# 2003-2004

**McMASTER UNIVERSITY**

**Undergraduate Calendar**

*This Calendar covers the period from September 2003 to August 2004.*

## Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directory for Correspondence and Enquiries</td>
<td>2</td>
</tr>
<tr>
<td>McMaster University</td>
<td>3</td>
</tr>
<tr>
<td>Sessional Dates</td>
<td>4, 5</td>
</tr>
<tr>
<td>Degrees, Programmes and Courses</td>
<td>6</td>
</tr>
<tr>
<td>Degrees by Programme</td>
<td>8</td>
</tr>
<tr>
<td>Glossary</td>
<td>9</td>
</tr>
<tr>
<td>Admission Requirements</td>
<td>10</td>
</tr>
<tr>
<td>Application Procedures</td>
<td>18</td>
</tr>
<tr>
<td>General Academic Regulations</td>
<td>20</td>
</tr>
<tr>
<td>Senate Policy Statements</td>
<td>27</td>
</tr>
<tr>
<td>Financial Information</td>
<td>29</td>
</tr>
<tr>
<td>Arts and Science Programme</td>
<td>32</td>
</tr>
<tr>
<td>School of Business</td>
<td>34</td>
</tr>
<tr>
<td>Faculty of Engineering</td>
<td>38</td>
</tr>
<tr>
<td>Faculty of Health Sciences</td>
<td>50</td>
</tr>
<tr>
<td>Faculty of Humanities</td>
<td>70</td>
</tr>
<tr>
<td>Faculty of Science</td>
<td>87</td>
</tr>
<tr>
<td>Faculty of Social Sciences</td>
<td>120</td>
</tr>
<tr>
<td>Indigenous Studies</td>
<td>140</td>
</tr>
<tr>
<td>Interdisciplinary Minors and Thematic Areas of Study</td>
<td>141</td>
</tr>
<tr>
<td>Part-time Degree Studies</td>
<td>143</td>
</tr>
<tr>
<td>Certificate and Diploma Programmes</td>
<td>144</td>
</tr>
<tr>
<td>Course Listings</td>
<td>146</td>
</tr>
<tr>
<td>Academic Facilities, Student Services and Organizations</td>
<td>295</td>
</tr>
<tr>
<td>Student Financial Aid</td>
<td>304</td>
</tr>
<tr>
<td>Student Financial Aid Index</td>
<td>321</td>
</tr>
<tr>
<td>Community Contribution Awards</td>
<td>324</td>
</tr>
<tr>
<td>Undergraduate Academic Awards</td>
<td>326</td>
</tr>
<tr>
<td>Undergraduate Academic Awards Index</td>
<td>355</td>
</tr>
<tr>
<td>Governing Bodies</td>
<td>359</td>
</tr>
<tr>
<td>Professors Emeriti</td>
<td>361</td>
</tr>
<tr>
<td>General Index</td>
<td>364</td>
</tr>
<tr>
<td>Campus Map</td>
<td>372</td>
</tr>
<tr>
<td>Calendar Order Form</td>
<td>373</td>
</tr>
</tbody>
</table>

## 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 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.
Directory for Correspondence and Enquiries

Mailing Address
McMaster University
Hamilton, Ontario, L8S 4L8
Canada

Telephone: (905) 525-9140
Web Address: http://www.mcmaster.ca

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 106, 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
Gilmour Hall, Room 120, L8S 4L8, ext. 24319

Transcripts and Records
Gilmour Hall, Room 106, 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): Philip Wood
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. Schenk
Downtown Centre, Second Floor, ext. 24321

Alumni Association
Director of Alumni Advancement: Rodney Morrison
President's Residence, L8S 4K1, ext. 23900

Housing and Conference Services
Director of Housing and Conference Services: Catherine Miller
Commons Building, Room 101, L8S 4K1, ext. 24223

Off-campus Housing
McMaster University Student Centre, Room B112, L8S 4K1, ext. 24086

Hospitality Services
Director: Albert Ng, ext. 23936
Commons Building, Room 116, L8S 4K1
Mac Express Inquiries: ext. 27448

Centre for Student Development
Director: Appointment Pending
McMaster University Student Centre, Room B107, L8S 4K1, ext. 24711

Services for Students with Disabilities
Learning Disabilities Coordinator (Disability Specialist): Caroline Cayuga
Programme Coordinator (Disability Specialist): Kerri Anne Fitzgerald
Programme Coordinator (Disability Specialist): Tim Nolan
McMaster University Student Centre, Room B107, L8S 4K1, ext. 24711

Career Planning and Employment Centre
Manager: Lisa Boniface
Gilmour Hall, Room 110, L8S 4L8, ext. 24253

Advice for Overseas and Exchange Students
International Students' Advisor: Cheryl-Ann Jackson
Gilmour Hall, Room 104, L8S 4L8, ext. 24748

Grievances
Secretary of the Senate: Joan Morris (until June 30, 2003)
Gilmour Hall, Room 210, L8S 4L8, ext. 24337

The Ombuds Office is a service provided by the MSU and the University.

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

The Ombuds provides information and advice relating to problems, complaints and appeals involving members of the McMaster community. For information and advice with respect to University regulations and services, and human rights procedures, see the Academic Facilities, Student Services and Organizations section of the Calendar.
McMaster University

McMaster University, through its continued dedication to innovative education and groundbreaking research, has extended 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 $184 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 and Biomedical Engineering, Electrical Engineering, Engineering Physics, Materials Engineering, Mechanical Engineering, Photonics 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, the Faculty of Engineering and Society programme.

The Faculty of Engineering offers a four-year programme in Chemical Engineering and Bioengineering leading to a Bachelor of Engineering and Biosciences degree.

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, Cultural Studies and Critical Theory, English, French, History, Indigenous Studies, Japanese Studies, Linguistics, Modern Languages (German, Hispanic Studies, Italian), Modern Languages and Linguistics, Multimedia, Music, Peace Studies, Philosophy, Theatre & Film Studies 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 and Statistics, Materials Science, Medical Physics, Molecular Biology, Neural Computation, Physical Science, Physics, Psychology and Science.

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. degree.

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 1867 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 16,750 full-time students attend McMaster University, 2,000 of whom are pursuing advanced degrees offered through the School of Graduate Studies. In addition, over 3,500 part-time students are registered in the Fall/Winter session, from September to April, and 4,000 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 950 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 1.9 million volumes and has 7,782 current print journal titles and 7,274 current electronic journal titles. The Library has an extensive special collections section which includes the Beirand 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, numerous departmental computing clusters contain 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 3,100 students.

The University is connected 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 2003-2004 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></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL/WINTER SESSION</td>
<td>Term 1</td>
<td>4</td>
<td>16</td>
<td></td>
<td>5</td>
<td>28</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Term 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Term 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPRING/SUMMER SESSION</td>
<td>Term 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Term 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Term 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></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 25, 2003

- Last day to file a Graduation Information Card and declare a minor for Fall 2003 Convocations

Friday, November 14, 2003

- Fall 2003 Convocations (all Faculties)

Friday, February 6, 2004

- Last day to change Programmes for Spring 2004 Convocations

Friday, February 6, 2004

- Last day to file a Graduation Information Card and declare a minor for Spring 2004 Convocations

Friday, May 14, 2004

- Health Sciences Convocation

Wednesday, June 2 to Friday, June 4, 2004

- Spring Convocations

Friday, July 23, 2004

- Last day to file a Graduation Information Card and declare a minor for Fall 2004 Convocations

Friday, November 12, 2004

- Fall 2004 Convocations (all Faculties)

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/intelprop).
# Sessional Dates for 2003-2004

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

## Fall/Winter Session 2003-2004

<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 4</td>
</tr>
<tr>
<td>Classes begin</td>
<td></td>
<td>Monday, January 5</td>
</tr>
<tr>
<td>Last day for registration and adding or dropping courses</td>
<td>Friday, September 12</td>
<td>Friday, January 9</td>
</tr>
<tr>
<td>Thanksgiving Day: No classes</td>
<td></td>
<td>Friday, September 12</td>
</tr>
<tr>
<td>Last day for cancelling courses without failure by default</td>
<td>Monday, October 13</td>
<td>Monday, October 13</td>
</tr>
<tr>
<td>Mid-term recess</td>
<td></td>
<td>Friday, February 27</td>
</tr>
<tr>
<td>Good Friday: No classes</td>
<td></td>
<td>Friday, February 27</td>
</tr>
<tr>
<td>Test and Examination ban: No tests or examinations may be held</td>
<td>Tuesday, November 25 to Tuesday, December 2</td>
<td>Monday, February 16 to Saturday, February 21</td>
</tr>
<tr>
<td>Classes end</td>
<td>Monday, December 1</td>
<td>Friday, April 9</td>
</tr>
<tr>
<td>Mid-Session Tests (Level I)</td>
<td></td>
<td>Wednesday, March 31 to Wednesday, April 7</td>
</tr>
<tr>
<td>Final Examinations</td>
<td>Wednesday, December 3 to Tuesday, December 16</td>
<td>Tuesday, April 6</td>
</tr>
<tr>
<td>Last day to confirm intent to write deferred examinations</td>
<td>Friday, January 30</td>
<td>Wednesday, December 3 to Tuesday, December 16</td>
</tr>
<tr>
<td>Deferred Examinations</td>
<td>Monday, April 12 to Wednesday, April 28</td>
<td>Monday, April 12</td>
</tr>
</tbody>
</table>

## Spring/Summer Session 2004

<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>Monday, May 3</td>
</tr>
<tr>
<td>Last day for registration and adding or dropping courses</td>
<td></td>
<td>Monday, May 3</td>
</tr>
<tr>
<td>Victoria Day: No classes</td>
<td></td>
<td>Friday, May 7</td>
</tr>
<tr>
<td>Last day for cancelling courses without failure by default</td>
<td>Monday, May 17</td>
<td>Monday, May 17</td>
</tr>
<tr>
<td>Canada Day: No classes</td>
<td>Wednesday, June 2</td>
<td>Friday, July 2</td>
</tr>
<tr>
<td>Civic Holiday: No classes</td>
<td></td>
<td>Thursday, July 1</td>
</tr>
<tr>
<td>Classes end</td>
<td>Friday, June 18</td>
<td>Monday, August 2</td>
</tr>
<tr>
<td>Examinations</td>
<td></td>
<td>Friday, August 6</td>
</tr>
<tr>
<td>Last day to confirm intent to write deferred examinations</td>
<td>Friday, October 15</td>
<td>Friday, October 15</td>
</tr>
<tr>
<td>Deferred Examinations</td>
<td>December 2004 Examination period</td>
<td>December 2004 Examination period</td>
</tr>
</tbody>
</table>
## DEGREES, PROGRAMMES AND COURSES

### DEGREES AND PROGRAMMES

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.Arts Sc.</td>
<td>3</td>
</tr>
<tr>
<td>B.Arts Sc. (Honours)*</td>
<td>4</td>
</tr>
<tr>
<td>ARTS &amp; SCIENCE PROGRAMME</td>
<td></td>
</tr>
<tr>
<td>B.Sc.N.</td>
<td>4</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>
<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.Eng.Biosciences</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>FACULTY OF BUSINESS</td>
<td></td>
</tr>
<tr>
<td>B.Com.</td>
<td>4</td>
</tr>
<tr>
<td>B.Com. (Honours)</td>
<td>4</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.Eng.Biosciences</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>FACULTY OF BUSINESS</td>
<td></td>
</tr>
<tr>
<td>B.Com.</td>
<td>4</td>
</tr>
<tr>
<td>B.Com. (Honours)</td>
<td>4</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.Eng.Biosciences</td>
<td>5</td>
</tr>
<tr>
<td>B.Tech.</td>
<td>1</td>
</tr>
</tbody>
</table>

### ELECTIVE COURSES AVAILABLE TO LEVEL I STUDENTS

The following is a list of courses available as Electives to Level I 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.

<table>
<thead>
<tr>
<th>COURSE</th>
<th>LEVEL</th>
<th>ENROLMENT</th>
<th>PREREQUISITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHROP</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>APBUSMG</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>ART</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>ART HIST</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>ASTRON</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>CATALAN</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>CAYUGA</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>CHEM</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>CHINESE</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>CMST.</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>COMP LIT</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>COMP SCI</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>ECON</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>FRENCH</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>GEO</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>GERMAN</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>GERONTOL</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>GREEK</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>HTH SCI</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>HEALTHST</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>HISPANIC</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>HISTORY</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>INDIG ST</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>INQUIRY</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>INQUIRY</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>ITALIAN</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>JAPANESE</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>KINESIOI</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>LATIN</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>LINGUIST</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>MAT</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>MATLS</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>MMEDIA</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>MUSIC</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>MUSIC</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>OATLAN</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>PHLOS</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>PHYSICS</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>POL SCI</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>POL</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>PSYCH</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>RELIG ST</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>RUSSIAN</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>SOCIO</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>STAT</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>THTR&amp;FILM</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>WOMEN ST</td>
<td>Level 1</td>
<td>Open</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Engineering I students interested in entering the Engineering and Management programme must take ECON 1B03 as one of their complementary studies electives.

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

**Note:** 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. (Engineering students should refer to the website at http://www.eng.mcmaster.ca/administration/electives.htm) 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

ANTHROP .......................... 2AN3, 2B03, 2G03, 2H03, 2J03, 2L03, 2P03, 2S03, 2U03, 2V03, 2W03, 2X03, 2XX3, 3CN3, 3Y03
ART .............................................. 2G03, 2H03
CATALAN ................................. 2A03, 2B03
CHINESE ..................................... 2A03
GEO ........................................... 2GG3, 2HC3, 2HD3, 2HU3, 2QQ3, 2WW3, 3HR3
HIS .............................................. 3CC3, 2L03
HUM ............................................ 2G03, 2H03
HISTORY ....................................... 2C03, 2EA3, 2EB3, 2F03, 2FF3, 2GG3, 2I03, 2K03, 2L03, 2M03, 2MM3, 2RO3, 2RR3, 2S03, 2T03, 2TT3, 2U03, 3AA3, 3BB3, 3DD3, 3FF3, 3GG3, 3HH3, 3II3, 3III3, 3KK3, 3MM3, 3NN3, 3PP3, 3QQ3, 3RO3, 3RR3, 3VV3, 3WW3, 3YY3, 3ZZ3
JAPAN ST ................................. 2A03, 2F03, 2P06, 3B03, 3E03, 3H03, 3I03, 3J03, 3U03
LINGUIST ..................................... 2A03, 2E03
MMEDIA ......................................... 2I03
MUSIC ........................................... 2C03, 2EA3, 2EB3, 2F03, 2FF3, 2GG3, 2I03, 2K03, 2L03, 2M03, 2MM3, 2RO3, 2RR3, 2S03, 2T03, 2TT3, 2U03, 3AA3, 3BB3, 3DD3, 3FF3, 3GG3, 3HH3, 3II3, 3III3, 3KK3, 3MM3, 3NN3, 3PP3, 3QQ3, 3RO3, 3RR3, 3VV3, 3WW3, 3YY3, 3ZZ3
PHILOS ........................................ 2A06, 2B03, 2C03, 2F03, 2G03, 2H03, 2I03, 2N03, 2P03, 2U03, 2V03, 2W03, 2X03, 2Y03, 2Z03
POL SCI ......................................... 2X03
PSY ............................................. 2M03, 2N03, 2Z03
REA ............................................. 2003
RELIG ......................................... 2003
SOC SCI ........................................ 2A03, 2EA3, 2EB3, 2F03, 2G03, 2H03, 2I03, 2N03, 2P03, 2U03, 2V03, 2W03, 2X03, 2Y03, 2Z03
SOCIO ........................................... 2A03, 2E03, 2F03
SOCIO ........................................... 2A03, 2E03, 2F03

UPPER-LEVEL COURSES AVAILABLE TO STUDENTS

REGISTERED IN LEVEL II OR ABOVE IN ANY PROGRAMME

ANTHROP ................................. 2AN3, 2B03, 2G03, 2H03, 2J03, 2L03, 2P03, 2S03, 2U03, 2V03, 2W03, 2X03, 2XX3, 3CN3, 3Y03
ART .............................................. 2A03, 2B03
ART HIST ...................................... 2A03, 2B03, 2D03, 2P03, 2H03, 2I03, 3AA3, 3BB3, 3C03, 3D03, 3EP03, 3FP03, 3SP03
CLASSICS ...................................... 2B03, 2D03, 2EP03, 2H03, 2K03, 2L03, 2LL3, 2P06, 2Z03
CMST .......................................... 2A03, 2E03, 2H03, 2I03, 2J03, 2K03, 2L03, 2N03, 2P03, 2Q03, 2R03, 2S03, 2T03, 2U03, 2V03, 2W03, 2X03, 2Y03, 3D03, 3E03, 3H03, 3M03, 3P03, 3U03, 3W03, 3WW3

UPPER-LEVEL COURSES AVAILABLE TO STUDENTS

REGISTERED IN LEVEL III OR ABOVE IN ANY PROGRAMME

ANTHROP .................................... 3Z03, 3ZZ3
ART HIST ...................................... 3B03
CLASSICS ...................................... 3EE3
CMST .......................................... 3HH3
GEO ........................................... 3CC3, 3DD3, 3NN3
HEALTHST .................................... 3D03, 3EE3
HISTORY ........................................ 3EE3
KINESIO ....................................... 3D03, 3FF3, 3JJ3, 3L03, 3M03, 3S03, 3TT3, 3U03, 3V03, 3W03, 3XX3, 3YY3
RELIG ......................................... 3L03, 3S03
WOMENST ..................................... 3I03
# DEGREES IN PROGRAMME

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>BACHELOR'S DEGREE</th>
<th>HONOURS DEGREE</th>
<th>COMBINED HONOURS</th>
<th>PROFESSIONAL DEGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>B.B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Arts &amp; Science</td>
<td>B.B.A.*</td>
<td>B.Sc.</td>
<td>B.Sc.</td>
<td></td>
</tr>
<tr>
<td>Biochemistry</td>
<td>B.B.A.*</td>
<td>B.Sc.</td>
<td>B.Sc.</td>
<td></td>
</tr>
<tr>
<td>Biological Chemistry</td>
<td>B.B.A.*</td>
<td>B.Sc.</td>
<td>B.Sc.</td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>B.B.A.*</td>
<td>B.Sc.</td>
<td>B.Sc.</td>
<td></td>
</tr>
<tr>
<td>Biology &amp; Pharmacology</td>
<td>B.B.A.*</td>
<td>B.Sc.</td>
<td>B.Sc.</td>
<td></td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>B.B.A.*</td>
<td>B.Sc.</td>
<td>B.Sc.</td>
<td></td>
</tr>
<tr>
<td>Chemical Engineering &amp; Bioengineering</td>
<td>B.B.A.*</td>
<td>B.Sc.</td>
<td>B.Sc.</td>
<td></td>
</tr>
<tr>
<td>Chemistry</td>
<td>B.B.A.*</td>
<td>B.Sc.</td>
<td>B.Sc.</td>
<td></td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td>B.Com.; B.Com. (Honours)</td>
</tr>
<tr>
<td>Classics</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Commerce</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Communication Studies</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Comparative Literature</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Computer Science</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Cultural Studies and Critical Thinking</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Electrical and Biomedical Engineering</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Engineering Physics</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>French</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Earth &amp; Environmental Sciences</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Geography</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Geography &amp; Environmental Studies</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Geoscience</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>German</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Gerontology</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Health Sciences</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Health Studies</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Hispanic Studies</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>History</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Italian</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
<tr>
<td>Japanese Studies</td>
<td>B.A.*</td>
<td>B.A.</td>
<td>B.A.</td>
<td></td>
</tr>
</tbody>
</table>

\* This degree programme is also available through a combination of evening and summer study. The rate of completion however, will vary from programme to programme.

\* A five-year co-op option is available.

\* An Honours (Specialist Option) is available for this programme.

* 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.
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 program 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 on 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 on 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.

Cross-listed Courses 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.

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

Degree is conferred when a student completes a program 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 and Linguistics).

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

Extra Courses are those courses designated as "Extra," which are not included as units toward completion of a student's program. 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 programs 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 program (e.g. Astrophysics, Level II: 31 units). If the Calendar does not specify the program 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 graduand 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 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 programs 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 progress through a program. Levels are monetary advances granted to students currently registered, based upon academic regulations, statistics, and promise of performance.

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 programs. 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 program 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-Graduate Degree 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 fulfills 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 program in good standing, will allow a student to continue in his/her program for at least one reviewing period. (See the General Academic Regulations section in this Calendar.)

Registration is the process whereby a student enrolls in a program of study and/or courses and pays, or makes acceptable arrangements to pay, all fees.

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

Required Courses are those courses which are specifically designated for inclusion in a program.

Requisite is an academic requirement that must be met to register in a course. A course requisite may comprise Prerequisites, Corequisites, and Antirequisites.

Result of Session is the statement of the academic standing of a student at the end of a reviewing period. May continue in program, 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 program 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 18 units of work since the last review or is a potential graduand.

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 fees paid in consideration for enrolment in a program of study and selected courses.

Undergraduate Student is a student enrolled in a program 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 program.
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 580 on TOEFL), or the equivalent on other recognized tests, or
2. achieved a score between 197 and 219 (500-559) on TOEFL, or the equivalent on other recognized tests and a score of at least 4.0 on the TWE (Test of Written English) 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

Note:
The following abbreviations or acronyms are used throughout this section. For your convenience they are defined as follows:

OSIS: Ontario Schools, Intermediate and Senior Divisions (Grades 7-12/OACs); Programme and Diploma requirements. (former curriculum)
OSS: Ontario Secondary Schools, Grades 9-12: Programme and Diploma requirements. (new curriculum)
OSSD: Ontario Secondary School Diploma, awarded to graduates of the OSIS and the OSS systems.
OAC: Ontario Academic Course - Part of the OSIS system, required for university admission
U course: University Preparation Course - Part of the OSS system, required for university admission
M course: University/College Preparation Course - Part of the OSS system, required for university admission
OUAC: Ontario Universities’ Application Centre

General Requirements
(For All Level I Programmes):

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

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

1. an OSSD with acceptable standing; AND
2. an overall average in completed Grade 12 U and M courses (or OACs), which meets or exceeds the minimum set by the specific programme to which you applied; AND
3. satisfactory completion of 6 Grade 12 U and M courses (or OACs) including the subject requirements for your chosen programme.

Music External (Conservatory) 4M or 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 9 practical and Gradre 3 theory.

Planning for Admission and Ontario Secondary School Reform

With the implementation of secondary school reform and the phasing out of OAC courses, it has been necessary for the university to redefine its admission requirements relative to the Grade 12 U and M courses. We are aware that some secondary school students, during the early stages of transition, may present courses from both the new (OSS) and former (OSIS) diploma programmes. McMaster is committed to ensuring that all applicants shall be considered fairly. Therefore, in the sections below you will find statements and guidelines regarding admission requirements for both new OSS and the former OSIS programmes.

Supplementary Application Forms and Personal History

Certain Level I programmes such as Arts & Science, Bachelor of Health Sciences, and Midwifery have mandatory supplementary application forms which must be completed by specific deadline dates. See Deadlines in the Application Procedures section of the Calendar for specific deadline dates.

Optional supplementary application forms are mailed directly to applicants in April if they do not receive an offer of admission. Forms must be completed by a deadline date which is specified on the form. Normally, these forms are reviewed by Faculty admission committees to aid in making decisions regarding applicants who are approximately 3% below the cutoffs in May.

In some cases, letters of recommendation, personal history or other additional information may be requested by the university to aid in the admission process.

Early Admission from Ontario Secondary Schools

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

For applicants following the new OSS curriculum:

1. six appropriate midterm/interim Grade 12 U and M grades, OR
2. at least three final Grade 12 U and M grades combined with Grade 11 U and M grades PLUS enrollment in the appropriate additional three Grade 12 U and M courses.

For applicants following the OSIS curriculum:

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 additional three OAC courses.

If you do not receive an offer of admission in April, you will automatically be reassessed for admission after additional Grade 12 U and M (or OAC) grades are received from your secondary school in May.

Admission offers made in May will be based on updated Grade 12 U and M (or OAC) grades and information you may have provided on a supplementary application form which will be mailed directly to you in April.

If you are granted a conditional offer of admission, you must meet the general requirements of the university. See General Requirements (For All Level I Programmes) above.

The University reserves the right to withdraw a conditional offer of admission due to any of the following:

1. if you do not meet the minimum final average prescribed for your chosen programme; OR
2. if you do not receive at least OSSD; OR
3. if you do not complete six Grade 12 U and M courses (or OACs) including all required subjects; OR
4. if you do not respond to the OUAC within the response period indicated on your offer letter.
Minimum Final Average

If you are a secondary school applicant who receives a conditional offer of admission based on interim grades, you will be required to achieve an overall average (on six (6) final grades including all required courses for your desired programme) as indicated on your offer of conditional admission.

If your final average falls below this level (or its equivalent), your offer of admission will be rescinded and your registration will be cancelled.

The required minimum final average will vary from year to year and by programme. This average will be stated clearly on the offer of conditional admission.

Final Admission from Ontario Secondary Schools

If you fulfill the requirements for your OSSD, including the subject requirements for your chosen programme by the end of February, you may be granted an offer of Final Admission prior to April.

If you do not receive a conditional offer of admission by June 9, you may be considered for final admission, once final marks are received, depending on availability of space in your chosen programme.

Deferral of Admission for Ontario Secondary School Students

Students who receive both an offer of scholarship and an offer of admission may apply to defer their entry by September 1, 2003, normally. McMaster does not normally grant a deferral of an admission offer unless special circumstances exist. Each case is evaluated on its own merits. If a deferral is granted, it is conditional upon the student not attending a secondary or post-secondary institution during the deferral period.

All requests for deferral of both admission and scholarship should be made in writing to the Admissions Office and the Student Financial Aid and Scholarships Office at McMaster by September 1, 2003, outlining the reasons for the request.

Normally, decisions regarding deferral requests are not made until early August, after the receipt of all final grades.

Programme Transfer After Admission

If you are admitted to one programme 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 programme. Contact the Admissions Office to request a programme transfer.

SUBJECT REQUIREMENTS FOR SPECIFIC LEVEL I PROGRAMMES

All Level I programmes 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 complete a mandatory Supplementary Application Form which must be submitted electronically via the web at http://www.mcmaster.ca/artsci/admissions.html. 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 80s or higher.

The following are the minimum Grade 12 U and M requirements under the OSS curriculum:
1. English U
2. Advanced Functions and Introductory Calculus U
3. Completion of additional U or M courses to 2011 six credits. At least three of the additional U or M courses must be selected from: Geometry and Discrete Mathematics, Biology, Chemistry, English, Mathematics of Data Management, French, Geography, History, other languages, and Physics.

The following are the minimum OAC requirements under the OSIS Curriculum:
1. One of OAC English I, OAC anglais I or OAC anglais II
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, other languages, and Physics.

> BUSINESS I

The following are the minimum Grade 12 U and M requirements under the OSS curriculum:
1. English U
2. Advanced Functions and Introductory Calculus U
3. One of Geometry and Discrete Mathematics U or Mathematics of Data Management U
4. Completion of additional Grade 12 U or M courses to total six credits.

The following are the minimum OAC requirements under the OSIS curriculum:
1. One of OAC English I, OAC anglais I or OAC anglais II
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 low 80s is expected to be required for an offer of admission.

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

> ENGINEERING I

The following are the minimum Grade 12 U and M requirements under the OSS curriculum:
1. English U
2. Advanced Functions and Introductory Calculus U
3. Geometry and Discrete Mathematics U
4. Chemistry U
5. Physics U
6. Completion of one additional Grade 12 U or M course to total six credits.

The following are the minimum OAC requirements under the OSIS curriculum:
1. One of OAC English I, OAC anglais I or OAC anglais II
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 low to mid-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 I

The following are the minimum Grade 12 U and M requirements under the OSS curriculum:
1. English U
2. Biology U
3. Chemistry U
4. Advanced Functions and Introductory Calculus U
5. One Grade 12 U or M course from Social Sciences (Geography, History, Law, Psychology, Sociology) or Humanities (Art, Drama, English, French, Music, other languages)
6. One additional U or M course in any subject area to total six courses.
The following are the minimum OAC requirements under the OSIS curriculum:

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

The selection method is by consideration of academic qualifications (minimum overall average in the high 80s) and a mandatory Supplementary Application. A review of the mandatory Supplementary Application is a very important part of the selection process. Applicants who do not complete the Supplementary Application are not considered for admission.

**HUMANITIES**

(0700)
The following are the minimum Grade 12 U and M requirements under the OSS curriculum:

1. English U
2. Completion of additional U or M courses to total six credits.
   In recent years, an average in the mid-70s has been required for an offer of admission.

The following are the minimum OAC requirements under the OSIS curriculum:

1. One of OAC English I, OAC anglais I or OAC anglais II
2. Completion of additional OACs to total six credits.
   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 (or Grade 12 U or M course) from Humanities subjects (Art, Drama, English, French, francis, other languages, History and Music) in addition to Requirement 1 above.

**MATHS**

(0320)
The following are the minimum Grade 12 U and M requirements under the OSS curriculum:

1. One of OAC English I, OAC anglais I or OAC anglais II
2. Advanced Functions and Introductory Calculus U
3. One of: Geometry and Discrete Mathematics U, or Mathematics of Data Management U
4. Completion of three additional U or M courses to total six credits
5. An average acceptable to the Faculty in the best six U or M credits
   (which must include the three U courses specified in points 1, 2 and 3 above)
It is strongly recommended that Geometry and Discrete Mathematics U (or OAC Algebra and Geometry) be completed as the second math.

**MEDICAL RADIATION SCIENCES**

Beginning in 2004-2005, the Faculty of Science will be offering a collaborative, fully integrated, four-year programme between McMaster University and Mohawk College. Graduates will receive both a Bachelor of Science degree - B.Sc. (Medical Radiation Sciences) from McMaster University and a Diploma in Medical Radiation Technology from Mohawk College. For general information contact the Admissions Office at Mohawk College, by e-mail at: admission@mail.mohawk.on.ca, or by telephone at: (905)575-2000.

The following are the minimum Grade 12 U and M requirements under the OSS curriculum:

1. English U
2. Biology U
3. Chemistry U
4. Advanced Functions and Introductory Calculus U
5. Completion of three additional U or M courses to total six credits
6. An average acceptable to the Faculty in the best six U or M credits
   (which must include the four U courses specified in points 1, 2, 3 and 4 above)

The following are the minimum OAC requirements under the OSIS curriculum:

1. One of OAC English I, OAC anglais I or OAC anglais II
2. OAC Biology
3. One of: OAC Algebra and Geometry or OAC Calculus
4. 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:**

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

ii) Please see Level 1 Science courses for specific Ontario Secondary School prerequisites.
ADMISSION REQUIREMENTS

> MIDWIFERYI

As places in the Midwifery programme are very limited, the admission process is competitive. For Ontario Secondary School applicants and non-Ontario Secondary School applicants, application forms are due by February 1. No exceptions will be made.

The following are the minimum Grade 12 U and M requirements under the OSS curriculum:
1. English U
2. One of Biology U or Chemistry U (both are recommended)
3. One U or M course in Social Science (History, Sociology, Psychology, Geography, Law)
4. Completion of additional U or M courses 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 Grade 12 U and M courses including the required courses.

The following are the minimum OAC requirements under the OSIS curriculum:
1. One of OAC English, OAC anglais I or OAC anglais II
2. One of OAC Biology or OAC Chemistry (both are recommended)
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.

> MUSICI

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 the Arts for your audition.

> NURSINGI

Students interested in a McMaster (BScN) Nursing degree have three location options: McMaster University, Mohawk College or Conestoga College. Each of the three sites will offer the 4-year programme which uses the problem-based learning and small group tutorial educational model. For general information refer to the Collaborative B.Sc.N. (D) Stream references throughout the School of Nursing in the Faculty of Health Sciences section of the Calendar. For application instructions see the Application Procedures section of the Calendar.

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 to the programme.

The following are the minimum Grade 12 U and M requirements under the OSS curriculum:
1. English U
2. One of Advanced Functions and Introductory Calculus U, Calculus or Discrete Mathematics U or Mathematics of Data Management U
3. Two of Biology U, Chemistry U or Physics U
4. Two additional U or M courses to total six credits

The following are the minimum OAC requirements under the OSIS curriculum:
1. One of OAC English I, OAC anglais I or OAC anglais II
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 Grade 12 U and M (or OAC) subjects, including the four required subjects.

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.

> SCIENCEI

The following are the minimum Grade 12 U and M requirements under the OSS curriculum:
1. English U
2. Advanced Functions and Introductory Calculus U
3. Two of Geometry and Discrete Mathematics U, Biology U, Chemistry U or Physics U
4. Completion of two additional U or M courses to total six credits
5. An average acceptable to the Faculty in the best six credits (which include the four U courses specified in points 1, 2 and 3 above)

The following are the minimum OAC requirements under the OSIS curriculum:
1. One of OAC English I, OAC anglais I or OAC anglais II
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: Mathematics of Data Management U (or OAC Finite Mathematics) is recommended for students interested in the Life Sciences, Geometry and Discrete Mathematics U (or OAC Algebra and Geometry) is recommended for students proceeding to the Mathematical or Physical Sciences.

> SOCIAL SCIENCESI

The following are the minimum Grade 12 U and M requirements under the OSS curriculum:
1. English U
2. Completion of additional U or M courses to total six credits

The following are the minimum OAC requirements under the OSIS curriculum:
1. One of OAC English I, OAC anglais I or OAC anglais II
2. Completion of additional OACs to total six credits

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 Advanced Functions and Introductory Calculus U (or OAC Calculus).
## Ontario Secondary School Course Equivalents for Students from Other Canadian Provinces

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENGLISH</strong></td>
<td>English 12, Writing 12 or English U 12</td>
<td>English 30</td>
<td>English 40S or EnGLISH 40S and ENGLISH 30</td>
<td>English 40S or EnGLISH 40S and ENGLISH 30</td>
<td>English 12 (Academic)</td>
<td>English 121 or 122</td>
<td>English 621A (previously English 620A)</td>
<td>English 3101 and one of 3201 or 3202</td>
<td></td>
</tr>
<tr>
<td><strong>ADVANCED FUNCTIONS AND INTRO CALCULUS</strong></td>
<td>Calculus 12 (LD) (Locally Developed)</td>
<td>Math 31</td>
<td>Calculus 45A and Advanced Math 45A</td>
<td>Calculus 1 and II</td>
<td>Pre-Calculus Math 12, Advanced Math 12 or Calculus 12</td>
<td>Calculus 120</td>
<td>Math 611A (previously Advanced Math 611 Locally Developed)</td>
<td>Math 4026 (AP) or 3106</td>
<td></td>
</tr>
<tr>
<td><strong>GEOMETRY AND DISCRETE MATHEMATICS</strong></td>
<td>Math 12</td>
<td>Math 30</td>
<td>Math 12 and C</td>
<td>Math 40S</td>
<td>Math 12 (Academic)</td>
<td>Math 121 or 122</td>
<td>Math 621A</td>
<td>Math 3200 or 3201</td>
<td></td>
</tr>
<tr>
<td><strong>MATHEMATICS OF DATA MANAGEMENT</strong></td>
<td>Math 12</td>
<td>Not available*</td>
<td>Math 30L</td>
<td>Math 40S</td>
<td>Not available*</td>
<td>Math 121 or 122</td>
<td>Not available*</td>
<td>Not available*</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>2 Chemistry courses coded 202</td>
<td>Chemistry 121 or 122</td>
<td>Chemistry 621</td>
<td>Chemistry 3202</td>
<td></td>
</tr>
<tr>
<td><strong>PHYSICS</strong></td>
<td>Physics 12</td>
<td>Physics 30</td>
<td>Physics 30</td>
<td>Physics 40S</td>
<td>2 Physics courses coded 202</td>
<td>Physics 121 or 122</td>
<td>Physics 621</td>
<td>Physics 3204</td>
<td></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 Mathematics of Data Management are found in several Math courses.
+ Applicants to Engineering I 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

## 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) or Grade 12 Diploma
- **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 Ontario Secondary School 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 to Engineering I** need to arrange for official matriculation certificates to be sent to the Admissions Office at the time of application.
- **Applicants to other programmes** may require specific documentation. Clear notarized photocopies of documents 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 before you have been notified of your acceptance.

- **General Certificate of Education**
  - 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 I Programmes in this section). For Science and Engineering programmes, Mathemathics and one of Physics or Chemistry must be offered at the Advanced Level;

3. Grades of at least C must be presented in each of the Advanced Level subjects. Some programmes will require higher grades.

Possession of the minimum grades does not guarantee admission.

Applicants with a minimum grade of C in Advanced Level subjects may be eligible for up to 12 units of Advanced Credit which will be determined on a case by case basis, at the discretion of the Faculty.

- **Hong Kong**
  
  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.

- **International Baccalaurate Diploma**
  
  Applicants who complete the International Baccalaurate Diploma will be considered for admission to Level I, provided the completed diploma programme includes the subject requirements of the programme desired. An overall minimum score of 28 must be achieved in order to be eligible for admission. Diploma points will be included in the overall score. Some programmes require a higher score than the minimum for admission.

  At the discretion of the Faculty, advanced credit of up to 18 units may be granted for completed Higher Level courses with a minimum final score of 6.

