in the judgment of the Education Programme in Anatomy, has demonstrated excellence in Anatomy.</td>
</tr>
<tr>
<td>THE ANTHROPOLOGY PRIZE (SS)</td>
<td>$50 (50004 005)</td>
<td>Established in 1982. To be awarded to the graduating student who has completed a programme in Anthropology primarily on a part-time basis and who, in the judgment of the Department of Anthropology, has demonstrated outstanding academic achievement.</td>
</tr>
<tr>
<td>THE HERBERT S. ARMSTRONG MEMORIAL FUND (S, SS)</td>
<td>$75 for books</td>
<td>Established in 1997 in memory of Herbert S. Armstrong. To be awarded to a student who has completed at least 30 units beyond Level I who, in the judgment of the School of Geography and Geology, has achieved notable academic standing and who has made a significant contribution to university life through extra-curricular activities.</td>
</tr>
<tr>
<td>THE ARTS &amp; SCIENCE PROGRAMME BOOK PRIZE (A)</td>
<td>$75 (40078 390)</td>
<td>Established in 1995. To be awarded from time to time to an Arts &amp; Science student who, in the judgment of the Arts &amp; Science Programmes Award Committee, has demonstrated outstanding academic achievement in both arts and science.</td>
</tr>
<tr>
<td>THE EDGAR R. ASHALL SCHOLARSHIP (O)</td>
<td>$800 (30182)</td>
<td>Established in 1965 by bequest of his wife, Edith M. Ashall.</td>
</tr>
<tr>
<td>THE ASM INTERNATIONAL (ONTARIO CHAPTER) SCHOLARSHIP (S, E)</td>
<td>$800 each (30005 005)</td>
<td>Established in 1971 by the local Chapter of the American Society for Metals. Three scholarships to be awarded to students who have completed Level I and 30-65 units of the Honours Materials Science or Materials Engineering programme and who attain the highest Full-load Average (at least 9.5).</td>
</tr>
<tr>
<td>THE ASSOCIATION OF PROFESSIONAL ENGINEERS GOLD MEDAL (E)</td>
<td>$500 (50004 005)</td>
<td>Established in 1961 by the Ontario Professional Engineers’ Foundation for Education. To be awarded to the graduate of a programme in Engineering who attains the highest Cumulative Average.</td>
</tr>
<tr>
<td>THE ASSOCIATION OF PROFESSIONAL ENGINEERS UNDERGRADUATE SCHOLARSHIPS (E)</td>
<td>$500 each (30006)</td>
<td>Established in 1961 by the Ontario Professional Engineers’ Foundation for Education. Four scholarships: two to be awarded to students with the highest Full-load Average after completion of Engineering I and two to be awarded to students with the highest Full-load Average in Engineering programs after completion of Engineering I and 35-90 units.</td>
</tr>
<tr>
<td>THE A.H. ATKINSON PRIZE (E)</td>
<td>$200 (30001 009)</td>
<td>Established in 1980 by Atkinson Engineering Consultants Limited. To be awarded to the student in a Civil Engineering programme who achieves the highest average in CIV ENG 3G03 and 3J04, taken in one session.</td>
</tr>
<tr>
<td>THE MURRAY BALL SCHOLARSHIPS IN GEOLOGY (S)</td>
<td>$1,500 each (30182)</td>
<td>Established in 1991 by May A. Ball in memory of her brother Murray Ball. Four scholarships to be awarded to students entering Level II, III, IV or V of a B.Sc. programme in the School of Geography and Geology who, in the judgment of the School of Geography and Geology, have attained notable standing. Ordinarily, not more than one scholarship will be awarded to any one programme.</td>
</tr>
<tr>
<td>THE BANK OF MONTREAL HUMANITIES MULTIMEDIA SCHOLARSHIPS (H)</td>
<td>$1000 each (30259)</td>
<td>Established in 1999 by the Bank of Montreal. Ten scholarships to be awarded to students entering Level II, III or IV of the Humanities Combined Honours Multimedia programme who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), demonstrates outstanding academic achievement in the Humanities Multimedia programme or great promise in the area of Humanities multimedia.</td>
</tr>
</tbody>
</table>
IN-COURSE, "..."

Established in 1977 in memory of Professor J. Douglas Bankier by his friends, colleagues, and former students. To be awarded to the student who has completed Level I and at least 60 units of an Honours programme in the Department of Mathematics and Statistics, who attains the highest Full-load Average and who in that session achieves a grade of at least B in STATS 3003 and 3D33.

Value: $500 (30076) (B)

THE WILLIAM AND LILLIAN BARNES MEMORIAL PRIZE IN HISTORY (H)
Established in 1969 by their son, William D, Barns, of Morgantown, West Virginia. To be awarded to the graduand who, in the judgment of the Department of History, has attained notable standing in an Honours History programme.

Value: $200 (50050) (E)

THE SCOTT BARTLETT MEMORIAL PRIZE (B)
Established in 1985 in memory of Scott N. Bartlett by his family and friends. To be awarded to a student who has completed Level I and 60-75 units of the Honours Commerce Programme and who, in the judgment of the Faculty of Business, has achieved high standing in COMMERCE 3FA3 and 3FB3, taken in one session.

Value: $100 (30134 012) (B)

THE BASU MEDAL (B)
Established in 1984 in memory of Professor Sanjoy Basu by friends, colleagues and accounting organizations. To be awarded to the graduating student who, in the judgment of the School of Business, has displayed outstanding achievement in accounting and has attained an average of at least 10.0 in any four of COMMERCE 4AA3, 4AC9, 4AD3, 4AE3, 4AF3.

Value: Medal (50006 013) (E)

THE MARION BATES BOOK PRIZE (H)
Established in 1967, Centennial Year, by the Alumnae members of the Musical Club of Alumnae of 1908 in honour of Marion Bates, Dean of Women from 1947 to 1985. To be awarded to a student graduating from an Honours programme in History who, in the judgment of the Department of History, has displayed outstanding achievement in Canadian history courses consistently throughout the degree programme.

Value: $50 for books (60034) (E)

THE BATES RESIDENCE SCHOLARSHIP (O)
Awarded to the student who resides in the residence with the highest full load average (at least 9.5) in an undergraduate programme, with the exception of those in their graduating session.

Value: $300 (30155) (B)

THE BEALE-LINCOLN-HALLTRAVEL SCHOLARSHIP (O)
Established in 1996 by Arnold A. Beale in memory of his parents F. Arnold Beale and Margaret S. Beale and Mr. and Mrs. Walter Gould Lincoln and Commander Harley H. Hall, U.S.N. To be awarded to a student enrolled in a programme in Biochemistry, Biology, Chemistry, Commerce, Engineering Physics, English, French, Geology, History, Materials Science, Mathematics, Modern Languages, Physics or Religious Studies who demonstrates high academic standing and is participating in one of McMaster's formal exchange programmes. Preference will be given to students who have demonstrated a lively interest in the humanities and the human and social implications of scientific developments.

Value: $2,200 (30236 561) (B)

THE BEAUTY COUNSELORS OF CANADA SCHOLARSHIP (S)
Established in 1956 by Beauty Counselors of Canada Limited. To be awarded to the student who has completed Science I with the highest Full-load Average and who is entering Level II of the Honours Biochemistry, Honours Chemistry or Honours Biochemistry and Chemistry programme.

Value: $300 (30008 014) (B)

THE LOUISE E. BETTGER SCHOLARSHIPS IN MUSIC (H)
Established in 1982 in memory of Louise E. Bettger of New Hamburg, Ontario, by her nieces and nephews. Three scholarships to be awarded to students in an Honours programme in Music who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), are outstanding: (a) one in the area of choral or vocal music to a student who has completed Music I and an additional 30-75 units; (b) one to a keyboard student who has completed Level I and 30-75 units; and (c) one to a student who has completed Music I and who has demonstrated overall musical excellence.

Value: $400 each (30097 015) (B)

THE BINKLEY MEDAL (S)
Established in 2000 by the University, friends and colleagues of Margaret Belec (nee Binkley) on the occasion of her retirement and for her outstanding contributions to McMaster University during her 43 years of service. To be awarded to a student graduating from an Honours programme in Computer Science who has completed the programme primarily on a part-time basis and who attains the highest Cumulative Average.

Value: $350 and a medal (50085 369) (E)

THE ABE BLACK MEMORIAL PRIZES (S, SS)
Established in 1982 by friends and colleagues of Dr. A.H. Black in memory of a distinguished member of the Department of Psychology from 1958 to 1976. Three prizes to be awarded: (a) to one to the student who attains the highest Cumulative Average in an Honours B.A. programme in Psychology; (b) to one to the student who attains the highest Cumulative Average in the Honours B.Sc. programme in Psychology; (c) to the student who attains the highest Cumulative Average in the Honours Biology and Psychology (Life Sciences) programme.

Value: (a) $75; (b) $75; (c) $75 (50000 017) (E)

THE ABE BLACK MEMORIAL PRIZE (S, SS)
Established in 1982 by friends and colleagues of Dr. A.H. Black in memory of a distinguished member of the Department of Psychology from 1958 to 1976. To be awarded to the student who, in the judgment of the Department of Psychology, has demonstrated outstanding achievement in PSYCH 4D06 (Honours Thesis).

Value: $100 (40076 381) (D)

THE LEONE BETTY BLACKWELL MEMORIAL BOOK PRIZE (S, SS)
Established in 1999. To be awarded to a graduating student with the highest grade in Geology 2P03.

Value: $100 for books (40089 871) (G)

THE BRIAN BLAKEY MEMORIAL SCHOLARSHIP (H)
Established in 1979 in memory of Dr. Brian Blakey, Professor of French, by his friends, colleagues and former students, on behalf of his wife, Dorothy. To be awarded to the student who attains the highest Full-load Average on completion of Level I and 50 to 75 units of an Honours programme in Classical Studies or Classics, Drama, English, French, or Modern Languages. Students in all programmes except Drama must have achieved a B- in both LINGUIST 1A03 and 1A03.

Value: $600 (30013 018) (B)

THE HILDA DOROTHY BORMAN SCHOLARSHIP (H)
Established in 1998 by bequest of Hilda Dorothy Borman. To be awarded to a student studying piano who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), has attained high academic standing.

Value: $1,250 (30245 795) (B)

THE JOAN FRANCES BOWLING SCHOLARSHIPS (H)
Established in 1997 from the estate of Marie Bowling in memory of her daughter, Joan Frances Bowling. Two scholarships to be awarded to outstanding classical music students registered in Level II and above of a Music programme and who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), have demonstrated excellence in Music.

Value: $1800 each (30235 559) (B)

THE BRIEN SCHOLARSHIP IN PHILOSOPHY (H)
Established in 1944 by Dr. J.W. Brien of Windsor. To be awarded to the student who has completed Level I and 30 to 45 units of an Honours programme in Philosophy and who, in the judgment of the Department of Philosophy, shows the most academic promise.

Value: $450 (30014) (B)

THE JOSEPHINE STAPLES BRIEN SCHOLARSHIP (O)
Established in 1936 by Dr. J.W. Brien of Windsor. To be awarded to a woman student who is entering her graduating session and who qualifies on the basis of academic standing and interest in undergraduate activities.

Value: $300 for books (30091) (B)

THE DR. AND MRS. F.R. BRITTON SCHOLARSHIP IN MATHEMATICS (S)
Established in 1962 by Dr. and Mrs. F.R. Britton and augmented by Mrs. Britton's bequest in 1982. To be awarded to the student who has completed Level I and 30 to 45 units of an Honours programme in Mathematical Sciences who attains the highest Full-load Average. Tenable in Levels III and IV provided that the recipient maintains satisfactory standing in an Honours programme in which mathematics, pure or applied, is the major subject of study.

Value: $1,500 ($750 each year) (30051 019) (B)

THE TEN BROEK-BENSEN MEMORIAL SCHOLARSHIP (H)
Established in 1990 in memory of Dr. James Ten Broeke and Dr. Roy C. Bensen, former Heads of the Department of Philosophy and Psychology. To be awarded to a student who has completed Level I and 30 to 75 units of an Honours Programme in Philosophy who, in the judgment of the Department of Philosophy, has demonstrated outstanding academic achievement.

Value: $1,100 (30195) (B)

THE BURKE MEMORIAL RING (S)
Presented in all programmes by graduates of the University in memory of Dean C.E. Burke. To be awarded to a graduate of a B.Sc. programme who is named to the Deans' Honour List and who has made the most outstanding contribution to undergraduate activities. (50007) (E)
THE RUTH BURKE MEMORIAL PRIZE (HSc)
Established in 1963 by Dr. and Mrs. Herbert S. Armstrong in memory of Mrs. Charles E. Burke. To be awarded to the student in the Nursing programme who attains the highest Cumulative Average. The Prize is a set of engraved sterling silver coffee spoons. (50047) (E)

THE CFUW (HAMILTON) MEMORIAL PRIZE IN WOMEN'S STUDIES (O)
Established in 1992 by current and past members of the Canadian Federation of University Women (Hamilton), formerly known as the University Women's Club of Hamilton. To be awarded to the graduating student from a programme in Women's Studies who, in the judgment of the Committee of the Department of Political Science at the University of Western Ontario, has demonstrated outstanding academic achievement in the Women's Studies component of the programme.
Value: $175 and book ends (50062 132) (E)

THE CFUW (HAMILTON) PAST PRESIDENT'S PRIZE (E)
Established in 1976 by the Past Presidents of the University Women's Club of Hamilton which became the CFUW (Hamilton) on the occasion of the Club's 50th anniversary. To be awarded to the woman student who has completed Level I and 70 to 90 units of a programme in Engineering with the highest Cumulative Average.
Value: $200 (30149 029) (B)

THE CFUW (HAMILTON) RUBY BROWN BOOK PRIZE IN ENGLISH (O)
Established in 1970 by bequest of Mrs. Edgar Brown. To be awarded to a student in any Level I programme for the most creative essay in a Level I English course.
Value: $100 (40046 248) (D)

THE CFUW (HAMILTON) SCHOLARSHIP (O)
Established in 1945 by the University Women's Club of Hamilton, now the Canadian Federation of University Women. To be awarded to the woman student who attains the highest Full-load Average in the penultimate year of any programme.
Value: $800 (30150 373) (B)

THE CPCR STUDENT EXCELLENCE AWARD (OT/PT)
Established in 1992 by the Canadian Physiotherapy-Respiratory Therapy Society. To be awarded to a graduating Physiotherapy student who, in the judgment of the School of Rehabilitation Science, has demonstrated notable academic achievement and excellence in clinical fieldwork related to cardiorespiratory physiotherapy.
Value: $100 (50063 315) (F)

THE CSEP/SCPE UNDERGRADUATE STUDENT AWARD (SS)*
Established in 1983 by the Canadian Society for Exercise Physiology. To be awarded to a student from the Kinesiology programme who, in the judgment of the Department of Kinesiology, shows high standing in KINESIOC 2C06 (Physiology of Exercise) and either KINESIOC 4C03 or 4C04. Value: Medal and Certificate (50068) (E)
THE CHEMICAL INSTITUTE OF CANADA (HAMILTON SECTION) PRIZES (E, S)
Established in 1947 by the Hamilton Section. Two prizes to be awarded to students who have completed Level I and 30 to 50 units: (a) one to a student in an Honours programme in Chemistry who, in the judgment of the Department, shows particular promise in Chemistry; and (b) one to a student in a programme in Chemical Engineering who, in the judgment of the Department, shows particular promise in Chemical Engineering.
Value: $50 each (30023 035) (B)