- **Advanced Placement Courses**

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

- **United States of America**

  Applicants from the United States of America must satisfactorily complete a secondary school diploma with an overall average of 85% 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.

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 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.

D. Advanced Credit

As noted in sections (E), (F), (H), (M), (N) and (O) 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).
1. Continuing Students

To be eligible to take courses as a Continuing Student you will be expected to have at least a C (third-class standing) average, with no failures, 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. 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, you will only be required to register.

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.

J. Post-Degree Students

If you are a university graduate or a person with professional qualifications who wishes to take one or more graduate courses but has not yet obtained 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 Registrar. To enrol as a post-degree student, you must meet the minimum academic requirements for 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.

K. 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 the 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.

L. Reinstatement

See the General Academic Regulations section in this Calendar.

M. Admission from Ontario Colleges of Applied Arts and Technology

McMaster welcomes applications from students who have attended an Ontario College of Applied Arts and Technology. See the minimum admission requirements for Level I programmes as listed below.

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

Arts and Science
1. Completion of a three-year diploma.
2. Admission is by selection upon review of college and high school transcripts to determine eligibility.

Business
1. Completion of a two or three-year diploma.
2. A GPA of 3.0 or better.
3. Successful completion of a Grade 12 Advanced Mathematics course or equivalent.

Engineering
1. Completion of a three-year technology diploma programme.
2. A GPA of 3.2 or better.
3. Adequate preparation in Calculus (if this is lacking students may be required to complete one full-course in first year university Calculus prior to admission).

Technician programmes are not recognized for credit toward admission in Engineering I.

Bachelor of Health Sciences (Honours)
1. Completion of a three-year diploma.
2. Admission is by selection upon review of college and high school transcripts to determine eligibility.

Humanities
1. Completion of at least one year of work in a diploma programme.
2. A GPA of 3.2 or better (You may be admitted with a lower GPA if you have completed two or more years of a diploma programme).

Kinesiology
1. Completion of a two year diploma programme 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.

Midwifery
For admission requirements see the heading B.H.Sc: Midwifery Programme in the Faculty of Health Sciences section of the Calendar.

Nursing
1. Completion of an Ontario diploma in Nursing or the equivalent.
2. A GPA of 2.7 or better.
3. Selection will be based on academic qualification and a rating obtained on a questionnaire completed by the applicant.
An interview may also be required.

Science
1. Completion of a three-year technology diploma programme.
2. A GPA of 3.2 or better.

Technician programmes are not recognized for credit toward admission in Science I.

Social Sciences
1. Completion of at least one year of work in a diploma programme.
2. A GPA of 3.2 or better.

Bachelor of Technology
Satisfactory completion of a three-year Mechanical Engineering Technologist programme. Applications for admission can be obtained by contacting: (905) 525-9140, ext. 27013.

Advanced Credit
Normally, if you are a well-qualified graduate of a three-year programme and the college work is appropriate to your chosen university programme, you could receive up to 30 units of advanced credit. If you have completed a two-year programme and performed well, you could receive at least six units.

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. Please note that for all programmes, a diploma must be completed to be eligible to receive advanced credit.

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.

N. 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.
O. Graduates of McMaster Certificate/Diploma Programmes

If you have completed certificate or diploma programmes from McMaster, you may be granted advanced credit up to maxima specified by Undergraduate Council upon successful completion of the certificate/diploma programme. 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.

P. 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 never attended university.

The Faculty of Engineering; the Arts and Science Programme and the Kinesiology programme do not admit under the category of mature students. The Faculty of Science requires satisfactory standing in 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:

- 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.
- 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).
- If you have failed more than six units, you may not continue at the University.
- If your CA is less than 3.0, you may not continue at the University.

Second Review:

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

Q. 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 enroll 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. Normally, applicants to the Nursing Occasional Category must meet the same eligibility criteria as Mature Student applicants. For details see the heading Mature Students (Part-Time Admission) in this section of the Calendar.

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.

R. Enrichment Programme for Secondary School Students

If you are an outstanding secondary school student and wish to enroll in a university-level course while completing Grade 12 U and M (or OAC) courses in your final year of study, you may apply for the Enrichment Programme. For more information contact the Admissions Office.

S. 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 enrollment 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.

T. 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 to Listeners.

For more information, please contact by mail: McMaster University Centre for Continuing Education, 1280 Main Street W., 2nd Floor, Downtown Campus, Hamilton, Ontario, L8S 4L8 or drop by: 2nd Floor, 50 Main St. E., Hamilton, Telephone: (905) 525-8140, 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.

U. 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.

V. Home Schooled Applicants

McMaster has introduced an admission policy regarding Home Schooled applicants on a trial basis (subject to review) for a period of two years ending May 2004.

Home schooled applicants who in addition to their home schooling experience have completed six Grade 12 U and M courses (or OACs) or equivalent from another recognized academic jurisdiction may be considered for their programme of choice providing they present the appropriate prerequisite courses on official transcripts from accredited schools and meet the required admission average.

All other home schooled applicants may apply for admission to Humanities I or Social Sciences I only and must present the following for consideration:

1. List of home school credentials including but not limited to structured curriculum completed through ACE (Accelerated Christian Education Programme) or other such programmes.
2. Portfolio of written work; normally, we will expect to see evidence of appropriate intellectual maturity.
3. Results of standardized tests such as SAT, ACT. For SAT 1, we normally recommend a minimum requirement of 1200 combined score. For ACT, we normally recommend a requirement of a minimum composite score of 27.

Interested applicants should contact the Admissions Office for further information regarding admission criteria.
APPLICATION PROCEDURES

1. Determine the appropriate application form to use when applying for admission. (See categories 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.
4. Once your application has been received, McMaster’s Admissions Office will send you an acknowledgement mailing.

Use the OUAC 101 Application if:
- You attend an Ontario secondary school and are now taking one or more Grade 12 U and M (or OAC) courses in day school and wish to enter a Level I degree programme as a full-time student.
- You may apply on-line at <http://www.ouac.on.ca/101/sсола>. Please consult with your secondary school guidance office regarding this application process.

Use the OUAC 105 Application to apply for full-time studies if:
- You are not attending an Ontario secondary school taking one or more Grade 12 U and M (or OAC) courses in day school.
- You are currently attending secondary school outside of Ontario or have recently completed a secondary school diploma and have not attended a post-secondary institution.
- You are currently registered at a university or college and wish to transfer to McMaster.
- You have previously attended McMaster, but you have since registered at another university or college and now wish to transfer back to McMaster.
- You have completed a college diploma and now wish to enter an undergraduate degree programme.
- You have completed a degree at another university and wish to attend McMaster to pursue a second undergraduate degree or take courses as a Continuing student.
- You are currently registered at another university and wish to attend McMaster to take courses on a Letter of Permission for credit at that university.

Applicants residing in Canada who are Canadian citizens, permanent residents or studying in Canada on a Student Authorization should use the 105D form. Applicants currently residing outside of Canada who are not Canadian citizens and are not currently registered in an Ontario secondary school (in Ontario or abroad) in a daytime program of study should use the 105F form.

You may apply on-line at <http://compass.ouac.on.ca> or may obtain the OUAC 105D or 105F form from any Ontario university Admissions Office 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 need to obtain the transcript of secondary school marks from the Ministry or Department of Education in that province.

Use the Application for Admission to Ontario Colleges if:
- You are interested in applying to McMaster’s Nursing (BScN) programme at the Mohawk College or Conestoga College sites. For application information contact Ontario College Application Services (OCAS) at <http://www.ocas.on.ca> or (519) 763-4725.

Use the McMaster University Returning Student Application for the following categories:
- Readmission: You are a former McMaster student* who voluntarily withdrew from an undergraduate programme more than 5 years ago. Former Nursing students must apply for readmission regardless of the amount of time that has elapsed.
- McMaster Second Degree: 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.

You may apply on-line at <http://registrar.mcmaster.ca/external/appl/retr.htm> or you may obtain a paper version of the Returning Student Application form from the Office of the Registrar, Gilmour Hall, Room 108, McMaster University, Hamilton, Ontario, L8S 4L8. See application deadlines as listed in this section of the Calendar. The Nursing deadline is February 15 for September entry.

Use the McMaster Reinstatement Request Form for:
- Reinstatement: You are a former McMaster student* who was previously ineligible to continue studies at McMaster University.
- Providing you have not attended another university nor received a college diploma since last registered at McMaster.

Please obtain the Reinstatement Request Form from the Office of the Registrar, Gilmour Hall, Room 108, McMaster University, Hamilton, Ontario, L8S 4L8. 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 to apply to McMaster on a part-time basis if:
- You are currently registered at another university or college and wish to transfer to McMaster.
- You have not previously registered at McMaster and wish to pursue an undergraduate degree.
- You have completed a degree at another university and wish to attend McMaster to pursue a second undergraduate degree or to take courses as a Continuing student.
- You are currently registered at another university and wish to attend McMaster to take courses on a Letter of Permission for credit at that university.

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.

* If you are a graduate of a McMaster degree programme and wish to become a Continuing student, you do not need to apply for admission, but need to submit a registration form.
Use the McMaster University Post-Degree Studies Application:

- You wish to register as a post-degree student.
- 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 2003 ENTRY)

Undergraduate programmes which are not specified below: July 15

- Limited Enrolment Programmes: Above Level 1 to May 1
- International Applications: March 3
- International Documentation: March 3
- Domestic Applications: July 15
- Domestic Documentation: July 15
- CEGEP Applications: March 1
- Optional Supplementary Application Deadline: May 15
- Arts & Science Applications: March 3
- Supplementary Applications: March 3
- Biochemistry (Co-op): February 1
- Biology and Pharmacology (Co-op): February 1
- Gerontology Applications: May 15
- Health Sciences (Honours) Applications: March 3
- Supplementary Applications (Lvl 1): March 3
- Supplementary Applications (Above Lvl 1): April 30
- Health Studies: May 15
- Kinesiology: May 15
- Labour Studies: May 15
- Medicine: October 15
- Midwifery Applications: February 1
- Official Transcripts: February 1
- Midwifery Application Forms**: February 1
- Nursing (Ontario Secondary School): May 1
- Nurse Practitioner: March 1
- NP Supplementary Applications: March 1
- Transfers from other University Nursing Programmes: June 30
- All Other Nursing applicants: February 15
- Supplementary Applications*: February 15
- Social Work: March 1
- McMaster Applicants: December 1
- All Others: January 15
- Supplementary Applications***: March 1
- Women's Studies: April 15

† Please contact the Ontario Universities' Application Centre for a supplementary application.
‡ Nursing I applicants, with the exception of current secondary school students, need to complete the mandatory supplementary application. The form is available online at <http://www.fhs.mcmaster.ca/nursing/educate/bscn/undergraduatennursingeducationapplication.pdf>.
** The Midwifery application form and application instructions are available at <http://www.fhs.mcmaster.ca/midwifery/admissions/admissions.html>.

†† 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

Reinstatement or Readmission Deadlines

- September Entry (all programmes, except Nursing††): June 30
- Reinstatement Deadline: July 15
- Nursing Deadline: February 15

Application deadlines for January, May or June entry are as indicated under the corresponding headings 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 if you fail to enrol 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 1, 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 1, 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
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.

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 toward 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 officially record your programme and courses. Information on how to register will be sent to eligible students. You are responsible for ensuring that your registration information is complete, and that your course selections meet the requirements of your degree. Counselling is available to assist you in course selections.

Admission to Programmes: Admission to and transfer between programmes must be approved by the Office of the Associate Dean of your Faculty.

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. You are responsible for ensuring that your course selection meets the requirements of your degree. 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, have completed or chosen courses that are listed as corequisites and that permissions have been obtained, if required. If you do not have the course requisites, you will not be able to take the course selected.

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

You are responsible for ensuring that your course selection meets the requirements of your degree. You should review your personal degree audit on the working day following each time you drop or add courses, and contact a student advisor in the Office of the Associate Dean of your Faculty if you have questions. Changes to your course load may also affect your fees and your eligibility for scholarships and financial aid such as OSAP.

Limit on Level I Courses: In most Faculties, you may not obtain credit in more than 42 units of Level I courses in a three-level programme, or more than 48 units in a four-level programme.

Eligibility for Awards: (See Section 6 in this section and Undergraduate Academic Awards section for more information.)

Load in Spring/Spring Session: If you wish to take more than 12 units in the Spring/Spring Session, or more than six units in either term of that Session, you may do so only with the permission of the Office of the Associate Dean of your Faculty.

Repetition of Courses: Students may repeat courses that have been failed or for which credit has been obtained a number of times, with the exception of the students in the Faculty of Business who may only repeat courses which they have failed. 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, audit the course. You must satisfy the prerequisite for the course, complete all assignments and 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 for credit towards a McMaster degree, you must obtain permission ahead of time. To do this you must seek a Letter of Permission from the Office of the Associate Dean. 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.

Withdrawal from the University: If you wish to withdraw from the University, you must consult the appropriate Office of the Associate Dean. Your student identity card must be surrendered to the Office of the Associate Dean. Your course record 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 Dean 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.
International Study

If you wish to engage in international study, you may do so either by participating in one of the formal exchange programmes that exist between McMaster and a number of universities in other countries; by participating in one of the programmes available through specific Faculties; or by independent study abroad. Formal exchange programmes are those in which McMaster has an agreement with another Institution, involving a temporary exchange of students. As an exchange student, you register and pay your tuition fees, and supplementary fees at McMaster. Tuition is paid at the foreign institution. If you are interested in participating in a formal exchange programme, you can obtain further information and an application form from the Student Exchanges Officer, Gilmour Hall, Room 104. Applications are normally due mid-January for exchanges expected to begin the following September. A registration checklist is available to assist you in making all necessary arrangements. For information concerning the Canadian Scholars Exchange Programme (CANE), please refer to the Academic Facilities, Student Services and Organizations section of this Calendar under the heading Student Exchanges.

McMaster also offers other programmes which allow you to spend all or part of your third year of a four-year programme at another institution. You register but do not pay tuition at McMaster. These programmes are not available at universities with which McMaster University has a formal exchange agreement. For more information on these programmes, please see your Faculty advisor or the Student Exchanges Officer.

Students must recognize and accept the fact that, in many countries of the world, especially the newly-emerging nations, change may be the only constant. There are no guarantees that certain courses will be offered or that housing will be as one might expect. Spending time on an exchange programme or an independent study abroad programme offers an opportunity to develop one's adaptability and resourcefulness in the face of new situations. McMaster University cannot be held accountable for unforeseen changes in the host country. For information about programmes and universities, please contact the Student Exchanges Officer, Gilmour Hall, Room 104.

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 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 remain at the University for one reviewing period, but will be placed 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, you will 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

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. Outside the School of Business you must apply for admission to that programme through the Office of the Associate Dean 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, or readmission 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 readmission 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. Once admitted, 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 5.0 to 5.4, you may transfer to the B.Com. programme. If your CA is less than 5.0, 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 or better. If you complete the year with a Sessional Average 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. Major Programme**: The B.Kin. Major Programme is being phased out. Currently registered students must have a CA of at least 4.0 to continue in the B.Kin. Major 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 continue 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.

- **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 is less than 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.Sc. 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.

**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 Office of the Registrar. 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 reinstatement at this time.
3. Reasons 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. Reinstatement is not guaranteed.

If at any review after reinstatement your Cumulative Average falls below 3.5, you will be required to withdraw from the University for a period of at least 12 months.

**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 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.) 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 five-level degree. The minimum admission requirements and programme of study for the second degree depend on the subject areas of the two degrees.

- For admission to a second programme 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 admitted, you must take 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.
- For admission to a second programme 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 programme requirements. In some Faculties, this includes a minimum number 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 programme requirements. 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. If admitted, you must complete at least 30 units beyond the first degree, including all programme requirements. In some Faculties, this includes a minimum number of units of work in the discipline.
- B.H.Sc. (Honours): A Cumulative Average of at least 7.0 (minimum overall average of B+) will be required for admission. Previous university undergraduate studies must involve a significant component of work in subject areas unrelated to the B.H.Sc (Honours) Programme. Certain subject combinations may not be permitted. If admitted you must complete at least 60 units beyond the first degree including all honours requirements specified for the programme.
- B.Kin. Major: The B.Kin.Major Programme is being phased out. Currently registered second degree students 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 reviewing period (either after the Fall/Winter or Summer session) when a minimum of 30 units has been completed since the previous Deans' Honour List review. At each review the assessment will be based on all units completed since the previous Deans' Honour List review.

Provost's Honour Roll

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

3. PETITIONS FOR RELIEF FOR MISSED TERM WORK AND FOR DEFERRED EXAMINATIONS

The University wishes to assist students with legitimate difficulties. It also has the responsibility to ensure that degree, programme and course requirements are met in a manner that is equitable to all students. Students may petition the office of the Associate Dean of their Faculty (Faculty office) for special consideration when there are compelling medical, personal or family reasons to justify an exception to University regulations. Supporting documentation will be required but will not ensure approval of the petition. The authority to grant petitions lies with the Faculty office and is discretionary. It is imperative that students make every effort to meet the originally-scheduled course requirements and it is a student's responsibility to write examinations as scheduled.

Procedure 1: Petitions for Relief for Missed Term Work

1. A student may submit a Petition for Special Consideration through the Faculty office for relief from the academic consequences of missed term work based on compelling medical, personal or family reasons before or immediately after the work is missed, normally within five working days.
2. If the reason is medical, the approved McMaster University Medical Form must be used. The student must be seen by a doctor at the earliest possible date, normally on or before the date of the missed work and the doctor must verify the duration of the illness. Relief will not be available for minor illnesses.
3. If the reason is non-medical, appropriate documentation with verifiable origin covering the relevant dates must be submitted, normally within five working days.
4. In deciding whether or not to grant a petition, factors such as the following may be taken into account: the adequacy of the supporting documentation including the timing in relation to the due date of the missed work and the degree of the student's incapacitation.
5. After the third Petition for Special Consideration a student will be asked to meet with the Associate Dean (or delegate).
Procedure 2: Petitions for Deferred Examinations

1. Once a student has completed an examination, no special consideration will be granted. A student who misses an examination or is unable to complete an examination may submit a Petition for Special Consideration requesting a deferral of the examination to the Faculty office, normally within five working days of the missed examination. The petition must be based on compelling medical, personal or family reasons.

2. See steps 1 - 6 in Petitions for Relief for Missed Term Work above.

3. It is the student's responsibility to check with the Faculty office for a decision on the petition for a deferred examination.

4. If the deferred examination is granted, the student will be informed officially by means of the notation DEF, which will appear against the relevant course on the student's academic record (available on MUGSI) and on the student's grade report.

5. Deferred examinations are written during the next official University examination period. Default of the deferred examination will result in a failure for that examination except in the case of exceptional circumstances (see Petitions for Missed Deferred Examinations below).

Procedure 3: Petitions for Missed Deferred Examinations

1. A student who cannot write a deferred examination on the scheduled date may submit a Petition for Special Consideration to the Faculty office. The petition must be based on compelling medical, personal or family reasons.

2. A committee of Associate Deans or delegates will consider petitions from students registered in any undergraduate programme. The steps in this procedure will be consistent with those used to consider a student's eligibility for a deferred examination.

Appeals of Petitions for Special Consideration (Procedures 1 - 3 above)

In accordance with the Student Appeal Procedures, decisions made on Petitions for Special Consideration are final and cannot be appealed except if a student feels his/her human rights have been violated, in which case there is an appeal to the Senate Board for Student Appeals.

4. 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 terms 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; and
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 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 on 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

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 counter the written examinations back to the Examinations Section of the Office of the Registrar.

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

For further information, please see Petitions for Deferred Examinations in this section of the Calendar.
5. 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 whatever 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>Course Points</th>
<th>Course Units</th>
<th>Equivalent Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>15</td>
<td>6</td>
<td>90-100</td>
</tr>
<tr>
<td>A</td>
<td>12</td>
<td>6</td>
<td>85-89</td>
</tr>
<tr>
<td>A-</td>
<td>10</td>
<td>6</td>
<td>80-84</td>
</tr>
<tr>
<td>A-</td>
<td>8</td>
<td>6</td>
<td>75-79</td>
</tr>
<tr>
<td>A-</td>
<td>6</td>
<td>6</td>
<td>70-74</td>
</tr>
<tr>
<td>B+</td>
<td>7</td>
<td>6</td>
<td>65-69</td>
</tr>
<tr>
<td>B</td>
<td>6</td>
<td>6</td>
<td>60-64</td>
</tr>
<tr>
<td>B</td>
<td>5</td>
<td>6</td>
<td>55-59</td>
</tr>
<tr>
<td>C+</td>
<td>4</td>
<td>6</td>
<td>50-54</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>6</td>
<td>45-49</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>6</td>
<td>40-43</td>
</tr>
<tr>
<td>D+</td>
<td>1</td>
<td>6</td>
<td>35-39</td>
</tr>
<tr>
<td>D</td>
<td>0</td>
<td>6</td>
<td>30-34</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>6</td>
<td>0-35 - Failure</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>
<th>Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-</td>
<td>10</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>C+</td>
<td>6</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>B</td>
<td>8</td>
<td>6</td>
<td>48</td>
</tr>
<tr>
<td>B+</td>
<td>9</td>
<td>3</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td></td>
<td>153</td>
</tr>
</tbody>
</table>

To calculate Average: 153 / 18 = 8.5

6. UNDERGRADUATE ACADEMIC AWARDS

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.

7. GRADUATION

Graduation *With Distinction* standing may be awarded if a minimum CA of 9.5 is achieved in a degree programme. 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. (Honours) — 5.0
- B.Kin. Major — 4.0
- 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 Science 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 Office of the Associate Dean 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.

8. 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. 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).

Notification of Disclosure of Personal Information to Statistics Canada
Statistics Canada is the national statistical agency. As such, Statistics Canada carries out hundreds of surveys each year on a wide range of matters, including education. In order to carry out such studies, Statistics Canada asks all colleges and universities to provide data on students and graduates. Institutions collect and provide to Statistics Canada student identification information (student's name, student ID number, Social Insurance Number), student contact information (address and telephone number), student demographic characteristics, enrolment information, previous education and labour force activity.

The Federal Statistics Act provides the legal authority for Statistics Canada to obtain access to personal information held by educational institutions. The information may be used only for statistical purposes, and the confidentiality provisions of the Statistics Act prevent the information being released in any way that would identify a student. Students who do not wish to have their information used are able to ask Statistics Canada to remove their identification and contact information from the national database. For further information, please see Statistics Canada’s web site at: http://www.statcan.ca or write to the Postsecondary Section, Centre for Education Statistics, 17th Floor, R.H. Coats Building, Tunney's Pasture, Ottawa, K1A 0T6.
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
- Senate Resolutions on Academic Dishonesty
- Student Appeal Procedures
- Student Code of Conduct
- Alcohol Policy and Residence Community Alcohol Policy
- Sexual Harassment Policy
- Anti-Discrimination Policy
- Rights and Responsibilities of Undergraduate Students During Work Stoppages That Substantially Disrupt Academic Activities
- Welcome Week Regulations
- General Regulations for McMaster University Libraries
- Policy for Academic Accommodation of Undergraduate 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)
- Petitions for Relief for Missed Term Work and for Deferred Examinations (See also Section 3 in General Academic Regulations section of the Calendar.)

The following provides a summary of the major policies which pertain to students. Complete versions of the policies may be obtained from the Senate Secretariat, Room 210, Gilmour Hall.

Academic Integrity and Academic Dishonesty

The Senate Statement on Academic Ethics (soon to be replaced by the Academic Integrity Policy*) 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 main purpose of a university is to encourage and facilitate the pursuit of knowledge and scholarship. The attainment of this purpose requires the individual integrity of all members of the University community, including all graduate and undergraduate students. Scholars at McMaster demonstrate integrity in many ways, including the following:

- Scholars practice intellectual honesty in the process of acquiring and extending knowledge. They do this by improving scholarly competence, and by exercising critical thinking and self-discipline.
- Scholars show respect for and courtesy to others in free discussions on academic topics and recognize the right to free inquiry and opinion.
- Scholars adhere to ethical requirements in their research.
- Scholars acknowledge fully the work of others by providing appropriate references in papers, essays and the like and declaring the contributions of co-workers. Scholars do not take credit that is not earned.
- Scholars strive to ensure that others are not put at a disadvantage in their pursuit of knowledge. They do not withhold material that should rightly be available to all.

The University states unequivocally that it demands scholarly integrity from all its members. Academic dishonesty, in whatever form, is ultimately destructive of the values of the University; furthermore, it is unfair and discouraging to those students who pursue their studies honestly.

Academic dishonesty is not qualitatively different from other types of dishonesty. It consists of misrepresentation by deception or by other fraudulent means. In an academic setting, this may include any number of forms such as:

- copying or the use of unauthorized aids in tests, examinations or preparation of laboratory reports,
- plagiarism, i.e., the submission of work that is not one's own or for which previous credit has been obtained, unless the previously submitted work was presented as such to the instructor of the second course and was deemed acceptable for credit by the instructor of that course,
- aiding and abetting another student's dishonesty,
- giving false information for the purposes of gaining admission or credit,
- giving false information for the purposes of obtaining deferred examinations or extension of deadlines, and
- forging or falsifying McMaster University documents.

 Allegations of academic dishonesty will be handled according to the procedures described in the Senate Resolutions on Academic Dishonesty. (These Procedures will be replaced by those set out in the Academic Integrity Policy, upon the date of its implementation.) Penalties may be imposed on students who have been found guilty of academic dishonesty. Examples of penalties include a mark of zero on an assignment, zero for the course with a transcript notation, and suspension or expulsion from the University.

*The University Senate has approved the Academic Integrity Policy, which, when implemented, will supersede the Statement on Academic Ethics and the Senate Resolutions on Academic Dishonesty. The date of implementation has not yet been decided by the Senate, but it is expected to be sometime in the late spring of 2003.

Student Appeal Procedures

The University has a responsibility to provide fair and equitable procedures for the lodging and hearing of student complaints arising from University regulations, policies and actions that affect them directly. The procedures described in the Student Appeal Procedures are intended to provide a mechanism to remedy injustices and may culminate in a hearing before the Senate Board for Student Appeals.

However, students are strongly encouraged to pursue any complaint or grievance through informal channels, before following the formal procedures. Experience has shown that many complaints can be resolved satisfactorily through informal communication.

Students should seek remedies for their grievances as promptly as possible, and must do so within six months of the end of the academic year in which the grievance has occurred. The end of the academic year is August 31.

Decisions on admission or readmission to the University may not be appealed, except under the conditions described in the next paragraph. However, applicants may ask for a review of a decision on admission or readmission or on the granting of transfer credits. To initiate such a review, the applicant must write to the Registrar within one week of receiving the original decision and state the grounds for seeking the review.

Applicants who have been refused readmission to a degree programme may appeal the decision, using the procedures described in the Student Appeal Procedures, if the following two conditions have been met:

1. the applicant withdrew voluntarily from the University, and
2. the applicant alleges error or injustice on grounds other than academic judgment.

Student Code of Conduct

McMaster University is a community dedicated to furthering learning, intellectual inquiry, and personal and professional development. Membership in the community implies acceptance of the principle 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 and Residence Community Alcohol Policy

The intention of the University Alcohol Policy is to promote attitudes towards alcohol use that are consistent with an atmosphere of civility, and to discourage alcohol-related behaviour on campus which is abusive to oneself or to others. Students are accountable for their own decisions regarding alcohol use; they are also responsible for knowing, understanding, and complying with applicable University policies and provincial laws related to alcohol.

The University Policy describes general and minimal requirements for the use of alcoholic beverages on campus. More specific guidelines concerning alcohol use are available from other offices on campus such as the Housing Office (for residence hall events), and the Vice-President (Administration) for other events including faculty/staff events.

Statement on Human Rights

McMaster 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 procedure 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

McMaster University affirms the right of every member of its constituency to live, study and work in an environment that is free from discrimination and harassment. Discrimination and harassment are incompatible with standards of professional ethics and with behaviour appropriate to an institution of higher learning.

The intention of this policy and its procedures is to prevent discrimination and harassment from taking place, and where necessary, to act upon complaints of such behaviour promptly, fairly, judiciously and with due regard to confidentiality for all parties concerned.

Policy on Rights and Responsibilities of Undergraduate Students During Work Stoppages That Substantially Disrupt Academic Activities

The University recognizes that a work stoppage at the University that substantially disrupts academic activities may have a significant impact on the ability of students to carry out their studies. To this end, it has developed a policy that recognizes the need to treat students fairly and equitably and, at the same time, to protect the academic integrity of the University's courses and programmes.

Student Records

The University has developed operating 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 and Nursing programmes.

While a student may have access to his or her file, documents received from a third party in confidence are not normally placed in the student's file. But, in those cases where they have been, they 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.

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 or approval of your registration. Academic requirements have to be fulfilled before your registration is completed. 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 credits can be transferred from one academic session to another. It is the policy of the University not to accept registrations until all previous accounts are paid in full. Any payments received are, therefore, first applied to previous debts and any balances to the most recent debts.

The following fees and regulations were 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 programmes 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.


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

<table>
<thead>
<tr>
<th>Base Per Unit Tuition Per Faculty</th>
<th>Canadian/Permanent</th>
<th>Visa Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty/Programme</td>
<td>Resident Status</td>
<td></td>
</tr>
<tr>
<td>&gt; Arts &amp; Science</td>
<td>134.41 per unit</td>
<td>415.00 per unit</td>
</tr>
<tr>
<td>&gt; Business and Commerce</td>
<td>147.20</td>
<td>415.00</td>
</tr>
<tr>
<td>&gt; Engineering</td>
<td>145.32</td>
<td>380.00</td>
</tr>
<tr>
<td>&gt; Eng. Mgt. II, IV</td>
<td>147.20</td>
<td>415.00</td>
</tr>
<tr>
<td>&gt; Eng. Mgt. III, V</td>
<td>145.32</td>
<td>380.00</td>
</tr>
<tr>
<td>&gt; Health Sciences (Honours)</td>
<td>134.41</td>
<td>415.00</td>
</tr>
<tr>
<td>&gt; Humanities</td>
<td>134.41</td>
<td>365.00</td>
</tr>
<tr>
<td>&gt; Kinesiology and Social Sciences</td>
<td>134.41</td>
<td>365.00</td>
</tr>
<tr>
<td>&gt; Nursing</td>
<td>134.41</td>
<td>415.00</td>
</tr>
<tr>
<td>&gt; Science</td>
<td>134.41</td>
<td>415.00</td>
</tr>
</tbody>
</table>

**Supplementary Fees**

**STUDENTS TAKING 1 TO 17 UNITS PAY (PER UNIT):**
- Athletics and Recreation Activity Fee: $4.20
- Administrative Services Fee: $3.93

**McMaster Association of Part-Time Students Fees:**
- Organization Fee: $5.00
- Total Charge per unit: $10.13
- Nursing Students Add:
  - One-time Immunization Fee: $20.00
  - Learning Resource Fee: $6.96

**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: $90.19
- Student Health Service: 46.14
- Ontario Public Interest Research Group (OPIRG): 6.09

**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: $96.02
- Health Plan Premium*: 45.00
- H.S.R. Bus Pass: 61.00
- WUSC Student Refugee Fee: 1.20
- Ancillary Fee for CFM-FM: 14.09
- Ancillary Fee for MARMOR Yearbook: 7.34
- Incite Publication: 0.77
- Sub Total: $367.84

*NOTE: Students who can prove comparable coverage may opt out of the McMaster Students Union Health Plan by filling out a form at the McMaster Students Union Information Centre (The Compass, Main Floor, McMaster University Student Centre) before the end of September.

**And Faculty Specific Society/Support Fees as Follows:**
- Arts & Science: 28.00
- Bachelor of Health Sciences (Honours): 26.00
- Commerce: 126.00
- Engineering: 132.00
- Humanities: 15.00
- Nursing Level I: 175.81
- Nursing: 155.81
- 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>4,032.30</td>
<td>607.04</td>
<td>4,639.34</td>
</tr>
<tr>
<td>Business and</td>
<td>4,416.00</td>
<td>705.04</td>
<td>5,121.04</td>
</tr>
<tr>
<td>Commerce</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td>4,795.56</td>
<td>711.04</td>
<td>5,506.60</td>
</tr>
<tr>
<td>Eng. Mgt. II, V</td>
<td>4,416.00</td>
<td>711.04</td>
<td>5,127.04</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>4,032.30</td>
<td>605.04</td>
<td>4,637.34</td>
</tr>
<tr>
<td>(Honours)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>4,032.30</td>
<td>594.04</td>
<td>4,626.34</td>
</tr>
<tr>
<td>Kinesiology and</td>
<td>4,032.30</td>
<td>629.04</td>
<td>4,661.34</td>
</tr>
<tr>
<td>Social Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicine I</td>
<td>13,500.00</td>
<td>549.48</td>
<td>14,049.48</td>
</tr>
<tr>
<td>Medicine II, III</td>
<td>13,500.00</td>
<td>529.48</td>
<td>14,029.48</td>
</tr>
<tr>
<td>Midwifery I</td>
<td>4,032.84</td>
<td>221.14</td>
<td>4,253.98</td>
</tr>
<tr>
<td>Midwifery</td>
<td>4,032.84</td>
<td>201.14</td>
<td>4,233.98</td>
</tr>
<tr>
<td>Nursing I</td>
<td>4,032.30</td>
<td>754.85</td>
<td>4787.15</td>
</tr>
<tr>
<td>Nursing</td>
<td>4,032.30</td>
<td>734.85</td>
<td>4767.15</td>
</tr>
<tr>
<td>Science</td>
<td>4,032.30</td>
<td>614.04</td>
<td>4,646.34</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 load.)

<table>
<thead>
<tr>
<th>Supplementary</th>
<th>Tuition Fee</th>
<th>Fees</th>
<th>Total Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts &amp; Science</td>
<td>12,450.00</td>
<td>607.04</td>
<td>13,057.04</td>
</tr>
<tr>
<td>Business and</td>
<td>12,450.00</td>
<td>705.04</td>
<td>13,155.04</td>
</tr>
<tr>
<td>Commerce</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td>12,540.00</td>
<td>711.04</td>
<td>13,251.04</td>
</tr>
<tr>
<td>Eng. Mgt. III</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eng. &amp; Mgt. II</td>
<td>12,450.00</td>
<td>711.04</td>
<td>13,161.04</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>12,450.00</td>
<td>605.04</td>
<td>13,055.04</td>
</tr>
<tr>
<td>(Honours)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>10,950.00</td>
<td>594.04</td>
<td>11,544.04</td>
</tr>
<tr>
<td>Kinesiology</td>
<td>10,950.00</td>
<td>629.04</td>
<td>11,579.04</td>
</tr>
<tr>
<td>Social Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing I</td>
<td>12,450.00</td>
<td>754.85</td>
<td>13,204.85</td>
</tr>
<tr>
<td>Nursing</td>
<td>12,450.00</td>
<td>734.85</td>
<td>13,184.85</td>
</tr>
<tr>
<td>Science</td>
<td>12,450.00</td>
<td>614.04</td>
<td>13,064.04</td>
</tr>
</tbody>
</table>

*You will be assessed extra fees for units taken over your program maximum load.

Student Health Services Fees

The supplementary student health services fee of $46.14 supports the on-campus clinic facilities, which provide the services of doctors and nurses. The McMaster Students Union Health Plan Premium fee of $45.00 includes reimbursement of expenses resulting from an accident incurred during the academic year, where such expenses are not recoverable under the Ontario Health Insurance Plan. These expenses may include X-ray, ambulance, dental treatment, prescribed drugs, wheelchairs or similar appliances. Reimbursement is not made for accident expenses to dental plates, crowns, fillings, glass frames, lenses or similar items. Accidents should be reported to Campus Health Centre within 10 days.

Prescribed drugs, excluding contraceptives, may be claimed through this plan. For details concerning dollar amounts allowable, contact the McMaster Students Union Office.

NOTE: Students who can prove comparable coverage may opt out of the McMaster Students Union Health Plan by filling out a form at the McMaster Students Union Information Centre (The Compass, Main Floor, McMaster University Student Centre) before the end of September.

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 Continuing 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 certificate courses. A Listener is not seeking credit and may be admitted 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 will be aged 65 or over during the academic session for which you are registering, you may register without payment of tuition and supplementary fees.

RESIDENCE AND MEAL PLAN FEES

Regular Session

If you live on campus, your residence fees cover the period from Labour Day weekend to 5 p.m. on the day following your final April examination, and excludes the December holiday break.

The fees below are those for 2002-2003.

<table>
<thead>
<tr>
<th>RESIDENCES</th>
<th>Full Payment</th>
<th>Minimum Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Residences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>3,695.00</td>
<td>2,100.00</td>
</tr>
<tr>
<td>Double/Triple</td>
<td>3,465.00</td>
<td>1,900.00</td>
</tr>
<tr>
<td>Quad</td>
<td>3,345.00</td>
<td>1,900.00</td>
</tr>
<tr>
<td>Bunk and Loft</td>
<td>2,965.00</td>
<td>1,700.00</td>
</tr>
<tr>
<td>Bates Residence</td>
<td>4,095.00</td>
<td>2,300.00</td>
</tr>
</tbody>
</table>

MEAL PLANS

If living in a traditional residence you must select one of the Group A meal plans. (Students living in Bates Residence have an option to select one of the Group A or Group B meal plans.)