THE CITIZEN ACTION GROUP PRIZE (SS)*
Established in 1984 by the Citizen Action Group, Hamilton, to honour Professor Harry L. Penny, founding Director of the School of Social Work and Board Member of Citizen Action Group. To be awarded to the student in a programme in Social Work who submits an essay or report based on the student's field work experience that best addresses the need for innovative or non-traditional social work practice.
Value: $250 (40006 031) (D)

THE HUGH CLARK SCHOLARSHIP (SS)
Established in 1969 by Hugh Clark in celebration of McMaster's fiftieth year since moving to Hamilton. To be awarded to the student who has completed Level I and 30 to 75 units of an Honours programme in Social Sciences and attains the highest Full-load Average.
Value: $1,200 (30068 239)

THE CLASS OF '37 TRAVEL SCHOLARSHIP IN ARTS AND SCIENCE (A)
Established in 1989 by the Graduating Class of 1937 in celebration of their 50th anniversary and augmented by friends of the Arts and Science programme. To be awarded to a student who has completed Level I and 30 to 72 units of an Honours programme in the Arts and Science Programme. Applicants should have demonstrated a lively interest in developing countries. The purpose of this award is to enable the winner to spend the summer, immediately following its receipt, working and/or studying in a developing country.
Value: $900 (30175 037) (B)

THE CLASS OF '43 GOLDEN ANNIVERSARY SCHOLARSHIP (H)*
Established by the Class of '43 in celebration of their 50th anniversary. To be awarded to the student who has completed Level I and at least 60 units of an Honours programme in Drama who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), has achieved notable academic standing and has made a significant contribution to theatre on campus.
Value: $600 (30214 329) (B)

THE CLASS OF '44 SCHOLARSHIP (O)
Established by the Class of '44 in celebration of their 50th anniversary. To be awarded to the student entering the penultimate year of any programme who has attained the highest Full-load Average.
Value: $700 (30224 361) (B)

THE CLASS OF '50 SCHOLARSHIP IN HONOURS ECONOMICS (SS)*
Established in 1982 by members of the Class of 1950 who graduated in Honours Economics. To be awarded to the student who has completed Level I and 30 to 45 units of an Honours programme in Economics, and who, in the judgment of the Department of Economics, has attained a high Full-load Average and has demonstrated leadership in undergraduate extracurricular activities.
Value: $600 (3027 036) (B)

THE CLASS OF 1953 50TH ANNIVERSARY SCHOLARSHIP (A)
Established by the Class of 1953 in honour of its 50th reunion. A variable number of scholarships to be awarded to students enrolled in Level II and above in a programme in Arts and Science who, in the judgment of the Arts and Science Programme, have attained high academic standing and demonstrated community involvement.
Value: $500 each (30264 482) (B)

THE CLASSICS PRIZE (H)
Established in 1978 by Professor D.M. Shepherd. To be awarded to the student who has completed Level I and 30 to 45 units of an Honours programme in Classics and who, in the judgment of the Department of Classics, shows most promise.
Value: $100 (30026 040) (B)

THE DENTON COATES MEMORIAL SCHOLARSHIP (E, S)
Established in 1982 in memory of Denton E. Coates (Class of '70) by his friends. To be awarded to the graduate who, in the judgment of the Department of Materials Science and Engineering, has demonstrated outstanding achievement in independent research as exemplified by the senior thesis in MATL 5K04.
Value: $225 (50019) (E)

THE MARIO COLULLI MEMORIAL SCHOLARSHIP (H)
Established in 2000 by family members in loving memory of Mario Colulli. To be awarded to a student who has completed Level I or an additional 30-75 units in the Honours Music Programme and who, in the judgment of the School of the Arts, has attained notable standing. Preference is to be given to a student with an interest in opera.
Value: $500 (30266 155) (B)

THE COMPARATIVE LITERATURE PRIZE (H)*
Established in 1986. To be awarded to a student in an Honours programme in Comparative Literature who, in the judgment of the Comparative Literature Programme, has achieved notable standing in Level II courses in Comparative Literature.
Value: $225 (40008) (D)

THE CONSUL GENERAL OF ITALY BOOK PRIZE (H)*
Established in 1982. To be awarded to in-course students for excellence in Italian studies.
Value: Book (40010 041) (D)

THE CONSULTING ENGINEERS OF ONTARIO (CEO) SCHOLARSHIP (E)
Established in 1980 by the Consulting Engineers of Ontario. To be awarded to a student who has completed Level III of a programme in Engineering who, in the judgment of the Faculty of Engineering, has demonstrated outstanding academic achievement and has made notable contribution to the campus or community by participation in extracurricular activities.
Value: $500 (30183 235) (B)

THE CONSUMERS CLASS SCHOLARSHIP (E)
Established in 1968. To be awarded to a student entering Level IV or V of an Engineering and Management programme who, in the judgment of the Department of Materials Science and Engineering demonstrates a strong interest in glass and/or ceramics.
Value: $1,000 (30029 945) (D)

THE BEATRICE CORRIGAN MEMORIAL BOOK PRIZE (O)
Established in 1980 in memory of Professor Beatrice Corrigan by her friends and colleagues. To be awarded to the student who has completed at least nine units beyond Level I and who, in the judgment of the Department of Modern Languages and Linguistics, has achieved notable standing in Italian.
Value: $75 (40004) (D)

THE CRANSTON PRIZES (H)*
Established in 1956 by William H. Cranston of Midland in honour of his parents, J. Herbert Cranston (Class of '25) and Eva Wilkins Cranston (Class of '07). Two prizes to be awarded for excellence in the study of Canadian literature: (a) one for the highest grade in ENGLISH 2G06, and (b) one for the highest grade in ENGLISH 2G03.
Value: (a) $150; (b) $150 (40011) (D)

THE EDWIN MARWALD DALLEY MEMORIAL SCHOLARSHIPS (O)
Established in 1965 by bequest of Edwin Marwin Dalley of Hamilton.
Value: $800 each (30164) (B)

THE D.M. DAVIES PRIZE (S)
Established in 1984 by friends, colleagues and former students in recognition of Professor Douglas Davies for his outstanding contribution to the Department of Biology during 34 years of service. To be awarded to a student who has completed Level I and at least 50 units of an Honours programme in Biology and who attains the highest average in at least 12 units of senior level courses in whole-animal biology, taken in one session.
Value: $300 (30302 047) (D)

THE DEAN'S MEDAL FOR EXCELLENCE IN THE HUMANITIES (H)
Established in 2000 by Donald T. Betzner (Class of '52). To be awarded to the graduating full-time student who attains the highest cumulative average in an Honours Humanities programme.
Value: $5,000 and medal (50083) (E)

THE DR. RUDOLF DE BUDA SCHOLARSHIP (E)
Established in 1989 in memory of Professor de Buda by family, friends and colleagues. To be awarded to a student who has achieved high standing after completion of Level I and 71 to 73 units of Electrical or Computer Engineering programme and who elects to do a fourth-year thesis on a topic in the field of Information Theory.
Value: $1,000 (30041 240) (B)

The recipient of this award is eligible to receive additional aid through the corresponding Supplementary Bursary Aid Fund if he/she demonstrates financial need. Please see the section on Supplementary Bursary Aid for Award Recipients in the Student Financial Aid section of this Calendar.
THE JOHN DEERE LIMITED SCHOLARSHIP (B)
Established in 1992 by John Deyer Limited. To be awarded to the student who has completed Level I and 60 to 75 units of the Honours Commerce programme who, in the judgment of the School of Business, has demonstrated outstanding academic achievement in courses offered by the Human Resources/Labour Relations Area and has displayed leadership and self-motivation in extracurricular activities.
Value: $2,000 (30207 305) (B)

THE DELOTTTE & Touche SCHOLARSHIP (B)
Established in 2000 by Deloitte & Touche. To be awarded to the student who has completed Level I and 60 to 75 units of the Honours Commerce programme who, in the judgment of the Faculty of Business, has achieved notable academic standing in COMMERCE 3A53 and 3A53 (taken in one session), and has demonstrated qualities of leadership at McMaster University or in the community.
Value: $1,250 (30268 537) (B)

THE AUDREY DIERMERT MEMORIAL BOOK PRIZE (H)
Established in 1991 by family, friends and colleagues in memory of Audrey Diemert. To be awarded to a part-time student who attains the highest standing in ENGLISH 2G06 or 2106.
Value: $125 for books (60005 258) (C)

THE LAURA DODSON PRIZE (A)
Established in 1985 by Laura Dodson (Class of '56). To be awarded to the student graduating from the Honours Arts and Science programme who has displayed outstanding achievement in both arts and science.
Value: $150 (50001 049) (E)

THE ROSEMARY DOUGLAS-MERCER MEMORIAL PRIZE (H)
Established in 1989. To be awarded to a student who has completed Level I and 30 to 45 units of an Honours programme in French and who has attained the highest average in FRENCH 2BB3 and one of 2J03 or 2J03 and one of 2W03 or 2W03.
Value: $225 (30124) (F)

THE DRAMA BOOK PRIZE (O)
Established in 1974 by Professor Ronald W. Vince. To be awarded to the student who attains the highest standing in DRAMA 1A03 and 1AA3.
Value: Book (40014 062) (D)

THE HORACE A. DULMAGE PRIZE IN PHILOSOPHY (H)
Established in 1976 in honour of Professor Horace A. Dulmage by his colleagues and friends upon the occasion of his retirement from McMaster University. To be awarded to the full-time student in Level II of an Honours programme in Philosophy who attained the most notable standing in his or her Level I programme.
Value: $150 (30091 056) (B)

THE JOAN JACKSON DUNBAR TRAVEL SCHOLARSHIP (H)
Established in 1969 by Mayor Lloyd D. Jackson (Class of '69), LL.D (Class of '55) and Mrs. Jackson of Hamilton in memory of their daughter, Joan (Class of '40). To be awarded to a woman student who has completed Level I and 60 to 75 units of an Honours programme in English for excellence in the work of the programme (with emphasis on English). The recipient must have secured all her secondary school education in Canada. The award is to be used for study and travel in the United Kingdom and Continental Europe during the vacation before the final Fall/Winter session.
Value: $3,500 (30177 053) (B)

THE EDUCATION FOUNDATION OF THE FEDERATION OF CHINESE CANADIAN PROFESSIONALS OF ONTARIO SCHOLARSHIPS (AS, E, S)
Established in 1988 by the Foundation. Two scholarships to be awarded: (a) one to a student in a programme in Arts and Science, and (b) one, on a rotating basis, to a student in a programme in Chemistry, Mechanical Engineering, and Physics.
Value: $800 each (30163 056) (B)

THE EDWARDS HALL RESIDENCE SCHOLARSHIP (O)
Awarded to the student who resides in the residence with the highest full load average (at least 9.5) in an undergraduate programme, with the exception of those in their graduating session.
Value: $330 (30207 301) (B)

THE HELEN EMERY SCHOLARSHIPS IN ENVIRONMENTAL SCIENCE (S)
Established in 1990 by Miss Helen Emery of Barrie, Ontario. Three scholarships to be awarded to students in Level II, III, IV or V of a B.Sc. Programme in the School of Geography and Geology who, in the judgment of the School of Geography and Geology, demonstrate leadership and influence in addressing environmental matters. Recipients must have attained a Full-load Average of 9.5 or greater.
Value: $1,500 each (30184 380) (B)

THE ENVIRONMENTAL ISSUES PRIZE (S, SS)*
Established in 1993 by the Regional Municipality of Hamilton-Wentworth in recognition of Metal Recovery Industries and Philips Environmental, Industrial Filter Fabrics Ltd., and Laidlaw Waste Systems. To be awarded to the student who attains the highest grade in GEO 4R06.
Value: $100 (40070 341) (D)

THE ERNST & YOUNG SCHOLARSHIP (B)
Established in 1992 by Clarkson Gordon. Renamed in 1998. To be awarded to the student who has completed Level I and 30 to 45 units of an Honours programme in Accounting and who attains the highest full-load average and in the session attains a grade of at least A in COMMERCE 2A03.
Value: $350 (30050 241) (B)

THE L.F. EULL PRIZE (E)
Established in 1989 by Group Eight Engineering Limited. To be awarded to the student in a programme in Electrical Engineering who attains the highest average in ELEC ENG 3P14.
Value: $200 (30096 057) (B)

THE EUROPEAN HISTORY PRIZE (H)
Established in 1986 by Professor Ezio Cappadocia, on the occasion of his retirement from the Department of History, in memory of his mentor, Professor Frank H. Underhill. To be awarded to a student graduating from an Honours programme in History who, in the judgment of the Department of History, displayed outstanding achievement in European history courses consistently throughout the degree programme.
Value: $100 (50017 368) (E)

THE JOHN P. EVANS TRAVEL SCHOLARSHIP (O)
Established in 1991 by many friends, colleagues, students and graduates of McMaster University as a tribute to John (Jack) P. Evans upon his retirement as Associate Vice-President, University Services and Secretary of the Board of Governors in recognition of his 25 years of outstanding contribution to the University Community. To be awarded to a student who has completed at least 30 units beyond Level I of an Honours programme with notable academic standing and has demonstrated a scholarly interest in some aspect of Asian languages, history or cultures, with preference being given to a student wishing to study in China.
Value: $1,000 (30193 273) (B)

THE FACULTY OF SOCIAL SCIENCES INQUIRY AWARD (SS)
Established in 2000 by the Faculty of Social Sciences INQUIRY 1SS3 instructors, recipients of the President's Awards of Excellence in course design 2000-2001. To be awarded to the student who attains the highest standing in INQUIRY 1SS3.
Value: $500 (30193 168) (E)

THE NEIL FORSYTH PRIZE (E, S)*
Established in 1992 by The Steel Founders' Society of America in honour of Neil Forsyth, president of the organization in 1990 and 1991, in recognition of his outstanding service to the steel castings industry. To be awarded to the student who attains the highest grade in MATLS 3D03.
Value: $100 (40067 121) (D)

THE BARBARA FRANCIS SCHOLARSHIP (A)
Established in 1985 by Laura Dodson (Class of '56) in memory of her sister. To be awarded to the student who has completed Level I and at least 30 units of an Arts and Science programme and who has demonstrated outstanding achievement in both the arts and science.
Value: $350 (30007 372) (B)

THE HAROLD AND GERTRUDE FREEMAN SCHOLARSHIP IN FRENCH (H)
Established in 1981 by members of the Class of '43 as a grateful tribute to Harold A. and Gertrude Freeman; Professor Freeman was honorary president of the Class of '43 and was a long-time teacher of French at McMaster University. To be awarded to the student returned from completing Level III abroad as part of the Humanities Study Abroad Programme and entering the final session of an Honours programme in French who, in the judgment
of the Department of French, has attained the highest level of accomplishment in knowledge of French language, literature, and culture. The recipient must obtain a Cumulative Average of at least 8.0 and no failures in the review at the end of the Fall/Winter session immediately prior to entering the Humanities Study Abroad Programme.

Value: $1,200 (30054 059) (B)

THE FRENCH GOVERNMENT BOOK PRIZES (H)
To be awarded from time to time to in-course students for proficiency in Level I French.

Value: Book (40017) (D)

THE KLAUS FRITZE MEMORIAL PRIZE (S)
Established in 1980 by friends of Professor K. Fritze. To be awarded to the student who has completed Level I and 30 to 45 units of an Honours Chemistry programme with the highest Full-load Average.

Value: $150 (30056 063) (B)

THE MERRILL FRANCIS GAGE SCHOLARSHIP (H)
Established in 1982 from the estate of Merrill Francis Gage of Hamilton. Two scholarships to be awarded to a student who has completed Level I and 75 to 90 units of an Honours programme in Music and who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), has demonstrated excellence in performance on a keyboard or orchestral instrument.

Value: $500 each (30110) (B)

THE SAMUEL GELLER MEMORIAL BOOK PRIZE (H)
Established in 1999 by Libby Geller in memory of her husband Samuel Geller (Class of '39). To be awarded to a student who has completed Level III of an Honours Programme in History and who, in the judgment of the Department of History, has attained notable academic standing.

Value: $500 for books (30261) (B)

THE R. LOUIS GENTILCORE PRIZE (S, SS)
Established in 1989 by the family and friends of Professor R. Louis Gentilcore on the occasion of his retirement from the Department of Geography. To be awarded to a student in an Honours programme in the School of Geography and Geology who, in the judgment of the School, has demonstrated exceptional achievement in historical-cultural geography.

Value: $400 (40062 064) (D)

THE GWEN GEORGE AWARD (O)
Established in 1997 in loving memory of Gwen George by her family and friends. To be awarded to a student who has completed any Level I programme who, in the judgment of a Selection Committee, has achieved notable academic standing and has demonstrated qualities of leadership and service to McMaster University and/or the Hamilton-Wentworth, surrounding or world communities. The scholarship is tenable for up to three years provided the recipient maintains a Cumulative Average of 8.0.

Value: $4,500 ($1,500 each year) (30240 773) (B)

THE GERMAN EMBASSY BOOK PRIZE (H)
To be awarded from time to time for in-course students for proficiency in Level II or III German.

Value: Book (40018) (D)

THE J.L.W. GILL PRIZES (S)
Established in 1944 by bequest of J.L.W. Gill, B.A., Principal of Hamilton Technical School. Nine scholarships to be awarded on the basis of Cumulative Averages to students who have completed Level I and 60 to 75 units of Honours B.Sc. programmes. Ordinarily, not more than one scholarship will be awarded in any one discipline.

Value: $300 each (30079) (B)

THE GILMOUR MEMORIAL PRIZE (O)*
Established in 1927 by Year '27, in memory of Dr. Joseph Leeming Gilmour, Honorary President of their first year in 1923, and subsequently enlarged by his children. To be awarded to the student who attains the highest standing in RELIG ST 2GG3 or 2HH3.

Value: $100 (40019) (D)

THE GEORGE C. GILMOUR MEMORIAL SCHOLARSHIP (A)
Established in 1987 by the Graduating Class of 1962 in honour of Dr. G.C. Gilmour (Class of '21), Chancellor of McMaster University from 1941 to 1950 and President and Vice-Chancellor from 1950 to 1961. To be awarded to a student who has completed Level I and 60 to 75 units of an Honours programme in the Arts and Science Programme and who, in the judgment of the Arts and Science Programme Admissions, Awards, and Review Committee, has demonstrated outstanding academic achievement and has made notable contribution to the campus community by participation in extracurricular activities.

Value: $300 (30056 067) (B)

The recipient of this award is eligible to receive additional aid through the corresponding Supplementary Bursary Aid Fund if he/she demonstrates financial need. Please see the section on Supplementary Bursary Aid for Award Recipients in the Student Financial Aid section of this Calendar.

THE GOVERNOR GENERAL'S ACADEMIC MEDAL (O)
Given by His Excellency the Governor General of Canada. To be awarded to the student graduating from a first baccalaureate degree programme who, in the judgment of the selection committee, has attained the highest standing throughout the programme.

Value: Medal (50022) (E)

THE DAPHNE ETERINGHAM GRAHAM MEMORIAL SCHOLARSHIP IN ENGLISH (H)
Established in 1997, in memory of a former student and dedicated servant of the University, by her friends, family, and Professor Emeritus R.P. Graham. To be awarded to the student, registered for a first degree after completing Level I, who attains the highest standing in 16 units of English, all taken in the same session, with an average standing of at least A-, provided that the recipient is not the holder of another scholarship of equal or greater value.

Value: $1,000 (30034 242) (B)

THE DAPHNE ETERINGHAM GRAHAM MEMORIAL SCHOLARSHIP IN HISTORY (H)
Established in 1997 in memory of a former student and dedicated servant of the University, by her friends, family and Professor Emeritus R.P. Graham. To be awarded to the student, registered for a first degree after completing Level I, who attains the highest standing in 16 units of History, all taken in the same session, with an average of at least A-.

Value: $1,000 (30231 556) (B)

THE J.E.L. GRAHAM MEDAL (SS)
Established by the Faculty of Social Sciences in 1982 in recognition of Professor J.E.L. Graham for his outstanding contributions to the Faculty and the University during 32 years of service. To be awarded on the recommendation of the Faculty of Social Sciences to a student in the graduating class who, on the basis of scholarship, is judged to be an outstanding member of the class of Social Sciences graduates and who has completed the programme primarily on a part-time basis.

Value: $500 (50029) (E)

THE GREEK COMMUNITY OF BURLINGTON AND DISTRICT SCHOLARSHIP (O)
Established in 1983. To be awarded to the student who obtains the highest standing in GREEK 1203 and 1223.

Value: $250 (40020 068) (D)

THE H.B. GREENING BOOK PRIZE (H)
Established in 1969 by bequest of Gladys Powis Greening in memory of her husband, Harold Benjamin Greening. To be awarded to the student who has completed Level I and 30 to 45 units of an Honours programme in Music and who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), has demonstrated excellence in music.

Value: $100 for books (30062 069) (B)

THE BILL AND HELEN HAIGHT AWARD (H)
Established in 1999 by Bill and Helen Haight. To be awarded to a student who has completed at least Music I and who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), has demonstrated outstanding performance in German Lied or opera repertoire. Preference to be given to a student demonstrating outstanding performance in German Lied.

Value: $500 (30251 843) (B)

THE AMELIA HALL GOLD MEDAL (H)
Established in 1985 by members of the Class of '38 in recognition of Amelia Hall (Class of '38), D.Litt. (Class of '75), one of the great pioneers of Canadian theatre and a consummate actress, who performed on Canadian stage, radio and television for 35 years. To be awarded to a graduating student who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), has made a significant contribution to drama during the student's University career.

Value: $500 (30030 070) (E)

THE RUTH AND JACK HALL PRIZE (E, S)
Established in 1983 by Jackle MacDonald in memory of her parents. To be awarded to a student who has completed Level I and 60 to 75 units of an Honours programme in Computer Science, or Level I and 70 to 90 units of a programme in Computer Engineering, and who attains the highest Full-load Average.

Value: $200 (30131) (B)

THE RONALD K. HAM MEMORIAL PRIZE (E, S)
Established in 1971 in memory of Professor R.K. Ham by his friends and former colleagues. Awarded to the student who has completed Level I and at least 60 units and who, in the judgment of the Department of Materials Science and Engineering, shows most promise as a materials scientist or engineer.

Value: $100 (30128) (B)
IN-COURSE, GRADUAND, and SECOND DEGREE

THE BRUCE M. HAMILTON MEDAL (B)
Established in 1999 by Bruce M. Hamilton. To be awarded to a student graduating from a Commerce programme who, in the judgment of the Faculty of Business, has made a significant contribution through extra-curricular activities to the benefit of McMaster University or the local community.
Value: $150 and a medal (50083062) (E)

THE HAMILTON CHEMICAL ASSOCIATION PRIZE (S)
Established in 1993 by the Trustees of the Hamilton Chemical Association in memory of Dean C.E. Burke. To be awarded to the student who has completed Level I and 40 to 45 units of an Honours programme in Chemistry and who attains the highest Cumulative Average.
Value: $200 (30063) (B)

THE HAMILTON DISTRICT ONTARIO PHYSIOTHERAPY ASSOCIATION BOOK PRIZE (HSc)
Established by the Hamilton District of the Ontario Physiotherapy Association. To be awarded to a graduating student who is active in the OPA/CPA and who, in the judgment of the selection committee, contributes to the involvement of others in the OPA/CPA, while maintaining a good academic standing.
Value: $250 (50074002) (F)

THE HAMILTON ECONOMIC DEVELOPMENT COMMISSION SCHOLARSHIPS (B)
Established in 1976. (a) Two scholarships to be awarded on the basis of Full-load Average to students entering Level II of a Commerce programme: (b) Four scholarships to be awarded on the basis of Full-load Average: two to students who have completed Level I and 30 to 45 units, and two to students who have completed Level I and 60 to 75 units of a programme in Commerce. Recipients must have obtained all their secondary school education in the Hamilton-Wentworth Region.
Value: $900 each (six awards) (30064072) (B)

THE HAMILTON HARBOUR COMMISSIONERS SCHOLARSHIP (B)
Established in 1984 by the Commissioners in recognition of outstanding Canadian students who continue their studies at McMaster University. To be awarded to a student who has completed Level I and 60-75 units of a programme in Commerce who, in the judgment of the Faculty of Business, has demonstrated outstanding academic achievement and involvement in the local community.
Value: $1,600 (30297389) (B)

THE HAMILTON INDUSTRIAL SCHOLARSHIPS (O)
Established in 1958.
Value: $800 each (30165) (B)

THE DONALD HART SCHOLARSHIP (B)
Established in 1985 by Mrs. Pamela Hart and Joel Jordan in honour of Donald Neil Hart (Class of '70). To be awarded to a student who has completed Level I and 30 to 45 units of a programme in Commerce and who, in the judgment of the School of Business, has achieved high standing in the required Level II Commerce courses, taken in one session.
Value: $300 (30103076) (B)

THE HAWKIRG FOUNDATION SCHOLARSHIPS IN BUSINESS (B)
Established in 1999 by the Hawkirg Family. To be awarded to a student who, in the judgment of the Faculty of Business, has attained notable academic standing and demonstrated involvement in University or community activities, and outstanding athletic ability. This scholarship is tenable for up to three years provided the recipient maintains a Cumulative Average of 8.0.
Value: $7,500 ($2,500 each year) (30256869) (B)

THE HAWKIRG FOUNDATION SCHOLARSHIPS IN KINESIOLOGY (SS)
Established in 1999 by the Hawkirg Family. To be awarded to a student who, in the judgment of the Department of Kinesiology, has attained notable academic standing and demonstrated involvement in University or community activities and outstanding athletic ability. This scholarship is tenable for up to three years provided the recipient maintains a Cumulative Average of 8.0.
Value: $7,500 ($2,500 each year) (30255868) (B)

THE HEDDEN HALL RESIDENCE SCHOLARSHIP (O)
Awarded to the student who resides in the residence with the highest full load average (at least 9.5) in an undergraduate programme, with the exception of those in their graduating session.
Value: $300 (30190) (B)

THE HELLENIC PRIZE (H)
Established in 1998 by the Greek communities of Hamilton and Burlington. To be awarded to a student entering Level IV who has completed at least 12 units in subjects pertaining to Greek studies and who, in the judgment of the Faculty of Humanities, demonstrates outstanding academic achievement in Greek studies.
Value: $1,000 (30226386) (B)

THE ANNA MARIE HIBBARD SCHOLARSHIP (O)
Established in 1992 from the bequest of Anna Marie Hibbard. To be awarded to the student completing Level I who attains the highest Full-load Average. The recipient may not hold another scholarship of equal or greater value.
Value: $1,600 (30208300) (B)

THE ROSE HILL SCHOLARSHIP (SS)
Established in 1985 by the alumni, faculty and staff of the School of Physical Education and Athletics as a tribute to Professor Rose Hill, long-time teacher, coach and administrator in the School. To be awarded to a student who has completed 80 units of the Kinesiology programme and who, in the judgment of the Department of Kinesiology, best demonstrates the philosophy of physical education espoused by Professor Hill throughout her career, namely, excellence in scholarship and leadership and participation in sport, dance or fitness.
Value: $1,200 (30150077) (B)

THE DR. THOMAS HOBLEY PRIZE (SS)
Established in 1936 by bequest of Mrs. A. Mcnee of Windsor. To be awarded to a woman student on the basis of the Full-load Average obtained in the penultimate level of a programme in Economics or Political Science.
Value: $200 (30042) (B)

THE DR. HARRY LYMAN HOOKER SCHOLARSHIPS (O)
Established in 1981, and resulting from the bequest of Dr. H.L. Hucker. Awarded for overall academic excellence (Full-load Average of at least 9.5) to students in undergraduate programmes, with the exception of those in their graduating session and those retaining scholarships of $1,000 or greater. Each year quotas are established for each Faculty and other academic units in proportion to the number of full-time undergraduate students who obtain a Full-load Average of 9.5 or greater.
Value: $1,500 each (30043) (B)

THE BERTRAM OSMER HOOPER SCHOLARSHIP (B, H, SS)
Established in 1957 by bequest of Isobel F. Hooper. To be awarded in Arts.
Value: $800 (30161) (B)

THE NINA LOUISE HOOPER SCHOLARSHIP (O)
Established in 1959 by bequest of Bertram O. Hooper.
Value: $800 (30200) (B)

THE HUGHES SCHOLARSHIP (H)
Established in 1993 by Heidi Dickensen-Hughes in memory of her husband Peter Hughes (Class of '69). To be awarded to a student who has completed Level I and 30-75 units of the Music Programme who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), has displayed outstanding achievement in Music Education.
Value: $225 (40069330) (D)

THE HUMAN RIGHTS AWARD (SS)
Established in 1998 by the Theme School on International Justice and Human Rights. To be awarded to the student who attains the highest grade in POL SCI 3Y03 or 4D06.
Value: $250 for books (40067228) (D)

THE HUMANITIES MEDALS FOR SPECIAL ACHIEVEMENT (H)
Established by the University in 1982. Up to five medals to be awarded to graduating students in the Faculty of Humanities in recognition of outstanding achievement in scholarship and contributions to the cultural and intellectual life of the University including such areas as the creative and performing arts and faculty government.
Value: Medal (50026) (E)

THE WILLIAM D.G. HUNTER PRIZE (SS)
Established in 1995 by family, friends and colleagues in memory of Professor William D.G. Hunter, member of the Department of Economics from 1951 to 1984. To be awarded to the student who achieved the highest standing in ECON 3LLS.
Value: $200 (40080394) (D)

THE HURD MEDAL (SS)
Established in 1955 by Donald W. Hurd (Class of '49) in memory of his father, Dean William Burton Hurd. To be awarded to a student at graduation for distinguished achievement in an Honours programme in which economics is a major field of study.
Value: Medal (60027079) (E)

THE PAUL HYPHER PRIZE (B)
Established in 1998 in memory of Paul F. Hypher by his friends and classmates. To be awarded to the student in a programme in Commerce who attains the highest standing in COMMERCE 2MA3.
Value: $150 for books (40039060) (D)
THE INCO SCHOLARSHIP IN MATERIALS ENGINEERING (E)
Established in 2000 by Inco Limited. To be awarded to a student entering Level II of the Materials Engineering, Materials Engineering and Management or Materials Engineering and Society programme who, in the judgment of the Department of Materials Science and Engineering, has achieved notable academic standing and demonstrated qualities of leadership at McMaster or in the community.
Value: $2,500 (30274 1514) (B)

THE INCO SCHOLARSHIP IN ENVIRONMENTAL SCIENCE (S)
Established in 2000 by Inco Limited. To be awarded to a student entering Level III, IV (or Year 5 of a Co-op programme) in either the Honours Environmental Science or the Honours Earth and Environmental Sciences programmes who, in the judgment of the School of Geography and Gaology has achieved notable academic standing and demonstrated qualities of leadership at McMaster or in the community.
Value: $2,500 (30275 1515) (B)

THE INSTITUTE OF ELECTRONIC AND ELECTROTECHNICAL ENGINEERING (HAMILTON SECTION) PRIZES (E)
Established in 1961. Two prizes to be awarded to students entering the final level who qualify on the basis of high academic standing and, in the judgment of selection committees, demonstrate interest in university activities: a) one to a student in an Electrical Engineering Programme; b) one to a student in a Computer Engineering Programme.
Value: $200 and a book (30071 083) (B)