The fees below are those for 2002-2003.

<table>
<thead>
<tr>
<th>Group A Full Meal Plan</th>
<th>Minimum Basic Account</th>
<th>Flex Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Payment</td>
<td>Minimum Payment</td>
<td></td>
</tr>
<tr>
<td>Light</td>
<td>2,250.00</td>
<td>2,250.00</td>
</tr>
<tr>
<td>Small</td>
<td>2,475.00</td>
<td>2,250.00</td>
</tr>
<tr>
<td>Regular</td>
<td>2,675.00</td>
<td>2,250.00</td>
</tr>
<tr>
<td>Large</td>
<td>2,875.00</td>
<td>2,250.00</td>
</tr>
<tr>
<td>X-Large</td>
<td>3,075.00</td>
<td>2,250.00</td>
</tr>
</tbody>
</table>

Group B Reduced Meal Plan

(Available to Bates Residence students only)

<table>
<thead>
<tr>
<th>Full Payment</th>
<th>Minimum Basic Account</th>
<th>Flex Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light</td>
<td>1,900.00</td>
<td>1,900.00</td>
</tr>
<tr>
<td>Small</td>
<td>2,125.00</td>
<td>1,900.00</td>
</tr>
<tr>
<td>Regular</td>
<td>2,325.00</td>
<td>1,900.00</td>
</tr>
<tr>
<td>Large</td>
<td>2,525.00</td>
<td>1,900.00</td>
</tr>
<tr>
<td>X-Large</td>
<td>2,725.00</td>
<td>1,900.00</td>
</tr>
</tbody>
</table>

If you wish to change your selection of meal plans for 2003-2004, you may do so up to September 12, 2003. Please contact the Mac Express Centre, ext. 27448, for more information on meal plan options, selection and changes.

Please contact Residence Admissions, Commons Building, Room 101, telephone (905) 525-9140, ext. 24223 for more information on current residence charges and payment dates.

Summer Residence

McMaster University offers residence accommodation for summer students and casual guests from early May to late August each year.

For further information, contact Conference Services, McKay Residence, Room 124, telephone (905) 525-9140, ext. 24781.

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 Prepayment of Fees). If you are unable to make full payment at the time of registration, you may be registered by paying the minimum 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 interest must be paid no later than January 15. Failure to make payment 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 occurrence 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 requested 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 209, 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 2002-2003 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
- Examination Reread (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

* Students writing deferred examinations at another centre are responsible for payment of fees which may be assessed by the other examination centre.

### Financial/Administrative User Fees

- Certificate 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 and Part-time Students ............................... 50.00
- Late Payment Fee ......................................................... 32.00
- Deferred Fee .............................................................. 32.00
- Monthly Payment Plan Default Fee ............................... 32.00
- Reinstatement Fee ....................................................... 100.00
- Locker Rentals ............................................................ 16.00
- 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. Level I Nursing students are also required to purchase a stethoscope at approximately $100.00.

#### Registration Examinations

Graduates of the B.Sc.N. programme can expect to pay fees (approximately $236.00 in 2003) 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 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 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, such as world population growth in relation to food supply, requires 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.

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 (3CA6, 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 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 (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 Program 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 (Gilmour Hall, Room 104) 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) can be found in the Academic Facilities, Student Services and Organizations section of this Calendar under the heading *Student Exchanges*.

**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.).
## 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, 4EE6
- 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/artscl) 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)
- Economics-Option A (2027151)
- Economics-Option B (2027152)
- English (2027200)
- Environmental Science (2027211)
- French - Programme A (2027230)
- French - Programme B (2027231)
- Geography (2027240)
- History (2027280)
- Mathematics (2027320)
- Multimedia (2027294)
- Peace Studies (2027417)
- Philosophy (2027420)
- Physics (2027440)
- Political Science (2027450)
- Psychology (2027460)
- Religious Studies (2027475)
- Sociology (2027520)
- Theatre & Film Studies (2027551)
- Women’s Studies (2027642)
SCHOOL OF BUSINESS

MICHAEL G. DeGROOTE
SCHOOL OF BUSINESS
(FACULTY OF BUSINESS)

WEB ADDRESS: http://www.degroote.mcmaster.ca
E-MAIL ADDRESS: buscom@mcmaster.ca
M.G. DeGroote Building, Room 104
Ext. 24433

Dean of Business
V. Baba/B. Eng., M.B.A., Ph.D.
Associate Dean of Business
J.W. Medoot/B.A., M.A., Ph.D.
Director, Undergraduate Programmes
T.W. Chamberlain/B.Sc., M.B.A., Ph.D., C.A.
Manager, Undergraduate Programmes/Commerce II Student Advisor
D. Ellis
Administrator, Business I Programme/Commerce I Student Advisor
M. Dizdarevic/B.A., D.D.
Undergraduate Student Advisor, Levels III and IV
B. Pegg/B.A.

The School of Business offers two programmes, each of which spans four levels of study. The Honours Commerce programme, which leads to the Honours Bachelor of Commerce (Honours B.Com.) degree, allows substantial concentration in business subjects beyond the essential core of studies. The Commerce programme, which leads to the Bachelor of Commerce (B.Com.) degree, contains essential grounding in business subjects and promotes the broadening of horizons through studies in Social Sciences, Humanities and Science. These programmes are referred to collectively as the Commerce programmes.

In addition, the School of Business and the Faculty of Engineering offer eight five-level joint programmes for the Bachelor of Engineering and Management (B.Eng./Mgt.) degree. These programmes provide a full course of study in Engineering and include a complete core of business subjects. Details concerning the B.Eng./Mgt. programmes and their academic regulations are given in the Faculty of Engineering section of this Calendar.

Also, the School of Business participates in the Committee of Instruction and offers courses for the programmes in Labour Studies which are described in the Faculty of Social Sciences section of this Calendar.

THE COMMERCE PROGRAMMES

In Level I, a student who wishes to pursue either of the Commerce programmes establishes a foundation in behavioural science, computer science, economics and mathematics, and also undertakes elective work. While this course of study is prescribed in Business I, a student who demonstrates 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. degrees. 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 two-thirds 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. NOTE: Students who participate in an McMaster University exchange are required to successfully complete one course from an International/Cross-Cultural/Language menu prior to graduation. Students must satisfy the normal prerequisites for the courses listed on the menu.

Students follow the menu requirements of the Calendar in force when they enter Business I, however, when a later Calendar expands the menu options, student may choose from those additional courses as well. The menu for 2003-2004 is as follows:

All Anthropology courses except ANTHROP 1A03 if completed as part of the Business I requirements.
All courses in the Faculty of Humanities with the exception of all Multimedia courses and all English courses except those listed below.
All Indigenous Studies courses.
All Political Science courses except POL SCI 1G06, 3C03, 3F03, 3F3, 3JJ3, 3S03, 4006, 4S06.
All Religious Studies courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2C03</td>
<td>Asian-Pacific Economies</td>
</tr>
<tr>
<td>ECON 2F03</td>
<td>The Political Economy of Development</td>
</tr>
<tr>
<td>ECON 2L03</td>
<td>Peace, Human Security and Economic Development</td>
</tr>
<tr>
<td>ECON 3H03</td>
<td>International Monetary Economics</td>
</tr>
<tr>
<td>ECON 3H3</td>
<td>International Trade</td>
</tr>
<tr>
<td>ECON 3I03</td>
<td>Economic History of the United States</td>
</tr>
<tr>
<td>ECON 3L3</td>
<td>History of Economic Theory</td>
</tr>
<tr>
<td>ECON 3T03</td>
<td>Topics in Economic Development</td>
</tr>
<tr>
<td>ENGLISH 1B03</td>
<td>Cultural Studies and Visual Culture</td>
</tr>
<tr>
<td>ENGLISH 1BB3</td>
<td>Cultural Studies and Consumer Culture</td>
</tr>
<tr>
<td>ENGLISH 2C03</td>
<td>Canadian Literature</td>
</tr>
<tr>
<td>ENGLISH 2F03</td>
<td>Studies in American Literature</td>
</tr>
<tr>
<td>ENGLISH 2J03</td>
<td>Contemporary Popular Culture</td>
</tr>
<tr>
<td>GEO 1HS3</td>
<td>Social Geography: The Human Environment</td>
</tr>
<tr>
<td>GEO 1HU3</td>
<td>Urban/ Economic Geography</td>
</tr>
<tr>
<td>GEO 3HJ3</td>
<td>Geography of Japan</td>
</tr>
<tr>
<td>GEO 3HR3</td>
<td>Geography of a Selected World Region: New Zealand and Australia</td>
</tr>
<tr>
<td>GEO 3H3Z</td>
<td>Urban Social Geography</td>
</tr>
<tr>
<td>SOCIOL 2E06</td>
<td>Racial and Ethnic Group Relations</td>
</tr>
<tr>
<td>SOCIOL 3Z03</td>
<td>Ethnic Relations</td>
</tr>
</tbody>
</table>

All courses included under the Peace Studies minor (see Interdisciplinary Minors 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*, 4A3*, 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 Continuing Students in the Admission Requirements section of the Calendar.)

*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 Timetable at the following url: http://www.mcmaster.ca/ptimetable/

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 readmitted 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 Extra Courses 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.

If a student did not qualify for the Honours Commerce programme upon entry to Level II, III, there is one final opportunity for consideration. 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 8.0 and no more than six units of failures (in required and/or elective course work) after entry to Level II Commerce.

CHANCE 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.

DEFERRED EXAMINATIONS

See the heading Deferred Examinations under Examinations in the General Academic Regulations section of the Calendar for application procedures.

Students who are in a precarious position with respect to achieving the minimum C.A. or otherwise meeting the Commerce programme requirements for continuation in the programme will not necessarily be permitted to undertake further work before clearing deferred examinations.

REPEATED COURSES

Any failed course must be repeated if it is a required course for the programme, or must be replaced or replaced 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 C.A. 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 to which he/she became 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 Undergraduate Admissions Office and the Academic Programmes Office by June 30 for entry in September. This application should explain why the applicant would expect to succeed in the programme 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 programme 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 the session starting in September of the year following the year in which the student became ineligible to continue.
EXCHANGE PROGRAMMES

There are a number of official exchange programmes offered to undergraduate students registered in the School of Business. The countries involved are: Denmark, England, France, Germany, Japan, Norway, Mexico and Singapore. Official exchange programmes give 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 programmes go abroad for Level III of their programme. Information is available from Prof. M. Malik, Director, International Exchange Programmes, M.G. DeGroote Building, Room 228.

Additional information may be found under International Study in the General Academic Regulations section of this Calendar.

Information concerning the Canadian Scholars Exchange Programme (CANEX) 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
GILMOUR HALL, ROOM 104
TELEPHONE: (905) 525-9140, EXTENSION 24748

PROGRAMMES

PROGRAMME NOTES

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 1E03 or 1S03; COMP SCI 1B03; MATH 1A03 or 1M03; and one of ANTHRO 1A03, GEO 1H83, PSYCH 1A03, SOCIOI 1A06. For students without OAC Calculus (or Advanced Functions and Introductory Calculus U) 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 Mathematics of Data Management U) or whose credit in same is older than five years, must take STATS 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 a minor 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 to enter 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. Transfer students will be expected to complete COMMERCE 1E03 and one of ANTHRO 1A03, GEO 1H83, PSYCH 1A03 or SOCIOI 1A06 as part of the degree requirements. Academic requirements for retention of transfer students will be no more demanding than those for Business I students. Students who wish to apply for a transfer to the Faculty of Business must apply by April 30.

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 COMMERCIAL 1E03
3-6 units from ANTHROP 1A03, GEO 1HS3, PSYCH 1A03, SOCIOI 1A06
3 units COMM 1BA3
6 units ECON 1A03
3 units MATH 1M03 or 1A03 (See Note 5 above.)
0-3 units MATH 1K03 (for those without OAC Calculus (or Advanced Functions and Introductory Calculus U) or whose credit in same is older than five years)
3-12 units Electives to total 30 units. See also the International/Cross-Cultural/Language Menu in this section of the Calendar.

Commerce II

REQUIREMENTS
LEVEL II: 30 UNITS

24 units COMMERCIAL 2AA3, 2AB3, 2BA3, 2FA3, 2MA3, 2QA3, 2QB3, 2S03
3 units ECON 2X03
3 units 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 for continuation in the Honours B.Com. programme are specified in the General Academic Regulations section of this Calendar.

REQUIREMENTS
LEVEL III: 30 UNITS
15 units COMMERCIAL 3BC3, 3FA3, 3MC3, 3QA3, 3QC3
15 units 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 COMMERCIAL 4PA3, 4SA3
6 units Electives from non-Commerce courses or Level III or IV Commerce courses
18 units Electives from non-Commerce courses. See also the International/Cross-Cultural/Language Menu in this section of the Calendar.

Minor in Business

NOTES
1. Enrolment in each of the Commerce courses comprising the Business minor, (excluding students registered in Engineering and Management, Commerce and Labour Studies students enrolled in COMMERCIAL 2BA3 and 3BC3) is limited to 40 students who are registered in a four- or five-level McMaster degree programme. Places in these courses will be allocated on a first-come, first-served basis.
2. Effective September 1999, COMMERCIAL 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, KINESIO 3103 will be accepted as a substitute for COMMERCIAL 2BA3; ECON 2B03, STATS 1CC3 will be accepted as a substitute for COMMERCIAL 2QA3.

REQUIREMENTS
6 units ECON 1A06 or 1B03 and 1B3
18 units COMMERCIAL 2AA3, 2AB3, 2BA3, 2FA3, 2MA3, 2QA3, 2QB3, 3BC3, 3FA3, 3MC3
Dean of Engineering
M. Elbestawi/B.Sc., M.Eng., Ph.D., P.Eng.

Associate Dean of Engineering

Director of Engineering I
R.D. Loree/B.Eng., B.Ed.

Academic Assistant to the Associate Dean
J. Zywna

Undergraduate Student Advisors
S.D. Verhage, (Manufacturing Engineering Technology)
M. White/B.Sc.

Engineering is a profession concerned with the creation of new and improved systems, processes and products to serve human needs. The central focus of engineering is design, an art entailing the exercise of ingenuity, imagination, knowledge, skill, discipline and judgment based on experience. The practice of professional engineering requires a mastery of engineering methodology together with a sensitivity to the physical potential of materials, to the logic of mathematics, to the constraints of human, physical and financial resources, to the minimization of risk, and to the protection of the public and the environment.

For Information concerning the Bachelor of Technology programme, please see the Programme for B.Tech. Degree section of this Calendar.

Four-year programmes are offered leading to the Bachelor of Engineering Degree in the following fields of specialization:
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Electrical Engineering
- Electrical and Biomedical Engineering
- Engineering Physics
- Materials Engineering
- Mechanical Engineering
- Photonics Engineering
- Software Engineering

A five-year programme, leading to the Bachelor of Engineering and Society Degree, is offered in:
- Chemical Engineering and Society
- Civil Engineering and Society
- Computer Engineering and Society
- Engineering Physics and Society
- Electrical Engineering and Society
- Materials Engineering and Society
- Mechanical Engineering and Society
- Photonics Engineering and Society
- Software Engineering and Society

In addition, and in conjunction with the School of Business, five-year programmes leading to the Bachelor of Engineering and Management degree are offered in:
- Chemical Engineering and Management
- Civil Engineering and Management
- Computer Engineering and Management
- Electrical Engineering and Management
- Engineering Physics and Management
- Materials Engineering and Management
- Mechanical Engineering and Management
- Photonics Engineering and Management
- Software Engineering and Management

A five-year programme leading to the Bachelor of Engineering and Biosciences is offered in:
- Chemical Engineering and Bioengineering

All programmes have limitations on enrolment. Students are admitted to the programme following successful completion of Level I. Admission procedures and criteria can be obtained from the Office of the Associate Dean of Engineering.

McMaster baccalaureate degree programmes in Engineering are accredited by the Canadian Engineering Accreditation Board (CEAB) of the Canadian Council of Professional Engineers, except the Chemical Engineering and Bioengineering, Electrical and Biomedical Engineering, Photonics Engineering, Photonics Engineering and Management and Photonics Engineering and Society programmes which will be examined for the first time at the next accreditation. Provincial Engineering Associations accept the accreditation as a major requirement for admission to the qualification Professional Engineer. The B.Eng., B.Eng.Biosciences, B.Eng.Mgt. and B.Eng.Society programmes are honours degree programmes. All B.Eng. Engineering students take a common first year programme comprising Mathematics, Materials, Physics, Chemistry, Engineering Design, Introduction to Professional Engineering, Computer and complementary studies electives. The specialized programmes are entered at Level II. Students interested in the Engineering and Management programmes must take ENGIN 1B03 as one of their electives in Level I. Students interested in one of the Engineering and Society programmes are advised to check the units contained in these programmes are 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:

Complementary Studies Electives are broadening courses with subject matter that deals with central issues, methodologies and practices across a wide spectrum of society and of human knowledge. They are an important part of the Engineering and Management and Society programmes.

In addition to ENGIN 1B03, 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/undergraduate/complementary_studies_electives.html).

Technical Electives are Engineering or Applied Science courses in subjects relevant to the particular B.Eng. programme. A list is available in each Engineering Department office.

Commerce Electives are required in Level V of Engineering and Management programmes.

Engineering and Society Focus Electives are courses offered by various departments throughout the University. These courses are selected in consultation with the Director of the Engineering and Society programme, such that they form a proper sequence of the focus electives.

INDUSTRIAL INTERNSHIPS

The Faculty of Engineering offers 8 to 16-month full-time paid work placements in industry to provide B.Eng. and Computer Science students who have completed their second or third level of a four-level programme, or third or fourth level of a five-level programme with technical work experience based on their course work and have achieved a minimum of 24 units to participate in industrial work. Students must complete ENGIN 3N00 and have achieved a 5.0 sessional average over a full-time course load in the previous session. Students must have a minimum of 24 units to complete through full-time studies upon returning to McMaster after the work term. An administrative fee is assessed following the start of the Internship.

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 (CANEX), please refer to the Academic Facilities, Student Services and Organizations section of this Calendar under the heading Student Exchanges.
LEVEL I PROGRAMME 0730

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

ENGINEERING I: 37 UNITS

3 units CHEM 1E03
10 units ENGIN 1A00, 1C03, 1D04, 1P03
3 units MATLS 1M03
9 units MATH 1H03, 1N03, 1NN3
6 units PHYSICS 1D03, 1E03
6 units approved complementary studies electives

PROGRAMMES FOR THE B.ENG., B.ENG.BIOSCIENCES, 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. 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 ECON 1B03 with a minimum grade of 5.0; 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.) 4080

ADMISSION

See Admission to Level II Engineering Programmes.

NOTE

Students may choose to follow a stream of recommended technical elective courses.

PROCESS SYSTEMS ENGINEERING (PSE) STREAM:
- Required Courses: CHEM ENG 4C03, 4E03, 4G03

POLYMER MATERIALS AND MANUFACTURING (PMM) STREAM:
- Required courses: CHEM ENG 3Q03, 4B03, 4C03, 4X03, ENGINEER 2003

LEVEL II: 36 UNITS

15 units CHEM ENG 2A04, 2D04, 2F04, 2G03
6 units CHEM 1AA3, 2A03
6 units MATH 2M06
3 units PHYSICS 1003, 1103
6 units approved complementary studies electives

LEVEL III: 37 UNITS

28 units CHEM ENG 3D03, 3E04, 3G04, 3K04, 3L02, 3M04, 3P03
3 units CHEM ENG 4E03
6 units from BIOCHEM 2E03, CHEM ENG 3Q03, CHEM 3L03, ENGINEER 2003

LEVEL IV: 34-35 UNITS

16 units CHEM ENG 4L02, 4N04, 4W04
3 units from ENGINEER 4A03, 4H03
9 units from CHEM ENG 4B03, 4F03, 4G03, 4K03, 4M03, 4P03, 4T03, 4X03, ENGINEER 4U03
3 units complementay studies electives (above Level I)
9-10 units Level III or IV technical electives from approved list or permission of the Department of Chemical Engineering

PROGRAMME CHANGES

All programme changes must be made through the Office of the Associate Dean of Engineering.

FACULTY OF ENGINEERING
Chemical Engineering and Management (B.Eng.Mgt.) {4080315}

ADMISSION
See Admission to Level II Engineering Programmes.

NOTE
Students may choose to follow a stream of recommended technical elective courses.

PROCESS SYSTEMS ENGINEERING (PSE) STREAM:
- Required Courses: CHEM ENG 4C03, 4E03, 4G03

POLYMER MATERIALS AND MANUFACTURING (PMM) STREAM:
- Required courses: CHEM ENG 3Q03, 4B03, 4C03, 4X03, ENGINEER 2003

LEVEL II: 30-36 UNITS
- 15 units CHEM ENG 2A04, 2D04, 2F04, 2G03
- 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: 37 UNITS
- 25 units CHEM ENG 3D03, 3E04, 3G04, 3K04, 3L02, 3M04, 3Q04
- 3 units CHEM 2E03
- 9 units COMMERCE 2A03, 2FA3, 2MA3

LEVEL IV: 37-38 UNITS
- 5 units CHEM ENG 3P03, 4L02
- 3 units from CHEM ENG 4K03, 4M03, 4T03, 4X03, ENGINEER 4U03
- 12 units COMMERCE 2A03, 3FA3, 3MC3, 3QC3
- 3 units from ENGINEER 4A03, 4H03
- 2 units ENGN MGT 3A01, 4A01
- 3 units approved complementary studies electives (above Level I)
- 6 units from BIOCHEM 2EE3, CHEM ENG 3Q03, CHEM 2A03, 3103, ENGINEER 2003
- 3-4 units Level III or IV technical electives from approved list or permission of the Department of Chemical Engineering

LEVEL V: 35-38 UNITS
- 8 units CHEM ENG 4N04, 4W04
- 6 units COMMERCE 3B03, 3C03
- 3 units ENGN MGT 5B03
- 9 units from CHEM ENG 4B03, 4E03, 4G03, 4K03, 4M03, 4T03, 4X03, ENGINEER 4U03
- 6 units Commerce electives selected from Level III or IV Commerce or COMMERCE 2QB3
- 3-4 units Level III or IV technical electives from approved list or permission of the Department of Chemical Engineering

Chemical Engineering and Society (B.Eng.Society)

ADMISSION
See Admission to Level II Engineering Programmes.

NOTE
1. Students may choose to follow a stream of recommended technical elective courses.

PROCESS SYSTEMS ENGINEERING (PSE) STREAM:
- Required Courses: CHEM ENG 4C03, 4E03, 4G03

POLYMER MATERIALS AND MANUFACTURING (PMM) STREAM:
- Required courses: CHEM ENG 3Q03, 4B03, 4C03, 4X03, ENGINEER 2003

2. A minimum of 18 units of focus elective courses is required for the programme. (This does not include the six units of complementary studies elective in Level I.)

LEVEL II: 33-35 UNITS
- 15 units CHEM ENG 2A04, 2D04, 2F04, 2G03
- 3 units CHEM 1A03
- 6 units ENGSOC'TY 2X03, 2Y03
- 6 units MATH 2M06
- 3-6 units Engineering and Society focus electives

LEVEL III: 32-35 UNITS
- 17 units CHEM ENG 3D03, 3K04, 3L02, 3M04, 3Q04
- 6 units CHEM 2A03, 2E03
- 3 units ENGSOC'TY 3Y03
- 3 units STATS 3N03 or 3Y03
- 3-6 units Engineering and Society focus electives

LEVEL IV: 34-38 UNITS
- 13 units CHEM ENG 3E04, 3G04, 3P03, 4L02
- 3 units from CHEM ENG 4K03, 4M03, 4T03, 4X03, ENGINEER 4U03
- 6 units ENGSOC'TY 3X03, 3Z03
- 6 units from BIOCHEM 2EE3, CHEM ENG 3Q03, CHEM 3103, ENGINEER 2003
- 3-6 units Engineering and Society focus electives
- 3-4 units Level III or IV technical electives from approved list or permission of the Department of Chemical Engineering

LEVEL V: 32-33 UNITS
- 8 units CHEM ENG 4N04, 4W04
- 9 units from CHEM ENG 4B03, 4E03, 4G03, 4K03, 4M03, 4T03, 4X03, ENGINEER 4U03
- 6 units ENGSOC'TY 4X03, 4Z03
- 3-4 units Level III or IV technical electives from approved list or permission of the Department of Chemical Engineering
- 6 units Engineering and Society focus electives


Subject to approval by the Ministry of Training, Colleges and Universities, a B.Eng.Biosciences programme in Chemical Engineering and Bioengineering will be offered.

ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 36 UNITS
- 15 units CHEM ENG 2A04, 2D04, 2F04, 2G03
- 3 units CHEM 1A03
- 3 units BIOLOGY 1A03
- 6 units HTH SCI 2L03, 2LL3
- 6 units MATH 2M06
- 3 units STATS 3N03

LEVEL III: 37 UNITS
- 25 units CHEM ENG 3B03, 3D03, 3G04, 3K04, 3L02, 3M04, 3Q04
- 6 units CHEM 2A03, 2E03
- 3 units BIOCHEM 2E03
- 3 units approved complementary studies electives (above Level I)

LEVEL IV: 35-37 UNITS
- 18 units CHEM ENG 3K03, 3BM3, 3E04, 3P03 4L02, 4LL3
- 3 units BIOCHEM 3G03
- 3 units from ENGINEER 4A03, 4H03
- 6 units from CHEM 3103, CHEM ENG 3Q03, ENGINEER 2003
- 3 units approved complementary studies electives (above Level I)
- 3-4 units Level III or IV technical electives from approved list or permission of the Department of Chemical Engineering

LEVEL V: 35-36 UNITS
- 8 units CHEM ENG 4N04, 4W04
- 9 units from CHEM ENG 4B03, 4E03, 4G03, 4K03, 4M03, 4T03, 4X03, ENGINEER 4U03
- 6 units CHEM ENG 4T03, ENGINEER 4U03
- 6 units approved technical electives from biosciences or bio-engineering
- 3 units approved complementary studies electives (above Level I)
- 3-4 units Level III or IV technical electives from approved list or permission of the Department of Chemical Engineering
Civil Engineering (B.Eng.) {4120}

ADMISSION
See Admission to Level II Engineering Programmes.

NOTES
1. Students entering Level II can choose between a Structural/Geotechnical Engineering Stream (S/G Stream) and a Water/Environmental Engineering Stream (W/E Stream).
2. 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 IV, 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
24 units CIV ENG 2A02, 2C04, 2E03, 2I03, 2J04, 2K04, 2Q04
4 units ENGINEER 2P04
6 units MATH 2M06
3 units S/G Stream: ENGINEER 2C03
W/E Stream: CHEM ENG 2B03

LEVEL III: 36 UNITS (2003-2004 ONLY)
26 units CIV ENG 3A03, 3B03, 3C03, 3G03, 3J04, 3K03, 3M04, 3S03
3 units ENGINEER 3P03
4 units STATS 3J04
3 units approved complementary studies electives
3 units from approved list of Level III, V Technical electives
6 units S/G Stream: CIV ENG 3R03, 3S03
W/E Stream: CIV ENG 3L03, 3U03

LEVEL IV: 34-36 UNITS (2003-2005 ONLY)
3 units ENGINEER 4B03
3 units from ENGINEER 4A03, 4H03
25-27 units from Level IV Civil Engineering technical electives or ENGINEER 4U03
3 units approved complementary studies electives (above Level I)

3 units ENGINEER 4B03
3 units from ENGINEER 4A03, 4H03
3 units approved complementary studies electives (above Level I)
25-27 units S/G Stream: from approved list of Level IV Civil Engineering technical electives
W/E Stream: from approved list of Level III and IV Civil Engineering technical electives

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

ADMISSION
See Admission to Level II Engineering Programmes.

NOTES
1. Students entering Level II can choose between a Structural/Geotechnical Engineering Stream (S/G Stream) and a Water/Environmental Engineering Stream (W/E Stream).
2. 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.
3. A minimum of 18 units of focus elective courses is required for the programme.

LEVEL II: 39 UNITS
17 units CIV ENG 2A02, 2C04, 2I03, 2J04, 2Q04
6 units COMMERCE 2A03, 2M03
3 units ENGINEER 2P04
4 units MATH 2M06
6 units ENGSOCY 2X03, 2Y03
3 units Engineering and Society focus electives
3 units S/G Stream: ENGINEER 2C03
W/E Stream: CHEM ENG 2B03

LEVEL III: 36 UNITS (2003-2004 ONLY)
17 units CIV ENG 2E03, 2Q04, 3G03, 3M04, 3S03
9 units COMMERCE 2A03, 2B03, 2F03
3 units ENGINEER 2C03
4 units STATS 3J04
3 units approved complementary studies electives (above Level I)

LEVEL IV: 38 UNITS (EFFECTIVE 2004-2005)
13 units CIV ENG 3A03, 3B03, 3G03, 3J04, 3K03
9 units COMMERCE 3B03, 3F03, 3M03, 3S03
3 units approved complementary studies electives (above Level I)
6 units S/G Stream: CIV ENG 3R03, 3S03
W/E Stream: CIV ENG 3L03, 3U03

LEVEL V: 37-38 UNITS (2003-2006 ONLY)
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

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

ADMISSION
See Admission to Level II Engineering Programmes.

NOTES
1. Students entering Level II can choose between a Structural/Geotechnical Engineering Stream (S/G Stream) and a Water/Environmental Engineering Stream (W/E Stream).
2. 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.
3. A minimum of 18 units of focus elective courses is required for the programme.

LEVEL II: 39 UNITS
17 units CIV ENG 2A02, 2C04, 2I03, 2J04, 2Q04
4 units ENGINEER 2P04
6 units MATH 2M06
6 units ENGSOCY 2X03, 2Y03
3 units Engineering and Society focus electives
3 units S/G Stream: ENGINEER 2C03
W/E Stream: CHEM ENG 2B03

LEVEL III: 33-36 UNITS (2003-2004 ONLY)
17 units CIV ENG 2E03, 2Q04, 3G03, 3M04, 3S03
3 units ENGINEER 2C03
3 units STATS 3J04
3 units ENGSOCY 3Y03
6-9 units Engineering and Society focus electives
13 units CIV ENG 2E03, 2Q04, 3G03, 3M03
4 units STATS 3J04
3 units ENGSOCTY 3Y03
6-9 units Engineering and Society focus electives
6 units S/G Stream: CIV ENG 3R03, 3S03
W/E Stream: CIV ENG 3L03, 3U03

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: 35-37 UNITS (2003-2006 ONLY)
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

LEVEL V: 35-37 UNITS (EFFECTIVE 2006-2007)
3 units ENGINEER 4B03
6 units ENGSOCTY 4X03, 4Z03
3 units Engineering and Society focus electives
24-25 units S/G Stream: from approved list of Level IV Civil Engineering technical electives W/E Stream: from approved list of Level III and IV Civil Engineering technical electives

Computer Engineering (B.Eng.) {4144}

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 2E03, 2E03
8 units MATH 2P04, 2Q04
3 units approved complementary studies electives (above Level I)

LEVEL III: 38 UNITS
8 units COMP ENG 3D14, 3SK4
20 units ELEC ENG 3EJ4, 3F14, 3TP4, 3TQ4, 3TR4
3 units MATH 3K03
4 units SFWR ENG 3K04
3 units COMP SCI 3SH3

LEVEL IV: 36-38 UNITS
4 units ELEC ENG 4H13, 4HJ1
20 units COMP ENG 4D14, 4DL4, 4DM4, 4DN4, 4O14
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

Computer Engineering and Management (B.Eng.Mgt.) {4144325}

ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 38 UNITS
3 units COMMERCE 2AA3
8 units COMP ENG 2D14, 2S14
6 units ECON 1BB3, 2X03
8 units ELEC ENG 2C14, 2CJ4
2 units ENGN MGT 2AA2
8 units MATH 2P04, 2Q04
3 units ENGINEER 2H03

LEVEL III: 38 UNITS
12 units COMMERCE 2AB3, 2BA3, 2FA3, 2MA3
12 units ELEC ENG 2E14, 3F14, 3TP4
3 units ENGINEER 2E03
1 unit ENGN MGT 3AA1
3 units MATH 3K03
4 units SFWR ENG 3K04
3 units approved complementary studies electives (above Level I)

LEVEL IV: 38 UNITS
13 units ELEC ENG 3EJ4, 3TQ4, 3TR4, 4HJ1
4 units COMP ENG 3D14
9 units COMMERCE 3BC3, 3FA3, 3MC3
3 units COMP SCI 3SH3
3 units STATS 3Y03
3 units Commerce electives selected from Level III and IV Commerce or COMMERCE 2OB3
3 units from ENGINEER 4A03, 4H03

LEVEL V: 37 UNITS
6 units COMMERCE 3C03, 4PA3
24 units COMP ENG 3SK4, 4DK4, 4DL4, 4DM4, 4DN4, 4O14
4 units ENGN MGT 4A01, 5B03
3 units Commerce electives selected from Level III and IV Commerce or COMMERCE 2GB3

Computer Engineering and Society (B.Eng.Society) {4144535}

ADMISSION
See Admission to Level II Engineering Programmes.

NOTE
A minimum of 18 units of focus elective courses is required for the programme. (This does not include the six units of complementary studies elective in Level I.)

LEVEL II: 36-39 UNITS
8 units COMP ENG 2D14, 2S14
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, 3F14, 3TP4, 3TR4
3 units ENGSOCTY 3Y03
4 units COMP ENG 3SK4
3 units MATH 3K03
4 units SFWR ENG 3K04
3-6 units Engineering and Society focus electives

LEVEL IV: 32-35 UNITS
13 units ELEC ENG 3EJ4, 3TQ4, 3TR4, 4HJ1
4 units COMP ENG 3D14
6 units ENGSOCTY 3X03, 3Z03
3-6 units Engineering and Society focus electives
3 units ENGINEER 2H03
3 units COMP SCI 3SH3

LEVEL V: 32-36 UNITS
20 units COMP ENG 4DK4, 4DL4, 4DM4, 4DN4, 4O14
6 units ENGSOCTY 4X03, 4Z03
3-6 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)

Electrical Engineering (B.Eng.) {4170}

ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 37 UNITS
20 units ELEC ENG 2C14, 2CJ4, 2D14, 2E14, 2S14
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 3D14, 3SK4
24 units ELEC ENG 3EJ4, 3F14, 3TP4, 3TQ4, 3TR4
3 units MATH 3K03
4 units SFWR ENG 3M04

LEVEL IV: 36-38 UNITS
8 units ELEC ENG 4H13, 4HJ1, 4O14
16 units from COMP ENG 4DK4, 4DL4, 4DM4, 4TL4, ELEC ENG 4CL4, 4FJ4, 4PK4, 4PL4, 4TK4
3-4 units technical electives from an approved list of Electrical Engineering or Computer Engineering Level III or IV
3 units ENGINEER 2H03
3-4 units technical electives (from Level III and IV of the Faculty of Engineering)
3 units from ENGINEER 4A03, 4H03

Electrical and Biomedical \(\{4171\}\) Engineering (B.Eng.)

Subject to approval by the Ministry of Training, Colleges and Universities, beginning in the 2003-2004 academic year, a B.Eng. programme in Electrical and Biomedical Engineering will be offered.

ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 39 UNITS
16 units ELEC ENG 2C14, 2CJ4, 2E14, 2S14
3 units ENGINEER 2B03
8 units MATH 2P04, 2Q04
6 units BIOLOGY 1A03, 1A0A
3 units CHEM 1A03
3 units approved complementary studies electives (above Level I)

LEVEL III: 40 UNITS
22 units ELEC ENG 2D14, 3BA3, 3BB3, 3EJ4, 3F14, 3TP4
3 units from ENGINEER 4A03, 4H03
3 units MATH 3K03
6 units CHEM 2A03, 2B03
6 units HTH SCI 2L03, 2LL3

LEVEL IV: 38 UNITS
8 units COMP ENG 3DJ4, 4TL4
4 units COMP ENG 4DL4, ELEC ENG 4CL4, 4FJ4, 4TK4
26 units from ELEC ENG 3TQ4, 3TR4, 4BC4, 4BD3, 4BE4, 4BF3, 4BI4

Electrical Engineering and Management (B.Eng.Mgt.) \(\{4170325\}\)

ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 38 UNITS
3 units COMMERCE 2AA3
6 units ECON 1B03, 2X03
16 units ELEC ENG 2C14, 2CJ4, 2D14, 2S14
2 units ENGN MGT 2AA2
8 units MATH 2P04, 2Q04
3 units ENGINEER 2H03

LEVEL III: 38 UNITS
12 units COMMERCE 2AB3, 2BA3, 2FA3, 2MA3
12 units ELEC ENG 2E14, 3F14, 3TP4
3 units ENGINEER 2E03
1 unit ENGN 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, 3P14, 3TQ4, 3TR4, 4HJ1
4 units COMP ENG 3DJ4
9 units COMP ENG 3DC3, 3FA3, 3MC3
3 units STATS 3Y03
3 units Commerce electives selected from Level III and IV Commerce or COMMERCE 2Q03
3 units from ENGINEER 4A03, 4H03

LEVEL V: 37 UNITS
6 units COMMERCE 3QC3, 4PA3
4 units ELEC ENG 4Q14
4 units ENGN MGT 5B03, 4A01
4 units COMP ENG 3SK4
3 units Commerce electives selected from Level III and IV Commerce or COMMERCE 2Q03
16 units from COMP ENG 4DK4, 4DL4, 4DM4, 4TL4, ELEC ENG 4CL4, 4FJ4, 4PK4, 4PL4, 4TK4

Electrical Engineering and Society (B.Eng.Society) \(\{4170535\}\)

ADMISSION
See Admission to Level II Engineering Programmes.