THE INTERMETCO LIMITED SCHOLARSHIP (E)
Established in 1977. To be awarded to the student who has completed Level I and 70 to 90 units of a programme in Mechanical Engineering and who, in the judgment of the Department of Mechanical Engineering, has attained notable standing.
Value: $500 (30072 084) (E)

THE INTER NATIONS (BONN) BOOK PRIZE (H)
To be awarded from time to time to in-course students for proficiency in German studies.
Value: Book (40024) (D)

THE INTER-RESIDENCE COUNCIL SCHOLARSHIP (O)
Established in 1995 by the McMaster Inter-Residence Council in recognition of the IRC's continued support of the University and its students. To be awarded to a student who has completed at least Level I of any programme who, in the judgment of an Awards Selection Committee of Undergraduate Council, has demonstrated notable academic achievement and has demonstrated leadership and influence in residence life.
Value: $500 (30228 392) (E)

THE MUNICIPAL CHAPTER OF HAMILTON, IODE, PRIZE (O)
Established in 1944 by the Municipal Chapter of Hamilton, Imperial Order Daughters of the Empire. To be awarded to the student who attains the highest standing in a Level I History course.
Value: $150 (40036 081) (E)

THE IROQUOIS TROPHY (E)
Established in 1970 by the Department of Mechanical Engineering. To be presented to a graduating mechanical engineer on the basis of academic excellence, participation in campus societies, clubs, or other activities, and general leadership. A replica of the Trophy is permanently held by each winner.
(50028) (E)

THE ITCA COMMUNITY INVOLVEMENT PRIZE (H)
Established in 1982 by Italian Canadian Community involvement Incorporated. To be awarded to the student who has completed at least 30 units beyond Level I of a programme in the Department of Modern Languages and Linguistics and who, in the judgment of the Department, has attained notable standing in at least six units of Italian courses above Level I. The recipient must have graduated from a secondary school in the Hamilton area.
Value: $150 (30070 086) (E)

THE IVEY SCHOLARSHIP (H)
Established in 1971 by Professor and Mrs. G.S. Ivey in memory of Mr. and Mrs. I.E. Ivey, the parents of Mrs. French. To be awarded to the student who has completed Level I and 60-75 units of an Honours programme in Music and who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), has attained notable standing.
Value: $125 (30074 087) (B)

The recipient of this award is eligible to receive additional aid through the corresponding Supplementary Bursary Aid Fund if he/she demonstrates financial need. Please see the section on Supplementary Bursary Aid for Award Recipients in the Student Financial Aid section of this Calendar.

THE H.L. JACkSON MEMORIAL SCHOLARSHIP (S)
Established in 1989 in memory of Professor H.L. Jackson by his friends and colleagues. To be awarded to the student who has completed Level I and at least 60 units of an Honours programme in the Department of Mathematics and Statistics who, in the judgment of the department has demonstrated achievement in MATH 3AA3.
Value: $400 (40021 311) (D)

THE BURTON R. JAMES MEMORIAL PRIZE (B)
Established in 1974 by his friends and colleagues in honour of Burton R. James (Class of '39), Controller, 1963-71, Assistant Vice-President - Administration, 1971-73, McMaster University. To be awarded to the student who, in the judgment of the Faculty of Business, has attained an outstanding Cumulative Average in a programme in Commerce.
Value: $150 (50008) (E)

THE JDS UNIPHASE SCHOLARSHIPS (E)
Established in 2000 by JDS Uniphase of Nepean. Three scholarships to be awarded to students entering a programme in Engineering Physics who, in the judgment of the Department of Engineering Physics, have demonstrated outstanding academic achievement and leadership at McMaster and/or the community-at-large. The scholarships are tenable for up to two years provided the recipients maintain a minimum sessional average of 8.0. Preference will be given to students taking courses related to optical communications.
Value: $10,000 each ($5,000 per year) (30272 1507) (E)

THE W. NORMAN JEEVES SCHOLARSHIP (H)
Established in 1987 by the French Section, Department of Romance Languages, in honour of W. Norman Jeeves, Professor of French from 1965 to 1987. To be awarded to a graduate of an Honours programme in French who, in the judgment of the Department of French, has demonstrated outstanding academic achievement in the French component of the programme.
Value: $400 (50052 088) (E)

THE HERBERT M. JENKINS PRIZE (A)
Established in 1990 as a tribute to Dr. Herbert M. Jenkins, first Director of the Arts and Science Programme, by his many friends, colleagues and students on the occasion of his retirement from McMaster University. To be awarded to a student in an Arts and Science Programme whose work, in the judgment of the Arts and Science Programme Awards and Review Committee, best reflects scholarship and the spirit of inquiry.
Value: $175 (30185 249) (D)

THE JENSEN MEDAL (S)
Established in 1995 by friends and colleagues as a tribute to Dr. Doris E.N. Jensen in recognition of her contribution in developing Cooperative Education Programmes in the Faculty of Science and her 31 years of service in the wider university community. To be awarded to a student graduating from the Honours Biology and Pharmacology (Co-op) Programme who, in the judgment of the Committee of Instruction, demonstrates outstanding academic achievement and excellence in co-op placements.
Value: $500 (50075 387) (E)

THE A.J. JOHNSON SCHOLARSHIP (E)
Established in 1977 in memory of Dr. A.J. Johnson by his friends and former colleagues. To be awarded to a student who has completed Level I and 110 to 130 units of a programme in Engineering and Management. Award to be based on distinguished academic performance during the student's undergraduate career. Consideration will also be given to noteworthy contribution in extracurricular activities.
Value: $600 and certificate (30002 259) (B)

The recipient of this award is eligible to receive additional aid through the corresponding Cooperative Bursary Aid Fund if he/she demonstrates financial need. Please see the section on Cooperative Bursary Aid for Award Recipients in the Student Financial Aid section of this Calendar.

THE LAWRENCE AND KATHLEEN MARY JOHNSTON MEMORIAL PRIZE (SS)
Established in 1963. To be awarded to the student who has completed Level I and 30 to 45 units of an Honours programme in Religious Studies and who attains the highest Full-load Average.
Value: $125 (30009 046) (E)

THE FRANK E. JONES PRIZE (SS)
Established in 1982 in honours of Professor F.E. Jones for his outstanding contributions to the Department of Sociology. To be awarded to the full-time student with the highest Cumulative Average in an Honours programme in Sociology.
Value: $50 (50020) (E)
THE JEAN JONES PRIZE (SS)*
Established in 1969 in recognition of the distinguished service of Professor Jones to the School of Social Work. To be awarded to the student who attains the highest grade in SOC WORK 2B03.
Value: $50 (40026 996) (D)

THE JURY PRIZE (H)
Established in 1941 by bequest of J.H. Jury of Bowmarville. To be awarded to the student who has completed Level I and 30-45 units of the Honours History programme and who attains the highest Full-load Average.
Value: $150 (300953) (B)

THE STANFORD N. KATAMBALA GEOLOGY PRIZE (S)
Established in 1986 by contributions from friends and associates of Stanford N. Katambala, a former McMaster Geology student from Tanzania, killed in a mine accident in Northern Ontario in September 1984. To be awarded to a student who has completed Level I and 60 to 75 units of the Honours Geology programme and who attains high standing in Geology.
Value: $50 (30143) (B)

THE ERNEST ROBERT MacKENZIE KAY SCHOLARSHIPS (S)
Established in 1999 by Ernest Robert MacKenzie Kay. A variable number to be awarded to students in a programme in Biology, Biochemistry or Chemistry who, in the judgment of the Faculty, show outstanding academic achievement. Preference will be given to students who plan to continue in the field of medical research.
Value: $600 each (30254 846) (B)

THE GERALD L. KEECH MEDAL (S)
Established in 1994 by his friends and colleagues as a tribute to Gerald L. Keetch in recognition of his outstanding contributions to McMaster University, his passions for teaching and his commitment to computer services. To be awarded to the graduating student from a programme in Computer Science who attains the highest Cumulative Average.
Value: $350 each (30057 091) (B)

THE ROBERT A. KENNEDY SCHOLARSHIP (B)
Established in 1998 by Robert A. Kennedy. To be awarded to any student entering a Level II, III or IV programme in the Faculty of Business who, in the judgment of the Faculty, demonstrates outstanding academic achievement.
Value: $250 (30064 344) (E)

THE GEORGE P. AND LEATHA M. KEYS SCHOLARSHIPS (S)
Established in 1982 by Mrs. Leatha Keys. Three scholarships to be awarded to students who, in the judgment of the Departments of Computing and Software, and of Mathematics and Statistics, have demonstrated outstanding achievement in Honours programmes in those Departments: (a) one to a student who has completed Level I and 30 to 75 units of the Computer Science programme; (b) one to a student who has completed Level I and 60 to 75 units of a programme in Mathematics; and (c) one to a student who has completed Level I and 60 to 75 units of a programme in Statistics.
Value: $350 each (30057 091) (B)

THE KARL KINANEN ALUMNI PRIZE IN GERONTOLOGY (SS)
Established in 1992 by the Gerontology Alumni of McMaster University in recognition of Karl Kinanen for his leadership in the development of Gerontological Studies at the University. To be awarded to a student graduating from a programme in Gerontology who, in the judgment of the Gerontology Committee of Instruction, has demonstrated high academic achievement and leadership in community activities.
Value: $100 (50064 137) (F)

THE KINESIOLOGY PRIZE (SS)
Established in 1982. To be awarded to the graduating student who, in the judgment of the Department of Kinesiology, has submitted an outstanding paper or project.
Value: $50 (50058) (E)

THE KINESIOLOGY PRIZES (SS)
Established in 1982. Two prizes to be awarded to students who have completed the courses in Level III of the Kinesiology programme: (a) one to a student who, in the judgment of the Department of Kinesiology, has submitted an outstanding paper or project, and (b) one to the student who, in the judgment of the Department of Kinesiology, has demonstrated outstanding improvement in academic standing throughout the programme.
Value: $50 each (40041) (D)

THE KIT MEMORIAL SCHOLARSHIP (H)
Established in 1936 by the Hamilton Branch of the Canadian Women's Press Club (now the Media Club of Canada, Hamilton Branch) in memory of the brilliant journalist and writer, the first president of the Canadian Women's Press Club, Kathleen Blake Coleman, widely known on this continent as Kit. To be awarded to a woman student either on completion of Level I and at least 30 units on the basis of journalistic ability or on completion of Level II and 60 to 75 units of an Honours programme in English on the basis of Full-load Average.
Value: $175 (30095 092) (B)

THE KPMG SCHOLARSHIP (B)
Established in 1956 by Petitt, Hill and Bertram, Toronto, and continued after amalgamation of firms. To be awarded to an outstanding student on the basis of qualifications and academic record after the completion of Level I and at least 70 units of a programme in Commerce. Preference will be given to students who plan to continue their studies after graduation with a practising firm of chartered accountants.
Value: $350 (30146 175) (B)

THE RUTH LANDES PRIZE (SS)
Established in 1982 in honour of Professor Ruth Landes for her outstanding contributions to the Department of Anthropology. To be awarded to the graduating full-time student in a three-Level programme in Anthropology who, in the judgment of the Department of Anthropology, has demonstrated outstanding academic achievement.
Value: $50 (50048) (E)

THE LATIN PRIZE (O)
Established in 1987 by Dr. John B. Cilmer. To be awarded to a student who, in the judgment of the Department of Classics, has demonstrated notable achievement in LATIN 1203 and 12Z3.
Value: $100 (40031 096) (D)

THE GARY LAUTENS MEMORIAL SCHOLARSHIP (O)
Established in 1992 by family, friends and colleagues in memory of Gary Lautens (Class of '50), columnist and editor of the Toronto Star (1962-92), the Hamilton Spectator (1950-62) and the McMaster Silhouette (1948-50), remembered as a journalist with wit and insight. To be awarded to a student who has completed any Level I programme who, in the judgment of a Selection Committee, has demonstrated notable academic standing and has demonstrated journalistic skills in the written media. The scholarship is tenable for up to three years provided the recipient maintains a Cumulative Average of 8.0. Students who wish to be considered for this award should consult the Office of Student Financial Aid and Scholarships.
Value: $2,000 (30253 845) (B)

The recipient of this award is eligible to receive additional aid through the corresponding Supplementary Bursary Aid Fund if he/she demonstrates financial need. Please see the section on Supplementary Bursary Aid for Award Recipients in the Student Financial Aid section of this Calendar.

THE E. DORIS LAWRENCE SCHOLARSHIP (H)
Established in 1999 in memory of E. Doris Lawrence (Class of '47). To be awarded to a student who, in the judgment of the Department of French, has demonstrated academic excellence in French.
Value: $3,600 ($1,200 each year) (30212 321) (O)

A 500 word essay and two examples of published material are required. The recipient of this award is eligible to receive additional aid through the corresponding Supplementary Bursary Aid Fund if he/she demonstrates financial need. Please see the section on Supplementary Bursary Aid for Award Recipients in the Student Financial Aid section of this Calendar.

THE MEGAN LAWRENCE SCHOLARSHIP (SS)
Established in 1988 by the Zonia Club of Hamilton II in memory of Megan Lawrence, Zonian and educator in the City of Hamilton. To be awarded to a student who has completed 90 units of the Kinesiology programme and who, in the judgment of the Department of Kinesiology, demonstrates excellence in scholarship, leadership and participation in sport, dance and fitness.
Value: $700 (30109 576) (B)

THE SAM LAWRENCE PRIZE (SS)
Established in 1957 by the East Hamilton Independent Labour Party C.C.F. Club in honour of Sam Lawrence. To be awarded to the student who, in the judgment of the Department of Economics, has demonstrated outstanding academic achievement in courses in labour economics.
Value: $150 (40048) (D)

THE JAMES B. LAWSON SCHOLARSHIP (H)
Established in 1999 by a grateful student and friend of Professor Lawson. To be awarded to a student who has completed either GERMAN 1Z23 or 1B3 in Level I or to a student who has completed GERMAN 2Z23 in Level II and who, in the judgment of the Department of Modern Languages and Linguistics, has demonstrated progress and interest in German. Eligibility for this award is restricted to non-native speakers of German. The award may be used for travel and study on a German-speaking country and/or for other expenses associated with the student's German studies.
Value: $500 (40090 820) (D)

THE RAY LAWSON SCHOLARSHIPS (E)
Established in 1975 by the Honourable Ray Lawson, O.B.E., D.C.L., D.Ch., LL.D., K.G.S.J., Lieutenant-Governor of Ontario from 1946 to 1962. Two scholarships to be awarded for the highest Full-load Averages in an Engineering and Management programme: (a) one to a student who has completed Level I and 70 to 90 units, and (b) one to a student who has completed Level I and at least 109 units beyond Level I.
Value: $400 each (30126 099) (B)
THE ELEANOR LEES BOOK PRIZE (OT/PT)
Established in 1994 in memory of Eleanor Lees by friends in Physiotherapy. To be awarded to a student graduating from the Physiotherapy programme who, in the judgment of the School of Rehabilitation Science, has demonstrated notable academic achievement and excellence in clinical fieldwork related to neurology. (50073 354) (F)

THE SAKARKHANU K. LILA MEMORIAL SCHOLARSHIP (HSc)*
Established in 2000 by the children and grandchildren of the late Sakarkhuanu K. Lila, mother of ten. To be awarded to a full-time student who has completed Level II of the Midwifery Programme and who, in the judgment of the Midwifery Programme, has demonstrated academic excellence, leadership and social awareness. Preference will be given to students who have registered for or completed an overseas clinical placement in a developing country.
Value: $1,000 (40093 208) (B)