NOTE
A minimum of 18 units of focus elective courses is required for the programme. (This does not include the six units of complementary studies elective in Level I.)

LEVEL II: 36-39 UNITS
16 units ELEC ENG 2C14, 2CJ4, 2D14, 2S14
6 units ENGINEER 2E03
6 units ENGSOCET 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, 3F14, 3TP4
3 units ENGSOCET 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
17 units ELEC ENG 3EJ4, 3P14, 3TQ4, 3TR4, 4HJ1
4 units COMP ENG 3DJ4
6 units ENGSOCET 3X03, 3Z03
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
- Lasers and Optical Communications
- Nuclear Engineering
- Microelectronic Devices

LEVEL II: 39 UNITS
4 units ELEC ENG 2D14
7 units ENGINEER 2B03, 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, 3O03, 3W04
9 units MATH 3C03, 3D03, 4Q03
9 units PHYSICS 3B06, 3M03

LEVEL IV: 36-38 UNITS
3 units ENGINEER 4B03
11 units ENG PHYS 4A04, 4C03, 4U04
22-24 units approved Level III or IV technical electives, of which 10 units must be selected from the following courses:
- ENG PHYS 4D03, 4E03, 4F03, 4L03, PHOTONIC 4G03, 4S04, PHYSICS 4D06
Engineering Physics and Management (B.Eng.Mgt.) {4190325}

ADMISSION
See Admissions to Level II Engineering Programmes.

LEVEL II: 38 UNITS
6 units COMMERCE 2AA3, 2MA3
4 units ELEC ENG 2D14
2 units ENG MGT 2AA2
4 units ENGINEER 2P04
11 units ENG PHYS 2A03, 2E04, 2H04
8 units MATH 2P04, 2Q04
3 units PHYSICS 2D03

LEVEL III: 40 UNITS
9 units COMMERCE 2A03, 2BA3, 2FA3
6 units ECON 1B03, 2X03
10 units ENG PHYS 3E03, 3F03, 3W04
6 units MATH 3C03, 3D03
9 units PHYSICS 3B06, 3M03

LEVEL IV: 39-37 UNITS
12 units COMMERCE 3BC3, 3FA3, 3MC3, 3QC3
1 unit ENGN MGT 3AA1
13 units ENG PHYS 3D03, 3O03, 4C03, 4U04
3 units MATH 4C03
3 units from ENGINEER 2003, PHYSICS 2D03 or 3M03 (whichever has not been taken)
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 COMMERCE 4PA3
4 units ENGN MGT 4A03, 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:
ENGINEER 4A03, 4E03, 4F03, 4L03, PHYSICS 4003, 4C03, 4Q03, PHYSICS 4D06
6 units Commerce electives selected from Level III and IV Commerce or COMMERCE 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. (This does not include the six units of complementary studies elective in Level I.)

LEVEL II: 35-38 UNITS
4 units ENGINEER 2P04
11 units ENG PHYS 2A03, 2E04, 2H04
6 units ENGSOCTY 2X03, 2Y03
8 units MATH 2P04, 2Q04
3 units PHYSICS 2D03
3-6 units Engineering and Society focus electives

LEVEL III: 35-38 UNITS
4 units ELEC ENG 2D14
10 units ENG PHYS 3E03, 3F03, 3W04
3 units ENGSOCTY 3Y03
6 units MATH 3C03, 3D03
9 units PHYSICS 3B06, 3M03
3-6 units Engineering and Society focus electives

LEVEL IV: 31-35 UNITS
13 units ENG PHYS 3D03, 3O03, 4C03, 4U04
6 units ENGSOCTY 3X03, 3Z03
3 units MATH 4D03
3 units from ENGINEER 2003, PHYSICS 2D03 or 3M03 (whichever has not been taken)
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:
ENGINEER 4D03, 4E03, 4F03, 4L03, PHYSICS 4003, 4Q03, PHYSICS 4D06
3-6 units Engineering and Society focus electives

Manufacturing Engineering (B.Eng.) {4314325}

Management (B.Eng.Mgt.) LEVEL IV: 35 UNITS
9 units COMMERCE 3BC3, 3FA3, 3MC3
2 units ENGN MGT 3AA1, 4A01
5 units MANUFACT 4A03, 4P02
3 units MATLS 3M03
13 units ENGSOCTY 4A03, 4M04, 4P04, 4Z03
3 units approved technical electives (See Level IV Manufacturing Engineering.)

Manufacturing Engineering and Society (B.Eng.Society) {314535}

LEVEL IV: 34-37 UNITS
3 units ENGINEER 4B03
6 units ENGSOCTY 3X03, 3Z03
2 units MANUFACT 4P02
3 units MATLS 3M03
17 units ENGSOCTY 4X03, 4Z03
3 units ENGN MGT 5B03
4 units MANUFACT 4M04
12 units ENGINEER 4A03, 4M04, 4P04, 4Z03
6 units Commerce electives selected from Level III and IV Commerce or COMMERCE 2QB3

Materials Engineering (B.Eng.) {3145}

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

ADMISSION
See Admission to Level II Engineering Programmes.

ADMISSION
See Admission to Level II Engineering Programmes. Note A minimum of 18 units of focus elective courses is required for the programme. (This does not include the six units of complementary studies elective in Level I.)
LEVEL IV: (MATERIALS ENGINEERING STREAM)  (4315535)  
32-36 UNITS
4 units from CHEM ENG 3C04, MECH ENG 3C04
6 units ENGSOCT 3X03, 3Z03
10 units MATLS 3B03, 3E04 (or 3T04 if not completed), 3M03
6-9 units Engineering and Society focus electives
6-7 units approved technical electives

LEVEL V: (MATERIALS ENGINEERING STREAM)  
30-34 UNITS (2003-2004 ONLY)
6 units ENGINEER 4B03, 4J03
6 units ENGSOCT 4X03, 4Z03
8 units MATLS 4T02, 4W04, 4L02
4 units from MATLS 4K04, 4Z04
3-4 units approved technical electives
3-6 units Engineering and Society focus electives

LEVEL V: (MATERIALS ENGINEERING STREAM)  
33-37 UNITS (EFFECTIVE 2004-2005)
6 units ENGINEER 4B03, 4J03
6 units ENGSOCT 4X03, 4Z03
8 units MATLS 4A02, 4B04, 4L02
4 units from MATLS 4K04, 4Z04
6-7 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 3C04, MECH ENG 3C04
6 units ENGSOCT 3X03, 3Z03
13 units MATLS 3B03, 3E04 (or 3T04 if not completed), 3M03, 3C03
3 units from MATLS 4R03, 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 ENGSOCT 4X03, 4Z03
8 units MATLS 4A02, 4B04, 4L02
4 units from MATLS 4K04, 4Z04
3-6 units Engineering and Society focus electives

Mechanical Engineering (B.Eng.)  (4330)

ADMISSION
See Admission to Level II Engineering Programmes.

NOTE
Effective in the 2004-2005 academic year, Level IV Mechanical Engineering students must choose one of the following option areas and complete sufficient units of the listed required courses and technical electives.

PROGRAMME OPTION COMPULSORY COURSES:
- GENERAL: two of MECH ENG 3D03, 4Q03, 4S03, 4Z03
- MECHANICS AND DESIGN: MECH ENG 4Q03, 4Z03; two of MATLS 4T03, MECH ENG 4H03, 4I03, 4K03, 4L03, 4T03
- MANUFACTURING: MECH ENG 4Q03, 4Z03; two of CHEM ENG 4X03, ENGINEER 4J03, MATLS 4T03, MECH ENG 4A03, 4D03, 4H03, 4K03, 4T03
- THERMOFLUID SCIENCES: MECH ENG 3D03, 4S03; two of CHEM ENG 4X03, MECH ENG 4I03, 4J03, 4Q03, 4T03, 4U03
- APPROVED TECHNICAL ELECTIVES: any of the required courses listed above, plus CHEM ENG 4T03, CIV ENG 4K03, COMMERCE 3Q03, ELEC ENG 3P14

LEVEL II: 35 UNITS
4 units ENGINEER 2P04
3 units MATLS 2003
6 units MATH 2W04
19 units MECH ENG 2B02, 2C03, 2Q04, 2W04, 3A03, 3C03
3 units approved English literature (Term I)

LEVEL III: 35 UNITS
6 units ENGINEER 2MM3, 3N03
3 units MATLS 3M03
3 units MATH 3103
20 units MECH ENG 3E04, 3F04, 3M02, 3Q04, 3R03, 4R03
3 units STATS 3Y03

LEVEL IV: 33 UNITS (2003-2004 ONLY)
3 units MATLS 3M03
15 units MECH ENG 4M04, 4P02, 4Q03, 4R03, 4S03
3 units ENGINEER 4B03
3 units from ENGINEER 4A03, 4H03
3 units approved complementary studies electives (above Level I)
6 units from CHEM ENG 4T03, CIV ENG 3K03, COMMERCE 3Q03, ELEC ENG 3P14, ENGINEER 4J03, 4U03, ENG PHYS 3P03, 3X03, 4D03, 4L03, MANUFACT 4A03, MECH ENG 4D03, 4I03, 4J03, 4K03, 4L03, 4T03, 4U03, 4V03, 4Z03

LEVEL IV: 35 UNITS (EFFECTIVE 2004-2005)
3 units ENGINEER 4B03
3 units from ENGINEER 4A03, 4H03
3 units approved complementary studies electives (above Level I)
11 units MECH ENG 4M06, 4P02, 4V03
15 units approved technical electives, including 6-12 units from required option courses. (See Note above.)

Mechanical Engineering and (B.Eng.Mgt.)  (4330325)

ADMISSION
See Admission to Level II Engineering Programmes.

NOTE
Effective in the 2005-2006 academic year, Level V Mechanical Engineering and Management students must choose one of the following option areas and complete sufficient units of the listed required courses and technical electives.

PROGRAMME OPTION COMPULSORY COURSES:
- GENERAL: two of MECH ENG 3D03, 4Q03, 4S03, 4Z03
- MECHANICS AND DESIGN: MECH ENG 4Q03, 4Z03; two of MATLS 4T03, MECH ENG 4H03, 4I03, 4K03, 4L03, 4T03
- MANUFACTURING: MECH ENG 4Q03, 4Z03; two of CHEM ENG 4X03, ENGINEER 4J03, MATLS 4T03, MECH ENG 4A03, 4D03, 4H03, 4K03, 4T03
- THERMOFLUID SCIENCES: MECH ENG 3D03, 4S03; two of CHEM ENG 4X03, MECH ENG 4I03, 4J03, 4Q03, 4T03, 4U03
- APPROVED TECHNICAL ELECTIVES: any of the required courses listed above, plus CHEM ENG 4T03, CIV ENG 3K03, COMMERCE 3Q03, ELEC ENG 3P14

LEVEL II: 37 UNITS
9 units COMMERCE 2A2A3, 2B2A3, 2M3A
6 units ECON 1B3A3, 2X03
4 units ENGINEER 2P04
3 units MATLS 2003
6 units MATH 2M06
7 units MECH ENG 2W04; 3C03
2 units ENGN MGT 2A02

LEVEL III: 36 UNITS
3 units COMMERCE 2FA3
1 unit ENGN MGT 3A01
3 units ENGINEER 2MM3
3 units MATH 3103
23 units MECH ENG 2B02, 2C03, 2Q04, 3A03, 3F04, 3Q04, 3R03
3 units STATS 3Y03

LEVEL IV: 34 UNITS (2003-2004 ONLY)
12 units COMMERCE 2A2B3, 3B03, 3F03, 3MC3
1 unit ENGN MGT 4A01
18 units MECH ENG 3D03, 3E04, 3R03, 4P02, 4R03, 4S03
3 units Level III or IV approved technical electives

LEVEL IV: 34 UNITS (EFFECTIVE 2004-2005)
12 units COMMERCE 2A2B3, 3B03, 3F03, 3MC3
1 unit ENGN MGT 4A01
3 units MATLS 3M03
12 units MECH ENG 3E04, 3M02, 3R03, 4V03
6 units from required option courses or approved technical electives
FACULTY OF ENGINEERING

LEVEL V: 34 UNITS (2003-2005 ONLY)
6 units COMMERC 3QC3, 4PA3
3 units ENGN MGT 5B03
7 units MECH ENG 4M04, 4Q03
3 units from ENGINEER 4A03, 4H03
6 units Commerce electives selected from Level III and IV Commerce or COMMERCE 2QB3
6 units from CHEM ENG 4T03, CIV ENG 3K03, ELEC ENG 3P14, ENGINEER 3N03, 4J03, 4U03, ENG PHYS 3F03, 3X03, 4D03, 4L03, MANUFACT 4A03, MATLS 3M03, MECH ENG 4D03, 4H03, 4I03, 4J03, 4K03, 4L03, 4T03, 4U03, 4V03, 4Z03
3 units approved complementary studies electives (above Level I)

LEVEL V: 34 UNITS (EFFECTIVE 2005-2006)
6 units COMMERC 3QC3, 4PA3
6 units Commerce electives selected from Level III or IV Commerce or COMMERCE 2QB3
3 units ENGN MGT 5B03
3 units from ENGINEER 4A03, 4H03
3 units approved complementary studies electives (above Level I)
8 units MECH ENG 4M06, 4P02
6 units from required option courses or approved technical electives. (See Note above.)

Mechanical Engineering and Society (B.Eng.Society)

LEVEL II: 28-30 UNITS
3 units approved complementary studies electives. (Three units must be above Level I.)
4 units ENGINEER 2P04
6 units ENGSOCITY 2X03, 2Y03
3 units MATLS 2D03
6 units MATH 2M06
11 units MECH ENG 2C03, 2Q04, 2W04
3-6 units Engineering and Society focus electives

LEVEL III: 31-34 UNITS
3 units ENGSOCITY 2Y03
3 units ENGINEER 2M03
3 units MATH 3I03
19 units MECH ENG 2B02, 3A03, 3C03, 3F04, 3Q04, 3R03
3-6 units Engineering and Society focus electives

LEVEL IV: 31-34 UNITS (2003-2004 ONLY)
3 units ENGINEER 3N03
6 units ENGSOCITY 3X03, 3Z03
19 units MECH ENG 3D03, 3E04, 3F04, 4P02, 4R03, 4S03
3-6 units Engineering and Society focus electives

LEVEL IV: 33-36 UNITS (EFFECTIVE 2004-2005)
3 units ENGINEER 3N03
3 units MATLS 3M03
3 units STATS 3Y03
6 units ENGSOCITY 3X03, 3Z03
12 units MECH ENG 3E04, 3M02, 4R03, 4V03
3 units from required option courses or approved technical electives
3-6 units Engineering and Society focus electives

LEVEL V: 31-34 UNITS (2003-2005 ONLY)
3 units ENGINEER 4B03
6 units ENGSOCITY 4X03, 4Z03
7 units MECH ENG 4M04, 4Q03
3-6 units Engineering and Society focus electives
12 units approved Level III or Level IV technical electives

LEVEL IV: 31-34 UNITS (EFFECTIVE 2005-2006)
6 units ENGSOCITY 4X03, 4Z03
3 units ENGINEER 4B03
8 units MECH ENG 4M06, 4P02
3-6 units Engineering and Society focus electives
12 units from required option courses or approved technical electives. (See Note above.)

Photonics Engineering (B.Eng.) {4426}

Subject to approval by the Ministry of Training, Colleges and Universities, beginning in the 2003-2004 academic year, B.Eng. programmes in Photonics Engineering, Photonics Engineering and Management and Photonics Engineering and Society will be offered.

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
- Microelectronic Devices ENG PHYS 4E03, 4F03

LEVEL II: 39 UNITS
4 units ELEC ENG 2D04
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
13 units ENG PHYS 3C03, 3E03, 3F03, 3W04
9 units MATLS 3C03, 3D03, 4Q03
6 units PHOTONIC 3A03, 4G03
9 units PHYSICS 3B06, 3M03

LEVEL IV: 36-38 UNITS
4 units ELEC ENG 3T04
3 units ENGINEER 4B03
3 units ENG PHYS 4C03
15 units PHOTONIC 4A04, 4K03, 4S04, 4U04
3 units PHYSICS 4B03
6-10 units approved Level III or IV technical electives

Photonics Engineering and Management (B.Eng.Mgt.) {4426325}

Subject to approval by the Ministry of Training, Colleges and Universities, beginning in the 2003-2004 academic year, B.Eng. programmes in Photonics Engineering, Photonics Engineering and Management and Photonics Engineering and Society will be offered.

ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 38 UNITS
6 units COMMERCE 2AA3, 2MA3
4 units ELEC ENG 2D04
2 units ENGN MGT 2A02
4 units ENGINEER 2P04
11 units ENG PHYS 2A03, 2E04, 2H04
8 units MATH 2P04, 2Q04
3 units PHYSICS 2D03
Photonics 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. (This does not include the six units of complementary studies elective in Level I.)

LEVEL III: 38-39 UNITS
12 units ENGINEER 3K03, 3A03, 3MC3, 3QC3
1 unit ENGINEER 3A03
3 units ENGINEER 3B03
3 units ENGINEER 4B03
3 units PHYSICS 3B06, 3M03
10 units PHYSIC 3A03, 4G03, 4U04
3 units approved complementary studies electives (above Level I)
3-4 units approved Level III or IV technical electives

LEVEL IV: 35-37 UNITS
3 units ENGINEER 4A03
4 units ELEC ENG 3TR4
4 units ENG MGT 3A01, 5B03
11 units PHYSIC 4A04, 4K03, 4S04
3 units PHYSICS 4B03
4-6 units approved Level III or IV technical electives
6 units Commerce electives selected from Level III and IV
6 units approved complementary studies electives (above Level I)

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

ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 39 UNITS
6 units COMMERCE 2AA3, 2MA3
3 units ECON 1BB3
8 units MATH 2P04, 2Q04
22 units SFWR ENG 2AA4, 2C03, 2D03, 2E03, 2F03, 2M3X, 2S03

LEVEL III: 37 UNITS (2003-2004 ONLY)
6 units ENGINEER 3K03, 3L03
28 units SFWR ENG 3B04, 3C03, 3E03, 3F03, 3G03, 3H03, 3I03, 3J03, 3X03
3 units STATS 3Y03

LEVEL III: 38 UNITS (EFFECTIVE 2004-2005)
6 units ENGINEER 3K03, 4A03
32 units SFWR ENG 3A04, 3B04, 3D03, 3E03, 3F03, 3G03, 3H03, 3I03, 3J03, 3X03
3 units ENGINEER 4B03
27 units SFWR ENG 4A03, 4C03, 4D03, 4E03, 4F03, 4G03, 4H03, 4I03, 4J03, 4O03
9 units approved technical electives

LEVEL IV: 36 UNITS (2005-2006)
3 units SFWR ENG 4A03, 4F03, 4G03, 4H03, 4I03, 4O03
9 units approved technical electives

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

ADMISSION
See Admission to Level II Engineering Programmes.

LEVEL II: 39 UNITS
6 units COMMERCE 2AA3, 2MA3
3 units ECON 1BB3
8 units MATH 2P04, 2Q04
22 units SFWR ENG 2AA4, 2C03, 2D03, 2E03, 2F03, 2M3X, 2S03

LEVEL III: 37 UNITS (2003-2004 ONLY)
6 units ENGINEER 3K03, 3L03
28 units SFWR ENG 3B04, 3C03, 3E03, 3F03, 3G03, 3H03, 3I03, 3J03, 3X03
3 units STATS 3Y03

LEVEL III: 38 UNITS (EFFECTIVE 2004-2005)
6 units ENGINEER 3K03, 4A03
32 units SFWR ENG 3A04, 3B04, 3D03, 3E03, 3F03, 3G03, 3H03, 3I03, 3J03, 3X03
3 units ENGINEER 4B03
27 units SFWR ENG 4A03, 4C03, 4D03, 4E03, 4F03, 4G03, 4H03, 4I03, 4J03, 4O03
9 units approved technical electives

LEVEL IV: 36 UNITS (2005-2006)
3 units SFWR ENG 4A03, 4F03, 4G03, 4H03, 4I03, 4O03
9 units approved technical electives

LEVEL V: 36 UNITS (EFFECTIVE 2006-2007)
3 units COMMERCIAL 4PA3
3 units ENGSCTY 3X03, 32X03
3 units ENGINEER 3A03
15 units SFWR ENG 4C03, 4G03, 4H03, 4I03, 4J03
3 units approved technical elective
Software 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. (This does not include the 6 units of complementary studies elective in Level I.)

LEVEL II: 39 UNITS
6 units ENGSCTY 2X03, 2Y03
6 units COMMERCIAL 2PA3
6 units MATH 2P04, 2Q04
22 units SFWR ENG 2AA4, 2C03, 2D03, 2E03, 2F03, 2MX3, 2S03,
3 units Engineering and Society focus elective

3 units ENGSCTY 3Y03
3 units ENGINEER 3L03
25 units SFWR ENG 3B04, 3C03, 3E03, 3F03, 3G03, 3H03,
3I03, 3J03, 3S03
3 units STATS 3Y03
3-6 units Engineering and Society focus electives

LEVEL IV: 33-36 UNITS (2003-2004 ONLY)
6 units ENGINEER 3K03, 4B03
6 units ENGSCTY 3X03, 3Z03
3 units approved Science elective
15 units SFWR ENG 3J03, 4A03, 4E03, 4I03, 4J03
3-6 units Engineering and Society focus electives

LEVEL IV: 33-36 UNITS (2004-2005 ONLY)
6 units ENGINEER 3K03, 4B03
6 units ENGSCTY 3X03, 3Z03
3 units approved Science elective
12 units SFWR ENG 4A03, 4E03, 4I03, 4J03
3-6 units Engineering and Society focus electives
3 units approved technical elective

LEVEL IV: 33-36 UNITS (EFFECTIVE 2005-2006)
6 units ENGINEER 3K03, 4B03
6 units ENGSCTY 3X03, 3Z03
9 units SFWR ENG 4A03, 4E03, 4I03
6-9 units Engineering and Society focus electives
3 units approved Science elective
3 units approved technical elective

LEVEL V: 38-41 UNITS (2003-2005 ONLY)
15 units SFWR ENG 4C03, 4D03, 4F03, 4G03, 4H03
6 units approved technical elective
3-6 units Engineering and Society focus electives

LEVEL V: 33-36 UNITS (EFFECTIVE 2006-2007)
6 units ENGSCTY 4X03, 4Z03
15 units SFWR ENG 4C03, 4D03, 4G03, 4H03, 4I03
9 units approved technical elective (from list)
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 of the programme 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. If at any review after reinstatement the student’s Cumulative Average falls below 3.5, the student will be required to withdraw from the University for a period of at least 12 months.

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 1J3
3 units MAN TECH 1T13

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 3F13
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 close proximity the programmes for the 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 Bachelor of Health Sciences programmes.

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

Programme ..... Deadline

- Bachelor of Health Sciences (Honours) (B.H.Sc., Honours) ..... March 1
- Medicine (MD) ..... October 15
- Midwifery (B.H.Sc.) ..... February 1
- Nursing (B.Sc.N.)

Applicants directly from Ontario Secondary Schools ..... May 1
Diploma Registered Nurse ..... February 15
Nurse Practitioner ..... March 1
Applicants with Other Degrees ..... June 30

Transfers from other degree Nursing programmes ..... June 30

Child Life Studies Diploma Programme ..... March 1

Diploma Programme in

Clinical Behavioural Sciences ..... April 1

The University reserves the right to change the admission requirements at any time without notice.

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 University, therefore, reserves the right to grant admission to a limited number of students, and to refuse readmission to any student whose academic performance or general conduct has been unsatisfactory, or who has withdrawn from the programme for a period in excess of one academic year.

An evaluation of Unsatisfactory in the Behavioural 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 University reserves the right to change the admission requirements at any time without notice.

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 University, therefore, reserves the right to grant admission to a limited number of students, and to refuse readmission to any student whose academic performance or general conduct has been unsatisfactory, or who has withdrawn from the programme for a period in excess of one academic year.

An evaluation of Unsatisfactory in the Behavioural 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 University reserves the right to change the admission requirements at any time without notice.
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 the programme with the approval of the Faculty of Health Sciences, focusing on the development of knowledge and clinical competence. 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.

LICENCE TO PRACTISE
All graduates who wish to engage in clinical practice in any of the health fields must meet the licensing requirements of 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 and community based programmes. The learning objectives are:

1. to examine the growth and development of infants, children and youth, incorporating communication, play, expression of feelings, discovery 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 loss, both in the hospital and community environments.

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 of each year 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/pohem.

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 designation and to meet the deadlines for continuing education. Requirements vary from 10 to 20 weeks in length and a diploma should be completed within five years. A small group learning format is used.

Applicants must have basic professional qualifications (degree, certificate or mandate in current job) and meet the following requirements:

1. 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 loss, both in the hospital and community environments.
2. to engage new and/or upgraded knowledge, skills and attitude 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 designation and to meet the deadlines for continuing education. Requirements 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 be submitted to the CBS Office (HSC 2E12) by April for September courses and by October for January and April courses. Personal interviews will be arranged. For additional information visit the CBS website at http://www.fhs.mcmaster.ca/cbse. Applications can be obtained by contacting the CBS Office.

DIPLOMA PROGRAMME IN ENVIRONMENTAL HEALTH
The Diploma programme in Environmental Health is a distance education program 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 field to individuals with a degree or certification in a related 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 Transcript Assessment Fee, original transcripts and a letter of interest must be submitted by the beginning of April for the fall term. Information regarding requirements can be obtained by contacting the McMaster Institute of Environment and Health at (905) 525-9140, ext. 27344. Applicants will be notified of admissions decisions by June 30. Further information is available on our website (http://www.mcmaster.ca/eh).

DIPLOMA PROGRAMME IN OCCUPATIONAL HEALTH AND SAFETY
The Programme in Occupational Health and Environmental Medicine offers a diploma programme designed to provide basic instruction in the principles of occupational health and safety. Students can enrol in the programme on a full-time or a part-time basis. The full-time programme starts in September catering to those who wish to complete the course in three months. The part-time programme is designed for students within commuting distance from Hamilton wishing to continue their normal employment. The course can be taken on a part-time basis over an extended period of time. A diploma should be completed within five years. A small group learning format is used.

Applications must be submitted by May 15 each year for the study period beginning in September. Applications can be obtained by contacting the Programme in Occupational Health and Environmental Medicine at (905) 525-9140, ext. 22330 or emailing Jean Bodnar at bodnarj@mcmaster.ca. Further information can be obtained on our website (http://www.fhs.mcmaster.ca/ohs).
THE BACHELOR OF HEALTH SCIENCES (HONOURS) PROGRAMME

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

Health Sciences Centre, Room 1J11
Ext. 22815

Assistant Dean, Bachelor of Health Sciences (Honours)
D.G. Hamish/B.Sc., M.Sc., Ph.D., 3M Teaching Fellow

Programme Administrator
T. M. Basilio

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 a biological, behavioural and population-based perspective. 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 postgraduate options including graduate work in medical sciences, professional schools and entry into the workforce. Beyond the first year students may select 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 more broad 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 100 students, with expansion to 120 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 in order to solve 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 merits 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 in the perspective of the student.

4. Communication skills: The ability to communicate an issue in 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 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 2002-2003. 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 Grade 12 U or M courses (or OACs) apply through the:

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

Applications forms are available in secondary school guidance offices. Applications for all studies beginning in September must be received by the 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 March 1st, 2004 (for September 2004 admission). Supplementary Applications are to be submitted electronically via the web at: http://www.fhs.mcmaster.ca/bhsc/supp.htm

Applicants with Qualifications Equivalent to Ontario Secondary School

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 March 1st, 2004 (for September 2004 admission). Applications are to be submitted electronically via the web at: http://www.fhs.mcmaster.ca/bhsc/supp.htm

Applicants from other countries should contact the Office of International Affairs at http://www.mcmaster.ca/oa or (905) 525-9140, ext 42211 for details.

Transfer Applicants

Transfer applicants from McMaster University are required to complete a Programme Application for Current Level I Students on-line via MUGSI by April 15th and a mandatory Supplementary Application by April 30th.

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 April 30th. Supplementary Applications are to be submitted electronically via the web at: http://www.fhs.mcmaster.ca/bhsc/supp.htm
Second Bachelor's Degree Applicants

McMaster University graduates are required to complete a McMaster University Returning Student Application and a mandatory Supplementary Application by April 30th. McMaster University Returning Student Application forms are available from the Office of the Registrar, Gilmour Hall, Room 108, 1280 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 April 30th. Supplementary Applications are to be submitted electronically via the web at: http://www.fhs.mcmaster.ca/bhsc/supp.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 majority of Level I offers of admission are made in Round 2 (mid-late May). A minimum of 88% is required for consideration. In Round 2, the following grade information will be used:

a. Semester schools: all final Grade 12 U and/or M or O/A courses from first semester of prior years, and second semester mid-term grades for Grade 12 U and/or M or O/A courses.

b. Non-semester schools: second term grades for full-year Grade 12 U and/or M or O/A courses.

Offers based on interim and/or mid-term grades will be conditional upon maintaining satisfactory performance on final grades.

Supplementary Applications are to be submitted electronically via the web at: http://www.fhs.mcmaster.ca/bhsc/supp.htm. A review of the mandatory Supplementary Application is a very important component of the admission selection process. Applicants who do not complete the supplementary application are not considered for admission.

Requirements

The following are the minimum Grade 12 U and/or M requirements under the Ontario Secondary School curriculum:

1. English U;
2. Biology U;
3. Chemistry U;
4. Advanced Functions and Introductory Calculus U;
5. One U or M course from Social Sciences (Geography, History, Law, Psychology, Sociology) or Humanities (Art, Drama, English, French, Music, other languages);
6. One additional U or M course in any other subject area to total six courses.

The following are the minimum O/A requirements under the OSIS curriculum:

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

Applicants with Qualifications Equivalent to Ontario Secondary School

Applicants from other provinces and countries must achieve the equivalent to the qualifications listed in the Grade 12 U or M (or O/A) course requirements in their secondary school graduation year with the exception of out-of-province students in jurisdictions that do not offer the equivalent of Advanced Functions and Introductory Calculus U (or O/A Calculus). If this course is unavailable, a course equivalent to Mathematics of Data Management U (or O/A Finite Mathematics) is acceptable.

Transfer Applicants

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. The process will be competitive and will be based on the student's academic qualifications and a Supplementary Application. Enrolment is limited. 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 university Level I Biology and six units of university Level I Chemistry. A cumulative average of at least 7.0 (minimum overall average of B-) will be required for admission. Students who are accepted into Level II of the programme may be required to complete a university Level I Inquiry Course offered within the B.H.Sc. (Honours) Programme, after admission to the programme.

Second Bachelor's Degree Applicants

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. The process will be competitive and will be based on the student's academic qualifications and a Supplementary Application. Enrolment is limited. A Cumulative Average of at least 7.0 (minimum overall average of B-) will be required for admission. Previous university undergraduate studies must involve a significant component of work in subject areas unrelated to the B.H.Sc. (Honours) Programme. Certain subject combinations may not be permitted. Applicants who have not completed a full course at the University level in Biology and Chemistry should be aware that completion of Grade 12 Biology U or O/A Biology and Grade 12 Chemistry U or O/A Chemistry are highly recommended prior to application. Applicants who have not completed these high school courses will be considered for admission. However, if accepted, an introductory Biology and Chemistry course at the university undergraduate level must be completed prior to proceeding to required courses that list these courses as prerequisites.

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.fhs.mcmaster.ca/bhsc

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, 1AA3
6 units CHEM 1A03, 1AA3
6 units HTH SCI 1E03, 1EE3
3 units HTH SCI 1F03
3 units HTH SCI 1G03
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 2FF3
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 3G03
3 units HTH SCI 3G33
3 units HTH SCI 3H03
18 units Electives

LEVEL IV: 30 UNITS

6-9 units HTH SCI 4A09 or 4B06
3 units HTH SCI 4X03 (See Note above.)
18-21 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.fhs.mcmaster.ca/bhsc/pdfs/bursary.pdf. 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
- Loucks Family and Friends B.H.Sc. Bursary
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 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.

A student is responsible for registering for courses to be applied towards a minor using elective units only. 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.

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.

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. Request for Letter of Permission Forms are available in the Programme Office (HSC-1-111). Students must achieve a grade of at least C- to receive credit. Students are required to submit a transcript from the other university directly to the Assistant Dean (HSC-1-111). If a grade of C- or better is attained, the transcript designation reads COM indicating complete, or NC indicating not complete if less than a C- grade is attained.

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.

RESTATEMENT 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 Reinstatement Request Form available at the Office of the Registrar (Gilmour Hall, Room 108) and the B.H.Sc. (Honours) Programme Office. The completed form and the $50.00 fee must be submitted to the Office of the Registrar by July 15 for September entry and November 30 for January entry.

The form 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 student's prior academic performance. Reinstatement cannot begin until it has been carefully screened and the evidence considered will include the student's 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. If at any review after reinstatement the student's Cumulative Average falls below 3.5, the student will be required to withdraw from the University for a period of at least 12 months.

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. It is highly recommended that you review your personal degree audit via MUGSI on the working day following each time you drop or add courses and seek academic counselling from the B.H.Sc. (Honours) Programme Office if you have any questions. Dates for final registration are available in the Sessional Dates section of this Calendar and are enforced.

SPRING COUNSELLING

Academic counselling is available throughout the year from 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. Please refer to the General Academic Regulations section in this Calendar for additional information related to graduation.

THE SCHOOL OF MEDICINE

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

Health Sciences Centre, Room 1M8
Ext. 22141

Assistant Dean

Programme Administrator
Cathy Oudshoorn

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, 138 students are admitted to the programme 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 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 (and subspecialties), Laboratory Medicine (and subspecialties), 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 Northern Academic Health Science Network (NAHSN) and physicians in towns in Northwestern Ontario. Clinical training opportunities exist in community hospitals throughout Central West Ontario. Excellent clinical experiences 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 Science) 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 to proceed to further postgraduate training. While most graduates will be involved directly with the care of individual patients, it is expected that some will choose careers concerned with the health of populations and the development of new knowledge.

The overriding objective to be achieved is the demonstrated ability to identify, analyze and manage clinical problems in order to provide effective, efficient and humane patient care.

The enabling objectives of knowledge, skills and professional behaviour comprise the following:

- **KNOWLEDGE**
  - To acquire and put into practice concepts and information required to understand and manage health-care problems. The study of human structure, function and behaviour will be guided by an analysis of the determinants of health and illness. A spectrum of factors will be considered in both the external and internal environments of individuals when deciding on preventive, therapeutic, rehabilitative and supportive management.

- **SKILLS**
  - To recognize and use the following skills:
    1. Information Management Skills: The application of certain rules of evidence to clinical, investigational and published data in order to determine their validity and applicability.
    2. Professional Skills: The ability to acquire, interpret, synthesize and record clinical information in managing the health problems of patients, considering their physical, social and emotional function. Included is the use of the clinical reasoning process.
    3. Self-Directed Learning Skills: The ability to identify areas of deficiency in one's own performance, find appropriate educational resources, evaluate personal learning progress and use new knowledge and skills in the care of patients.

- **PROFESSIONAL BEHAVIOUR**
  - To recognize, develop and maintain the professional behaviour required for a career as a health professional. Acquiring the authority to intervene in the lives of patients carries with it the obligation to act responsibly.

  1. toward oneself: to recognize and acknowledge personal assets, emotional reactions and limitations in one's own knowledge, skills and attitudes, to build on one's assets and to overcome areas of limitation;
  2. toward patients and their families: to be able, under appropriate supervision, to take responsibility for the assessment and treatment of their medical condition;
  3. toward colleagues: to contribute to productive communication and cooperation among colleagues engaged in learning, research or health care;
  4. toward the community: to contribute to the maintenance and improvement of the health of the general population.

LEARNING METHODS

To achieve the objectives of the Undergraduate Medical Programme, students are introduced to patients within the first unit of the curriculum. In this way, students understand the relevance of what they are learning, maintain a high degree of motivation and begin to understand the importance of responsible professional attitudes.

The students are presented with a series of health-care problems, requiring for their solution the understanding of underlying biological, population and behavioural principles, the appropriate collection of data and the critical appraisal of evidence. In each problem area, the student may select the most appropriate issues to ensure the understanding and application of fundamental concepts. This flexibility provides an opportunity for early consideration of individual interests and goals. The faculty function as learners and colleagues in the management of a given problem, thereby stressing the educational objectives in the various units of the programme.

The central focus of the programme is the tutorial. The class is divided into small groups, each with a tutor. In the tutorial session students develop a series of learning objectives from each health-care problem and negotiate how they will approach their learning tasks. They then acquire the knowledge and skills to meet the objectives of the unit in which they are working. They also learn to work as a team, helping and learning from peers. The study habits and sense of responsibility to self and others provides a basis for lifelong working and learning habits. Attendance is mandatory.

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 the Maidstone and Medicine 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. Continuous evaluation of the student occurs within the tutorial setting with input from their peers, faculty preceptors and the tutor.

One objective evaluation exercise is required in each unit. At the end of the unit, the student, in consultation with the tutor and the preceptor, will prepare a 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 in a multiple-choice format. Results are given to the students for self-evaluation and, in summary form, to the student advisor. The Personal Progress Index is in addition to, and does not replace, tutorial- and performance-based evaluation. The Programme monitors student progress and assessment of students showing persistent V1 students showing persistent V1 students.

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 valid and reliable evaluation methods to provide timely and helpful information to assist students and faculty in assessing progress and performance. Continuation in the Programme is subject to satisfactory performance.
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 working and learning in a small-group tutorial, 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 activity. The dispersive components of the clerkship are carried out in teaching practices and in all the teaching hospitals in the Hamilton region; in community hospitals including those 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 unit will offer opportunities for students 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 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 necessary 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 for completion of the programme, but are used to explore or review a specific area of knowledge or practice. More detailed. 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 medical schools are not required to register as students 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. Parts 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 Cathy Oudshoorn, 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 Cathy Oudshoorn, 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 Pre-Clinical Communicable Disease Screening through the Student Health Services. More information will be sent to successful applicants prior to registration. Specific questions can be directed to Cathy Oudshoorn, 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 2003 shall be as published in the 2003 Ontario Medical School Information Booklet. This booklet is available through:

Ontario Medical School Application Service (OMSAS)
170 Research Lane
Guelph, Ontario, N1G 5E2
(519) 823-1940
http://www.ouac.on.ca/omsas/
email: omsas@ouac.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 strictly enforced. All relevant documentation must be provided by the specified deadlines. Applicants must follow the instructions precisely. The University reserves the right to change the admission requirements at any time without notice.

ADMISSION AND REGISTRATION

Registration in the Undergraduate Medical programme implies acceptance by the student of the objectives of the programme, and the methods which evaluate progress toward the achievement of those objectives. The following describes the regulations governing admission and registration in the Undergraduate Medical Programme. The application deadline is October 15, 2003. The deadline is STRICTLY enforced.

ADMISSION POLICY AND 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 2003 are for the academic year commencing in the Fall of 2004. 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, 2003, 4:30 p.m. 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, assessment of their preparedness for a career in medicine, suitability for the McMaster Undergraduate Medical Programme and geographical status. From this group a pool of 138 is selected.

All applicants are notified in writing, by McMaster University, of the results of their application. These letters are mailed to applicants no later than the last business day in May, 2004.

FALSIFICATION OF ADMISSION INFORMATION

Applicants should understand that where it is discovered that any application information is false or misleading, or has been concealed or withheld, the application will be deemed to be invalid. This will result in its immediate rejection. If the applicant has already been admitted and registered as a student, withdrawal from the University may be required. The MD Admissions Committee will normally not allow the applicant to reapply to the Medical Programme for seven (7) years.

ACADEMIC ELIGIBILITY REQUIREMENTS

Applicants must report on the Academic Record Form of the OMSAS application 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 Grading 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 June 2004, applicants must have completed a minimum of three years of undergraduate work. Only degree credit courses taken at an accredited university will be considered.

b) If a student completed a degree at a CEGEP by June 2004, at least two additional full academic years of degree credit work at an accredited university. One of these years must be a full academic year of courses above Level I.

c) Marks on supplementary courses will be included in the grade point average calculation.

If an applicant has not achieved the overall 3.0 standing on the OMSAS converted average, but has completed a graduate degree, the graduate degree will be taken into account to assess eligibility. Graduate work will not be considered unless it is complete and the degree has been conferred by the application deadline, October 15, 2003.

Individual grades received for course work taken as part of a graduate degree will not be included in the calculation of the grade point average. For those applicants only who have an undergraduate grade point average less than the median undergraduate grade point average of the eligible applicant pool but who have a completed degree(s), the above recalculation will not be made to ensure that applicants who complete a diploma at a CEGEP must complete by June 2004, at least two additional full academic years of degree credit work at an accredited university.

For those applicants who have an undergraduate grade point average greater than the median undergraduate grade point average of the eligible applicant pool and who have a completed degree(s), the following recalculation will be made by McMaster Undergraduate MD Admissions:

• The median grade point average of the eligible applicant pool will be applied to the graduate degree(s) and given a weighting of one (1) year.

• That grade point average will be added to the grade point average calculation based on the undergraduate work.

If the resulting calculated grade point average meets or exceeds 3.0, the applicant will be in the eligible pool of applicants for further consideration.

For those applicants who have an undergraduate grade point average less than the median undergraduate grade point average of the eligible applicant pool and who have a completed degree(s), the above recalculation will not be made to ensure that those applicants are not penalized by such a calculation.

ABORIGINAL APPLICANTS

Applicants who wish to be considered under the Aboriginal (Indian, Inuit or Metis, as recognized in the Constitution Act, 1982) application process will also be required to provide a letter of recommendation from their First Nation, Band Council, Tribal Council, Treaty, community or organizational affiliation.
Aboriginal applicants will also be required to complete the Undergraduate MD Programme application package as provided by the Ontario Medical School Application Service (OMSAS). Applicants must meet the same minimum academic criteria for admission as set out for the general pool of candidates and have an overall GPA of at least 3.0 as calculated on the OMSAS 4.0 scale.

GEOPHYSICAL CONSIDERATION
The geographical status of the applicant 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 based upon: the province of Ontario; the rest of Canada; and other countries. To qualify for Ontario status, an applicant must be a Canadian citizen or permanent resident by October 15, 2003, and have resided for at least three years in the province of Ontario since the age of 14 by the date of possible entry into the programme. To qualify for Canadian status an applicant must be a Canadian citizen or permanent resident.

TRANSCRIPT REQUIREMENTS AND TRANSCRIPT REQUEST FORMS (TRF)
All transcripts from Ontario universities will be ordered by OMSAS via the TRF for both compass and paper applications if the TRF is received at OMSAS by the October 15, 2003 deadline. It is expected that all transcripts required for inclusion in the application packet will be received by October 1, 2003 to allow adequate time for processing requests and for receipt at OMSAS by the prescribed deadline. If an applicant is registered at a post-secondary institution at the time of the application deadline and that registration is not reported on the transcript, the applicant must arrange to have the Registrar of the institution send a Statement of Registration to OMSAS by October 15, 2003. Applicants should retain all receipts and correspondence related to their transcript request. This statement must indicate the in-progress course name(s) and number(s). Evidence to show that applicants requested transcripts and Registrar statements in a timely fashion may be requested by McMaster University. It is entirely the applicant’s responsibility to ensure that all of the above are received at OMSAS by October 15, 2003. Failure by the applicant to meet these requirements 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.

REGISTRAR STATEMENTS
Please note that the transcripts do not always report the fall/winter/summer 2003/2004 courses in which applicants are registered. Therefore, applicants must arrange to have the Registrar of the institution that they are attending send a statement of registration and a list of courses to OMSAS by October 15, 2003. When undergraduate courses are in progress at the time of application, applicants must submit a Registrar Statement by October 15, 2003. This is particularly important to establish that the applicant will have satisfied the minimum academic requirement by June 2004. A similar rule applies to graduate work in progress by October 15, 2003.

Graduate students enrolled in a graduate programme at the time of application must arrange for their Supervisor, a member of their Supervisory Committee, or the Chair of the Department to provide a letter indicating they are aware the applicant is intending to apply to medical school. Applicants should arrange for this letter to be received at OMSAS by October 15, 2003.

CREDENTIALING OF NON-CANADIAN GRADES
Applicants, Canadian or non-Canadian, who have not met minimum course number criteria utilizing their Canadian data and require inclusion of their international education data are strongly encouraged to have their foreign transcript assessed by World Education Services (WES). Consideration of the application is greatly facilitated by the WES assessment. Credentialing assessments mean converting academic credits into their Ontario educational equivalents. The evaluation is for educational purposes only and an overall GPA is required.

AUTOBIOGRAPHICAL SUBMISSION
Applicants must provide an Autobiographical Submission which is a description about their preparedness for medical school 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.

ENGLISH LANGUAGE PROFICIENCY
Each student granted admission to McMaster’s Undergraduate Medical Programme must be proficient in spoken and written English. All application materials must be submitted in English, including the Autobiographical Sketch, otherwise the application will not proceed further in the admissions process.

Applicants who first language is not English must satisfy by October 15, 2003, at least one of the following conditions:
1. provide evidence that a score of at least 580 on the paper-based TOEFL or 237 on the computer based test; or the equivalent on other recognized tests has been achieved (McMaster University code is #0936);
2. have attended an education institution, where instruction was in English, for at least three years; or
3. have resided for at least four years in an English-speaking country.

INTERVIEWS
Approximately 400 applicants will be invited to Hamilton for an interview. The selection of these applicants is based on the composite score which includes, but is not necessarily limited to GPA 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 two activities: the Simulated Tutorial and the Personal Interview.

The Interview process is intensive. Its objective is to examine the candidates’ relative potential for effective performance in small group tutorial settings, to assess ability to recognize and understand a range of human emotions and ability to explore health related problems. A more detailed description of the process will be provided prior to the scheduled interview.

SPECIAL CONSIDERATION
All the information resulting from the process described above, as well as the Confidential Assessments from referees, may be reviewed and used in the final selection.

Applicants will be notified in writing by McMaster University of the results of their application. These letters are mailed to applicants no later than the last business day in May 2004.

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 who have accepted that offer. The request for deferment 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 1M7, before making a formal application. All relevant information and documentation, including transcripts, must be provided by September 15 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 186 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 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 mmdint@mcmaster.ca or by calling (905) 525-9140, ext. 22712.

ADVANCED STANDING/TRANSFER

The undergraduate medical 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 are not 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 Information Booklet, and the McMaster Autobiographical Submission for the new admission selection cycle.

RETENTION OF DOCUMENTS

All documentation submitted in support of an application for admission becomes the property of the University and is not returnable. If an applicant is not accepted, or fails to enroll following acceptance, the identifiable documentation will be destroyed at the end of the admissions cycle in keeping with university policy.

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 subsequent three years. The undergraduate MD Programme cannot assume this responsibility.

In 2002-2003, the academic fees (tuition and student supplementary fees) for a student in the McMaster undergraduate Medical Programme were:

<table>
<thead>
<tr>
<th>CANADIAN CITIZENS AND LANDED IMMIGRANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year I</td>
</tr>
<tr>
<td>Year II</td>
</tr>
<tr>
<td>Year III</td>
</tr>
</tbody>
</table>

In addition, the cost of books and diagnostic equipment for a Year 1 student was approximately $1,900. It is strongly recommended that students purchase the full complement of medical equipment necessary for 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 Program (OSAP). To be eligible, a student must be a Canadian citizen or permanent resident of Canada and fulfill certain requirements for residency in Ontario. Students who are legal residents of other provinces need to check with their respective provincial financial aid programs 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 late 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 bursaries have been generously donated to assist medical students in financial need:

- Adirachs (Archie) Yian Moughellan Memorial Bursary
- Andrew Talalla Memorial Bursary
- Burlington Medical Society Bursary
- Daniel Giannini Bursary
- Dr. Gail Hanning Memorial Bursary
- J.W. Harry Butcher Estate Bursary
- Daniel and Natalie Strub Bursary
- Medical Student Opportunity Trust Bursary
- Ontario Medical Student Bursary Fund
- Ragone Family Bursary
- Ripley Estate Bursary
- Ronald Pye Bursary
- Ruth Tomlinson Memorial Bursaries
- Scotiabank McMaster Medical Scholarship
- Scotiabank Breast Cancer Scholarship
- William A. Vanderburgh Estate Bursaries

There are many other bursaries provided through the central campus bursary program, 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 Cathy Oudshoorn, (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 Electives Office, outlining the nature of their work and the need for funds. For further information, contact Cathy Oudshoorn, (905) 525-9140, ext. 22141.

ABBOTT MEDICAL 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. The maximum loan is $1,000. For further information, contact 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 enrolment 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 the career opportunities in medicine in the Canadian Armed Forces may be obtained from the Canadian Forces Recruiting Officer, Ottawa, or by telephoning (613) 522-1155.

LOAN FUNDS
The Undergraduate Medical Programme administers a small loan 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 VanDervourgh 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 Cathy Odussookh, (905) 525-9140, ext. 22141.

B.H.SC. MIDWIFERY PROGRAMME {6501}

WEB ADDRESS: http://www.fhs-mcmaster.ca/midwifery
St. Joseph's Healthcare, Fontbonne Building, Room 610
905-522-1155, Ext.5273

Assistant Dean
K. Kaufman/B.S.N., M.S., Dr.P.H., R.M.

Programme Administrator
B. Pindar-Donick

Programme Overview
The Midwifery Education Programme at McMaster University leads to a Bachelor of Health Sciences (B.H.Sc.) in Midwifery. The programme reflects the philosophy of midwifery in Ontario. Midwifery is potentially one of the most important components of women's health care in Ontario. Midwives' expertise in the care of normal pregnancy and childbirth arises from their understanding of childbearing as a social, cultural and biologic process and from their ability to competently exercise clinical skills and decision-making. Midwifery education provides the base for sound professional practice. The educational programme is an integral part of the evolution of the profession of midwifery in Ontario and Canada. The programme helps create future leaders and teachers. It assures that practice and teaching as a continuum so that learning environments become available across Ontario. 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. Midwives provide care and advice to women during pregnancy, labour and the postpartum period; conduct deliveries and provide care for newborn babies. The Midwifery Education Programme is a collaborative venture shared by McMaster, Ryerson and Laurentian Universities.

Curriculum
The four year programme which spans nine terms, includes courses from basic sciences, social sciences, health sciences, women's studies and electives, in addition to clinical courses. A variety of course formats include distance learning through teleconferencing and print-based self-study courses. Teaching methods include lecture format, small group tutorials, self-directed activities and practical learning experiences.

INTENSIVES
Students gather together from the three sites for several days as a means of fostering professional identity and group support. These are known as Intensives. Intensives require all students to travel to the host location and remain for the duration which generally lasts one week. Attendance is mandatory.

CLINICAL COURSES
Clinical courses consist of a clinical placement and concurrent problem-based weekly tutorials. Students are assigned to a midwifery practice and receive supervision from a clinical preceptor. During the programme, students will be placed in more than one midwifery practice. Students will also obtain clinical experience in a hospital setting and with an obstetrician. Students may have to relocate or travel for clinical placements. Travel and living expenses are the responsibility of the student.

REQUIREMENTS
133 units total (Levels I to IV)

LEVEL I: 31 UNITS
6 units HTH SCI 1D06
6 units HTH SCI 1C05
6 units WOMEN ST 1A06
4 units HTH SCI 3C04 (Term II)
6 units MIDWIF 1A06
3 units MIDWIF 1C03 (Term I)

LEVEL II: 30 UNITS
3 units MIDWIF 2D03
9 units Electives from the Faculties of Health Sciences, Humanities, Social Sciences (Term I)
15 units MIDWIF 2A03, 2E12
3 units MIDWIF 2F03

LEVEL III: 42 UNITS
15 units MIDWIF 2B15
9 units MIDWIF 3A09
15 units MIDWIF 2G15 (Spring/Summer)
3 units MIDWIF 3F03

LEVEL IV: 30 UNITS
15 units MIDWIF 3B15
12 units MIDWIF 3C12
9 units MIDWIF 3E03
1 Transfer credit may be available.
2 Clinical course.
3 Intensive.

Admission Requirements and Procedures
Admission into the Midwifery Education Programme is reserved for candidates who meet all requirements and who satisfy the academic regulations of the university. It is recommended that applicants have completed at least one year of university studies prior to application. All certified transcripts from secondary and post secondary universities previously attended must accompany the application. The application deadline is February 1 each year. Applications received after February 1 will not be considered. Please note that required courses must be completed at the time of application (excluding current High School students). All documents submitted with the application become the property of the university. Successful applications remain on file.

All applicants must have completed the following course requirements in order to be considered for admission:
A full course credit in:
1. Science (Biology or Chemistry - both strongly recommended)
2. English
3. a Social Science
70% in each course is required.
It is recognized that applicants apply to the programme with varying educational backgrounds. Applicants can fulfill the courses required from the following educational backgrounds:

Applicants Directly from Ontario Secondary Schools
The following are the minimum Grade 12 U and M requirements under the Ontario Secondary School curriculum:
1. English U;
2. One of Biology U or Chemistry U (both are recommended);
3. One Grade U or M course in Social Science (History, Sociology, Psychology, Geography, Law);
4. Completion of additional Grade 12 U or M courses to total six credits;
5. Students must obtain a minimum grade of 70% in each of the three (3) required courses listed in points 1, 2, and 3 above AND a minimum overall average of 70% on six Grade 12 U and M courses including the required courses.
The following are the minimum OAC requirements under the OSIS curriculum:
1. One of OAC English I; OAC anglais I or OAC anglais II
2. One of OAC Biology or OAC Chemistry (both are recommended)
3. An OAC in Social Sciences (history, sociology, psychology, geography or law)
4. Completion of additional OACs to total six credits
5. Students must obtain a minimum grade of 70% in each of the three (3) required courses listed in points 1, 2, and 3 above 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 Grade 12 U or M courses (or 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 and a minimum overall average of 70% in college work must be obtained. Applicants with CEGEP background should consult the Ontario Secondary School Course 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 Grade 12 U or M courses (or OACs) from high school 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 ten best most recent course work must be a minimum of 70%.

Mature Students
Mature students must have completed the three required subjects as noted in the basic requirements, and have obtained a minimum grade of 70% in each course. Required courses must have been taken within five years of application. Students who do not meet the basic academic requirements as listed below are advised to take Grade 12 U or M courses (or OACs) or introductory university level courses. The two years absence from formal studies clause may be waived for those who take Grade 12 U or M course (or OAC) upgrading. The following University requirements for Mature Students also apply. A student must:
1. be a 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 program within the last five years or have completed less than one year of college work.

Transfer Applicants
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. Please see Credit in Courses by Special Assessment in the Admission Requirements section of this Calendar.

Selection Procedure
The Midwifery Education Programme has limited placements. The admission requirements stated are minimum requirements. Preference will be given to applicants with the best qualifications. The actual standing required for admission may be higher than the minimum levels stated. The programme has a two step selection procedure:
1. Assessment of academic eligibility.
2. Personal interview.

UNSUCCESSFUL APPLICANTS
Applications are not held over from 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.

APPLICATION FOR DEFERRED REGISTRATION
Deferred registrations are not normally granted in the Midwifery Education Programme. Under exceptional circumstances, applications for defer will be reviewed by the Admissions Committee for those candidates offered a place in the programme. The application of deferral must be submitted in writing no later than August 1 of the year for which deferral is requested. If granted, registration may be deferred for one year only.

APPLICATION DEADLINE
Submission of completed application forms to the Ontario Universities’ 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 2002-2003 the tuition fees for a student in the Midwifery Education Programme were $4,032.84 for eight month academic term. Supplementary fees are estimated at $200.00 per year.

Financial assistance is available from the federal and provincial governments through the Ontario Student Assistance Program (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-$1,000.00.

Students should expect to cover their own travel and accommodation costs during the programme. The programme strongly suggests that students join both the College of Midwives Subscriber Status and the Association of Ontario Midwives as a student member.

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 student from 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 MOWIF and HTH SCI (as outlined in the Curriculum Plan) are required for the degree. Students are reviewed at the end of each term to determine if they are achieving 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.

GOOD STANDING
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 1006 (Topics in Biological Sciences); and a minimum grade of B- in MOWIF 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 shall:
1. obtain a CA less than 6.0 in graded courses.
2. achieve a minimum grade of less than C in HTH SCI 1006 (Topics in Biological Sciences) or a grade less than B in MOWIF 1A06 (Introduction to Midwifery).
3. receive an F or a Fail/Unsatisfactory in any clinical course.
4. fail any one course. If a student receives a CA of less than 6.0 (55 to 59), 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 MIDWIF 1A06) in the course being repeated and receive an average (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 or receives a grade below the required grade for HTH SCI 1D06 and MIDWIF 1A06.
5. fails to complete the clinical course requirements for graduation within the maximum allowable time (five years).

DEANS' HONOUR LIST
Students will be evaluated for standing on the Deans' Honour List only upon completion of the programme. Students will be named to the Deans' 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 including a minimum grade of C in HTH SCI 1D06 and a minimum grade of B- in MIDWIF 1A06.
2. complete all clinical course requirements with a Pass/Satisfactory grade.
3. complete all courses for the degree within five years.

The practice of midwifery is regulated by the College of Midwives under the Midwifery Act, 1991 and the Regulated Health Professions Act, 1991.

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

Assistant Dean, Undergraduate Nursing Education
C. Tompkins /B.Sc.N., M.Ed., Ph.D., R.N.
Programme Administrator
A. Cholewa

In 1942, McMaster University began its first programme in Nursing, a cooperative effort between the University and the Hamilton General Hospital. Since the establishment of McMaster University's School of Nursing in 1946, students have received a Bachelor of Science in Nursing degree. The programme has functioned completely under the supervision of the University, while enjoying the full cooperation of community hospitals and agencies in the operation of its clinical courses. In July 1974, the Schools of Nursing and Medicine became the Faculty of Health Sciences.

In 1982, the Post Diploma Stream of the B.Sc.N. Programme was introduced. This second category of admission was created to provide Diploma Prepared Nurses with the opportunity to work towards a B.Sc.N. degree.

McMaster University is one of ten Ontario universities collaborating with the Council of Ontario University Programmes in Nursing to offer a Primary Health Care Nurse Practitioner Programme. The programme commenced in September 1995 and enables Nursing diploma prepared and students with a B.Sc.N. degree and a Nurse Practitioner Certificate. Those students who hold a Nursing Baccalaureate receive the Nurse Practitioner Certificate upon completion of the programme.

In 1994, the first Ph.D. candidates entered the Clinical Health Sciences (Nursing) graduate programme which is offered by the School of Graduate Studies through the Faculty of Health Sciences. M.Sc. candidates entered in the fall term of 1995. All enquiries about the Clinical Health Sciences (Nursing) graduate programme should be directed to the Graduate Programmes Office, HSC-3N10, (905) 525-9140, ext. 22982.

Information Sessions for high school students are hosted by the Student Liaison Office during the school year. For 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. 22392.

The most recent educational initiative that is affecting Nursing education is the provincial legislation on entry to practice. This legislation requires all new graduating nurses to have a baccalaureate degree in Nursing. In response, McMaster University, Mohawk College and Conestoga College have formed an educational consortium to offer the McMaster/Mohawk/Conestoga Collaborative B.Sc.N. Programme. The McMaster nursing degree is now available at each of McMaster University, Mohawk College and Conestoga College. Students wishing to register in the B.Sc.N. programme at McMaster should pay particular attention to the information which immediately follows this introduction. Those students who wish to register in the B.Sc.N. programme at either Mohawk or Conestoga College should refer to the Collaborative B.Sc.N. (D) Stream references throughout the School of Nursing section of the Calendar. Students are also advised to contact the Chair of the Collaborative programme at either Mohawk or Conestoga College for additional information.

The B.Sc.N. Programme
The B.Sc.N. Programme promotes the development of nursing as a caring, client-centred, scientific and humanistic profession. With an emphasis on problem-based, small group, self-directed learning, the B.Sc.N. Programme offers professional 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 its mission, the B.Sc.N. Programme promotes skills in its graduates to prepare them for lifelong, 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 and communication 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 out-of-practice clinical experiences.)

Evaluation by self, peers and faculty is part of an on-going assessment process of the achievement of clinical, course, and programme objectives.

GOALS
Graduates of the McMaster University B.Sc.N. Programme will be prepared to provide competent professional practice in a variety of health care contexts and with diverse client (individual, family, group, communities, populations) who have stable and unstable outcomes and multi-factorial influences (internal and external) on their health status. Graduates will:

1. Practice nursing within a primary health care perspective and an ethic of professional caring.
2. Demonstrate sensitivity to client diversity and recognize the influence this has on professional and personal meaning, clinical and administrative contexts, and access to health care.
3. Demonstrate ability to establish, maintain and terminate therapeutic relationships with clients.
4. Demonstrate critical thinking in the assessment, planning and evaluation of client care through the synthesis and application of:
   • Validated knowledge and theories from nursing, the humanities, biological, psychological, social and public health sciences
   • Knowledge of the health care system
   • Knowledge of the client context
   • Knowledge of self.
5. Engage in effective decision-making to set goals and establish priorities, going beyond the application of general rules to the application of unique combinations of principles and concepts.
6. Provide safe, ethical, competent care within established professional standards and guidelines.
7. Assess, plan and evaluate programmes of care with clients and an interprofessional health care team and with partners from multiple sectors (i.e. education, social services, politics, etc.).
8. Demonstrate leadership and beginning competencies in managing a health care team, managing resources and coordinating health care.
9. Access and manage relevant information, required for professional caring, through the effective use of information technology.
10. Contribute to the body of nursing knowledge through demonstrating an inquiring approach to practice, identifying research questions, applying research findings, participating in research activities, and sharing research results with others.
11. Identify the need for appropriate change, create a climate for adapting to change in self and others, and contribute to effecting and evaluating change.
12. Participate in developing and implementing strategies for advocacy and political and social action on behalf of and with clients, and the nursing profession.
13. Recognize, develop and maintain the personal characteristics associated with professionalism:
   • awareness of competencies and limitations
   • accountability for own actions
   • commitment to the search for new knowledge
   • advocacy for the voice of professional nursing
   • commitment to self-directed, lifelong learning
   • critical self-reflection and reflective practice.

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. As places in the B.Sc.N. Programme are limited, admission is by selection. Possession of the published minimum requirements does not guarantee admission.

There are four streams of study leading to the completion of the B.Sc.N. degree. The Basic (A) Stream and Collaborative B.Sc.N. (D) Stream require four years of study, and are available to those applying directly from an Ontario secondary school with Grade 12 U or M courses or OACs; to those who have qualifications equivalent to Grade 12 U or M courses or OACs; 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 B.Sc.N./N.P. 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. 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 documentation will be withdrawn.

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.
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

Note: Normally to be considered in this category, applicants to the programme must:

1. apply within two years of completion of the Grade 12 U or M or OAC course requirements and
2. not have attended any post-secondary educational programme during the two-year period.

The selection method for Ontario secondary school applicants is by academic qualifications. Early conditional offers of admission are made in late March or early April based on the following:

a. six appropriate midterm/interim Grade 12 U or M course (or OAC) grades, or
b. at least three final Grade 12 U or M course (or OAC) grades and Grade 11/12 advanced grades. An enrolment in the appropriate three additional Grade 12 U or M (or OAC) courses. Offers based on interim grades will be conditional upon maintaining satisfactory performance on final grades.

REQUIREMENTS

The following are the minimum Grade 12 U and M requirements under the OSS curriculum:

1. English U,
2. One of Geometry and Discrete Mathematics U, Advanced Functions and Introductory Calculus U, or Mathematics of Data Management U,
3. Two of Biology U, Chemistry U or Physics U,
4. Two additional Grade 12 U or M courses to total six.

The following are the minimum OAC requirements under the OSS curriculum:

1. One of OAC English I, OAC English II or OAC English III,
2. One of OAC Algebra and Geometry, OAC Calculus, OAC Finite Mathematics;
3. Two of OAC Biology, OAC Chemistry or OAC Physics;
4. Two additional OACs to total six.

Applicants with Qualifications

Equivalent to Ontario Secondary School

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

For applicants not applying directly from Secondary School or without the necessary Grade 12 U or M or OAC course equivalents, selection is based on academic qualifications and a rating obtained on a questionnaire. 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. Applicants are responsible for their own 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. 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 B- in the required course work. Applicants normally should:

1. achieve a Cumulative Average of at least B- in all university degree credit courses taken. A minimum of 12 units or equivalents are required. (These courses may be taken as a full-time or part-time student. University correspondence degree credit courses are acceptable.)
2. submit Form 105D to OUAC along with the required fees by February 15;
3. submit a completed original and three copies of the response to the questionnaire provided in the application package to McMaster by February 15.

Applicants From Other Degree Nursing Programmes

Applicants who are currently enrolled in a Nursing degree programme at another university may apply to transfer into the B.Sc.N. Programme at McMaster. Applications will not be considered for study above Level II. Availability of space and placement in the programme will be determined by the Level Chair.

The applicant may be invited to a personal interview at McMaster. Applicants are responsible for their own travel expenses. Failure to attend the interview will result in cancellation of the application. Applications for transfer into the B.Sc.N. Programme to commence studies in September must be received by the Admissions Coordinator (Nursing) no later than June 30.

Applicants must:

1. contact the Admissions Coordinator (Nursing) to discuss placement in the programme;
2. submit Form 105D to OUAC along with the required fees by June 30;
3. submit a completed original and three copies of their response to the questionnaire provided in the transfer application package; an official letter from the Dean/Director of the programme in which the applicant is currently enrolled stating that the applicant is in good standing in that programme (good standing is interpreted as at least a B- average in nursing courses; course descriptions/outlines for assessment of advanced credit; and a current transcript.

II. POST DIPLOMA (B) STREAM

Selection is based on academic qualifications and the rating obtained on a questionnaire. The response to the questionnaire is assessed by teams normally representing the faculty, the students or alumni, and the community.

Applicants will be informed of the admission decision by mid-June. Applicants enrolled in diploma nursing programmes at the time of application normally must be eligible to write College of Nurses of Ontario registration examinations no later than August of the year of application to the B.Sc.N. Programme.

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 required fees 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 and transcripts 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

AND NURSE PRACTITIONER CERTIFICATE 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.

Nurse Practitioner (C) Stream

Applicants with a Diploma in Nursing must:

1. have an Ontario Diploma in Nursing or the equivalent with a minimum overall average of 79%;
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 required fees by March 1;
5. submit a copy of the current College of Nurses of Ontario 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., RNAC, OPN), 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- to McMaster by March 1.
Nurse Practitioner Certificate Stream
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 last five years as evidenced by the employer-completed Verification of Employment form(s);
4. submit Form 105D to OCAS along with the required fees by March 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 qualifications, memberships or certificates listed on the relevant professional experience form (i.e., RNAO, CPR) to McMaster by March 1.

Reference 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 outpatient nursing
• hands-on practical experience

IV. COLLABORATIVE B.S.C.N. PROGRAMME (D) STREAM
(MOHAWK AND CONESTOGA SITES)
Admission requirements for students applying to the Mohawk and Conestoga sites of the McMaster B.Sc.N. programme are equivalent to those for students applying to the B.Sc.N. Basic (A) Stream

Applicants Directly from Ontario Secondary Schools
Note: Normally to be considered in this category, applicants to the programme must:
1. apply within two years of completion of the Grade 12 U or M or OAC course requirements and
2. not have attended any post secondary educational programme during the two-year period.

REQUIREMENTS
The following are the minimum Grade 12 U and M requirements under the OSS curriculum:
1. English U;
2. One of Geometry and Discrete Mathematics U, Advanced Functions and Introductory Calculus U or Mathematics of Data Management U;
3. Two of Biology U, Chemistry U or Physics U;
4. Two additional Grade 12 U or M courses to total six.

The following are the minimum OAC requirements under the OSIS curriculum:
1. One of OAC English I, OAC English II or OAC English II;
2. One of OAC Algebra and Geometry, OAC Calculus, OAC Finite Mathematics;
3. Two of OAC Biology, OAC Chemistry or OAC Physics;
4. Two additional OACs to total six.

Note: Application to the programme must be made within two years of completion of the Grade 12 U or M or OAC course requirements.

Applicants with Qualifications Equivalent to Ontario Secondary School
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
For applicants not applying directly from secondary school or without the necessary Grade 12 U or M or OAC course equivalents, selection is based on academic qualifications.

Applications normally should:
1. achieve a Cumulative Average of at least 75% 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.)

University degree credit courses completed prior to admission will be assessed for advanced credit by the Chair, Nursing Programme, at the site where application was made, following admission to the programme. All university transcripts must be submitted to the College. Failure to do so will result in withdrawal of the offer of admission.
2. Apply to Ontario College Application Services (OCAS) along with the required fees by February 1. All applications must be received by OCAS on or before this date to be given equal consideration by the colleges. Please note that February 1 is not a deadline for submitting applications as OCAS will continue to process applications received after this date. You are encouraged, however, to submit your application as early as possible, especially in the case of over-subscribed programmes where there are often enough qualified applicants received by the equal consideration date (February 1) to fill the programme.

Applicants From Other Degree Nursing Programmes (Effective September 2004)
Applicants who are enrolled in a Nursing degree programme at another university or in another college/university consortium may apply to transfer to the Mohawk and Conestoga sites to earn a McMaster B.Sc.N. degree beginning in September 2004. Applicants will not be considered for studies above Level II. Availability of space and placement in the programme will be determined by the Level Coordinator in consultation with course planners.

Applications for transfer into the Collaborative B.Sc.N. programme to commence studies in September must be received by the Ontario College Application Services (OCAS) in Guelph no later than May 15.

Applicants must:
1. submit an application to OCAS with the fee by May 15;
2. submit to the Registrar's office at the College by May 15 an official letter from the Dean/Director of the programme in which the applicant is currently enrolled stating that the applicant is in good standing in that programme (in good standing is interpreted as at least B- average in nursing courses); course descriptions and outlines for assessment of advanced credit; and current transcripts of all university work taken;
3. The Registrar's office will forward the transcripts to the Chair, Nursing Programmes for consideration and an admission decision. The Registrar's Office will inform the applicant of the admission decision. Applicants may be invited to a personal interview. Applicants are responsible for their own travel expenses. Failure to attend the interview will result in cancellation of the application.

V. ALL OTHER APPLICANTS
For information on how to qualify, applicants should contact the Office of the Registrar (Admissions), Gilmore Hall, Room 108, McMaster University, Hamilton, ON L8S 4L8.

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.

UNSUCCESSFUL APPLICANTS (A, B, C STREAMS)
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 DEFERRED 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.
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.

**REQUIREMENTS**

**LEVEL I: 32 UNITS**

(Units graded: 32)

- 12 units HTH SCI 1A03, 1B03, 1H03, 1H13
- 8 units NURSING 1F04, 1G04
- 6 units PSYCH 1A03 and 1A13
- 6 units Electives

**LEVEL II: 29 UNITS**

(Units graded: 23; Units pass/fail: 6)

- 6 units HTH SCI 2H03, 2H13
- 14 units NURSING 2L03, 2M03, 2P03, 2Q02
- 6 units Electives

**LEVEL III: 32 UNITS**

(Units graded: 24; Units pass/fail: 8)

- 7 units HTH SCI 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 SCI 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**

**LEVEL II: 42 UNITS**

Required elective completed before admission: 6 units

- 21 units HTH SCI 1CC7, 2C07, 3B03, 3C04
- 12 units NURSING 3M03, 3T03
- 6 units Electives

**SUMMER TERM: 9 UNITS**

- 6 units Electives

**LEVEL IV: 44 UNITS**

(Units graded: 34; Units pass/fail: 10)

- 2 units HTH SCI 4L02
- 26 units NURSPRAC 4A05, 4B05, 4P03, 4R03, 4TA5, 4TB5
- 3 units Electives

**SUMMER TERM: 13 UNITS**

(Units graded: 3; Units pass/fail: 10)

- 13 units NURSPRAC 4C13

**TOTAL UNITS: 134**
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, as published in the Undergraduate Calendar of the year of entry. Alternatively, students may take advantage of the programme requirements which took 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.

Nurse Practitioner Certificate Stream (6399)

Requirements

39 Units

(Units graded: 29; Units pass/fail: 10)

Terms 1 and 2: 26 Units

(Units graded: 26)

26 units NURSPRAC 4AA5, 4AB5, 4P03, 4R03, 4TA5, 4TB5

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 N.P. Network.

Collaborative B.Sc. N (D) Stream

Conestoga Site (6385)

Mohawk Site (6386)

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 timetabled constraints, courses must be taken in the level indicated in the curriculum.

Electives

The curriculum followed at both sites is equivalent to the curriculum for the B.Sc. N Basic (A) Stream. However, the specified Psychology component and 15 units of elective courses are college-based courses which have been assigned the McMaster designation NURSECON and are open only to Nursing students at the Mohawk and Conestoga sites as specified in prerequisite statements. For descriptions of these courses, please see NURSECON under the heading NURSING in the Course Listings section of the Calendar. Remaining elective courses will be offered by McMaster and delivered at these sites.

Requirements

Level I: 32 Units

(Units graded: 32)

12 units HTH SCI 1AA3, 1BB3, 1HH3
8 units NURSING 1F04, 1G04
6 units NURSECON 1A03 and 1803 (Mohawk Site) or
NURSECON 1C03 and 1D03 (Conestoga Site)
6 units Electives

Level II: 29 Units

(Units graded: 23; Units pass/fail: 6)

6 units HTH SCI 2H03, 2HH3
14 units NURSING 2L03, 2M03, 2N03, 2P03, 2Q02
9 units Electives. (Students studying at the Mohawk College site must include NURSECON 2A03 and 2D03.)

Level III: 32 Units

(Units graded: 24; Units pass/fail: 8)

7 units HTH SCI 3B03, 3C04
16 units NURSING 3G03, 3T03, 3U02, 3X04, 3Y04
9 units Electives

Level IV: 30 Units

(Units graded: 16; Units pass/fail: 14)

2 units HTH SCI 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 (D) 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 college attended.