THE LINGUISTICS PRIZE (H)
Established in 1988. To be awarded to a student in an Honours programme in Modern Languages and Linguistics who, in the judgment of the Department of Modern Languages and Linguistics, has achieved notable standing in Level II courses in Linguistics.
Value: $225 (40392) (D)

THE CLAUDE G. LISTER SCHOLARSHIP (B)
Established in 1990 by bequest of Pauline Detwiler Lister in memory of her husband. To be awarded to a student in a programme in the School of Business. (30199 262) (B)

THE FELIUK LITKOWSKI MEMORIAL PRIZE IN POLITICAL SCIENCE (SS)
Established in 1987 by Albert Litkowski (Class of '78) and Richard Litkowski (Class of '86) in honour of their father. To be awarded to a full-time student graduating from an Honours programme in Political Science who, in the judgment of the Department of Political Science, has demonstrated outstanding academic achievement.
Value: $475 (30030 20) (E)

THE MacGIBSON SCHOLARSHIP (SS)*
Established in 1970 by bequest of Professor Duncan A. MacGibbon (Class of '08). To be awarded to the student in a programme in Economics who, in the judgment of the Department of Economics, stands highest in courses in economic history.
Value: $350 (40034) (D)

THE BERT MacKINNON MEMORIAL SCHOLARSHIP (O)
Established in 1995 in memory of Bert MacKinnon, B.A. (Class of '43), LL.D. (Class of '77), first Associate Chief Justice of Ontario (1978 to 1986). One scholarship to be awarded to a graduating student who enrols in a Bachelor of Laws degree programme in the academic session immediately following graduation at the time the student was enrolled. To be awarded to a student who has completed a high academic achievement and leadership in extracurricular activities. Applications and the name of two referees should be submitted to the Office of Student Financial Aid and Scholarships by the first Friday in April.
Value: $700 (50061 298) (E)

THEWILLIAM MacKENZIE MEMORIAL PRIZE (SS)*
Established in 1977 in memory of Professor William MacKenzie by his friends and colleagues. To be awarded to the student who, in the judgment of the Department of Economics, has demonstrated outstanding academic achievement in either ECON 3T03 (Economic Development: Agriculture and Population) or ECON 2F03 (Globalization and Economic Development) or, in exceptional circumstances, for work in a related area.
Value: $200 (40053 312) (D)

THE BETTY MacMILLAN PRIZE (SS)
Established in 1960 by her classmates in memory of Elizabeth Johnstone MacMillan (Class of '50). To be awarded to the student who has completed Level I and 60 to 75 units in an Honours programme in Sociology and who, in the judgment of the Department of Sociology, is the most promising student.
Value: $100 (50010) (E)

THE AGNES AND JOHN MacNEILL MEMORIAL PRIZE (H)
Established in 1964 by bequest of Annie May MacNeill (Class of '03). To be awarded to the student graduating from an Honours programme in English who has attained the most notable standing in English throughout the degree programme.
Value: $150 (50001) (E)

THE CATHARINE MacNEILL PRIZE (O)
Established in 1946 by bequest of Annie May MacNeill (Class of '03). To be awarded to a woman student in her graduating year who has attained notable standing in scholarship and has shown qualities of leadership.
Value: $150 (50011) (E)

THE MAPS CENTENNIAL AWARD (O)
Established in 2000 by the McMaster Association of Part-Time Students. To be awarded to a part-time student who, in the judgment of the MAPS Association, ranks highest in qualities of scholarship and leadership.
Value: $500 and a medal (50068 1395) (E)

THE MAPS GOLD MEDAL (O)
Established in 1996 by the McMaster Association of Part-time Students. To be awarded to the graduating student completing studies primarily on a part-time basis and who attains the highest Cumulative Average. (50076 397) (E)

THE LIANNE MARKS SCHOLARSHIP (SS)
Established by her family, in 1980 as a bursary and in 1985 as a scholarship, in honour of Lianne Marks, a student at McMaster University (1977-80). To be awarded to a student who has completed Level I and 60 to 75 units of an Honours programme in Sociology and who, in the judgment of the Department of Sociology, has demonstrated outstanding academic achievement and has made notable contribution to the campus or community by participation in activities other than sports.
Value: $700 (30100 102) (B)

THE ELEANOR DORBUSH MARPLES PRIZE IN ART HISTORY (H)*
Established in 1986 by Mrs. Barbara Niedermeier and her family in memory of her sister. To be awarded to a student who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), has demonstrated outstanding achievement.
Value: $100 (40016 103) (D)

THE ELEANOR DORBUSH MARPLES PRIZE IN DRAMA (H)*
Established in 1987 by Vaughan W. Marples in memory of his wife. To be awarded to the student who attains the highest grade in DRAMA 2DD03.
Value: $100 (40016 104) (D)

THE RONALD E. MATERICK SCHOLARSHIP (E)
Established in 1987 by Ronald E. Materick (Class of '70). Two scholarships to be awarded to students who have completed Level I and 70 to 85 units of a programme in Civil Engineering and who, in the judgment of the Department of Civil Engineering, have attained notable academic standing.
Value: $1,000 each (30127 106) (B)

THE MATTHEWS HALL RESIDENCE SCHOLARSHIP (O)
Awarded to the student who resides in the residence with the highest Fullload Average (at least 9.5) in an undergraduate programme, with the exception of those in their graduating session.
Value: $300 (30157) (B)

THE JOHN MAYSBERRY SCHOLARSHIPS (E)
Established in 1998 by John Mayberry. Two scholarships to be awarded to students in a Level II or III programme in Chemical Engineering, Mechanical Engineering or Materials Science Engineering who, in the judgment of the Faculty of Engineering, have demonstrated outstanding academic achievement. The recipients must attain a minimum Sessional Average of 9.5 at the most recent Fall/Winter session.
Value: $1,000 each (30262 905) (B)

THE WILLIAM J. MCALLION SCHOLARSHIPS (O)
Five scholarships named in 1984 in honour of Professor McCallion (B.A. '43, M.A. '46), first Dean of the School of Adult Education from 1970 to 1978, in recognition of his outstanding contribution to adult education and to the Department of Mathematical Sciences during 41 years of service. To be awarded to part-time students who have attained the highest Cumulative Average in the most recent review.
Value: $250 each (60004) (C)

THE ESTHER MccANDLESS MEMORIAL PRIZE (S)
Established in 1984 by friends and colleagues in memory of Professor E.L. McCandless, a humanitarian and distinguished member of the Department of Biology from 1954 to 1983. To be awarded to a student who achieves an outstanding Cumulative Average in an Honours programme in Biology.
Value: $225 (50016) (E)

THE JOHN R. MCCARTHY SCHOLARSHIP (A, H, S, SS)
Established in 1987 by John R. McCarthy LL.D. (Class of '65), former Deputy Minister of University Affairs and Deputy Minister of Education for the Province of Ontario. To be awarded to a student graduating from a programme in Arts and Science, Humanities, Science, or Social Sciences who enrols in the Faculty of Education of an Ontario university in the academic session immediately following graduation. The student selected will have made a contribution to the life of the University by displaying leadership in student government or student affairs and leadership and sportsmanship in athletic endeavours. Applications and the name of two referees should be submitted to the Office of Student Financial Aid and Scholarships by April 2.
Value: $700 (50030 107) (E)
<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Eligibility and Conditions</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE H.W. McCREADY PRIZE IN BRITISH HISTORY (H)*</td>
<td>Established in 1981 in memory of Professor H.W. McCready, a member of the Department of History from 1943 to 1975, by former students, colleagues, and friends. To be awarded to the Level II student who, in the judgment of the Department of History, attains notable standing in HISTORY 2N06.</td>
<td>$100</td>
</tr>
<tr>
<td>THE McMASTER HUMANITIES SOCIETY SCHOLARSHIP (H)</td>
<td>Established in 1998 by the McMaster Humanities Society. Two scholarships to be awarded to students who have completed Level I and 30 units and who, in the judgment of the Faculty of Humanities, have demonstrated an enthusiastic interest in the University through their involvement in extra-curricular activities.</td>
<td>$250</td>
</tr>
<tr>
<td>THE R.C. McIvor Medal (SS)</td>
<td>Established by the Faculty of Social Sciences in 1982 in recognition of Professor R.C. McIvor, former Dean of the Faculty, for his outstanding contributions to the Faculty and the University during 35 years of service. To be awarded on the recommendation of the Faculty of Social Sciences to the full-time student in the graduating class who, on the basis of scholarship, is judged to be the outstanding member of the class of Social Sciences graduates. (50043) (E)</td>
<td>$100</td>
</tr>
<tr>
<td>THE A.G. McKay PRIZE IN CLASSICAL STUDIES (H)</td>
<td>Established in 1990 by Professor Emeritus A.G. McKay. To be awarded to a graduating student from an Honours programme in Classics who, in the judgment of the Department of Classics, has demonstrated outstanding academic achievement and leadership.</td>
<td>$500</td>
</tr>
<tr>
<td>THE DONALD G. McNABB SCHOLARSHIP (S)</td>
<td>Established in 1989 in memory of Donald G. McNabb (Class of '37) by friends, family and business associates. To be awarded to the student who has completed Level I plus 60 to 75 units of an Honours programme in Chemistry, in the judgment of the Department of Chemistry, has achieved notable academic standing. Preference will be given to students who demonstrate leadership, self-motivation, and practical aptitude appropriate for a future in the chemical industry.</td>
<td>$1,000</td>
</tr>
<tr>
<td>THE PETER MCPhATER MEMORIAL SCHOLARSHIP (H)</td>
<td>Established by Peter McPhater's friends in recognition of his art, craftsmanship and humanism. To be awarded to a student who has completed Level I and 60 to 75 units of a programme in Honours Art or Honours Art History and who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), is outstanding.</td>
<td>$500</td>
</tr>
<tr>
<td>THE MEDICAL-SURGICAL EXCELLENCE IN CLINICAL NURSING AWARD (HSc)</td>
<td>Established in 1998 by Professor Gerry Bonson. To be awarded every two years to a student who has completed at least Level II of the Nursing Program who, in the judgment of the School of Nursing, demonstrates academic excellence in medical-surgical nursing. Students who wish to be considered for this award should consult the School of Nursing for terms and conditions.</td>
<td>$250</td>
</tr>
</tbody>
</table>

* (H) Exceptional academic standing.

** (B) With strong evidence of leadership and community involvement.

*** (D) Distinction in research and publication.

(E) Established by a group of students.

(60007364) (C) Established by the Class of 1912 in Arts, in memory of their classmates, Percy Neil McGregor, Lee Wilson Smith and George William Burr, and supplemented in 1994 by bequest from Professor R. Wilson Smith, father of Lee Wilson Smith. To be awarded to the student who has completed Level I and 60 to 75 units of the Honours English and History programme and who has the highest Full-load Average. Value: $425 (30105) (B)
THE J.J. MILLER PRIZE (S)  
Established in 1984 by friends, colleagues and former students in recognition of Professor J.J. Miller for his outstanding contribution to the Department of Biology during 37 years of service. To be awarded to a student entering Level IV of the Honours Biology programme with an outstanding Full-load Average and a grade of at least A- in BIOLOGY 3E03 in Level III.  
Value: $350 (30077 115) (B)

THE DR. FA. MIRZA SCHOLARSHIP (E)  
Established in 1997 in memory of Faroque Mirza by family, friends and colleagues. To be awarded to a student enrolled in a Civil Engineering programme who achieves the highest average in CIV ENG 2C04 and ENGENEEER 2P04 taken in one session.  
Value: $400 (60009 781) (D)

THE MODERN LANGUAGES TRAVEL SCHOLARSHIP (H)  
Established in 1991 by the Department of Modern Languages and Linguistics. To be awarded to a student who has completed at least 30 units beyond Level I in a programme in Modern Languages and who, in the judgment of the Department of Modern Languages and Linguistics, has attained notable academic standing. The purpose of the scholarship is to assist with travel expenses to study and travel abroad. Priority will be given to a student participating in the Humanities Study Elsewhere Programme.  
Value: $400 each (30188 274) (B)

THE MOFFAT KINOSHITA ARCHITECTS INC. PRIZES (Q)  
Established in 1990 by Moffat Kinoshita Associates Inc. Two prizes to be awarded to: (a) the student who attains the highest grade in GEO 4HY3; and (b) the student who attains the highest grade in GEO 4HZ3.  
Value: $175 each (40060 250) (D)

THE MOLSON SCHOLARSHIP IN ENVIRONMENTAL STUDIES (E, S, SS)  
Established in 1992 by the Molson Companies Donations Fund. To be awarded to the student entering the final level of a programme in Geography and Environmental Studies, Earth and Environmental Sciences, Environmental Science, or Engineering and Society, who attains the highest Full-load Average.  
Value: $700 (30213 181) (B)

THE E.S. MOORE PRIZE IN GEOLOGY (S)  
Established in 1956 by Elwood S. Moore, LL.D. (Class of ’55). To be awarded to the student graduating in an Honours programme in Geology who, in the judgment of the School of Geography and Geology, has attained the most notable standing in Geology.  
Value: $150 (50015 116) (E)

THE JOHN F. MOORE PRIZE (E)  
Established in 1990 by the Steel Founders’ Society of America in honour of John Moore’s contributions to the Society over the past 25 years. To be awarded to the student who attains the highest grade in MATLS 4C03.  
Value: $100 (40061 264) (D)

THE MICHAEL J. MORTON MEMORIAL BOOK PRIZE (S)  
Established in 1979 in memory of Dr. M.J. Morton. To be awarded to a student who has completed Level I and 60 to 75 units in an Honours programme in Chemistry and who, in the judgment of the Department of Chemistry, is outstanding in the field of inorganic chemistry.  
Value: $150 for books (30111) (B)

THE ELIZABETH MOSGROVE SCHOLARSHIP (O)  
Established in 1959 by bequest of John W. Mosgrove in memory of his mother. To be awarded to sons of members of Her Majesty’s Canadian Armed Forces on the basis of Full-load Average.  
Value: $800 (30047) (B)

THE MOTOROLA SOFTWARE ENGINEERING SCHOLARSHIPS (E)  
Established in 1999 by the Motorola Foundation. To be awarded to two students entering Level III in a Software Engineering programme who, in the judgment of the Department of Computing and Software, have achieved notable academic standing, displayed strong communication skills, demonstrated leadership and involvement in extra-curricular activities.  
Value: $1000 each (30252 544) (B)

THE MOUTON COLLEGE SCHOLARSHIP (O)  
Established in 1957 from funds originally subscribed by the Alumnae of Mouton College during the years 1946 to 1949 for the expansion of Mouton College. Two scholarships to be awarded to the women students of Mouton Hall with the highest Full-load Averages: (a) one after completion of Level I and 30 to 45 units, and (b) one after completion of Level I and 60 to 75 units.  
Value: $1,000 each (30112 377) (B)

THE MOULTON HALL RESIDENCE SCHOLARSHIP (O)  
Awarded to the student who resides in the residence with the highest Full-load Average (at least 9.5) in an undergraduate programme, with the exception of those in their graduating session.  
Value: $300 (302039) (B)

THE ANNE MURRAY SCHOLARSHIP (H)  
Established in 1985 in memory of Anne M. Murray (Class of ’82) by her family. To be awarded to a student who has completed at least 30 units beyond Level I in a programme in the Department of Modern Languages and Linguistics and who, in the judgment of the Department, has attained notable standing in at least 9 units of German courses above Level I.  
Value: $300 (30005 119) (B)