Nursing Leadership/Management Programme

The Nursing Leadership/Management Programme, which was previously administered and is currently endorsed by the Canadian Nurses Association, was transferred to McMaster in 1993. This 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.

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.

Curriculum

6 units NURSING 4B06
1 unit NURSING 4C01
1 unit NURSING 4D01
3 units NURSING 4I03

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 (6399)

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.
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.

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. The B.Sc.N. Programme reserves the right to remove a student from a clinical placement or laboratory setting at any point during the term if the student exhibits unsafe clinical practice or behaviour that places the patient or others at risk. Such removal will result in the student receiving a grade of F in the course and may result in dismissal from the programme. The clinical activities associated with any clinical course must be successfully achieved for attainment of a passing grade in the course.

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+ or D- is permissible in two three-unit Level I Health Sciences courses (Basic (A) Stream) or one Level I Health Sciences course (Post Diploma Stream) 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 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.)

Post Diploma students must submit proof of current registration with the College of Nurses of Ontario before registration in Level IV of the Programme is approved.

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+ 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 4AA5, 4AB5, 4C13, 4T05, 4TB5;
   2. achieve a grade of B- in NURSPRAC 4P03, 4R03.

The following courses are designated clinical courses:
- NURSPRAC 4AA5, 4AB5, 4C13, 4T05, 4TB5

CONTINUATION IN THE PROGRAMME

Students are reviewed at the end of each term. To continue in the B.Sc.N. Programme a student must obtain a CA of at least 3.5. Students 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.
A student whose CA is less than 3.5, and who has not been
granted programme probation, may not continue in the programme.
A student who fails to obtain a CA of 3.5 at the completion of
the programme probation may not continue in the programme.
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 requirements after repeating the course, he or she may not
continue in the programme. A student may normally be allowed
to repeat only one clinical and one non-clinical Nursing or Health
Sciences course during the programme.

Collaborative B.Sc.N. Programme (D) Stream
Mohawk and Conestoga Sites

In addition to meeting the General Academic Regulations of the
University, (please refer to the General Academic Regulations
section of the Calendar) as well as the academic regulations spe-
cific to the School of Nursing, (please refer to Academic Regula-
tions in the School of Nursing outline in this section of the Calen-
dar), Mohawk and Conestoga B.Sc.N. students are also subject
to the following regulations.

Programme Approval: Selection of courses must be approved
by the Chair of the Programme at the site to which the student is
admitted. Where the Calendar indicates that a faculty office, As-
sociate Dean or Dean of Studies must be contacted, students
should contact the Chair of the Programme at the appropriate
site (Conestoga or Mohawk College). Before courses are se-
lected, students are requested to determine the requirements for
the programme as outlined in the appropriate Faculty sections
of the Mohawk or Conestoga Calendars and to follow the instruc-
tions in the registration package.

Academic Standing: The College Reviewing Committees shall
be comprised of members from the Colleges and the University;
these Committees shall be chaired by the Coordinator of Studies
(McMaster).

Required to Withdraw: Students must follow the withdrawal pro-
cedures for the respective College.

Letters of Permission: Letters of Permission must be approved
by the Chair of the Programme at the site to which the student is
admitted.

Academic Records: Student files shall be kept at the respective
College site for reference and audit purposes.

Examinations: A Mohawk College, Conestoga College or
McMaster student photo identification card is required at all ex-
aminations.

Travel Expenses: Students are responsible for arranging their
own travel to and from learning settings external to the College
and for covering any costs incurred. All students who register in
the B.Sc.N. Programme are expected to be able to travel to any
learning setting in Hamilton and surrounding area (Mohawk) and
Kitchener-Waterloo and surrounding area (Conestoga).

Honours Biology and
Pharmacology Programme (Co-op)

This is a joint programme between the Faculty of Health Sci-
ences 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 Sci-
ences, drawn from the following departments: Biomedical Sci-
ences, Medicine, Obstetrics and Gynecology, and Pathology.

Please see the Faculty of Science, Department of Biology sec-
tion for admission requirements.
The Humanities at McMaster partake in a distinguished tradition. Our subjects—languages and literatures, history and philosophy, art, drama, music and classics—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 many interdisciplinary programmes, Communication Studies, Comparative Literature, Peace Studies and Women’s Studies, allow students to draw on several departmentally-based subjects within a single programme of study.

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 disciplines, 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 (English; Combined Honours in Cultural Studies and Critical Theory)
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 interdisciplinary programmes and one interdisciplinary Minor:

Honours Communication Studies
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
Combined Honours in Women’s Studies
Combined B.A. in Indigenous Studies
Interdisciplinary Minor in Archaeology

A. Level I Programmes

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 1H03, 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 a Grade 12 U (or OAC) course in Greek or Latin will register for six units of Level II Greek or Latin in lieu of the corresponding 1Z03 and 1Z23 courses.

5. Humanities I students are restricted to taking no more than 12 units of introductory language courses.

6. ART 1F06: Entrance to any Honours Art Programme requires the permission of the School of the Arts as these programmes and courses have limited enrolments. Students who wish to enrol in ART 1F06 must first complete a portfolio interview. Portfolio interviews will occur between January and April each year for entrance in September of the same calendar year. Only those students who call the office of the School of the Arts before March 1 to book appointments for portfolio interviews will be guaranteed consideration for entrance into ART 1F06. (Late applicants will only be interviewed if space availability permits.) The portfolio should contain a variety of works in different media that represent the applicant’s creative abilities and interests. Aptitude in art, academic ability and demonstrated commitment to the discipline are 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. Acceptance into ART 1F06 will be verified with written confirmation from the School of the Arts. School of the Arts verification and a Letter of Acceptance from the University guarantee a space in the programme as long as the student meets the minimum academic requirements as outlined under School of the Arts programmes in this section of the calendar. Applicants for this course must use the MHA OUA code.

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 1

ART 1F06 (See Note 6 above.) Students in ART 1F06 must also register in SCIENCE 1A00 when completing their registration.

ART HIST
CLASSICS 1A03, 1B03, 1BB3, 1L03, 1LL3
CMST 1A03, 1B03
COMP LIT 1A03, 1AA3
ENGLISH 1A03, 1AA3, 1BB3, 1BB3, 1C06
FRENCH 1A06, 1B06, 1B06
GERMAN 1B03, 1BB3, 1BB3
GREEK 1Z03, 1Z03
HISPANIC 1A03, 1AA3, 1Z06
HISTORY 1A03, 1AA3, 1BB3, 1BB3, 1L03, 1LL3
ITALIAN 1A03, 1AA3, 1Z06
JAPANESE 1Z06
LATIN 1Z03, 1Z03
LINGUIST 1A03, 1AA3
MMEDIA 1A03, 1B03, 1C03
MUSIC 1A03, 1AA3, 1CC3, 1D03, 1Y03, 1Y03
PEACE ST 1A03, 1B03
PHILOS 1A03, 1B03, 1C03, 1D03, 1E03
THTR&FLM 1A03, 1B03
WOMEN ST 1A06

(See Note 7 above.)
COURSE LIST 2
(Humanities courses available to Level I students. These courses do not provide entry into a Level II programme)

ART 2G03, 2H03
CATALAN 2A03, 2AA3, 2B03
CHINESE 2A03, 2AA3
GERMAN 1C03
INQUIRY 1HU3
POLISH 2A03, 2AA3
RUSSIAN 2A03, 2AA3

REQUIREMENTS:
Students admitted to Humanities I 0700 must complete 30 units as follows:
12 units from Course List 1 (should include six units in each of two subjects listed above)
18 units Electives, which may include courses from Course Lists 1 and 2

MUSIC I

REQUIREMENTS
Students admitted to Music I 0370 must complete 33 units of work as follows:
21 units MUSIC 1C3, 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 study, students receive a B.A. degree.

COMBINED HONOURS PROGRAMME
This involves three years of study, beyond Level I, concentrated in the work of two disciplines (e.g. English and Comparative Literature). 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 (e.g. Multimedia) 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 15 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.

For students wishing to acquire a reading knowledge of French, a summer course, French 4R06, is offered in May-June. This course is intended to prepare current and incoming graduate students for the French proficiency test administered by some departments. Certain graduate programmes recognize a passing mark in this course as fulfillment of the second language requirement.

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.

C. Concurrent Certificate in Applied Business Management

HUMAN RESOURCES MANAGEMENT SPECIALIZATION (Effective September 2004)

The Concurrent Certificate in Applied Business Management is a joint initiative between McMaster University and Mohawk College. It provides eligible McMaster students with the opportunity to complete an Honours degree and a Post-Diploma College Certificate in four years of full-time study. For admission and programme requirements see the Certificate and Diploma Programmes section of this Calendar, under the heading Concurrent Certificate in Applied Business Management - Human Resources Management Specialization.

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.

SPRING COUNSELLING AND ADMISSION TO LEVEL II PROGRAMMES

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 activities.

During the Spring Counselling Period:
1. In February, a Majors Fair is held by departments in the Faculty of Humanities to discuss undergraduate programmes, course offerings, career opportunities, etc.;
2. In March, copies of the Undergraduate Calendar for the next year are distributed by the Office of the Registrar to students. Individual degree audits are available to students through MUGS;
3. By April 30, students seeking admission to a Level II programme for the following Fall/Winter session, especially for a limited enrolment programme such as Multimedia, must complete an application for admission to Level II in the Office of the Dean of the Faculty of Humanities in Chester New Hall, Room 112 or through MUGS. The application allows students to rank four programme choices, and students will be notified of their eligibility for these choices on their grade reports in June.

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.
FACULTY OF HUMANITIES

REINSTATEMENT TO THE FACULTY OF HUMANITIES
A student who may not continue at the University may apply for reinstatement; however, reinstatement is not automatic or guaranteed. Students seeking reinstatement must complete the Reinstatement Form available from the Office of the Dean of the Faculty of Humanities (Gilmour Hall, Room 108) and the Faculty of Humanities (Ches­ ter New Hall, Room 112). The completed form and the $50.00 fee must be submitted to the Office of the Registrar by July 15 for September entry and by November 15 for January entry.

The form should explain the reasons for the student's inadequate performance, corroborated by two Letters of Reference from qualified professionals, and include any medical 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.

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.

If at any review after reinstatement the student's Cumulative Average falls below 3.5, the student will be required to withdraw from the University for a period of at least 12 months.

COURSE SELECTION AND COURSE CHANGES
Students are responsible for ensuring that their course selection meets the requirements of the degree programme in which they are registered, that prerequisites have been met, and that the appropriate permission(s) has been obtained, if required. They should review their personal degree audit on the working day following each time they drop or add courses, and contact an Academic Advisor in the Office of the Dean of the Faculty of Humanities if they have questions. Students should also be aware that changes to their course load may affect their fees and their eligibility for scholarships and financial aid such as OSAP.

OVERLOAD
Students who wish to take more courses than recommended for a single Level of their programme may do so only if their Sessional Average on completion of the previous Fall/Winter session is at least 7.0. A student with outstanding deferred examinations or incomplete 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 Office of the Dean of the Faculty of Humanities before registering in 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 programmes.

The government-sponsored summer language bursary programme offers university students 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 contact the Office of the Dean of the Faculty of Humanities, (a) submit a 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 (CANEX), 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 an agreement with another institution involving a temporary exchange of students. 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 Programmes
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 for Study Abroad
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-April) 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 for Study Abroad
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 II). 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.
PROGAMMES OFFERED BY THE FACULTY OF HUMANITIES

SCHOOL OF THE ARTS

WEB ADDRESS: http://sota.humanities.mcmaster.ca

The School of the Arts offers programmes in:
- Art
- Art History
- Multimedia
- Music
- Theatre & Film Studies

In addition, Minors are available in: Art History, Music and Theatre & Film Studies.

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 [2028]

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.

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, 3E12
6 units from ART 3A03, 3B03, 3P03
6 units ART HIST 2D03, 3AA3
6 units Levels III and IV Art History
3 units Levels II, III or 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 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 Combined Honours Art must complete ART 2A06, 2B06, 2C06 and 2F06 before registering in Level III or IV Art courses.
2. Students wishing to substitute ART 4E12 for ART 4C06 must seek permission of the Studio Committee of Instruction.

3. Because ART HIST 2D03 is required in all Art History programmes, students registered in the Combined Honours Art and Art History programme will substitute three units elective for ART HIST 2D03.
4. Students must achieve a minimum of B- in ART 3E06 before registering in ART 4C06.

REQUIREMENTS

120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
39 units ART 2A06, 2B06, 2C06, 2F06, 3D03, 3E06, 4C06
6 units ART HIST 2D03, 3AA3 (See Note 3 above.)
36 units Courses specified for the other subject. (Combinations with Social Sciences may require more than 36 units.)
9 units Electives

Honours Art History [2029]

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. Upper-level students may wish to pursue an internship in an art museum or gallery by completing HUMAN 3W03 or 4W03 and should consult with the Art History Counsellor for advice.

REQUIREMENTS

120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
18 units ART HIST 2A03, 2B03, 2C03, 2D03, 2I03, 3P03
9 units Level III Art History
12 units Levels III and IV Art History
8 units from ART HIST 4AA3, 4BB3, 4C03, 4E03, 4H03, 4V03, 4X03
45 units Electives

Combined Honours in Art 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 ART HIST 1A03 and 1AA3 or a grade of at least B- in ART HIST 1A06.

NOTES

1. Students combining Honours Art History with Honours Art must not register in ART HIST 3P03. These students will be required to substitute three units of Level III or IV Art History in lieu of ART HIST 3P03.
2. Before choosing Level III courses, students should become familiar with the prerequisites for Level IV courses.

REQUIREMENTS

120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
18 units ART HIST 2A03, 2B03, 2C03, 2D03, 2I03, 3P03
6 units Level III Art History
3 units from ART HIST 4AA3, 4BB3, 4C03, 4E03, 4H03, 4V03, 4X03
9 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 to total 120 units
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, 2103
15 units Levels II 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
(SEE PROGRAMMES IN THEATRE & FILM STUDIES)

MULTIMEDIA
WEB ADDRESS: http://www.humanities.mcmaster.ca/-mmmedia/

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 and highly competitive. 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.

NOTES
1. The Multimedia Honours B.A. programme is not available to students who already possess an undergraduate degree. As an alternative, such students may be interested in the Diploma in Multimedia Studies offered through the Centre for Continuing Education. Please see the Certificate and Diploma Programmes section of this Calendar under the heading Centre for Continuing Education.
2. Students must complete MMEDIA 4A03 and 4B03 in the same academic year.

COURSE LIST 1
CMST 2T03, COMP SCI 1MC3, 1MD3, 2SC3, 3SE3; LINGUIST 4D03; MMEDIA 2003, 2B03, 2E03, 2F03, 2G03, 2H03, 2I03, 3G03, 3D03, 3E03, 3F03, 3G03, 3H03, 3I03, 3J03, 4C03, 4D03; MUSIC 2F03; THTR&FLM 2E03; WOMEN ST 2D03

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme (including two of MMEDIA 1A03, 1B03, or 1C03)
18 units MMEDIA 2A03, 2B03, 3A03, 3B03, 4A03, 4B03
3 units from MMEDIA 2003, 3G03
15 units from Course List 1
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

PROGRAMMES IN MUSIC

NOTES
1. Completion of a Music degree requires considerable daytime attendance.
2. Normally, students who possess an undergraduate degree in Music will not be admitted to a B.Mus. degree programme as a second undergraduate degree.

MUSIC I
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.)

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 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, 3P03, 3Q03, 3V03, 4K03, 4L03, 4M03, 4N03, 4O03, 4P03, 4Q03, 4V03

COURSE LIST 2
MUSIC 3CM3, 3CT3, 3H03, 3Y03, 3YY3, 4C03, 4H03, 4I03, 4P03, 4Y03

COURSE LIST 3
MUSIC 2A03, 2AA3, 2F03, 2G03, 2Z03, 3G03, 3T03, 3U03, 3Z03, 4AA3, 4G03, 4S03, 4U03, 4Z03, 4ZZ3; SOTA 2A03

COURSE LIST 4
MUSIC 3E03, 3E06, 3S03, 4E03, 4E06
(Lesson fees are charged to students taking these courses.)

REQUIREMENTS
123 units total (Levels I to IV)
33 units Music I
24 units MUSIC 2CC3, 2D03, 2E06, 2G03, 2H03, 2Y03, 2YY3
3 units from MUSIC 2A03, 2AA3, 2F03, 3T03, 3U03
24 units from Course Lists 1 and 2
9 units from Course Lists 3 and 4
30 units Electives

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
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 3T03, 3U03, 3Z03, 4AA3, 4X03

COURSE LIST 2
MUSIC 2A03, 2AA3, 2F03, 2G03, 2Z03, 3T03, 3U03, 3Z03, 4AA3, 4X03; SOTA 2A03

REQUIREMENTS
120 units total (Levels I to IV)
33 units Music I programme
21 units MUSIC 2CC3, 2D03, 2E06, 2H03, 2Y03, 2YY3
12 units from Course List 1
6 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.)
12 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
Completion of Music I and a Cumulative Average of at least 3.5.

NOTES
1. Students from another Level programme may be admitted with a Cumulative Average of at least 3.5, a grade of at least C- in MUSIC 1A06, or a weighted average of 4.0 in MUSIC 1A03 and 1AA3, and a successful audition.
2. 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)
33 units Music I programme
15 units MUSIC 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: students who are enrolled in, or graduates of, a Music degree programme at McMaster; and 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 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 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 to arrange 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, 4U03
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.

REQUIREMENTS
The Diploma will require completion of 24 units as follows:
15 units MUSIC 2E06, 3E06, and one of MUSIC 3S03, 4G03, 4U03
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.

PROGRAMMES IN THEATRE & FILM STUDIES
Honours Arts & Science and Theatre & Film Studies
{2551}
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 THTR&FLM 1A03 and 1B03, or DRAMA 1A03 and 1AA3; or a grade of at least B- in DRAMA 1A06.

NOTE
A number of courses that directly pertain to Theatre & Film Studies 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 Theatre & Film course descriptions. Up to nine units from the list may be made available as substitutes for Theatre & Film courses, and counted toward the fulfillment of a programme in Theatre & Film Studies. 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.
12 units Level II Theatre & Film courses with at least six units from THTR&FLM 2C03, 2D03, 2E03, 2F03
27 units Level III or IV Theatre & Film
6 units Level IV Theatre & Film courses including at least three units from THTR&FLM 4B03, 4C03, 4D03, 4E03, 4F03
45 units Electives
Combined Honours in Theatre & Film 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 THTR&FLM 1A03 and 1B03, or DRAMA 1A03 and 1AA3; or a grade of at least B+ in DRAMA 1A06.

NOTE
A number of courses that directly pertain to Theatre & Film Studies 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 Theatre & Film course descriptions. Up to nine units from the list may be made available as substitutes for Theatre & Film courses, and counted toward the completion of a programme in Theatre & Film Studies. 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
- 12 units Level II Theatre & Film courses with at least six units from THTR&FLM 2C03, 2D03, 2E03, 2F03
- 18 units Level III or IV Theatre & Film courses including at least three units from THTR&FLM 4B03, 4C03, 4D03, 4E03, 4F03
- 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 Theatre & Film Studies (1551)

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 THTR&FLM 1A03 and 1B03, or DRAMA 1A03 and 1AA3; 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
- 12 units Level II Theatre & Film courses with at least six units from THTR&FLM 2C03, 2D03, 2E03, 2F03
- 12 units Level III or IV Theatre & Film
- 36 units Electives

Minor in Theatre & Film Studies

NOTE
Students currently working toward a Minor in Drama or a Minor in Film may apply any courses completed to the Minor in Theatre & Film Studies.

24 units of Theatre & Film

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 on 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)

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 any six units of Level I Classics, Greek or Latin. (Students with Greek U (or OAC Ancient Greek) may substitute six units of Level II Greek; students with Latin U (or 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
- 24 units from CLASSICS 2B03, 2C03, 2D03, 2L03, 2LL3, 2Z03, 3C03, 3CC3, 3E03, 3EE3, 3G03, 3H03, 3LL3, 3MM3, 3QQ3, 3S03, 3T03
- 6 units from CLASSICS 4B03, 4BB3, 4E03, 4T03
- 24 units Levels II, III and IV Classics, Greek, Latin
- 36 units Electives

Honours Classics

(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 1Z03 and 1Z3 or in LATIN 1Z03 and 1Z3 (Students with Greek U (or OAC Ancient Greek) may substitute six units of Level II Greek; students with Latin U (or OAC Latin) may substitute six units of Level II Latin.) Students are encouraged to include a Level I Classics course in their Level I programme.

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, 3T03
Combined Honours in Classics and Another Subject

(PROGRAMME A: ANCIENT HISTORY AND ARCHAEOLOGY)

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 any six units of Level I Classics, Greek or Latin courses. (Students with Greek U (or OAC Ancient Greek) may substitute six units of Level II Greek; students with Latin U (or 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 2E03, 2C03, 2K03, 2L03, 2LL3, 2Z03, 3C03, 3C3, 3E03, 3EE3, 3G03, 3H03, 3LL3, 3MM3, 3Q03, 3T03

6 units from CLASSICS 4B03, 4BB3, 4E03, 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 1Z03 and 1ZZ3 or in LATIN 1Z03 and 1ZZ3. (Students with Greek (or OAC Ancient Greek) may substitute six units of Level II Greek; students with Latin U (or 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, 3G03, 3I03, 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

24 units Greek (including GREEK 1Z03 and 1ZZ3 (or 1Z06), if not completed in Level I)

24 units Latin (including LATIN 1Z03 and 1ZZ3 (or 1Z06), if not completed in Level I)

6 units Levels II, III and IV Classics, Greek, Latin

30 units Electives

NOTES

1. 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, 2LL3 in their Level II programme.

2. Students are encouraged to include at least six units of Greek or Latin in their programme. GREEK 1Z03, 1ZZ3 and LATIN 1Z03, 1ZZ3, 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

12 units Level II Classics, Greek or Latin

12 units Level III Classics, Greek or Latin

36 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

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:

   The Language and Discourse Stream involves the study and discovery of patterns in human language and society. Focus is placed on the art and science of persuasion, rhetoric and the importance of language in political and social life.

   The Cultural Studies Stream focuses on the critical analysis of popular culture through film, the visual arts and a variety of other forms. Unique to the Communication approach to Cultural Studies is a focus on empirical analysis as well as the social, political and cognitive significance of popular cultures. Graduates of this Stream will have both practical and theoretical skills necessary to pursue careers in the field of communications.

   The Performance Studies Stream examines artistic and everyday performances (from theatre, concerts and performance art to storytelling, ceremonies and public protests) and the relationships between them, with a particular emphasis on the role of the body in social communication.

   The Mass Communication Stream focuses on the organization and functioning of information media such as television, radio and the press as major institutions and sources of knowledge and understanding about society.
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**

<table>
<thead>
<tr>
<th>Units</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>CMST 2E03, 3G03</td>
</tr>
<tr>
<td>12</td>
<td>from CMST 2F03, 2U03, 2V03, 2W03, 3C03, 3D03, 3E03, 3V03, 3W03, 3Y03, 4G03, 4H03, 4I03, 4J03, PSYCH 2C03, 2H03, 3U03</td>
</tr>
</tbody>
</table>

**COURSE LIST 2 - CULTURAL STUDIES STREAM**

<table>
<thead>
<tr>
<th>Units</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>CMST 2J03, 2X03</td>
</tr>
<tr>
<td>12</td>
<td>from CMST 2I03, 2M03, 2MM3, 2N03, 2O03, 2T03, 2Y03, 3BB3, 3CC3, 3F03, 3P03, 3SS3, 3T03, 3UU3, 3W03, 3WW3, 3XX3, 4F03, 4FF3</td>
</tr>
</tbody>
</table>

**COURSE LIST 3 - PERFORMANCE STUDIES STREAM**

<table>
<thead>
<tr>
<th>Units</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>CMST 2G03, 4C03</td>
</tr>
<tr>
<td>6</td>
<td>from CMST 2H03, 2P03, 2R03, 2S03, 3U03</td>
</tr>
<tr>
<td>6</td>
<td>from CMST 2D03, 3H03, 3M03, INDIG ST 3G03, KINESIOL 4JJ3</td>
</tr>
</tbody>
</table>

**COURSE LIST 4 - MASS COMMUNICATION STREAM**

<table>
<thead>
<tr>
<th>Units</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>from CMST 2K03, 2L03, 2Z03</td>
</tr>
<tr>
<td>3</td>
<td>CMST 3C03, 3D03</td>
</tr>
<tr>
<td>12</td>
<td>from CMST 2K03, 2L03, 2Z03, 3C03, 3D03 (if not completed to satisfy above requirements), 3I03, 3K03, 4D03, 4E03</td>
</tr>
<tr>
<td>12</td>
<td>from CMST 2N03, 2T03, CMST 3B03, 3E03, 3V03, 3W03, 3WW3, 3XX3, 4F03, 4FF3</td>
</tr>
</tbody>
</table>

**COMPARATIVE LITERATURE**

WEB ADDRESS: [http://www.humanities.mcmaster.ca/~compLit](http://www.humanities.mcmaster.ca/~compLit)

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.

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 wishing to combine Communication Studies with a subject in the Faculty of Humanities should follow the requirements as outlined below. Those students wishing to combine Communication Studies with a subject in the Faculty of Social Sciences should follow the requirements as outlined in Combined Honours in Communication Studies and Another Subject in the Faculty of Social Sciences section of the Calendar.

2. Students in this programme must complete one of the following Streams:

   The Language and Discourse Stream involves the study and discovery of patterns in human language and society. Focus is placed on the art and science of persuasion, rhetoric and the importance of language in political and social life.

   The Cultural Studies Stream focuses on the critical analysis of popular culture through film, the visual arts and a variety of other forms. Unique to the Communication approach to Cultural Studies is a focus on empirical research as well as the social, political and cognitive significance of popular cultures. Graduates of this Stream will have both practical and theoretical skills necessary to pursue careers in the field of communications.

   The Performance Studies Stream examines artistic and everyday performances (from theatre, concerts and performance art to storytelling, ceremonies and public protests) and the relationships between them, with a particular emphasis on the role of the body in social communication.

   The Mass Communication Stream focuses on the organization and functioning of information media such as television, radio and the press as major institutions and sources of knowledge and understanding about society.

3. Students must take at least three units of Level IV courses in their Stream.

4. It is recommended that students, especially those in the Language and Discourse Stream, take six units of a language other than English.
2. Upon completion of 60 units of work and with the approval of the Director of Comparative Literature 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.

**REQUIREMENTS**

1. Programmes in English

- **Major in Comparative Literature**
  - 18 units of Level I, II, III, IV Comparative Literature
  - 6 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: [http://www.humanities.mcmaster.ca/-english/](http://www.humanities.mcmaster.ca/-english/)

**Programmes Offered by the Department of English**

**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, 3I06, 3K06, 3L06, 3V06</td>
</tr>
<tr>
<td>AREA 2</td>
<td>Later British Literature</td>
</tr>
<tr>
<td></td>
<td>2I06, 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, 2P03, 3A03, 3AA3, 3J06, 3Q03, 3QQ3</td>
</tr>
</tbody>
</table>

Honours Arts & Science and English

(B.Ars.Sc.; See Arts & Science programme)

**Honours English**

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.

**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**

1. Programmes in English

- **Major in Comparative Literature**
  - 18 units of Level I, II, III, IV Comparative Literature
  - 6 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: [http://www.humanities.mcmaster.ca/-english/](http://www.humanities.mcmaster.ca/-english/)

**Programmes Offered by the Department of English**

**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, 3I06, 3K06, 3L06, 3V06</td>
</tr>
<tr>
<td>AREA 2</td>
<td>Later British Literature</td>
</tr>
<tr>
<td></td>
<td>2I06, 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, 2P03, 3A03, 3AA3, 3J06, 3Q03, 3QQ3</td>
</tr>
</tbody>
</table>

Honours Arts & Science and English

(B.Ars.Sc.; See Arts & Science programme)

**Honours English**

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.

**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: 12 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 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.

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**

1. Programmes in English

- **Major in Comparative Literature**
  - 18 units of Level I, II, III, IV Comparative Literature
  - 6 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.
those that have been typically overlooked in universities (e.g. television, popular film and fiction, and practices of everyday life), while paying attention to topics such as gender, sexuality and the body, class, race and ethnicity, postcolonialism, subjectivity and representation, ideology and power/knowledge, aesthetics and taste, and technology and culture.

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.

NOTES

1. When registering, students should distribute their required CSCT courses (see Requirements below) as follows:
   - Level II 12 units of Levels II and/or III Cultural Studies and Critical Theory
   - Level III 12 units of Levels II and/or III Cultural Studies and Critical Theory
   - Level IV six units of Levels II and/or III Cultural Studies and Critical Theory
   - Six units of Level IV Cultural Studies and Critical Theory seminars (No student may take more than six units of Level IV seminars.)

2. With permission of the Department, students may substitute CSCT 4X03 for three units of Level IV seminar work in second term. Students who are interested in taking CSCT 4X03 should contact the faculty member chairing the CSCT 4X03 committee early in the first term.

3. Most graduate programmes in Cultural Studies and/or Critical Theory require proficiency in a second language. Students who plan to pursue graduate studies in these areas 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

30 units Level II or III Cultural Studies and Critical Theory

6 units Level IV Cultural Studies and Critical Theory seminars

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 English

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 six units of Level I English.

NOTE

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 18 units of Levels II and/or III English

REQUIREMENTS

90 units total (Levels I to III)

30 units from the Level I programme completed prior to admission into the programme

6 units from Area 1 English courses

6 units from Area 2 English courses

6 units from Area 3 English courses

6 units from Area 4 English courses

6 units from Areas 1-4 and ENGLISH 2D03, 3CC3, 3HH3, 3I3, 3S03, 3T03, 3W03, 3X03, 3XX3

30 units Electives

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

Honours Arts & Science and French (B.Arts.Sc.; See Arts & Science programme)

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.

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 4A03, 4I03, 4LL3, 4MM3, 4N03, 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, 3A03, 3BB3, 3Z03, 4U03

3 units from FRENCH 3K03, 3KK3

3 units from FRENCH 3Q03, 3QQ3

9 units from Course List 1

9 units from Levels III and IV French

96 units Electives

Honours French

PROGRAMME B:

LANGUAGE, LINGUISTICS AND TRANSLATION

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 1A3A.

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, 3KK3, 3Q03, 3QQ3, 3SS3, 3Z03, 4F03, 4I03, 4J03, 4LL3, 4MM3, 4N03, 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, 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, 3A03, 3BB3, 3Z03, 4U03

3 units from FRENCH 3K03, 3KK3

3 units from FRENCH 3Q03, 3QQ3

9 units from Course List 1

9 units from Levels III and IV French

96 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, 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, 2B03, 3C03, 4A03

3 units from FRENCH 2J03, 2JJ3

3 units from FRENCH 2W03, 2WW3

3 units from FRENCH 3A3, 3BB3, 3Z03, 4U03

6 units from Course List 1

3 units from FRENCH 3A03, 3SS3, 4JO3

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 French and Another Subject

PROGRAMME B: LANGUAGE AND 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 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 A.

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 2E03, 2J03, 2JJ3, 2N03, 2W03, 2WW3, 3AA3, 3BB3, 3KK3, 3Q03, 3SS3, 4JO3, 4F03, 4I03, 4JO3, 4LL3, 4MM3, 4N03, 4S03, 4U03, 4Y03

COURSE LIST 2

FRENCH 3A03, 4E03, 4H03, 4I03, 4X03

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, 2B03, 3C03, 4A03

9 units from Course List I, including at least three units from Levels III or IV

6 units from FRENCH 2H03, 3H03

9 units from Course List 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

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.

REQUIREMENTS

90 units total (Levels I to III)

30 units from the Level I programme completed prior to admission into the programme

12 units FRENCH 2B03, 2B03, 3C03, 3F03

3 units from FRENCH 2J03, 2JJ3

3 units from FRENCH 2W03, 2WW3

6 units from FRENCH 3A03, 3K03, 3KK3, 3Q03, 3QQ3, 3SS3

12 units Levels II, III or IV French

24 units Electives

Minor in French

REQUIREMENTS

24 units total

6 units from FRENCH 1A06/2M06, 1N06

9 units FRENCH 2B03, 2B03, 3C03

3 units from FRENCH 2E03, 2J03, 2JJ3, 2W03, 2WW3, 3AA3, 3BB3, 3KK3, 3Q03, 3QQ3, 3SS3

6 units Level II or French, excluding FRENCH 2M06 and 2W06

DEPARTMENT OF HISTORY

WEB ADDRESS: http://www.humanities.mcmaster.ca/~history/

SUBFIELDS

The Department has defined three fields of study. Students should consult the Programme Notes for their specific programme to determine the requirements regarding these fields. Level II and III courses are allocated to the fields as follows:

- Europe
  - HISTORY 2B06, 2C06, 2F03, 2FF3, 2I06, 2M03, 2MM3, 2N06, 2O06, 2P03, 2S03, 2U03, 3D03, 3F03, 3HH3, 3H06, 3I03, 3J03, 3L03, 3PP3, 3QQ3, 3RR3, 3SS3, 3V03, 3Y03
  - 3Z03, 3ZZ3

- Ancient and Non-Western World
  - HISTORY 2E03, 2B03, 2GG3, 2K03, 2L03

- The Americas
  - HISTORY 2H06, 2J06, 2W06, 2P03, 2R03, 2T03, 3TT3, 3GG3, 3K03, 3L03, 3M03, 3N03, 3P03, 3V03, 3W03, 4X03, 3XX3, 3Y03

Honours Arts & Science and History

(B.Arts.Sc.; See Arts & Science programme)

Honours 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 six units of Level I History.

NOTES

1. In selecting courses, students must ensure that they take a minimum of six units in each of three fields of History. This requirement must be satisfied by the end of Level II. All Level II and III History courses from the above list may be used towards this requirement.

2. The department recommends that students take one Level IV seminar in Level III and one Level IV seminar in Level IV.
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. KINESIOI 3A03 (History of Physical Culture and Sports Medicine) or KINESIOI 3H03 (History of Sport in the Western World) may be taken as a substitute for three units of Level III History.
5. With permission of the Department of History and the instructor, KINESIOI 4LL6 (Advanced Topics in Canadian Sport History) may be taken as a substitute for one unit of Level IV 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

COMBINED B.A. IN HUMANITIES

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 an Interdisciplinary Topics in Medieval Life and Culture or a Cumulative Average of at least 6.0 including an average of at least 7.0 in 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. 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 toward 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. KINESIOI 3A03 (History of Physical Culture and Sports Medicine) or KINESIOI 3H03 (History of Sport in the Western World) may be taken as a substitute for three units of Level III History.
5. With permission of the Department of History and the instructor, KINESIOI 4LL6 (Advanced Topics in Canadian Sport History) may be taken as a substitute for one unit of Level IV 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

COMBINED B.A. IN HISTORY 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 1ZZ3 and a Cumulative Average of at least 6.0. A minimum grade of at least B- is required in JAPANESE 1ZZ3.

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 2203, 2ZZ3, 3A03, 3AA3, 4L03, 4Z03
6 units JAPAN ST 2P06
12 units from JAPANESE 3B03, 3CC3, JAPAN ST 2A03, 2C03, 2F03, 3B03, 3E03, 3H03, 3S03, 3T03, 3UL3, 4A06, 4G03, 4S03, GEO 3H03, HISTORY 4B66, POL SCI 4MM6
36 units Courses specified by 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 1Z03, 1ZZ3 and JAPAN ST 2P06 and 12 additional units of Japanese or Japanese Studies courses.

DEPARTMENT OF MODERN LANGUAGES AND LINGUISTICS

WEB ADDRESS:
http://wwwumanities.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 1B3; 1Z06; or 1Z03 and 1ZZ3 and a Cumulative Average of at least 6.0. A minimum grade of B- is required in GERMAN 1BB3, 1Z06 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 Italian
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 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. In this programme students are required to study at least two languages. The department has defined four language groups (see below) for this purpose and students must take at least six units from one language group of their choice, and 18 units of a language from another group for a total of 24 units.
   a) Romance Languages: Catalan, French, Italian, Spanish
   b) Classical: Greek, Hebrew, Latin, Sanskrit
   c) Other Indo-European Languages: German, Polish, Russian
   d) Non Indo-European Languages: Cayuga, Chinese, Japanese, Mohawk, Ojibwe
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; CMST 3E03, MMEDIA 1A03, 2D03, 2I03, 3E03, 3F03, 4003; PHILOS 2B03, 3F03, 4D03; PSYCH 2E03, 2H03, 3A03, 3U03

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I Programme completed prior to admission into the programme
15 units from LINGUIST 2L03, 2LL3, 2M03, 3A03, 3I03, 3I13, 3M03
6 units from LINGUIST 2A03, 2AA3, 2E03, 3X03
6 units from LINGUIST 3E03, 3P03, 4B03, 4Z03
3 units from LINGUIST 4L03, 4L83, 4LC3, 4XX3
6 units from LINGUIST 4B03, 4D03, 4X03
12 units from one of the languages (beyond Level I) as specified in Note 1 above, except Russian
6 units from a second language as specified in Note 1 above
18 units from Course List 1
18 units Electives

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.
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 Level I.
2. Upon completion of 60 units of work and with the approval of the Department of Modern Languages 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; CMST 3E03, MMEDIA 1A03, 2D03, 2I03, 3D03, 3E03, 4C03; PHILOS 2B03, 3F03, 4D03; PSYCH 2E03, 2H03, 3A03, 3U03

REQUIREMENTS
120 units total (Levels I to IV)
30 units from Level I programme completed prior to admission into the programme
12 units from LINGUIST 2A03, 2AA3, 2E03, 2LL3, 3B03, 3P03, 3X03, 4B03, 4BB3, 4D03, 4X03, 4XX3
12 units from LINGUIST 2L03, 2M03, 3A03, 3I03, 3I13, 3M03
12 units from a language other than English, above Level I, except Russian (See Note 1 above).
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 Modern Languages [2363] and Linguistics
This programme combines the study of two modern languages (French, German, Italian, Japanese, Spanish) with some areas of Linguistics (sociolinguistics, 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 1Z06 (see Note 2 below); GERMAN 1BB3, 1Z06 or 1Z23; HISPANIC 1AA3, 1Z06 or 1Z23; ITALIAN 1AA3, 1C03, 1D03 or 1Z06; JAPANESE 1Z06 or 1Z23.

NOTES
1. Students are strongly urged to complete LINGUIST 1A03 and 1AA3 in their Level I programme. If not, LINGUIST 1A03 and 1AA3 must be included in Level II of their programme.
2. Students entering the programme with FRENCH 1206 must complete FRENCH 1N06 or 2206, in addition to the 18 units of French, beyond Level I.
3. 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, 2D03, 2I03, 3D03, 3E03, 4C03; PHILOS 2B03, 3F03, 4D03; PSYCH 2E03, 2H03, 3A03, 3U03

REQUIREMENTS
120 units total (Levels I to IV)
30 units from the Level I programme completed prior to admission into the programme
18 units from LINGUIST 2A03, 2AA3, 2E03, 3X03, 4B03, 4BB3, 4D03, 4X03
18 units from a language other than English (above Level I)
18 units from a second language other than English (above Level I)
18 units from Course List 1
18 units Electives

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.

PEACE STUDIES
WEBADDRESS: http://www.humanities.mcmaster.ca/-peace

Honours Arts & Science and Peace Studies (B.Arts.Sc.; See Arts & Science Programme)

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 should note that certain courses in Course Lists 1 and 2 have their own disciplinary prerequisites.
2. Upon completion of 60 units of work and with the approval of both the Director of Peace Studies 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 Studies Elsewhere programme.

COURSE LIST 1
PEACE ST 2I03, 2S03, 3A03, 3B03, 3E06, 3F03, 3G03, 3I03, 3J03, 3KK3, 3L03, 3M03, 3W03, 3X03, 4C03; RELIG ST 2E03, 2H03, 2L03, 2MM3, 3I13

COURSE LIST 2
ANTHROP 2X03, 2XX3, 3CN3, 3T03; ECON 2F03, 2L03; LABR ST 2A03, 2C03, 2D03, 3G03; POL SCI 2E06, 3AA3, 3KK3, 3Q03, 3Y03; SOCIOI 3KK3

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 3T03, PEACE ST 3M03, RELIG ST 2H03, SOCIOI 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.)
16 units Electives to total 120 units
NOTE
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

WEB ADDRESS: http://www.humanities.mcmaster.ca/-philos

Honours Arts & Science and Philosophy (B.A.Sc.; See Arts & Science programme)

Honours Philosophy {2420}

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. Students are advised to note the prerequisites for all courses. Students are also advised to take note which courses are offered in alternate years.

NOTES
1. 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. 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 HUMAN 2C03, PHILOS 2B03
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. 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. 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 from BIOLOGY 2A03, 2B03, 2C03, 2D03, 2F03, CHEM 2E03, 2OA3, 2OB3
24 units Level III and IV Biology courses
18 units PHILOS 2A06, 2C06, 3A03, 4H03
3 units PHILOS 2B03
3 units from PHILOS 2D03, 2F03, 2G03
3 units from PHILOS 3G03, 3N03
6 units Level III or IV Philosophy
3 units Level IV Philosophy
18 units Electives to total 120 units

Honours Philosophy and Mathematics (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 including a grade of at least B- in each of MATH 1A03 or 1AA3 and 1B03 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.

NOTES
1. 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. 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.
B.A. in Philosophy {1420}

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 six units of Level I Philosophy.

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 2A05, 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/-womensst/

Honours Arts & Science and Women’s Studies (B.Arts.Sc.; See Arts & Science Programme)

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.

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 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)

30 units from the Level I programme completed prior to admission to the programme

6 units WOMEN ST 2A03, 2AA3

6 units from ANTHROP 2R03, HUMAN 2F03, LABR ST 2D03, RELIG ST 2B03, 2BB3, 2SS3, SOCIOl 2Q06, 2U06, WOMEN ST 2B06, 2C03, 2D03, 2F03, 2FF3, 2H03, 2H13, 2K06, 2L03

6 units WOMEN ST 2A03, 2AA3

6 units from ANTHROP 3RR3, LABR ST 3E03, POL SCI 3V03, SOCIOl 3D03, 3E03, 3X03, WOMEN ST 3B03, 3BB3, 3C03, 3CC3, 3D03, 3DD3, 3E03, 3F06, 3G03, 3GC3, 3H03, 3H13, 3I03, 3W03, 3X03

6 units WOMEN ST 3A06

6 units from HISTORY 4H06, KINESIOL 4T03, SOCIOl 4U03, SOC WORK 4R03, WOMEN ST 4B03, 4BB3, 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, Geography and Geology, 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 I	(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.).

LEVEL I PROGRAMME NOTES

1. INQUIRY 1SC3 may be taken as an elective. The Faculty of Science emphasizes inquiry courses. INQUIRY 1SC3 offers preparation for these courses.

2. It is possible to complete Science I and Mathematics and Statistics I through evening/summer studies. Students wishing this option should consult the Office of the Registrar for timetable information.

3. SCIENCE 1A00 is a one-hour mandatory Health and Safety course which must be completed by all Science students.

4. SCIENCE 1B00 is a one term course that provides information of assistance to Science students throughout their studies.

5. Students registered in Science I or Mathematics and Statistics I normally do not take upper level electives.

For Students Registered in Science I:

6. Courses must be selected carefully to meet the admission requirements for entry to Level II of a specific programme. (See Faculty of Science Programme Listings in this section of the Calendar for Level II programme admission requirements.)

7. 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.

For Students Registered in Mathematics and Statistics I:

8. Students may also be admitted to the Honours B.Sc. Computer Science programmes upon successful completion of Mathematics and Statistics I, with the inclusion of COMP SCI 1MC3, 1MD3. Six additional units from Science I Course List must be completed before entry to Level IV of any Computer Science Programme. It is strongly advised that these six units be completed before entry to Level II. (CHEM 1A03 and PHYSICS 1B03 are the recommended additional six units.)

9. 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.

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).

ASTRON 1FO3 Introduction to Astronomy and Astrophysics

BIOLOGY 1A03 Cellular and Molecular Biology

BIOLOGY 1A3 Evolution, Biodiversity and Ecology

CHEM 1A03 Introductory Chemistry I

CHEM 1A3 Introductory Chemistry II

COMP SCI 1SA3a Computing Fundamentals

COMP SCI 1MC3a Computer Science I

COMP SCI 1MD3b Computer Science II

ENVIR SC 1AO3b Atmosphere and Hydrosphere

ENVIR SC 1B03 Living Environment

ENVIR SC 1G03 Earth and the Environment

MATS 1M03 Structure and Properties of Materials

MATH 1A03 Calculus I

MATH 1B03 Linear Algebra I

PHYSICS 1B03 Mechanics and Waves

PHYSICS 1A3b Introduction to Modern Physics A

PHYSICS 1BB3 Introduction to Modern Physics B

PSYCH 1A03 The Psychology of Interpersonal Behaviour

STATS 1CC3 Introductory Computer-Aided Statistics

CHEM 1R03 is offered for those students who did not complete OAC Chemistry and wish to proceed to CHEM 1A03.

Students with little or no previous computer experience may substitute COMP SCI 1SA3 for COMP SCI 1MD3; however, students must achieve a grade of at least B+ in COMP SCI 1SA3 to satisfy the prerequisite for COMP SCI 1MD3.

ENVIR SC 1G03 provides more Level II course and programme choices.

PHYSICS 1P03 provides the background necessary to proceed to PHYSICS 1B03 for those students who did not complete OAC Physics (or Physics U) or who completed it with a grade of less than 60%.

SCIENCE I

REQUIREMENTS: 30 UNITS

3 units MATH 1A03

3 units from MATH 1A3, 2B03, STATS 1CC3

6 units from BIOLOGY 1A03, CHEM 1A03, PHYSICS 1B03

12 units from the Science I Course List (of which no more than six units may be taken from any one discipline) (see above)

6 units Level I electives

1 course SCIENCE 1A00

1 course SCIENCE 1B00

See Note 6 from Level I Programme Notes.

MATHEMATICS AND STATISTICS I

REQUIREMENTS: 30 UNITS

9 units MATH 1A03, 1A3, 2B03

3 units from the Science I Course List (see above)

18 units Level I electives

1 course SCIENCE 1A00

1 course SCIENCE 1B00

B. Degree Programmes

HONOURS B.SC. PROGRAMMES

Beginning September 2004, a Cumulative Average of at least 6.0 will be required for admission to most Honours B.Sc. Programmes.

The Faculty of Science has restructured its four year honours programmes. Each Department or School now offers an Honours B.Sc. Programme and one or more Honours B.Sc. Programmes with Specialization. An Honours B.Sc. requires the completion of a set of core courses in a specific discipline and allows for inter-
disciplinary, or liberal arts studies through electives from other departments and faculties. An Honours B.Sc. with Specialization requires the completion of the same set of core courses as well as designated upper level courses in the specialization. Please refer to departmental programme descriptions for details.

Students currently enrolled in either the Specialist Option or the Complementary Option of the Honours B.Sc. programmes may choose to transfer to the B.A. programmes. Please contact the appropriate departmental undergraduate advisor for details.

There are also four Honours Science Programmes that provide a breadth of study in science. Each programme requires a concentration of studies from one of the four areas of science: geology, life science, mathematical science or physical science. They may require students to complete all areas of study, except the remaining three areas of science, completion of 15 units from faculties other than the Faculty of Science and completion of six units of inquiry course work in the final year.

CO-OP PROGRAMMES

The Faculty of Science has instituted Cooperative Education programmes, beginning in Level III, in Honours Biochemistry, Honours Biology (Genetics Specialization), Honours Biology and Pharmacology, Honours Chemistry, Honours Earth and 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 term 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 or Science Cooperative Education in the Faculty of Science.

INDUSTRIAL INTERNSHIPS

The Faculty of Science offers students the opportunity to participate in 12-16 month full-time B.Sc. programmes. Please contact the appropriate departmental undergraduate advisor for details.

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, are eligible to complete their programme part-time as Interns. Internship placements are available to students only in Level II or III B.Sc. programmes with 15 units or more of course work remaining.

The programme requirements for the Level II Co-op programme are met and the student is eligible to return to the University for the full academic year to complete the requirements for the Level I Co-op programme. It is expected that Level II B.Sc. students will complete the internship in the second year of study. Students who qualify are required to complete two 10-week terms. Students who register for an internship programme must maintain enrolment in the programme. The programme fee for an internship is substantially lower than the fee for a Level II B.Sc. programme.

The programme requirements for the Level III Co-op programme are met and the student is eligible to return to the University for the full academic year to complete the requirements for the Level II Co-op programme. It is expected that Level III B.Sc. students will complete the internship in the second year of study. Students who qualify are required to complete two 10-week terms. Students who register for an internship programme must maintain enrolment in the programme. The programme fee for an internship is substantially lower than the fee for a Level III B.Sc. programme.

STUDENT EXCHANGES

Exchange Programmes Within Canada

McMaster University participates in the Canadian Scholars Exchange Programme (CANEX), which includes ten universities.

International Study for Honours Level III

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. McMaster University has formal student exchanges with universities in 26 countries abroad.

Third Year Study Elsewhere is available at universities with which McMaster University does not have a Formal Exchange Agreement.

Students registered in any Honours programme in the Faculty of Science are encouraged to apply to study the whole Level III elsewhere.

To be eligible to take part in this programme, students are expected to complete Level II with a Cumulative Average of at least 7.0. Students must pay all associated travel, study and living expenses. Students who are in need of financial assistance, OSAP (Ontario Student Assistance Program) and/or student loans may be available.

Students interested in these opportunities should begin discussions with the Associate Dean of Science about one year before they plan to enrol elsewhere.

Students must propose and submit an academic programme to their Department for approval. Academic approval must be obtained by the end of February for registration in the following Fall/Winter session.

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.

For information on the Canadian Scholars Exchange Programme (CANEX), and other exchange programmes, please refer to the Academic Facilities, Student Services and Organizations section of this Calendar under the heading Student Exchanges.

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
- Mathematics and Statistics
- Physics
- Psychology
- The minor in Geology is no longer offered. However, students who are currently working towards a minor in Geology may complete this minor according to the requirements as outlined in the 2000-2001 Undergraduate Calendar.

THREE-LEVEL 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.

COURSES

SCIENCE INQUIRY COURSE LIST

Inquiry courses are restricted to students in Level IV of an Honours programme that specifically requires the completion of Inquiry courses.

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 and Molecular Biology
- BIOLOGY 4C09 Senior Thesis
- BIOLOGY 4F06 Senior Project
- BIOLOGY 4FF3 Inquiry in Biology
CHEM 4G06  Senior Thesis
COMP SCI 4ZP6  Project
GEO 4CC3  Review Paper
GEO 4R06  Senior Thesis
PHYSICS 4A03  Inquiry in Physics
PSYCH 4D06  Psychology Thesis
PSYCH 4J03  Inquiry in Psychology

The following are restricted to students in Level IV of an Honours programme in the Faculty of Science who have taken at least three units in the subject area. These courses may not be used to satisfy the requirements for a minor.

INQUIRY 4SC3  Inquiry in Science II (Chemistry)
INQUIRY 4SE3  Inquiry in Science II (Geoscience)
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 may be taken in place of, or in addition to, any of the above Inquiry courses.

INQUIRY 3S03  Teaching Inquiry (Peer Tutoring)

The following is restricted to students in Level IV of an Honours programme in the Faculty of Science:

GEO 4KX3  Inquiry: Minerals and Society

The following is 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.

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 must 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, 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 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 permission for both types of limited enrolment courses as described above. Students are encouraged to obtain permission as soon as possible.

ACADEMIC REGULATIONS AND ADMINISTRATIVE INFORMATION

SPECIFIC TO THE FACULTY OF SCIENCE

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

COUNSELLING

Counselling is available throughout the year from the Office of the Associate Dean of Science and the academic departments in the Faculty of Science. It is highly recommended that all students in the Faculty of Science make a counselling appointment with their student advisor in the Office of the Associate Dean of Science and also with their Departmental Undergraduate Advisor.

MUGSI

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.

MARCH COUNSELLING

1. Information sessions are held by the departments in the Faculty of Science to discuss undergraduate programmes, graduate study opportunities, career options, 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. See To Apply For 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, in the campus newspaper, and will be announced during classes. It is the student's responsibility to contact the appropriate department before classes begin, to discuss undergraduate programmes, graduate study opportunities, career options, etc.

TO APPLY FOR ADMISSION TO LEVEL II PROGRAMMES

All Level I students who wish to be reviewed for admission to a Level II programme in the Faculty of Science for the following Fall/Winter session must submit an Application for Admission to Level II through MUGSI by March 31. The application allows students to rank four programme choices. Students will be notified on their grade reports in June of their eligibility for the Level II programmes to which they have applied.

Admission to limited enrolment programmes is also based on Cumulative Average achieved; students will be admitted by a selection committee. See Limited Enrolment Programmes in this section of the Calendar.

Level I students must meet the admission criteria for a Level II programme according to the Calendar in effect when they registered for Level I. Students must follow the programme requirements of the Calendar in force when they enter Level II, except when a later Calendar explicitly modifies such requirements.

The Office of the Associate Dean of Science will approve registrations only for the programme to which a student was granted admission.

Students who have a Result of Session of May Continue at the University but who do not achieve the admission requirements for any Level II programme may continue in the Faculty of Science, or apply to transfer to another Faculty. Students may repeat or upgrade any of the previous Level I courses but are advised to take only twelve units of additional Level I courses. Only forty-two units of Level I courses may be used as credit towards a three-level programme.
ACADEMIC REQUIREMENTS FOR ADMISSION TO B.SC. PROGRAMMES

The admission criteria for the three-level 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. Programs in this section of the Calendar. Level I students must complete the required courses with the stated grades and a Cumulative Average of at least 3.5. The admission criteria for the Honours Programmes are listed under the Department offering the programme in this section of the calendar. Level I students must complete the required courses with the stated grades and a Cumulative Average of at least 6.0 is required for most Honours programmes.

Students beyond Level I who wish to transfer to a Science Programme must apply to transfer to a programme. Please refer to Transfers in this section of the Calendar.

LIMITED ENROLMENT PROGRAMMES

Admission is limited for the following programmes:

- Honours Biochemistry (Molecular Biology Specialization)
- Honours Biochemistry (Biotechnology and Genetic Engineering Specialization)
- Honours Biochemistry (Computational and Physical Biochemistry Specialization)
- Honours Biology and Psychology
- Honours Molecular Biology

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.

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.

REINSTATEMENT TO THE FACULTY OF SCIENCE

A student may normally not apply for reinstatement for one full academic year following the Result of Session of May Not Continue at the University. Exceptions may be made only when there are extenuating circumstances which are supported by documentation. Students seeking reinstatement must complete the Reinstatement Request Form available at the Office of the Registrar or the Office of the Associate Dean of Science. The completed form and the $50 fee must be submitted to the Office of the Registrar by June 30th. The form 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.

If at any review after reinstatement the student's Cumulative Average falls below 3.5, the student will be required to withdraw from the University for a period of at least 12 months.

READMISSION TO THE FACULTY OF SCIENCE

If five years have passed since the last registration at McMaster, students may not 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 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.

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 requirements have been met. 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.

Students registered in the final year of a three level B.Sc. programme must register for all courses required for completion of the degree unless registering for fewer units than required to complete the degree. If registering for more units than required for the final year of a three-level programme, the courses not required for completion of the programme will be designated Extra.

LEVEL III, IV REQUIREMENTS

Students in Honours programmes are required to take a minimum of 36 units of Level III, IV work (some programmes may require more). Please see the programme descriptions in this section of the Calendar for specific courses.

COURSE CHANGES

Students are responsible for ensuring that their course selection meets the requirements of their programme. All course changes are subject to the deadlines dates for adding, cancelling, 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. Students who cancel a three unit first term course may not overload in second term. 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/WAIVER

Permission/waiver must be obtained and entered onto the data base before a student completes the on-line Drop and Add Application.

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 maintain a full academic load during the study 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

All students enrolled in science programmes, with the exception of students registered in second degree programmes, may apply to the Office of the Associate Dean of Science 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.
DEPARTMENT OF BIOCHEMISTRY

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

Honours Arts & Science and Biochemistry
(B.Arts.Sc; See Arts & Science Programme)

Honours Biochemistry

NOTES

1. The Honours Biochemistry programme has been restructured to consist of four options: a core and three specializations. In the core, this programme has a specified set of basic requirements, but otherwise allows a wide choice of other courses (including those from outside the Faculty of Science). The opportunity is therefore available for interdisciplinary studies possibly leading to a Minor in another subject. Alternatively, students may wish to select one of the specializations which are strongly recommended for students intending to pursue graduate studies. The options currently available are:
   - Biochemistry (Core)
   - Molecular Biology Specialization
   - Biotechnology and Genetic Engineering Specialization
   - Computational and Physical Biochemistry Specialization

Admission to the specializations is limited. Selection is based on academic achievement but requires, as a minimum, completion of the Science I requirements listed below for all Honours Biochemistry students.

2. Transfer between options is possible at any time, subject to satisfying the specific option requirements and enrolment limits. Registration in a specialization will be noted on the student's transcript.

3. Students in the Molecular Biology Specialization and in the Biotechnology and Genetic Engineering Specialization are normally required to take a course involving a research project or a thesis. Enrolment in any of these courses is limited and admission is dependent on academic performance. Students who fail to achieve the minimum C.A. to register in the required course may request special permission from the department to remain in the specialization or transfer to the core option.

4. Students may apply for admission to Honours Biochemistry Co-op regardless of their option.

ADMISSION

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 1A3 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/GRADUES:

2003-2004 Only: 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.

Effective 2004-2005: A Cumulative Average of 6.0 and a grade of C+ in each of four of BIOLOGY 1A03, 1A3, CHEM 1A03, 1A3, 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 Level II and III courses.

2. Although required by Level III in the Core option, 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 programme.

5. Students are reminded that biochemical laboratory experience is highly valuable in many careers. The laboratory course BIOCHEM 3L03 which is required for all Honours Biochemistry students may not, by itself, be sufficient for many purposes. Consequently, students who are not taking a research project or thesis course should consider BIOCHEM 4L03.

6. Students who wish to enrol in the Computational and Physical Biochemistry Specialization in Level II, must complete MATH 1A93, 1B03 and PHYSICS 1B43 or 1B53 by the end of Level II. PHYSICS 2A03 and 2C03 must be completed by the end of Level III.

**OPTIONS**

### Core (2040802)

**REQUIREMENTS**

120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses

**LEVEL I**

- 30 units (See Admission above.)

**LEVEL II: 30 UNITS**

- 18 units BIOCHEM 2B03, 2BB3, BIOLOGY 2B03*, 2C03, CHEM 2R03, 2N03*
- 6 units from either CHEM 2A03 and 2OB3; or CHEM 2B03 and 2BB3
- 6 units Electives

*BIOLOGY 2B03, CHEM 2N03 must be completed by the end of Level III.

**LEVEL III: 30 UNITS**

- 6 units BIOCHEM 3D03, 3L03
- 6 units from Level III, IV courses
- 18 units Electives

If not completed: BIOLOGY 2B03, CHEM 2N03 (See Notes 2 and 3 above.)

**LEVEL IV: 30 UNITS**

- 6 units BIOCHEM 4E03, 4K03
- 3 units from BIOCHEM 4C03, 4L03
- 3 units from BIOCHEM 3H03; 3N03, 4H03, 4L03, 4C03 (See Note 5 above.)
- 6 units from Level III, IV Biochemistry, BIOLOGY 3O03, 4V03, HTH SCI 3I03
- 6 units from Level III, IV courses excluding Biochemistry
- 6 units Electives

**Molecular Biology Specialization (2040804)**

(Enrolment is limited. See Note 1 in Honours Biochemistry above.)

**REQUIREMENTS**

120-121 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses

**LEVEL I**

- 30 units (See Admission above.)

**LEVEL II: 30 UNITS**

- 18 units BIOCHEM 2B03, 2BB3, BIOLOGY 2B03, 2C03, CHEM 2N03, 2R03
- 6 units from either CHEM 2A03 and 2OB3; or CHEM 2B03 and 2BB3
- 6 units Electives

**LEVEL III: 30 UNITS**

- 18 units BIOCHEM 3C03, 3D03, 3L03, 3P03, BIOLOGY 3O03, CHEM 3F03
- 3 units from Level III, IV Biochemistry, Biology, Chemistry
- 3 units from Level III, IV courses from the Faculty of Science
- 6 units Electives

**LEVEL IV: 30 UNITS**

- 9 units BIOCHEM 4E03, 4EE3, 4K03
- 6-9 units from BIOCHEM 4B06, 4F09, 4L03, 4P03
- 3-6 units from Level III, IV Biochemistry, Biology, Chemistry
- 3 units from Level III, IV courses from the Faculty of Science, excluding Biochemistry
- 6 units Electives

**Biotechnology and Genetic Engineering Specialization (2040806)**

(Enrolment is limited. See Note 1 in Honours Biochemistry above.)

**REQUIREMENTS**

120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses

**LEVEL I**

- 30 units (See Admission above.)

**LEVEL II: 30-31 UNITS**

- 21 units BIOCHEM 2B03, 2BB3, BIOLOGY 2B03, 2C03, CHEM 2N03, 2R03, CHEM ENG 2B03
- 6 units from either CHEM 2A03 and 2OB3; or CHEM 2B03 and 2BB3
- 3-4 units Electives (CHEM ENG 3BK3 and 3K04 may be of interest)

**LEVEL III: 30-31 UNITS**

- 18 units BIOCHEM 3D03, 3L03, 3P03, BIOLOGY 3O03, 3P03, CHEM 3F03
- 6-7 units from Level III, IV Biochemistry, Biology, Chemistry, CHEM ENG 3K04, 3B83
- 6 units Electives

**LEVEL IV: 30-31 UNITS**

- 9 units BIOCHEM 4E03, 4H03, 4K03
- 3 units from BIOCHEM 4C03, 4L03
- 3-6 units from BIOCHEM 4B06, 4P03
- 10 units from Level III, IV Biochemistry, Biology, Chemistry, Chemical Engineering
- 6 units Electives

**Computational and Physical (2040884)**

Biochemistry Specialization

(Enrolment is limited. See Note 1 in Honours Biochemistry above.)

**REQUIREMENTS**

120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses

**LEVEL I**

- 30 units (See Admission above.)

**LEVEL II: 30 UNITS**

- 12 units BIOCHEM 2B03, 2BB3, BIOLOGY 2C03, CHEM 2R03
- 6 units from either CHEM 2A03 and 2OB3; or CHEM 2B03 and 2BB3
- 3 units from PHYSICS 2A03*, 2C03*
- 6 units BIOCHEM 2B03*, CHEM 2N03*
- 3 units Electives

If not completed: MATH 1A93, 1B03 and PHYSICS 1B43 or 1B53.

*BIOLOGY 2B03, CHEM 2N03 and one of PHYSICS 2A03, 2C03 must be completed by the end of Level III.

**LEVEL III: 30 UNITS**

- 12 units BIOCHEM 3D03, 3L03, 3P03, PHYSICS 3S03
- 3 units from BIOLOGY 4K03, MATH 2C03
- 6 units from Level III, IV Biochemistry, Biology, Chemistry, Math, Physics. (BIOLOGY 3O03 and CHEM 3F03 may be of interest.)
- 9 units Electives

**LEVEL IV: 30 UNITS**

- 12 units BIOCHEM 4E03, 4K03, 4Y03, PHYSICS 4S03
- 3-9 units from BIOCHEM 4B06, 4F09, 4L03, 4P03
- 0-6 units from Level III, IV Biochemistry
- 3 units from Level III, IV Biochemistry, Biology, Chemistry, Math, Physics, BIOCHEM 4H03
- 6 units Electives
Honours Biochemistry (Complementary Studies Option) {2042}

The Honours Biochemistry (Complementary Studies Option) programme is being phased out. Registration in Level IV will be last available in September 2003.

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

LEVEL IV: 30 UNITS
3 units from BIOCHEM 4C03, 4L03
6 units BIOCHEM 4E03, 4K03
3 units from the Science Inquiry Course List
3 units from BIOCHEM 3H03, 3N03, 4H03, 4L03, 4Q03 (See Note 7 above.)
3 units from Level III, IV Biochemistry, BIOLOGY 3O03, 4V03.
6 units from Level III, IV courses, excluding Biochemistry
6 units Electives

Honours Biochemistry (Specialist Option) {2040}

The Honours Biochemistry (Specialist Option) programme is being phased out. Registration in Level IV will be last available in September 2003.

REQUIREMENTS
120-121 units total (Levels I to IV), of which no more than 48 units may be Level I courses.

LEVEL IV: 30 UNITS (BIOCHEMISTRY OPTION)
6 units BIOCHEM 4E03, 4K03
6-9 units from BIOCHEM 4B06, 4F09, 4L03, 4P03
6-9 units from Level III, IV Biochemistry, Biology, Chemistry
3 units from Level III, IV Science courses, excluding Biochemistry
6 units Electives

LEVEL IV: 30 UNITS (BIOENGINEERING OPTION)
15 units BIOCHEM 4E03, 4G03, 4H03
9 units from Level III, IV Biochemistry, Biology, Chemistry (BIOLOGY 4V03 is recommended)
6 units Electives

Honours Biochemistry Co-op

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 or Honours Molecular Biology.

Information about the programme and the selection procedure may be obtained from Science Cooperative Education and the Chair 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 a choice between two specializations:
   • Molecular Biology Specialization;
   • Biotechnology and Genetic Engineering Specialization
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.
6. Students have the option of registering in BIOCHEM 4B06 in Year 4 instead of registering in BIOCHEM 4P03 in Term 2 of Year 5 if they have obtained appropriate experience during the previous work term and qualify for exemption from BIOCHEM 3P03.

Biotechnology and Genetic Engineering Specialization (Formerly Biotechnology and Genetic Engineering Option) {2046}

YEAR 3
15 units from Academic Level III, Term 1, plus Work Orientation Course, and completion of the first eight-month work term, Term 2 and Summer Term.

TERM 1
3 units BIOCHEM 3D03, 3L03, BIOLOGY 3O03
3 units from Level III, IV Biochemistry, Biology, Chemistry
3 units Electives

TERM 2 AND SUMMER
Work Term

YEAR 4
30 units from Academic Level IV, Term 1, and Academic Level III, Term 2, and beginning of the second eight-month work term, Summer Term.

TERM 1 AND 2
12 units BIOCHEM 3C03, 3P03, 4E03, CHEM 3F03; (Students who have obtained appropriate experience during the previous work term may request permission from the Department to take three units of Level III, IV Biochemistry instead of BIOCHEM 3P03.)
6 units BIOCHEM 4B03 (See Note 6 above.)
6-12 units from Level III, IV Biochemistry, Biology, Chemistry (BIOCHEM 4E03 is recommended.)
6 units Electives

SUMMER
Work Term

YEAR 5
15 units from Academic Level IV, Term 2, and completion of the second eight-month work term, Term 1.

TERM 1
Work Term

TERM 2
3 units BIOCHEM 4K03
0-3 units BIOCHEM 4P03 (required if BIOCHEM 4B06 not completed in Year 4)
3-6 units from Level III, IV Biochemistry, Biology, Chemistry
3 units BIOCHEM 4E03
3 units Electives

Molecular Biology Specialization (Formerly Biochemistry Option) {2045}

YEAR 3
15 units from Academic Level III, Term 1, plus Work Orientation course, and completion of the first eight-month work term, Term 2 and Summer Term.

TERM 1
9 units BIOCHEM 3D03, 3L03, BIOLOGY 3O03
3 units from Level III, IV Biochemistry, Biology, Chemistry
3 units Electives

TERM 2 AND SUMMER
Work Orientation Course
YEAR 4
30-31 units from Academic Level IV, Term 1, and Academic Level III, Term 2, and beginning of the second eight-month work term, Summer Term.

TERMS 1 AND 2
12 units BIOCHEM 3P03, 4E03, 4H03, CHEM 3F03; (Students who have obtained appropriate experience during the previous work term may request permission from the Department to take three units of Level III, IV Biochemistry instead of BIOCHEM 3P03)
0-6 units BIOCHEM 4B06 (See Note 6 above.)
6-13 units from Level III, IV Biochemistry, Biology, Chemistry, CHEM ENG 3BK3, 3K04
6 units Electives

SUMMER:
Work Term

YEAR 5
15 units from Academic Level V, Term 2, and completion of the second eight-month work term, Term 1.

TERM 1
Work Term

FALL/WINTER, TERM 2
6 units BIOCHEM 4G03, 4K03
0-3 units BIOCHEM 4P03 (required if BIOCHEM 4B06 not completed in Year 4)
3-6 units from Levels III, IV courses from the Faculty of Science
3 units Electives

---

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Term 1</th>
<th>Term 2</th>
<th>Summer Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15 units from Academic Level III</td>
<td>Work Term</td>
<td>Work Term</td>
</tr>
<tr>
<td></td>
<td>Work Orientation Course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Term 1</td>
<td>Term 2</td>
<td>Summer Term</td>
</tr>
<tr>
<td>1</td>
<td>Term 1</td>
<td>Term 2</td>
<td>Summer Term</td>
</tr>
<tr>
<td>4</td>
<td>30-31 units from Academic Levels III and IV</td>
<td>Work Term</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Term 2</td>
<td>Summer Term</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Work Term</td>
<td>15 units from Academic Level IV</td>
<td></td>
</tr>
</tbody>
</table>

Honours Biochemistry and Molecular Biology

The Honours Biochemistry and Molecular Biology programme is being phased out. Registration in Level IV will be last available in September 2003.

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

LEVEL IV: 30 UNITS
9 units BIOCHEM 4E03, 4EE3, 4K03
6-9 units from BIOCHEM 4B06, 4F09, 4L03, 4P03
3-6 units from Level III, IV Biochemistry or Molecular Biology
3 units Level III, IV Biochemistry, Biology, Chemistry
6 units Electives

Minor in Biochemistry

REQUIREMENTS
24 units total
6 units from CHEM 1A03, 1AA3
6 units from either CHEM 20A3 and 2OB3 or CHEM 2BA3 and 2BB3
6 units from BIOCHEM 2B03, 2BB3, 2EE3, 3B03, 3BB3, 3D03, 3G03
6 units from Level III, IV Biochemistry

---

DEPARTMENT OF BIOLOGY

WEB ADDRESS: http://www.science.mcmaster.ca/biology/

Honours Arts & Science and Biology
(B.Arts Sc.; See Arts & Science Programme)

Honours Philosophy and Biology
(B.A.; See Faculty of Humanities, Department of Philosophy)

Honours Molecular Biology
(See Molecular Biology)

Honours Biology

The Honours Biology programme has been restructured to consist of three options: a core and two specializations. At the end of Level I, students enter the core option with a wide choice of courses, including courses in other disciplines, or may register for a specialization which reflects the department’s research strengths. All options are suitable for students wishing to pursue graduate studies in Biology.

The options currently available are:
- Biology (Core)
- Biodiversity Specialization
- Genetics Specialization

Students may apply to transfer between options, subject to satisfying the requirements for that option or by permission of the Chair of Biology. Students who do not meet all the requirements of a specialization will be transferred to the core option unless they obtain special permission from the Chair of Biology to remain in the specialization. Registration in a specialization will be noted on the student’s transcript.

ADMISSION

Completion of Science I requirements, including:
- 3 units MATH 1A03
- 3 units from MATH 1B03, STATS 1CC3 (See Note 2 below under Notes For All Honours Biology Programmes.)
- 6 units BIOLOGY 1A03, 1AA3
- 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

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/GRADRES:

2003-2004 Only: 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 CHEM 1A03, 1AA3, MATH 1A03, PHYSICS 1B03, STATS 1CC3.

Effective 2004-2005: A Cumulative Average of 6.0 and an average of 6.0 in BIOLOGY 1A03, 1AA3, and a grade of C+ in each of three of CHEM 1A03, 1AA3, MATH 1A03, PHYSICS 1B03, STATS 1CC3.

NOTES FOR ALL HONOURS BIOLOGY PROGRAMMES

1. Because the required Level II courses are prerequisites and corequisites for other courses, students are encouraged to complete all their required Level II courses while registered in Level II. However, students may defer one or two of these courses until Level III or IV.

2. Students interested in registering in more statistics courses are encouraged to complete STATS 2MA3 in addition to STATS 1CC3. Those students wishing to include more mathematical statistics may replace STATS 1CC3, 2MA3 with STATS 2D03, 2MB3. In this case, students are advised to register in MATH 1B03 in Level I.

3. Admission to Honours Biology and Pharmacology (Co-op) requires completion of CHEM 20A3 and 2OB3. Students are strongly recommended to register in BIOLOGY 2A03 while registered in Level II.

4. Students considering graduate studies in Biology are recommended to complete BIOLOGY 4C09 or 4F06.
BIOLOGY COURSE LIST

All Biology Level III and IV courses: BIOCHEM 2B03, 3G03, 3H03, 3N03, 4E03, 4J03, 4K03, 4Q03; CHEM ENG 2B03; GEO 2A03, 2B03, 2C03, 2E03, 2I03, 2Q03, 2W03, 3A03, 3I03, 3J03, 3S03, 4A03, 4C03, 4G03, 4H03, 4L03, 4S03; HTH SCI 3F03, 3I03, 4I13; MOL BIOL 4H03, 4J03; NEURCOMP 3W03; PSYCH 2F03, 2TT3, 3F03, 3F3A, 3S03, 3T03, 3Y03, 4R03

Biology (Core) {2050808}

NOTES
1. The Biology core option allows students to choose Biology courses which reflect their own interests, or to develop an interdisciplinary approach to Biology which may include obtaining a minor. Students registered in the Biology core option are encouraged to discuss their interests and course selections with a Biology undergraduate counsellor.
2. Students interested in applying to graduate or professional schools are encouraged to complete a Biology Thesis or Project and to choose their Level III and IV elective courses from the Faculty of Science.
3. Students are encouraged to take PHILOS 2D03 or 2G03 as an elective.

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses.

LEVEL I: 30 UNITS
- 30 units (See Admission above.)