THE ELAINE NARDOCCHIO MEMORIAL SCHOLARSHIP FUND (H)  
Established in 1998 by family, colleagues and many friends in memory of Dr. Elaine Nardocchio, a professor for over 23 years at McMaster University, Chair of the Department of French from 1990 to 1993 and President of the Canadian Federation for the Humanities from 1994 to 1996. To be awarded to an undergraduate student enrolled in a French programme who, in the judgment of the Department of French, has shown a strong interest in computer skills as applied to the Humanities.  
Value: $250 (30249 827) (D)

THE NATIONAL ASSOCIATION OF CORROSION ENGINEERS PRIZE (E)  
Established in 1989 by the Toronto Section of the National Association of Corrosion Engineers. To be awarded to the graduand, who, in the judgment of the Department of Materials Science and Engineering, has submitted an outstanding thesis in the area of Corrosion Science and Engineering. In the absence of a qualified candidate, the award will be made to the student who attains the highest standing in MATLS 4D03 (Corrosion).  
Value: $100 (50036 120) (E)

THE NEOSID CERAMIC ENGINEERING PRIZE (E)  
Established in 1978 by Neosid (Canada) Limited. To be awarded to the student who has completed Level I and at least 75 units in the Ceramic Engineering Stream of the Materials Engineering programme and who attains the highest standing in MATLS 3B03.  
Value: $100 (40037 122) (D)

THE P.L. NEWBIGGING PRIZES (S, SS)  
Established in 1992 in recognition of Dr. Lynn Newbigging for his outstanding contributions to the Department of Psychology. Four prizes to be awarded to students with the highest Cumulative Average: (a) one to a full-time student in the three-level B.A. programme in Psychology; (b) one to a student in a B.A. programme in Psychology who has completed the programme primarily on a part-time basis; (c) one to a full-time student in the three-level B.Sc. programme in Life Sciences with a concentration in Psychology; and (d) one to a student in a B.Sc. programme in Life Sciences with a concentration in Psychology who has completed the programme primarily on a part-time basis.  
Value: $50 each (50040 250) (E)

THE P.L. NEWBIGGING SCHOLARSHIP (S, SS)  
Established in 1994 by friends, family and colleagues in memory of Dr. P.L. Newbigging, founding Chair of the Department of Psychology and member of the Faculty from 1955-1990, in recognition of his outstanding contributions to the Department and the University. To be awarded to the student entering Level II of an Honours programme in Psychology who has attained the highest average in PSYCH 1A03 and 1A43.  
Value: $300 (40072 363) (D)

THE ALAN G. NEWCOMBE PRIZE IN PEACE STUDIES (SS)  
Established in 1991 in memory of Dr. Alan G. Newcombe (1923-1981), who devoted 30 years to Peace Studies and was co-founder, with Dr. Hanna Newcombe, of the Canadian Peace Research and Education Association and the Peace Research Institute - Dundas. To be awarded to a student who, in the judgment of the Coordinating Council of the Centre for Peace Studies, demonstrates leadership in extracurricular endeavours and high academic achievement.  
Value: $200 (40064 308) (D)

THE ROSEMARY ELIZABETH NIelsen BOOK Prize (HSe)  
Established in 2000. To be awarded to a graduating Occupational Therapy student who, in the judgment of the School of Rehabilitation Science, has demonstrated excellence, compassion and reflective practice in a mental health field-work experience and expresses an interest in working in this field in the future.  
Value: $500 (50089 1517) (F)

THE NIEMEIER SCHOLARSHIP (HSc)  
Established in 1938 and augmented in 1952 by Dr. O.W. Niemeyer. To be awarded to the student who attains the highest Full-load Average at the completion of Level I and 31 to 55 units of the Nursing programme.  
Value: $600 (30114 244) (B)
THE ROBERT NIXON SCHOLARSHIP (O)
Established in 1991 by the Brant-Haldimand Liberal Association in honour of Dr. Robert Nixon (Class of '50, LL.D, '76). To be awarded to a student who, in the judgment of the Department of History, has demonstrated academic excellence and an active involvement in community life.
Value: $650 (30203 144) (B)

THE NORTEL NETWORKS SCHOLARSHIPS IN INFORMATION TECHNOLOGY (E, S)
Established in 1999 by Nortel Networks. Ten scholarships to be awarded to students entering a programme in Electrical Engineering, Computer Engineering, Software Engineering, Engineering Physics or Computer Science.
Value: $1,000 each (30257 870) (E)

THE DERRY NOVAK SCHOLARSHIP (SS)
Established in 1984 by the Political Science alumni and colleagues in honour of Professor Derry Novak. To be awarded to a student in a programme in Political Science who, in the judgment of the Department of Political Science, has achieved high standing in Level III courses in political theory or political philosophy.
Value: $350 (40012 125) (D)

THE FREDRIC P. OLSEN BOOK PRIZE (S)
Established in 1974 in memory of Professor F.P. Olsen by his family, friends and former colleagues. To be awarded to a student who has completed Level I and 60 to 75 units of an Honours Programme in Chemistry and who, in the judgment of the Department of Chemistry, shows particular promise as an experimental scientist.
Value: $100 for books (30053) (B)

THE ONTARIO ASSOCIATION OF SOCIAL WORKERS PRIZE (SS)
Established in 1986 in memory of Gladys Ballantyne Parker by the Canadian Engineering and Contracting Co. To be awarded to the graduating student who successfully completes SOC WORK 4DD and attains the highest grade in SOC WORK 4DD in the same session.
Value: $125 (50037 126) (E)

THE ONTARIO ASSOCIATION OF SOCIAL WORKERS SCHOLARSHIP (SS)
Established in 1992 by the Hamilton Branch. To be awarded to the graduating student who successfully completes SOC WORK 4DD and attains the highest grade in SOC WORK 4DD in the same session.
Value: $125 (50032) (F)

THE CONNIE O'SHAUGHNESSY MEMORIAL PRIZE (O)*
Established in 1988 by family, friends and associates of Connie O'Shaughnessy (Class of '68), a part-time student who chose to return to complete her degree on a full-time basis. To be awarded to a student who has completed Level I and 90 to 120 units who, in the judgment of the Selection Committee for Part-Time Awards, has made a significant contribution to the University life of part-time students.
Value: $375 (40009 265) (D)

THE GLADYS BALLANTYNE PARKER PRIZE (H)
Established in 1953 in memory of Gladys Ballantyne Parker by her father, Harry Ballantyne. To be awarded to the student enrolled in a programme in Classics who, in the judgment of the Department of Classics, demonstrates outstanding achievement in Greek or Latin.
Value: $50 (30060 133) (B)

THE F.W. PAULIN SCHOLARSHIP (E)
Established in 1961 by the Canadian Engineering and Contracting Co. Limited in honour of its founder. To be awarded to a student who has completed Level I and 70 to 85 units of the Civil Engineering programme, or Level I and 110 to 130 units of the Civil Engineering and Management programme. Award is based on scholarship Full-load Average of at least 8.5 and evidence of leadership, self-motivation and practical aptitude appropriate for a future in the construction industry.
Value: $1,100 (30052 134) (E)

THE IRENE PEARCE SCHOLARSHIP (H)
Established in 1994 by Centenary United Church of Hamilton in honour of Irene Pearce, organist and choir director for fifty-four years. To be awarded to a student who has completed Music I or 50-78 units of an Honours Music Programme who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), has attained notable academic standing and demonstrated excellence in keyboard performance.
Value: $300 (30222 356) (B)

THE HARRY L. PENNY PRIZE (SS)
Established in 1984 in recognition of Professor Harry L. Penny, founding Director of the School of Social Work, for his outstanding contribution to the School. To be awarded to the student with the highest Cumulative Average in a Social Work programme.
Value: $50 (50023) (E)

THE PEVENSING SCHOLARSHIP (SS)
Established in 1987 by David C. Hannaford (Class of '64). To be awarded to a student who has completed Level I and 60 to 75 units of an Honours Programme in Economics and who, in the judgment of the Department of Economics, has attained notable academic standing.
Value: $500 (30120 138) (B)

THETONY PICKARD MEMORIAL SCHOLARSHIP (O)
Established in 1973 by his wife and family, in honour of Captain Antony F. Pickard, O.B.E., C.D., R.C.N. (Ret'd).
Value: $800 (30172) (B)

THE PIONEER GROUP INC. GERONTOLOGY PRIZES (SS)
Established in 1986 by the Pioneer Group Limited. Two prizes to be awarded (a) one to a full-time student and (b) one to a part-time student, both of whom are graduating from a programme in Gerontology who, in the judgment of the Gerontology Committee of Instruction, have demonstrated high academic achievement and leadership in extracurricular activities.
Value: $100 each (50021 066) (E)

THE PIONEER GROUP INC. PRIZE (SS)*
Established in 1990. To be awarded to a student in a Gerontology programme who, in the judgment of the Gerontology Committee of Instruction, has achieved notable academic standing, and demonstrates practical aptitude for a career in health care of the elderly.
Value: $400 (40059 270) (B)

THE PIONEER GROUP INC. PRIZE IN NURSING (HSc)
Established in 1989 by the Pioneer Group Limited in conjunction with the R. Samuel McLaughlin Centre for Gerontological Health Research. Two prizes to be awarded to students graduating from the Nursing programme who, in the judgment of the School of Nursing, have achieved notable standing and demonstrated practical aptitude for a career in the health care of the elderly.
Value: $150 (50066 870) (E)

THE PIONEER GROUP INC. SCHOLARSHIP (SS)
Established in 1988. To be awarded to a student who has completed Level I and at least 30 units of a programme in Gerontology and who, in the judgment of the Gerontology Committee on Instruction, achieves high standing in at least 12 units of Gerontology courses (excluding GERON 1A06) and who, in the judgment of the Department of Gerontology, demonstrates leadership in the field of Gerontology.
Value: $350 (30121 371) (B)

THE POLITICAL SCIENCE PRIZE (SS)
Established in 1982. To be awarded to a graduating student who has completed a programme in Political Science primarily on a part-time basis and who, in the judgment of the Department of Political Science, has demonstrated outstanding academic achievement.
Value: $200 (50042) (E)

THE POLITICAL SCIENCE HONOURS ESSAY PRIZE (SS)
Established in 1982. To be awarded to the student who, in the judgment of the Department of Political Science, has demonstrated outstanding achievement in POL 3A06.
Value: $50 (50059) (E)

THE PRICEWATERHOUSECOOPERS SCHOLARSHIPS (B)
Established in 2000 by PricewaterhouseCoopers. To be awarded students entering Level III of the Honours Commerce programme and who enroll in COMMERCE 3AB3 and 3AC3 who, in the judgment of the School of Business, have achieved notable academic standing in COMMERCE 2A3 and 2B3, and who have demonstrated qualities of leadership at McMaster or in the community.
Value: $2,000 (30271 074) (B)

THE PSYCHOLOGY SOCIETY PRIZES (S, SS)
Established in 1968 by the Psychology Society and the Faculty and Alumni of the Department of Psychology. Three prizes to be awarded to students who have completed Level I and 60 to 75 units with the highest Full-load Average: (a) one in the Honours Psychology B.A. programme; (b) one in the Honours Psychology B.Sc. programme; and (c) one in a combined Honours programme in Psychology.
Value: $50 each (30123 141) (B)

THE DR. JOHN A. PLYLIPIUK SCHOLARSHIP (H)
Established in 1967 in memory of Dr. John A. Plylipiuk and in recognition of Canada's Centennial Year. To be awarded to the student who has completed Level II of an Honours programme in History with the highest Full-load Average and who in that session achieves a grade of at least A- in HISTORY 2J06 (Canadian History).
Value: $600 (30039 142) (B)
THE RAND MEMORIAL PRIZE OF CLASS '98 (H)
Established by the Class of 1898 in Arts, on the occasion of the 25th anniversary of graduation, 1923, in memory of Chancellor Theodore Harding Rand, to encourage original literary work. To be awarded to the student who has completed Level I and 60 to 75 units and who, in the judgment of the Department of English, has made the most notable original contribution to student publications.
Value: $200 (40045) (D)

THE PITCHER-RATFORD AWARDS (SS)
Established in 2000 by Bruce Ratford (Class of '71) and Elda Ratford (Pitcher) (Class of '71). Two scholarships (one to a male and one to a female) to be awarded to students who have completed Level III of an Honours Geography programme and who, in the judgment of the School of Geography and Geology, have achieved notable academic standing and demonstrated qualities of leadership at McMaster or in the community.
Value: $500 each (30273 1386) (B)

THE LLOYD REEDS PRIZES (S, SS)
Established in 1985 in recognition of Dr. Lloyd G. Reeds for his outstanding contributions to the Department of Geography during 35 years of service. Four prizes to be awarded: (a) one to the student who attains the highest Cumulative Average in an Honours B.A. programme in Geography; (b) one to the student who attains the highest Cumulative Average in an Honours B.Sc. programme in Geography; (c) one to the student who attains the highest Cumulative Average in a three-level B.A. programme in Geography or B.Sc. programme in Geoscience with a concentration in Geo; and (d) one to the student who, in the judgment of the School of Geography and Geology, has demonstrated outstanding achievement in GEO 4R06.
Value: $50 each (50035) (E)

THE SHARON REEVES SCHOLARSHIP (H)
Established in 1987 by Kevin W. Reeves (Class of '90) in memory of his wife, Sharon (Class of '79). To be awarded to a student entering Level III or IV of an Honours programme in Music (Education) and who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), has attained notable standing.
Value: $350 (30135 143) (B)

THE RELIGIOUS STUDIES PRIZES (SS)
Established in 1982. Two prizes to be awarded to students who attain the highest Cumulative Average in a three- or four-level programme in Religious Studies: (a) one to a student who has completed the programme on a full-time basis, and (b) one to a student who has completed the programme primarily on a part-time basis.
Value: $50 each (50045) (E)

THE RELIGIOUS STUDIES HONOURS ESSAY PRIZE (SS)
Established in 1982. To be awarded to the student who, in the judgment of the Department of Religious Studies, has demonstrated outstanding achievement in RELIG ST 4J88.
Value: $50 (50044) (E)

THE ELLA JULIA REYNOLDS SCHOLARSHIP (H)
Established in 1984 by bequest of Ella Julia Reynolds of Hamilton. Two scholarships to be awarded on the basis of scholarship and character to students who have completed Level I and 30 to 75 units of the Honours English or the Honours English and History programme with a Full-load Average of at least 9.5. The recipients must not be holders of another scholarship.
Value: $900 each (30044) (B)

THE HERBERT A. RICKER SCHOLARSHIP (E, S)
Established in 1982 by bequest of Mrs. Edna Elizabeth Ross Reeves of Hamilton in memory of her husband, Herbert A. Ross. Four scholarships to be awarded on the basis of scholarship (Full-load Average of at least 9.5) and character to: (a) two to students who have completed Engineering I, or Level I and 30 to 60 units of a programme in Engineering, and (b) two to students who have completed Science I or Level I and 30 to 75 units of a programme in Science.
Value: $1,150 each (30065 145) (B)

THE ROSART PROPERTIES INC. SCHOLARSHIP (SS)
Established in 1986 by John D. and Dominic J. Rosart of Burlington. To be awarded to a student who has completed Level I and 60 to 75 units of an Honours programme in Geography and who, in the judgment of the School of Geography and Geology, has attained high academic standing.
Value: $325 (30129 146) (B)

THE ABRAHAM ROSENBERG MEMORIAL PRIZE (H)*
Established in 1986 by bequest of Abraham I. Rosenberg (Class of '34) of Hamilton and Kitchener. To be awarded to the student who attains the highest standing in ENGLISH 3803 or SOCIO 2X03.
Value: $150 (40000 147) (D)

THE MORRIS AND SARAH ROSENHEAD MEMORIAL PRIZE (O)
Established in 1988 by bequest of Sarah Rosenhead of Hamilton. To be awarded to the student who attains the highest standing in ENGLISH 1D06
Value: $150 (40033 152) (D)

THE ROYAL CLUB OF HAMILTON SCHOLARSHIP (O)
Established in 1899.
Value: $800 (30169 263) (B)

THE ELLEN BOUCHARD RYAN SCHOLARSHIP (SS)*
Established in 2000 by the McMaster Centre for Gerontological Studies, and supported by family, in recognition of Dr. Ellen Bouchard Ryan's outstanding contribution to the field of aging. To be awarded to a student who, in the judgment of the Gerontology Committee of Instruction, has demonstrated high academic achievement and leadership in ages-related community activities.
Value: $500 (40032 1130) (B)

THE E.T. SALMON SCHOLARSHIP (H)
Established in 1991 by Mrs. Edward Togo Salmon in memory of her husband, world-renowned Roman historian and member of the Faculty for 43 years. To be awarded to the student who has completed Level I and 60 to 75 units of any Honours Classics or Honours History programme, including at least 12 units of Ancient History and Archaeology, and who, in the judgment of a committee of the two Departments, shows outstanding achievement and promise. The purpose of the scholarship is to enable the winner to travel and study abroad during the vacation before the final Winter Session, and/or to fund the final year of study at McMaster; candidates should submit to the committee a statement of their aims and plans for study.
Value: $2,000 (30204 304) (B)

THE E. TOGO SALMON PRIZE IN HISTORY (H)
Established in 1973 by friends and colleagues of Professor E.T. Salmon on his retirement, in recognition of his outstanding contribution to the Department of History. To be awarded to the student who has completed Level I and 60 to 75 units and who, in the judgment of the Department of History, attains notable standing in an Honours programme in History.
Value: $100 for books (30045 245) (B)

THE NOEL SANDUSKY MEMORIAL PRIZE (A, H)*
Established in 1994 by family and friends in memory of Noel Sandusky. To be awarded to a student who has completed Level I and 30-45 units of a programme in History who, in the judgment of the Department of History, attains notable academic standing in at least nine units of History courses.
Value: $150 for books. (40075 359) (D)

THE HILDA SAVAGE MEMORIAL SCHOLARSHIP (O)
Established in 1960 by bequest of Bertha Savage.
Value: $800 (30166) (B)

THE LARRY SAYERS PRIZE IN CHINESE HISTORY (H)*
Established in 1983 in memory of Larry P. Sayers (Class of '82) by his friends. To be awarded to the student who, in the judgment of the Department of History, has demonstrated outstanding achievement in at least six units of courses work in Chinese History.
Value: $250 (40030 149) (D)

THE DR. SINA SAGZAR MEMORIAL SCHOLARSHIP (S)
Established in 1989 in memory of Dr. Sina Sagzar (Hon. B. Sc. '93), a young, exceptionally gifted and caring medical doctor who tragically passed away on October 26, 1993. To be awarded to a student enrolled in an Honours Bachelor of Science programme who, in the judgment of the Faculty of Science, has demonstrated outstanding academic performance.
Value: $500 (30263 876) (B)

THE REBECKAH SCHNURR AWARD (B)
Established in 1998 by Rebekah Schnurr to provide support to McMaster students. To be awarded to a student registered in a Bachelor of Commerce programme who, in the judgment of the Faculty of Business, has demonstrated outstanding academic achievement and leadership through community involvement.
Value: $500 (40084 793) (D)

THE SCHOOL OF THE ARTS SCHOLARSHIP IN MUSIC (H)
Established in 1993 by the Department of Music which later became part of the School of the Arts (formerly School of Art, Drama and Music). To be awarded to a student who, in the judgment of the School of the Arts, has demonstrated academic excellence in Music.
Value: $1,000 (30216 324) (B)
THE SCHOOL OF REHABILITATION OT/PT FIELDWORK PRIZE (HSc)
Established originally at McMack College as the Muriel Westmorland Prize, and transferred to McMaster University in 1993. To be awarded to a graduating student who, in the judgment of the School of Rehabilitation Science, demonstrates excellence in clinical fieldwork throughout the Occupational Therapy programme.
Value: $80 (50078 770) (F)

THE SHEILA SCOTT SCHOLARSHIP FOR BRANDON HALL (O)
Awarded to the student who resides in the residence with the highest Full-load Average (at least 9.5) in an undergraduate programme, with the exception of those in their graduating session.
Value: $300 (30202) (B)

THE SHEILA SCOTT SCHOLARSHIP IN ENGLISH (H)
Established in 1983 by graduates of McMaster University and friends in honour of Sheila Scott, Dean of Women from 1965 to 1982, in recognition of her outstanding contribution to the University community during 25 years of service. To be awarded to the student who has completed Level I and 30 to 75 units of the Honours English programme, and who attains the highest Full-load Average.
Value: $400 (30136 150) (B)

THE SHEILA SCOTT SCHOLARSHIP FOR WALLINGFORD HALL (O)
Awarded to the student who resides in the residence with the highest Full-load Average (at least 9.5) in an undergraduate programme, with the exception of those in their graduating session.
Value: $300 (30158) (B)

THE LARRY SEFTON SCHOLARSHIPS (SS)*
Established in 1985 by the Hamilton Steelworkers Area Council in memory of Larry Sefton, area supervisor (1946-63) and director of District 6 (1953-73) of the United Steelworkers of America, to recognize his commitment to education, to working people, to unions and to the City of Hamilton. Three scholarships to be awarded to students in the Labour Studies programme who, in the judgment of the Committee of Instruction for Labour Studies, have achieved notable standing in any level.
Value: $500 each (30099 151) (D)

THE CHARLOTTE E. SEIDEL SCHOLARSHIP (H)
Established in 1994 by Genevieve J. Heinz in memory of Charlotte E. Seidel. To be awarded to a student in a programme in Music who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music), has attained high academic standing and has made significant contributions to the campus or community.
Value: $500 (30223 357) (B)

THE GRACE SENA-FONTES MEMORIAL PRIZE (HSc)*
Established in 1989 by the graduating class (Class of '88) in association with the McMaster University Nursing Society and the McMaster Nursing Alumni Executive in memory of Grace Sena-Fontes (Class of '88) of Toronto. To be awarded to a student who has completed Level I and 70 to 85 units of the Nursing programme and who, in the judgment of the School of Nursing, best demonstrates excellence in scholarship and leadership, and has served as a valuable role model for those qualities deemed important to success in a nursing career.
Value: $250 (30061 246) (D)

THE MARGARET A. SERVICE BOOK PRIZE (S)
Established in 1990 by friends, colleagues and former students in memory of Margaret A. Service. To be awarded to the student who upon completion of Level I attains the highest average in BIOLOGY 1A03 and 1A04.
Value: $125 (40059 277) (D)

THE ALBERT SHALOMTRAVEL SCHOLARSHIP (H)
Established in 1994 by family, friends and colleagues in memory of Albert Shalom, Professor of Philosophy at McMaster University from 1966 to 1991. To be awarded to a student who is enrolled in a programme in Philosophy, and has, in the judgment of the Department of Philosophy, attained notable standing. The award is to be used to help defray the costs of study overseas in Level III.
Value: $500 (30225 365) (B)

THE LOUIS J. SHEIN SCHOLARSHIP (H)
Established in 1980 by family and friends in memory of Dr. L.J. Shein, founding chair of the Russian Studies programme and faculty member from 1958 to 1980. To be awarded to a student who, in the judgment of the Department of Modern Languages and Linguistics, has achieved notable standing in RUSSIAN 1223, 2203 or 2223.
Value: $400 (30169 255) (B)

THE SHELL CANADA PRIZES IN ENGINEERING AND MANAGEMENT (E)
Established in 1983. Three prizes to be awarded to students graduating from an Engineering and Management programme. Awards will be based on scholarship and on the quality of and creativity shown in written communication.
Value: $225 each (50049 154) (E)

THE SHELL CANADA SCHOLARSHIPS IN ENGINEERING AND MANAGEMENT (E)
Established in 1983. Three scholarships to be awarded to students who have completed Level I and at least 110 units of a programme in Engineering and Management. Awards will be based on scholarship and on the quality of and creativity shown in written and oral reports.
Value: $600 each (30137 384) (B)

THE SHENSTONE PRIZE (S)
Established in 1992 by J.N. Shenstone of Toronto, and continued by members of his family. To be awarded to the student who has completed Science I and who attains the highest average in any four of the Level I courses in Chemistry, Physics and Biology.
Value: $125 (30138) (B)

THE GERALD AND VERNAMAPLE MEMORIAL SCHOLARSHIP (S)
Established in 1957 by the children in memory of their parents. To be awarded to the student who has completed Level I and 30 to 45 units of the Honours Physics or the Honours Chemistry and Physics programme with highest Full-load Average.
Value: $300 (30059 156) (S)

SHALOM TRAVEL SCHOLARSHIP
To be awarded to the student who has completed Levell and at least 60 units of a programme in a programme in the Social Sciences with highest Load Average.
Value: $125 (30138) (B)

THE SHELL CANADA PRIZES IN ENGINEERING AND MANAGEMENT (E)
Established in 1983. Three prizes to be awarded to students graduating from an Engineering and Management programme. Awards will be based on scholarship and on the quality of and creativity shown in written communication.
Value: $225 each (50049 154) (E)

THE SHELL CANADA SCHOLARSHIPS IN ENGINEERING AND MANAGEMENT (E)
Established in 1983. Three scholarships to be awarded to students who have completed Level I and at least 110 units of a programme in Engineering and Management. Awards will be based on scholarship and on the quality of and creativity shown in written and oral reports.
Value: $600 each (30137 384) (B)

THE RICHARD SLOBODIN PRIZE (SS)
Established in 1982 in honour of Professor Richard Slobodin for his outstanding contributions to the Department of Anthropology. To be awarded to the graduating full-time student in an Honours Anthropology programme who, in the judgment of the Department, has demonstrated outstanding academic achievement.
Value: $50 (50046) (E)

THE SMITH AND NEPHEW PROFESSIONAL ADVANCEMENT AWARD (HSc)
Established in 1994. To be awarded to a graduating student in Occupational Therapy who, in the judgment of the School of Rehabilitation Science, has shown the most promise in the advancement of the profession of Occupational Therapy by his/her innovative and creative contributions as well as academic performance.
Value: $500 (50080 771) (F)

THE PATRICIA L. SMYRE MEMORIAL PRIZES (H, SS)
Established in 1972 by the Patricia Smyre Memorial Fund Committee. Two scholarships to be awarded to students who have completed Level I and 30 to 45 units and who attain the highest Full-load Average: (a) one in the three-level English programme and (b) one in the three-level Psychology B.A. programme.
Value: $250 each (30118) (B)

THE SOCIAL WORK PRIZE (SS)
Established in 1982. To be awarded to the student who attains the highest grade in SOC WORK 2A06.
Value: $50 (40050) (D)

THE SOCIETY OF CHEMICAL INDUSTRY MERIT AWARDS (E, S)
Established in 1981. Three plaques to be awarded: (a) one to a Chemical Engineering graduate, (b) one to an Honours Biochemistry or Honours Biochemistry and Chemistry graduate, and (c) one to an Honours Chemistry, College of Science Honours Chemistry or Honours Physics graduate who has attained the highest Cumulative Average (at least 9.5) and has completed the programme in the normal number of years. (50060 369) (E)

THE SOCIETY OF MANAGEMENT ACCOUNTANTS OF ONTARIO SCHOLARSHIP (B)
Established in 1983. To be awarded to the student who has completed Level I and 60 to 75 units of a programme in Commerce and who obtains the highest Full-load Average and in that Session attains a grade of at least A in COMMERCE 3ABS.
Value: $500 (30140 158) (B)

THE SOCIOLOGY PRIZES (SS)
Established in 1982. Two prizes to be awarded to students with the highest Cumulative Averages: (a) one to a student who has completed the three-level programme in Sociology on a full-time basis; and (b) one to a student who has completed a programme in Sociology primarily on a part-time basis.
Value: $50 each (50051) (E)
THE SOMERVILLE SCHOLARSHIPS (O)
Established in 1966 by bequest of William L. Somerville, architect of the McMaster University buildings of 1930.
Value: $900 (30169 159) (B)
The recipient of this award is eligible to receive additional aid through the corresponding Supplementary Bursary Aid Fund if he/she demonstrates financial need. Please see the section on Supplementary Bursary Aid for Award Recipients in the Student Financial Aid section of this Calendar.

THE SONS OF ITALY OF ONTARIO SCHOLARSHIP (H)
Established in 1971 by the Order Sons of Italy of Ontario. To be awarded to a student who has completed at least 30 units beyond Level I in a programme in the Department of Modern Languages and Linguistics and who, in the judgment of the department, has attained notable standing in at least six units of Italian courses above Level I.
Value: $500 (30141 160) (B)

THE SOUTH ONTARIO ECONOMIC DEVELOPMENT COUNCIL SCHOLARSHIP (S, SS)
Established in 1973 by the South Ontario (formerly Niagara) Economic Development Council. Two scholarships to be awarded, normally one each in the B.A. and B.Sc. programmes, to the students who have completed Level II and 30 to 75 units of the Honours Geography programme and who elect GEO 4R06 in their graduating session. Awards are based on scholarship and interest in undertaking studies relating to regional development and regional planning in the Niagara Peninsula.
Value: $1,200 each (30142 161) (B)

THE CLARENCE L. STARR PRIZE (HSc)
Established in 1946 in memory of Dr. C.L. Starr, M.D., LL.D., F.A.S.S., Professor of Surgery at the University of Toronto, and an honorary alumnus of McMaster University (LL.D. 1922). To be awarded to the student who has completed Nursing I and who attains the highest Full-load Average.
Value: $150 (30025) (B)

THE ANNE STEIN MEMORIAL PRIZE (SS)*
Established in 1981. To be awarded to the part-time student who successfully completes SOC WORK 3DD6 and attains the highest grade in SOC WORK 3DD6 in the same session.
Value: $100 (60001) (C)

THE ANNE STEIN MEMORIAL PRIZE (SS)
Established in 1971 by friends and colleagues of Anne Stein. To be awarded to the student who successfully completes SOC WORK 3DD6 and attains the highest grade in SOC WORK 3DD6 in the same session.
Value: $100 (400003) (B)

THE STELCO-MCMASTER SCHOLARSHIPS (O)
Established in 1997 by McMaster University in recognition of Stelco and its ongoing commitment to McMaster students. Three scholarships will be awarded to undergraduate students who demonstrate outstanding academic achievement.
Value: $800 each (30238 873) (B)

THE STOBO SCHOLARSHIP (O)
Established in 1957 by bequest of William Q. Stobo.
Value: $800 (30170) (B)

THE MARIE L. STOCK SCHOLARSHIP (H)
Established in 1987 by the French Section of the Department of Romance Languages in honour of Marie L. Stock, Professor Emeritus of French, and Chair of the Department of Romance Languages from 1962 to 1985. To be awarded to the student who has completed Level I and 60 to 75 units of an Honours programme in French and who, in the judgment of the Department of French, has achieved notable academic standing.
Value: $400 (30104 166) (B)

THE SWISS MINISTER TO CANADA BOOK PRIZES (H)
Established in 1950. To be awarded from time to time to in-course students for proficiency in French, German, or Italian.
Value: Book (40051) (D)

THE THOMPSON MEMORIAL PRIZE (S, SS)
Established in 1987 in memory of Dr. Hugh R. Thompson. To be awarded to the student who has completed Level I and 30 to 45 units of an Honours programme in Geography or the Honours Geography and Geology programme with the highest Full-load Average.
Value: $200 (30069) (B)

THE LEONA ALLERSTON RYAN AND GORDON HENRY STEVENS MEMORIAL SCHOLARSHIP (H)
Established in 1995 by Elaine Kellor in memory of Leona and Gordon Stevens. To be awarded to a student who has completed Level I and 30-75 units of an Honours programme in Music or Art who, in the judgment of the School of the Arts (formerly School of Art, Drama and Music) has demonstrated outstanding academic achievement.
Value: $600 (30229 993) (B)

THE STO PRIZE IN GERONTOLOGY (O)
Established in 1987 by the Superannuated Teachers of Ontario, District 13. To be awarded to the student who attains the highest standing in GERO 1A06.
Value: $100 (40047 163) (D)

THE MABEL STOAKLEY SCHOLARSHIP (O)
Established in 1986 by the Young Women's Canadian Club of Toronto (now the Career Women's Canadian Club of Toronto). To be awarded to a woman student who has completed Level I and 30 to 45 units of any programme and who gives evidence of outstanding academic achievement and leadership.
Value: $425 for books (30103) (B)

THE MARIE L. STOCK SCHOLARSHIP (H)
Established in 1987 by the French Section of the Department of Romance Languages in honour of Marie L. Stock, Professor Emeritus of French, and Chair of the Department of Romance Languages from 1962 to 1985. To be awarded to the student who has completed Level I and 60 to 75 units of an Honours programme in French and who, in the judgment of the Department of French, has achieved notable academic standing.
Value: $400 (30104 166) (B)

THE KENNETH W. THOMPSON MEMORIAL PRIZE (S, SS)
Established in 1996 in memory of Dr. Hugh R. Thompson. To be awarded to the student who has completed Level I and 30 to 45 units of an Honours programme in Geography or the Honours Geography and Geology programme with the highest Full-load Average.
Value: $200 (30069) (B)

THE DR. R.A. THOMPSON PRIZE IN MATHEMATICS (S)
Established in 1954 by bequest of Dr. William Bethune, in memory of J.A. Thompson, B.A., L.L.D., Central Collegiate Institute, Hamilton, and the Department of Mathematics and Statistics. To be awarded to the student who has completed Level I and 60 to 75 units of the Honours Computer Science, Honours Computer Science and Mathematics, Honours Computer Science and Statistics, Honours Mathematics or Honours Statistics programme, and who attains a high Full-load Average.
Value: $225 (30040) (B)
THE MICHAEL THOMSON MEMORIAL BOOK PRIZES (O)
Established in 1975 by the members of the Departments of German and Russian
in memory of Michael Thomson, Supervisor of the McMaster University
language laboratories from 1961 to 1975. Two prizes to be awarded: (a) one
to the student who attains the highest standing in GERMAN 122Z3 and (b) one
to the student who attains the highest standing in RUSSIAN 2223.
Value: $50 each (40035 286) (D)

THE GRAHAM RONALD TOOP SCHOLARSHIP (H)
Established in 1989 by bequest of Graham Toop (Class of ’89) by family and
friends. To be awarded to the student entering Level IV of an Honours Philo­sosphy
programme and who, in the judgment of the Department of Philoso­phy, has demonstrated leadership and influence in scholarly activities related
to the field of philosophy.
Value: $300 (30190 256) (B)
The recipient of this award is eligible to receive additional aid through the
Supplementary Bursary Aid Fund if he/she demonstrates financial need. Please see the section on Supplementary Bursary Aid for Award
Recipients in the Student Financial Aid section of this Calendar.

THE CORELNE HELENTOSTEVEIN SCHOLARSHIPS (HSc)
Established in 1993 by Corelne Tostevin, Three awards to be
granted to students who are registered in a Post-RN Degree programme
and who, in the judgment of the School of Nursing, have demonstrated notable
academic achievement.
Value: $250 each (A0083 791) (D)

THE CORELNE HELENTOSTEVEIN
SECOND DEGREE SCHOLARSHIPS (HSc)
Established in 1998 by bequest of Corelne Tostevin. Two awards to be
granted to students who are registered in a second degree Nursing
programme and who, in the judgment of the School of Nursing, have demonstrated notable academic achievement.
Value: $250 each (50079 750) (F)

THE JOHN TOOTH MEMORIAL PRIZE (H)*
Established in 1963 in memory of John Tooth by his friends. To be awarded to the student who attains the highest average in any six units of Level III or IV
Latin courses.
Value: $50 (40028 176) (D)

THE JOHN H. TRUEMAN PRIZE (H)
Established in 1989 as a tribute to Professor John H. Trueman by his many
friends, colleagues and students on the occasion of his retirement from
McMaster University. To be awarded to the graduating student who demonstrates the most outstanding ability in medieval history.
Value: $300 (60067 367) (E)

THE JOHN H. TRUEMAN SCHOLARSHIP (H)*
Established in 1989 as a tribute to Professor John H. Trueman by his many
friends, colleagues and students on the occasion of his retirement from
McMaster University. To be awarded to the student who has completed Level I and who, in the judgment of the Department of History, has achieved notable academic standing in medieval history.
Value: $300 (30081 179) (D)

THE THOMAS TRUMAN MEMORIAL PRIZE (SS)
Established in 1992 by friends and colleagues in memory of Professor Tho­mas Truman, a member of the Department of Political Science from 1986 to
1990. To be awarded to the student entering the final level of an Honours programme in Political Science who, in the judgment of the Department of Political Science, has achieved notable academic standing in at least nine units of Comparative Politics courses.
Value: $75 (40068 313) (D)

THE UNIVERSITY PRIZES FOR SPECIAL ACHIEVEMENT (O)*
Established in 1973. Two prizes to be awarded in each Faculty and other
academic units to students who exhibit exceptional skill and originality in a
creative project (such as an essay, poem, sculpture, mathematical or scientific problem, engineering design) or a related series of such projects.
Value: $150 each (40052) (D)

THE UNIVERSITY SCHOLARSHIPS (O)
Made available from by authorization of the Board of Governors of the University.
Value: $800 each (30173) (B)

THE UNIVERSITY SCHOLARSHIPS (O)
Established in 1976. Twenty scholarships to be awarded to part-time students who have attained the highest Cumulative Average at the most recent review.
Value: $250 each (60003) (C)

THE VALLEY CITY MANUFACTURING CO. LTD. SCHOLARSHIPS (S)
Established in 1991 by the Valley City Manufacturing Co. Ltd. of Dundas,
Ontario. Two scholarships to be awarded to the students enrolled in an
Honours B.Sc. programme: one to the student entering Level II and one to
the student entering Level III who attain the highest Full-load Average. Re­cipients may not hold another scholarship of equal or greater value.
Value: $1,300 each (30205 227) (B)

THE VAREY SCHOLARSHIP (S)
Established in 1978 by J.C. Varey, Dundas, in memory of Albert E. Varey. To be awarded to a student in an Honours Programme in Classics who, in the judg­ment of the Department of Classics has achieved notable academic standing.
Value: $200 (30151 182) (B)

THE HARRY WAISGLASS BOOK PRIZE (SS)
Established in 1986 in honour of Harry Waisglass, the first Director of the Labour Studies Education Programme at McMaster. To be awarded to a student graduating from a programme in Labour Studies who, in the judg­ment of the Committee of Instruction for Labour Studies, has demonstrated outstanding achievement.
Value: $350 (50024) (E)

THE MELINDA WAPSHAW ACHIEVEMENT AWARD (SS)*
Established in 1993 by the Labour Studies Student Association and the La­bour Studies Programme. To be awarded to a student who has completed
Level 1 and 60-75 units of an Honours Programme in Labour Studies and who, in the judgment of the Committee of Instruction, demonstrates out­standing achievement.
Value: $100 (40074 358) (D)

THE F. W. WATERS SCHOLARSHIP IN PHILOSOPHY (H)
Established in 1990 by the former students, colleagues and friends of Dr.
F.W. Waters, Professor from 1935 to 1959. To be awarded to the student entering Level IV of an Honours Programme in Philosophy who, in the judg­ment of the Department of Philosophy, shows the most academic promise.
Value: $750 (30197) (B)

THE F. W. WATERS SCHOLARSHIP IN
PHILOSOPHY FOR PART-TIME STUDENTS (H)
Established in 1998 by former students, colleagues and friends of Dr. F.W.
Waters, Professor from 1935 to 1959. To be awarded to a part-time student in a Philosophy programme who, in the judgment of the Department of Philosophy, has demonstrated outstanding academic achievement. No student will be eligible to receive this award more than once.
Value: $250 (60008 782) (C)

THE MARK WATSON MEMORIAL PRIZE IN HISTORY (H)
Established in 1987 by friends in the Department of History in memory of
Mark A. Watson (Class of ’86). To be awarded to a student graduating from a three-level programme in History who, in the judgment of the Department of History, has displayed outstanding achievement consistently throughout the degree programme.
Value: $100 (50035 183) (E)

THE RALPH WEEKES SCHOLARSHIP (A, S)*
Established in 1994 by the Investors Group Financial Services to recognize the accomplishments of Ralph Weekes (Class of ’73). To be awarded to a student enrolled in a programme in Economics who, in the judgment of the Department of Economics, has attained notable standing. Preference to be given to a student pursuing studies on a part-time basis.
Value: $300 (40073 360) (O)

THE WEIZS FAMILY FOUNDATION SCHOLARSHIP (B)
Established in 1982. To be awarded to the student who has completed Level
1 and 60 to 75 units of the Honours Commerce programme and who attains the highest Full-load Average (at least 9.5).
Value: $1,500 (30152 184) (B)

THE HOWARD P. WHIDDEN SCHOLARSHIP (O)
Established in 1941 by the Honourable Jacob Nicol (Class of ’00) of
Sherbrooke, Quebec, in honour of Chancellor Howard P. Whidden, with a
view to fostering relations of friendship and understanding between French­speaking and English-speaking Canadians. To be awarded to a student in history who shows ability and interest in the use of the French language. The recipient will spend some weeks of residence and study in a French-Canadian home during the summer vacation.
Value: $500 (30176) (B)

THE WHIDDEN HALL RESIDENCE SCHOLARSHIP (O)
Awarded to the student who resides in the residence with the highest Full­load Average (at least 9.5) in an undergraduate programme, with the exception of those in their graduating session.
Value: $300 (30159) (B)
THE R.M. WILES MEMORIAL BOOK PRIZE (H)*
Established in 1975 in memory of Professor Roy McKeen Wiles by his friends and colleagues. To be awarded to the student who, in the judgment of the Department of English, has written the best essay on a topic relating to English literature of the period 1660-1800.
Value: $200 for books (40044) (D)

THE RUSSELL WILKINS MEMORIAL SCHOLARSHIP (S)
Established in 1963 by bequest of Mrs. T. Russell Wilkins (B.A. '18 Brandon, M.A. '32), daughter of former Chancellor Howard P. Whidden, in memory of her husband, Dr. T. Russell Wilkins (Class of ’11). To be awarded to a student who has completed Level I and 60 to 75 units of an Honours programme in any one of the following subject fields ( singly or in combination): Biochemistry, Biology, Chemistry, Computer Science, Materials Science and Physics. Candidates for this scholarship must have attained high standing in the subjects of their programme and must, in addition, have demonstrated a lively interest in the humanities and in the human and social implications of scientific developments. The purpose of the scholarship is to enable the winner to spend the summer before the final Fall/Winter session in travel and study outside Canada.
Value: $6,000 (30178) (B)

THE MARJORIE AND CHARLES WILKINSON SCHOLARSHIP (SS)
Established in 1991 by the family in honour of Marjorie Wilkinson, author of many books and addresses on religion, and co-founder of the Hamilton Lay School of Theology at McMaster in 1966, and Charles Wilkinson, religion editor and writer for the Hamilton Spectator from 1963-1985. To be awarded to the student who has completed at least 30 units beyond Level I of an Honours programme in Religious Studies and who, in the judgment of the Department of Religious Studies, has attained notable academic standing in courses in Christian thought.
Value: $425 (30191 272) (B)

THE THOMAS E. WILLEY SCHOLARSHIP (H)
Established in memory of Dr. Thomas E. Willey in 1996 by his family, colleagues and friends. To be awarded to an undergraduate student who, in the judgment of the History and Modern Languages departments, has demonstrated excellence in German studies.
Value: $250 (40062 772) (D)

THE EMANUEL WILLIAMS SCHOLARSHIP IN PHYSICS (S)
Established in 1948 by Arabel M. Williams of Port Colborne as a memorial to her brother. To be awarded to the student who has completed Level I and 30 to 45 units of an Honours programme in Physics with the highest Full-load Average.
Value: $800 (30049) (B)

THE WOMEN’S ART ASSOCIATION SCHOLARSHIPS (H)
Established in 1969. Two scholarships to be awarded: (a) one to a student entering Level II and (b) one to a student who has completed Level I and 40 to 45 units of a programme in Honours Art or Honours Art History with the highest Full-load Average. The recipients must be from the Hamilton-Wentworth Region.
Value: $200 each (30153 185) (B)

THE WOODSTOCK HALL RESIDENCE SCHOLARSHIP (O)
Awarded to the student who resides in the residence with the highest Full-load Average (at least 9.5) in an undergraduate programme, with the exception of those in their graduating session.
Value: $300 (30160) (B)

THE IVOR WYNNE MEMORIAL PRIZE (SS)
Established in 1971 in memory of Ivor Wynne, Dean of Students. To be awarded to a student who has completed Level I and 60 units of the Kinesiology programme and has demonstrated outstanding achievement in the programme.
Value: $200 (30075 189) (B)

THE MARGERITE Z. YATES SCHOLARSHIP (O)
Established in 1960 by bequest of Mrs. W.H. Yates of Hamilton.
Value: $600 (30167) (B)

THE YATES SCHOLARSHIPS (O)
Value: $800 each (30171) (B)

THE GLADYS A. YOUNG SCHOLARSHIP (O)
Established in 1991 by T.G. Harvey in honour of his wife, Gladys (B.Sc. '37, M.Sc. '38), one of a group of researchers who commenced radio astronomy research with the National Research Council of Canada. To be awarded to the student who has completed Level I and 30 to 65 units of an Honours programme in Mathematics or Physics with the highest Full-load Average. The recipient must not hold another scholarship of equal or greater value.
Value: $1,600 (30260 303) (B)

The recipient of this award is eligible to receive additional aid through the Corresponding Supplementary Bursary Aid Fund if he/she demonstrates financial need. Please see the section on Supplementary Bursary Aid for Award Recipients in the Student Financial Aid section of this Calendar.

THE LILLIAN AND MANUEL ZACK SCHOLARSHIP (HSc)
Established in 1984 by Lillian and Manuel Zack (Class of ’40) of Hamilton. To be awarded to a student who has completed Level I and 70 to 85 units of a programme in Nursing and who, in the judgment of the School of Nursing, has demonstrated achievement, initiative, and commitment to gerontological nursing through clinical practice, term papers, research interest, or community activities and who pursues these interests in Level IV.
Value: $900 (30101 190) (B)

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### SUMMARY OF IN-COURSE AND GRADUAND SCHOLARSHIPS AND PRIZES BY FACULTY

#### Legend

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<tr>
<th>Award Category</th>
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<tr>
<td>B</td>
<td>In-Course (Full-load) Awards</td>
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<td>C</td>
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<td>D</td>
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<td>M</td>
<td>Mathematically Awarded</td>
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Please look at the listings in relevant Faculties if you are in a combined programme.

#### Faculties/Programmes

**ARTS AND SCIENCE**

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<td>The Barbara Francis Scholarship</td>
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### UNDERGRADUATE AWARDS — SUMMARY OF AWARDS

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- **E** Engineering
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