LEVEL II: 30 UNITS
- 3-6 units CHEM 2E03, or both CHEM 2A03, 2B03
- 15 units from BIOCHEM 2EE3, BIOLOGY 2A03, 2B03, 2C03, 2D03, 2F03
- 9-12 units Electives

LEVEL III: 30 UNITS
- 3 units from BIOCHEM 2EE3, BIOLOGY 2A03, 2B03, 2C03, 2D03, 2F03 (whichever is not completed)
- 6 units from Levels III, IV Biology
- 6 units from Biology Course List
- 9 units from Level III, IV courses
- 6 units Electives

LEVEL IV: 30 UNITS
- 6 units from Levels III, IV Biology
- 6 units from Biology Course List
- 9 units from Level III, IV courses
- 6 units Electives

Biodiversity Specialization {2050812}

NOTES
1. Students interested in the Biodiversity Specialization are recommended to register in at least one of ENVIR SC 1A03, 1B03 or 1G03 in Level I or II.
2. Students registered in the Biodiversity Specialization are encouraged to complete PHILOS 2G03 as an elective.
3. Students are encouraged to complete more Statistics. (See Note 2 under Notes for all Honours Biology Programmes in this section of the Calendar.)

Biodiversity Course List
BIOLOGY 3B03, 3BB3, 3E03, 3MM3, 3R03, 3SS3, 3TT3, 3U03, 3U3, 3U3, 3A03, 3A03, 3D03, 3D03, 3DD3, 4E03, 4J03, 4K03, 4P03, 4X03, 4Y03; GEO 2A03, 2B03, 2C03, 2E03, 2I03, 2Q03, 2W03, 3A03, 3S03, 4B03, 4C03, 4F03, 4I03, 4L03, 4S03; PSYCH 2F03, 2TT3, 3F03, 3F3A, 3S03, 3T03, 3Y03, 4R03

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses.

LEVEL I: 30 UNITS
- 30 units (See Admission above.)

LEVEL II: 30 UNITS
- 3-6 units CHEM 2E03 or both CHEM 2A03, 2B03
- 21 units BIOCHEM 2EE3, BIOLOGY 2A03, 2B03, 2C03, 2D03, 2F03, 2G03
- 3-6 units Electives

LEVEL III: 30 UNITS
- 9 units BIOLOGY 3F03, 3G03, 3J03
- 12 units from Biodiversity Course List, including at least six units from Biology courses
- 3 units from Biology Course List
- 6 units Electives

LEVEL IV: 30 UNITS
- 3 units BIOLOGY 4A03
- 12 units from Biodiversity Course List, including at least six units from Biology courses
- 9 units BIOLOGY 4C09; or BIOLOGY 4F06 and three units from Biology Course List
- 6 units Electives

Genetics Specialization {2050814}

NOTES
1. Students registered in the Genetics Specialization are encouraged to complete PHILOS 2D03 or 2G03 as an elective.
2. Students with mathematical interests are encouraged to register in Mathematical Statistics. (See Note 2 under Notes for all Honours Biology Programmes in this section of the Calendar.)
3. Students in the Genetics Specialization must complete BIOCHEM 2B03, 2C03 and BIOCHEM 2EE3 in Level II.
4. BIOLOGY 2A03 and 2F03 are strongly recommended.

GENETICS COURSE LIST
BIOCHEM 3G03, 4E03; BIOLOGY 3E03, 3HH3, 3J03, 3M03, 3V03, 4B03, 4DD3, 4E03, 4P03, 4V03, 4XX3; MOL BIOL 4H03

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses.

LEVEL I: 30 UNITS
- 30 units (See Admission above.)

LEVEL II: 30 UNITS
- 6 units CHEM 2A03, 2B03
- 12 units BIOCHEM 2EE3, BIOLOGY 2B03, 2C03, 2D03
- 12 units Electives

LEVEL III: 30 UNITS
- 12 units BIOLOGY 3F03, 3H03, 3I03, 3O03
- 9 units from Genetics Course List
- 9 units Electives

LEVEL IV: 30 UNITS
- 15 units BIOLOGY 4C09, 4K03, 4R03
- 9 units from Genetics Course List
- 6 units Electives

Honours Biology Genetics {2053}

Specialization Co-op

ADMISSION
Enrolment in this programme is limited to a maximum of eight students per year. Selection is based on academic achievement (see below) but requires, as a minimum, completion of Level II of the Honours Biology Genetics Specialization programme with a Cumulative Average of at least 7.0. Information about this programme and the selection procedure can be obtained from Science Cooperative Education and the Chair will be explained in the month of February in an Information Session.

NOTES
1. This is a five-year co-op programme, which includes one eight-month industry work term, and one four-month academic research work term that must be spent in Genetics 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 should seek academic counselling for this programme in the Department of Biology.
Honours Biology (Complementary Studies Option) {2052}

The Honours Biology (Complementary Studies Option) programme is being phased out. Registration in Level IV will be last available in September 2003.

NOTES
1. Students in Levels III and IV of this programme should select courses in consultation with an Undergraduate Counsellor 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 (III) courses.
3. BIOLOGY 1J03 or 1K03 should not be taken.

Course List
BIOCHEM 2B03, 3G03, 3H03, 3N03, 4E03, 4EE3, 4J03, 4K03, 4Q03; all Level III and IV Biology courses, except BIOLOGY 4C09 and 4L09; CHEM ENG 2B03; GEO 2A03, 2B03, 2C03, 2E03, 2I03, 2Q03, 2W03, 3A03, 3I03, 3J03, 4A03, 4B03, 4C03, 4FF3, 4I03, 4L03, 4S03; MED PHYS 3T03; MOL BIOL 4H03, 4J03; PSYCH 2F03, 2T13, 3F03, 3P03, 3S03, 3T03, 3Y03

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

Level IV: 30 units
6 units from the Science Inquiry Course List
6 units from Levels III, IV Biology
6 units from Course List
6 units from Level III, IV courses, excluding Biology
6 units Electives

Honours Biology (Specialist Option) {2050}

The Honours Biology (Specialist Option) programme is being phased out. Registration in Level IV will be last available in September 2003.

NOTES
1. Students are advised to note carefully the prerequisites for all Level III and IV courses listed in the following programme, particularly BIOCHEM 3G03.
2. Admission to Honours Biology and Pharmacology (Co-op) requires completion of CHEM 2OA3 and 2OB3
3. BIOLOGY 1J03 or 1K03 should not be taken.

Course List
BIOCHEM 2B03, 3G03, 3H03, 3N03, 4E03, 4EE3, 4J03, 4K03, 4Q03; all Level III and IV Biology courses; CHEM ENG 2B03; GEO 2A03, 2B03, 2C03, 2E03, 2I03, 2Q03, 2W03, 3A03, 3I03, 3J03, 4A03, 4B03, 4C03, 4FF3, 4I03, 4L03, 4S03; MED PHYS 3T03; MOL BIOL 4H03, 4J03; PSYCH 2F03, 2T13, 3F03, 3P03, 3S03, 3T03, 3Y03

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

Level IV: 30 units
6 units from Levels III, IV Biology (which must include either BIOLOGY 4F06 or 4C03)
6 units from Course List
6 units Electives
BIOLOGY 4C09 is highly recommended

Honours Biology and Mathematics {2050320}

Admission
Completion of the Science I requirements, including:
6 units MATH 1A03, 1A33
6 units BIOLOGY 1A03, 1A33
6 units CHEM 1A03, 1A33
3 units MATH 1B03
3 units from Science I Course List
6 units Level I electives
1 course SCIENCE 1A00
MINIMUM AVERAGES/GRADERS:

2003-2004 Only: 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.

Effective 2004-2005: A Cumulative Average of 6.0 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 2AB3, 2FR3 and either 2S03 or 2T03 in Level II, MATH 3A03 and 3X03 in Level III, and MATH 3AA3 and 4X03 in Level IV. MATH 3E03 is recommended.
5. Students must complete at least nine units from Level IV Biology courses.

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses. Of these 36 units, at least nine must be Level IV.

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
- 12 units BIOLOGY 2A03, 2B03, 2C03, 2F03
- 15 units MATH 2A03, 2AB3, 2C03, 2E03, 2R03
- 3 units Electives
If not completed: MATH 1B03

LEVEL III: 30 UNITS
- 12 units from Levels III, IV Biology (See Note 5 above.)
- 6 units MATH 3F03, 3N03
- 3 units from MATH 2S03, 2T03, 3A03
- 3-6 units STAT 2D03, 2MB3
- 3-6 units Electives

LEVEL IV: 30 UNITS
- 18 units from Levels III, IV Biology, Mathematics, Statistics, PSYCH 4103 which must include at least 9 units of Level IV Biology (See Note 5 above.)
- 3-6 units from MATH 3A03, 3E03, 3FF3, 3X03, STAT 3D03, 3DD3, 3S03, 3U03
- 3-6 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 achievements (see below) but requires, as a minimum, completion of Level II of an Honours Biology or Molecular Biology programme (including CHEM 20A3 and 20B3) 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 in Level II.

NOTES
1. This is a five-year co-op programme, three terms of which must be spent in work related to pharmacology, toxicology or pharmacaceutics.
2. A senior thesis, PHARMAC 4F09, will be completed in Year 4, Term 2 or Year 4 Summer Term or Year 5 Term 1. The senior thesis and work terms must be completed within these three terms.
3. PHARMAC 3A06, 3B06, 4A03, 4AA3, 4C03, 4D03 and 4E03 will use a self-directed problem-based learning approach.
4. Students must be registered full-time and take a full academic workload.

5. Students are required to complete a Work Orientation Course before the first work placement.
6. Students should seek academic counselling for this programme in the Department of Biology.
7. BIOLOGY 1J03 or 1K03 should not be taken.

COURSE LIST
- BIOCHEM 2B03, 3D03, 3G03, 3H03, 3N03; All Level III and IV Biology and Pharmacology courses; CHEM 3F03, 4DD3; GEO 3J03, 4A03, 4B03; HTH SCI 3I03, 4I3; MOL BIOL 4H03, 4J03; PSYCH 2R03

REQUIREMENTS
129 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses.

LEVEL I
30 units from the Science I requirements

LEVEL II: 30 UNITS
- 6 units BIOLOGY 2A03, 2C03
- 12 units from BIOCHEM 2B03, 2BB3, 2EE3, BIOLOGY 2B03, 2D03, 2F03, CHEM 2R03, 2N03
- 6 units CHEM 2A03, 2B03
- 6 units Electives

YEAR 3
30 units from Academic Level III, Terms 1 and 2, plus Work Orientation Course, and completion of first four-month work term, Summer Term

SUMMER:
Work Term

YEAR 4
15 units from Academic Level IV, Term 1, completion of second four-month work term, Term 2, completion of senior thesis, Summer Term.

TERM 1
- 3 units from PHARMAC 4A03, 4C03
- 9 units from Course List
- 3 units Electives

TERM 2
Work Term

SUMMER
9 units PHARMAC 4F09 (See Note 2 above.)

YEAR 5
15 units from Academic Level IV, Term 2, and completion of third four-month work term, Term 1.

TERM 1
Work Term

TERM 2
- 6 units from PHARMAC 4A03, 4D03, 4E03
- 3 units from Course List
- 6 units Electives
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:

3 units  MATH 1A03
3 units  MATH 1B03, STATS 1C03 (See Note 7 below.)
6 units  BIOLOGY 1A03, 1A06
6 units  CHEM 1A03, 1A3
3 units  PHYSICS 1B03
3 units  PSYCH 1A03
6 units  Level I electives
1 course  SCIENCE 1A00
PSYCH 1A03 must be completed by the end of Level I and is strongly recommended in Level I.

MINIMUM AVERAGES/GRADRES:

2003-2004 Only: A Cumulative Average of 5.0 and an average of 6.0 in BIOLOGY 1A03, 1A3, a grade of C+ in PSYCH 1A03, and an average of 6.0 in CHEM 1A03, 1A3.

Effective 2004-2005: A Cumulative Average of 6.0 in BIOLOGY 1A03, 1A3, a grade of C+ in PSYCH 1A03, and an average of 6.0 in CHEM 1A03, 1A3.

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 3). Enrollment 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. Students wishing to have more mathematical statistics may replace STATS 1C03 and PSYCH 2R03 with STATS 2D03 and 2MB3. In this case, students are advised to take MATH 1B03 in Level I.

COURSE LIST 1

BIOCHEM 1H03, 1N03, 3N03, 4E03, 4E3; BIOLOGY 2A03, 2D03, 2F03, all Level III and IV Biology courses; HTH SCI 2J03; 3103; 4113; MED PHYS 3T03; MOL BIOL 4H03

COURSE LIST 2

PSYCH 2D03, 2E03, 2F03, 2H03, 2T03; All Level III and IV Psychology courses (PSYCH 2AA3, 2B03, and 2C03 may only be used as elective credit.)

COURSE LIST 3

NEUROCOMP 3W03; PSYCH 3L03, 3E03, 3L03, 3LL3, 3QQ3, 3S03, 3V03, 4QQ3 (All Psychology lab courses have limited enrolment.)

REQUIREMENTS

120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses

LEVEL I

30 units  (See Admission above.)

LEVEL II: 30 UNITS

15 units  BIOCHEM 2E03, BIOLOGY 2B03, 2C03, CHEM 2A03, 2B03
6 units  from PSYCH 2D03, 2E03, 2F03, 2H03, 2T03
3 units  PSYCH 2R03 (See Note 7 above.)
6 units  Electives, CHEM 2R03 is recommended.
If not completed: PSYCH 1A03

LEVEL III: 30 UNITS

3 units  BIOCHEM 3G03
9 units  from Course List 1, which may not include more than three units of Level II courses
6 units  from Course List 2 which must include at least three units of Level III or IV Psychology
3 units  from Level III or IV courses from Course List 1 or 2
3 units  from Course List 3 (See Note 3 above.)
6 units  Electives

LEVEL IV: 30 UNITS

24 units  from Level III or IV courses from Course Lists 1 and 2, 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, 1A03, 1A3
18 units  from Levels II, III, IV Biology, including at least six units from Levels III, IV Biology

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 or MATH 1J03 are recommended for students without those skills.

2. Students are encouraged to seek academic counselling from the Undergraduate Advisor for Chemistry programmes (email advisor@chemistry.mcmaster.ca)

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 and PHYSICS 1B03 (or 1B03) must be completed by the end of Level II and are strongly recommended in Level I.

Honours Arts & Science and Chemistry

(B.Arts.Sc.; See Arts & Science Programme)

Honours Chemistry

NOTES

1. The Honours Chemistry programme has been restructured to consist of four options: a core and three specializations. The core option consists of a specified set of basic requirements but otherwise allows a wide choice of other courses (including those from outside the Faculty of Science). The opportunity is therefore available for interdisciplinary studies, possibly leading to a Minor in another subject. Alternatively, students may wish to follow one of several specializations which are more appropriate for graduate studies in Chemistry or Biochemistry.

   The options currently available are:
   • Chemistry (Core)
   • Biological Specialization
   • Physical and Analytical Specialization
   • Synthesis and Structure Specialization

2. Students will be registered in Honours Chemistry (Core) until they elect otherwise. Students may transfer to a specialization at any time, subject to satisfying its requirements. Registration in a specialization will be noted on the student's transcript.
ADMISSION
Completion of the Science I requirements, including:
6 units CHEM 1A03, 1AA3
6 units MATH 1A03, 1AA3
3 units PHYSICS 1B03
9 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.
PHYSICS 1BA3 (or 1BB3) must be completed by the end of Level II and is very strongly recommended in Level I, as Physics laboratories are very difficult to schedule in the Level II programme.

MINIMUM AVERAGES/GRADES:
2003-2004 Only: A Cumulative Average of 5.0 and an average of 6.0 in CHEM 1A03, 1AA3.
Effective 2004-2005: A Cumulative Average of 6.0 and an average of 8.0 in CHEM 1A03, 1AA3.

NOTES
1. All options in Honours Chemistry fulfill the academic requirements of the Canadian Society for Chemistry.
2. MATH 1J03, 2B03, PHYSICS 2A03 or 2B06 are recommended electives.
3. For those considering postgraduate studies in Chemistry, it should be noted that 18 units of Level IV Chemistry are required for consideration for admission at McMaster. CHEM 4G06 is strongly recommended. The Department of Chemistry considers the Biological, Physical, and Analytical, and Synthesis and Structure Specializations to be more appropriate for graduate studies in Chemistry.
4. 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.
5. Students must take BIOCHEM 2E03 or 3G03; BIOCHEM 3G03 is recommended. Other Biochemistry courses that have Biology prerequisites are permitted; see the Biological Specialization below.
6. CHEM 3L13 and 4G06 are considered inquiry courses. If both courses are taken, it is recommended that CHEM 3L13 be taken prior to CHEM 4G06.

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses.

Chemistry (Core) {2070816}

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
18 units CHEM 2A03, 2B03, 2BB3, 2P03, 2PA3, 2PB3
12 units Electives
If not completed: MATH 1B03, PHYSICS 1BA3 (or 1BB3)

LEVEL III: 30 UNITS
15 units CHEM 3A03, 3B03, 3L13, 3P03, 3Q03
3 units from CHEM 3D03, 3F03
12 units Electives
If not completed: BIOCHEM 2E03 or 3G03 (See Note 5 above.)

LEVEL III: 30 UNITS
6 units Level IV Chemistry
12 units from Levels III, IV
12 units Electives

Biological Specialization {2070818}

NOTES
1. This specialization is recommended for students interested in pursuing the Joint Biochemistry: Chemistry graduate programme at McMaster University.
2. A minor in Biochemistry is not permitted in the Biological Chemistry Specialization.
3. The programme requires BIOCHEM 2E03 and 3G03. However, students are encouraged to replace these courses with BIOCHEM 2BB3 and either or both BIOCHEM 2B03 and 3D03.

Physical and Analytical Specialization {2070822}

NOTES
1. CHEM 3BB3 and 3ZZ3 require completion of Level II Mathematics and Physics courses. Therefore, students are strongly recommended to take MATH 1B03 and PHYSICS 1BA3 (or 1BB3) in Level I and MATH 2A03 and PHYSICS 2A03 in Level II.
2. Recommended electives include MATH 2C03, STATS 2D03, 2MB3.

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
15 units CHEM 2A03, 2B03, 2BB3, 2P03, 2PA3, 2PB3
6 units MATH 2A03, PHYSICS 2A03 (See Note 1 above.)
9 units Electives (See Note 2 above.)
If not completed: MATH 1B03, PHYSICS 1BA3 (or 1BB3)

LEVEL III: 30 UNITS
15 units CHEM 3A03, 3B03, 3L13, 3P03, 3Q03
6 units CHEM 3BB3, 3ZZ3
3 units from CHEM 3D03, 3F03
6 units Electives
If not completed: BIOCHEM 2E03 or 3G03

LEVEL IV: 30 UNITS
6 units CHEM 4G06
6 units from Levels III, IV Chemistry
6 units from Levels III, IV
12 units Electives

Synthesis and Structure Specialization {2070824}

NOTE
Additional Biochemistry is recommended from either BIOCHEM 2E03, 3G03 or from BIOCHEM 2BB3, 2BB3 and 3D03. Note that the latter three courses have Biology prerequisites.

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
18 units CHEM 2A03, 2B03, 2BB3, 2P03, 2PA3, 2PB3
6 units MATH 2A03, PHYSICS 2A03 (See Note 1 above.)
12 units Electives (See Note 2 above.)
If not completed: MATH 1B03, PHYSICS 1BA3 (or 1BB3)
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 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. Students should, in particular, note the Mathematics and Physics prerequisites for CHEM 3BB3 and 3ZZ3.
5. Students considering postgraduate studies in Chemistry should note that 18 units of Level IV Chemistry are required for consideration for admission at McMaster.
6. Students who complete CHEM 4G06 are not required to complete courses from the Science Inquiry Course List. CHEM 3L13 and 4G06 can be taken in either order, but it is recommended that CHEM 3L13 be completed before CHEM 4G06.

REQUIREMENTS

120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses

LEVEL I

30 units from the Science I requirements

LEVEL II

30 units from Level II of Honours Chemistry, including any of the specialization streams, or Honours Biochemistry and Chemistry

If not completed: MATH 1B03, PHYSICS 1BA3 (or 1BB3)

YEAR 3

15 units from Academic Level III, Term 1, plus Work Orientation course, and first eight-month work term, Term 2 and Summer Term

TERM 1

5 units CHEM 3BA3, 3Q03

9 units Electives. Students who wish to register in CHEM 4G06 in Year 4 must complete CHEM 3L13 in Year 3 (See Note 7 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

12 units CHEM 3A03, 3BB3, 3I03, 4TA3

3 units from CHEM 3D03, 3F03

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

TERMS 1 AND 2 (EFFECTIVE 2004-2005)

12 units CHEM 3A03, 3BA3, 3I03, 3P03

3 units from CHEM 3D03, 3F03

3 units from CHEM 3BB3, 3ZZ3, 4C03, 4D03, 4DD3, 4PP3, 4R03, 4S03

6 units from Level III, IV courses, excluding Chemistry

6 units Electives

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 Levels III, IV Chemistry

3 units from Level IV Chemistry

9 units Electives

TERM 2 (EFFECTIVE 2005-2006)

3 units from Levels III, IV Chemistry

3 units from Level IV Chemistry

9 units Electives

If not completed: BIOCHEM 2EE3 or 3G03; and CHEM 3L13. (See Note 7 above.)

<table>
<thead>
<tr>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Term 1</td>
<td></td>
<td>Term 2</td>
<td></td>
<td>Summer Term</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YEAR 3</td>
<td>15 units from Academic Level III + Work Orientation Course</td>
<td>Work Term</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TERM 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Term 1</td>
<td>15 units from Academic Level IV</td>
<td></td>
<td></td>
<td>Work Term</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YEAR 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Term 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Term 2</td>
<td>15 units from Academic Level IV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Term 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Term 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Term 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Term 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Honours Biological Chemistry {2048}

The Honours Biological Chemistry programme is being phased out. Registration in Level IV will be last available in September 2003.

NOTE

A minor in Biochemistry 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 IV: 30 UNITS

6 units CHEM 4D03, 4D3

3 units from BIOCHEM 3D03, 3K03

6 units from CHEM 4G06; or both CHEM 4TA3 and three units of Levels III, IV Chemistry

3 units from BIOCHEM 3L03, Level IV Biochemistry

3 units from Levels III, IV Biology

6 units Electives, excluding Biology

6 units Electives
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 1A03, 1AA3
18 units Level II, III, IV Chemistry courses, including at least 6 units from Levels III, IV Chemistry courses

PROGRAMMES FOR STUDENTS WHO ENTERED PRIOR TO SEPTEMBER 2002

Honours Chemistry (Complementary Studies Option) {2027}
Honours Chemistry (Specialist Option) {2070}
Honours Biological Chemistry (2048)

Students who entered these programmes prior to September 2002 must consult the Undergraduate Advisor in the Department of Chemistry to discuss ways of fulfilling their programme requirements.

DEPARTMENT OF COMPUTING AND SOFTWARE

WEB ADDRESS: http://www.cas.mcmaster.ca

Honours Arts & Science and Computer Science (B.Ars.Sc.; See Arts & Science Programme)

Honours Economics and Computer Science (B.A.; See Faculty of Social Sciences, Department of Economics)

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. For students transferring from Engineering to Science, ENGINEER 1D04 can be used as a substitute for COMP SCI 1MC3.

Honours Computer Science

NOTES
1. The Honours Computer Science programme has been restructured to consist of two options: a core and a specialized option. This programme consists of a specific set of basic requirements and allows a wide choice of other courses. The options currently available are:
   • Computer Science (Core)
   • Specialized option
   Students who intend to pursue graduate studies in Computer Science should elect the Specialized option.
2. Students will be registered in the Computer Science Core option until they elect otherwise. Transfer to the other option is possible at any time, subject to satisfying the requirements for that option. Registration in the Specialized option will be noted on the student's transcript.
3. A minor in Mathematics or Mathematics and Statistics is not permitted in the Honours Computer Science programme.

ADMISSION
Completion of the Science I requirements, including:
9 units MATH 1A03, 1AA3, 1B03
6 units COMP SCI 1MC3, 1MD3

NOTE
Students may also be admitted upon successful completion of Mathematics and Statistics I, with the inclusion of COMP SCI 1MC3, 1MD3. Six additional units from Science I Course List (CHEM 1A03 and PHYSICS 1B03 are recommended) must be completed prior to entry to Level IV. (Completion prior to entry to Level II is strongly recommended.)

MINIMUM AVERAGES/GRADERS:
2003-2004 Only: A Cumulative Average of 5.0 and a grade of C+ in each of COMP SCI 1MC3, 1MD3.
Effective 2004-2005: A Cumulative Average of 6.0 and a grade of C+ in each of COMP SCI 1MC3, 1MD3.

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
15 units COMP SCI 2MD3, 2ME3, 2MF3, 2MJ3, 2SC3
6 units MATH 2A03, 2R03
9 units from the option requirements (see below)

LEVEL III: 30 UNITS
15 units COMP SCI 3EA3, 3MG3, 3MH3, 3MI3, 3TA3
3 units from COMP SCI 3CB3, 3GA3, 3IA3
3 units Electives, excluding Computer Engineering, Computer Science, Software Engineering
9 units from the option requirements (see below)

LEVEL IV: 30 UNITS
9 units COMP SCI 4EB3, 4MN3, 4TB3
3 units from Level IV Computer Science, NEURCOMP 3W03
3 units Electives
15 units from option requirements (see below)

OPTIONS

Core {2145826}

LEVEL II: 9 UNITS
9 units Electives of which three units must not be Computer Engineering, Computer Science or Software Engineering

LEVEL III: 9 UNITS
9 units Electives of which three units must not be Computer Engineering, Computer Science, Software Engineering, and at least six units must be from Levels III, IV

LEVEL IV: 15 UNITS
6 units from COMP SCI 4ZP6 or the Science Inquiry Course List
9 units Electives of which at least six units must be from Levels III, IV

Specialized Option {2145828}

COURSE LIST
All Level III and IV Computer Science (excluding COMP SCI 4ZP6), all Level III and IV Mathematics, Statistics or Physics courses

LEVEL II: 9 UNITS
9 units Electives

LEVEL III: 9 UNITS
6 units from Levels III, IV Mathematics, Statistics
3 units Electives, excluding Computer Engineering, Computer Science, Mathematics, Software Engineering, Statistics

LEVEL IV: 15 UNITS
6 units COMP SCI 4ZP6
9 units from Course List which must include at least three units of Level IV Computer Science

Honours Computer Science (Complementary Studies Option) {2147}

The Honours Computer Science (Complementary Studies Option) is being phased out. Registration in Level IV will be last available in September 2003.

NOTES
1. COMP SCI 3EA3 is listed as required in Level IV, but may be taken in Level III.
2. A minor in Mathematics or Mathematics and Statistics is not permitted in the Honours Computer Science (Complementary Studies) programme.
The Honours Computer Science (Specialist Option) is being phased out. Registration in Level IV will be last available in September 2003.

MINIMUM AVERAGES/GRADERS:

2003-2004 Only: A Cumulative Average of 5.0 and a grade of C+ in each of COMP SCI 1MC3, 1MD3, and a grade of at least C+ in each of COMP SCI 2MC3, 2MD3, 3MC3, 3MD3.

Effective 2004-2005: A Cumulative Average of 6.0 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 (Specialist Option) programme.

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/GRADERS:

2003-2004 Only: A Cumulative Average of 5.0 and a grade of C+ in each of COMP SCI 1MC3, 1MD3, MATH 1AA3, 1B03.

Effective 2004-2005: A Cumulative Average of 6.0 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 Mathematics programme.

ADMISSION

Completion of any Level I programme, including:

12 units COMP SCI 2MD3, 2MF3, 2MJ3, 2SC3
12 units MATH 2A03, 2AB3, 2C03, 2R03
6 units Electives, MATH 2S03 is recommended. If not completed: SCIENCE 1A00

REQUIREMENTS

12 units from 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 3A03, 4C03, 4J03, 4Q03, 4S03, 4X03
6 units from Level III, IV Mathematics, Statistics
3 units from Course List
6 units Electives, excluding Computer Science, Mathematics, Statistics
3 units Electives

Honours Computer Science and Statistics (214542)

LEVEL II: 30 UNITS

12 units COMP SCI 2MD3, 2MF3, 2MJ3, 2SC3
12 units MATH 2A03, 2AB3, 2C03, 2R03
6 units Electives. MATH 2S03 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 3A03, 4C03, 4J03, 4Q03, 4S03, 4X03
6 units from Level III, IV Mathematics, Statistics
3 units from Course List
6 units Electives, excluding Computer Science, Mathematics, Statistics
3 units Electives

Honours Computer Science B.Sc. as a Second Degree (2149)

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, 1AA3, 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 the University, through the (Admissions) indicating they wish to apply for the Honours

COURSE LIST
All Level III, IV Computer Science courses (excluding 4ZP6), Mathematics and Statistics and Physics courses; MATH 2703; NEURCOMP 3W03

REQUIREMENTS
60 units total
LEVEL III: 30 UNITS
15 units COMP SCI 2M03, 2M53, 2M63, 2M13, 2S3C
6 units MATH 2A03, 2R03
3 units COMP SCI 3T03
6 units from Course List
1 course SCIENCE 1A00

LEVEL IV: 30 UNITS
15 units COMP SCI 3E03, 3M03, 3M13, 3M13, 3M53
3 units from COMP SCI 3C03, 3G03, 3A03, Level IV Computer Science
6 units Level IV Computer Science
6 units from COMP SCI 4ZP6, Level IV Computer Science

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
REQUIREMENTS
24 units total
6 units COMP SCI 1M03, 1M53
9 units COMP SCI 2M03, 2M53, 2M13
9 units from COMP SCI 2M53, 3E03, 3G03, 3M03, 3M13, 3M13, 3M53, 3M53, 3M13, 3T03, 4E03, 4I03

SCHOOL OF GEOGRAPHY AND GEOLOGY
WEB ADDRESS: http://www.science.mcmaster.ca/geo/geomain.html

Honours Arts & Science and Geography and
Honours Arts & Science and
Environmental Sciences
(B.Arts.Sc.; See Arts & Science Programme)

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 Earth and
Environmental Sciences (B.Sc.)

ADMISSION
Completion of the Science I requirements, including:
6 units MATH 1A03, STATS 1C03
3 units BIOLOGY 1A03
6 units CHEM 1A03, 1A3
6 units ENVIR SC 1G03
3 units PHYSICS 1B03
3 units from ENVIR SC 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/GRADINGS:
2003-2004 Only: A Cumulative Average of 5.0 and a grade of C+ in ENVIR SC 1G03 and in one of ENVIR SC 1A03, 1B03.
Effective 2004-2005: A Cumulative Average of 6.0 and a grade of C+ in ENVIR SC 1G03 and in one of ENVIR SC 1A03, 1B03.

NOTES
1. At the end of Level II, students in this programme will choose to follow one of three specializations:
   - Bioearthsciences Specialization
   - Geoscience Specialization
   - Hydrosciences Specialization
   Alternatively, students may choose to register in the core programme.
2. The specializations 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 core programme does not aim to fulfill professional registration requirements.
3. Students may elect one of the three specializations at the completion of Level II. If students choose not to specialize, they follow the requirements below for Earth and Environmental Sciences (Core). If students choose to specialize, they follow the Level III and IV requirements listed under their appropriate specialization listing (see below). Students who choose not to specialize may not fulfill the academic requirements required for professional registration.
4. 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.
5. There are Level III prerequisites for many Level IV courses. The prerequisites should be considered when selecting your courses.
6. The field components of GEO 3F03 and 4F03 are 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 programme. However, a minor in Geographical Information Systems is permitted.
8. Registration in a specialization will be noted on the student’s transcript.

COURSE LIST 1
BIOLOGY 2D03, 2F03; CHEM 2A03, 2E03; GEO 2A03, 2C03, 2G03, 2K03, 2K53

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
3 units CHEM 2R03 or GEO 2Q03
12 units GEO 2B03, 2E03, 2R03, 2W03
6 units from Course List 1
9 units Electives
If not completed: ENVIR SC 1A03, 1B03

Earth and Environmental Sciences (Core)

COURSE LIST 2
BIOLOGY 2F03, 3S03, 3T03, 4A03, 4Y03; CHEM 2A03, 2E03; GEO 2C03, 2G03, 2K03, 2K53, 3B03, 3C03, 3E03, 3G03, 3I03, 3J03, 3P03, 3Q03, 3U03, 3W03, 3Z03, 4B03, 4C03, 4E03, 4F03, 4H03, 4I03, 4K03, 4L03, 4Q03, 4T03, 4W03, 4WW3, 4Z03, 4ZZ3

LEVEL III: 30 UNITS
3 units GEO 3F03
6 units GEO 3R03, 3Y03
6 units from Course List 2
15 units Electives
LEVEL IV: 30 UNITS
3 units GEO 4A03
3-6 units from GEO 4CC3, 4R06
9 units from Course List 2
12-15 units Electives

Biogeosciences Specialization [2211825]

Biogeosciences Course List 1: BIOLOGY 2F03; GEO 2C03, 2G03, 3B03, 3G03, 3J03, 3Q03

Biogeosciences Course List 2: BIOLOGY 2F03, 3S03, 3TT3, 4A03, 4S03, 4Y03; CHEM 2A03 or 2E03; GEO 2G03, 2G03, 2K03, 3B03, 3G03, 3K03, 3J03, 3Q03, 3U03, 3V03, 3W03, 3Z03, 4E03, 4F03, 4F05, 4H13, 4L03, 4Q03

LEVEL III: 30 UNITS
3 units GEO 3FE3
6 units GEO 3R03, 3Y03
6 units from Biogeosciences Course List 1
9 units from Biogeosciences Course List 2
6 units Electives

LEVEL IV: 30 UNITS
3 units GEO 4A03
3-6 units from GEO 4CC3, 4R06
9 units from Biogeosciences Course List 1
6-9 units from Biogeosciences Course List 2
6 units Electives

Geosciences Specialization [2211830]

Geosciences Course List 1: GEO 2G03, 2K03, 2K03, 3E03, 3G03, 3Q03, 3V03, 3Z03

Geosciences Course List 2: GEO 2G03, 2G03, 2KK3, 3E03, 3G03, 3K03, 3Q03, 3G03, 3U03, 3V03, 3Z03, 4E03, 4E03, 4F03, 4K03, 4Q03, 4T03, 4Z03, 4ZZ3

LEVEL III: 30 UNITS
3 units GEO 3FE3
6 units GEO 3R03, 3Y03
6 units from Geosciences Course List 1
9 units from Geosciences Course List 2
6 units Electives

LEVEL IV: 30 UNITS
3 units GEO 4A03
3-6 units from GEO 4CC3, 4R06
9 units from Geosciences Course List 1
6-9 units from Geosciences Course List 2
6 units Electives

Hydrosciences Specialization [2211835]

Hydrosciences Course List 1: GEO 2C03, 2G03, 3C03, 3G03, 3J03, 3W03, 3Z03

Hydrosciences Course List 2: GEO 2C03, 2G03, 2K03, 3B03, 3C03, 3G03, 3I03, 3J03, 3Q03, 3U03, 3Z03, 4E03, 4F03, 4G03, 4L03, 4Q03, 4WW3

LEVEL III: 30 UNITS
3 units GEO 3FE3
6 units GEO 3R03, 3Y03
6 units from Hydrosciences Course List 1
9 units from Hydrosciences Course List 2
6 units Electives

LEVEL IV: 30 UNITS
3 units GEO 4A03
3-6 units from GEO 4CC3, 4R06
9 units from Hydrosciences Course List 1
6-9 units from Hydrosciences Course List 2
6 units Electives

Honours Earth and Environmental Sciences Co-op (B.Sc.)

ADMISSION
Enrolment in this programme is limited to a maximum of 15 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 and 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 three specializations:
   • Biogeosciences Specialization
   • Geosciences Specialization
   • Hydrosciences Specialization

The specializations 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.
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 and 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 and at least 36 units must be Level III, IV courses

LEVEL I
30 units (See Admission above.)

LEVEL II
30 units from Level II Honours Earth and Environmental Sciences (B.Sc.)

YEAR 3
15 units from Academic Level III, Term 1, plus Work Orientation course, and completion of first eight-month work term, Term 2 and Summer Term

TERM 1
3 units GEO 3FE3
3 units GEO 3R03
6 units from Specialization Course Lists (see below)
3 units Electives

⇒ 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
3 units GEO 3Y03
3 units GEO 4A03
9-6 units from GEO 4CC3, 4R06
12-15 units from Specialization 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.
B.Sc. Three-Level Degree
A three-level programme with a Geography/Geology orientation is available through the B.Sc. in Geoscience 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 Earth Science
(Formerly Minor in Geology)
REQUIREMENTS
24 units total
3 units from ENVIR SC 1A03, 1B03
18 units from GEO 2E03, 2K03, 2KK3, 2Q03, 3D03, 3E03, 3F03, 3K03, 3P03, 3Q03, 3V03, 3Z03, 3ZZ3, 4E03, 4FF3, 4KK3, 4P03, 4Q03, 4T03, 4X03, 4Z03, 4ZZ3, including at least six units from Levels III, IV GEO courses

Minor in Environmental Science
REQUIREMENTS
24 units total
6 units from ENVIR SC 1A03, 1B03, 1G03
18 units from BIOLOGY 2F03, 2G03, 2H03, 2K03, 2Q03, 3D03, 3E03, 3F03, 3K03, 3P03, 3Q03, 3V03, 3Z03, 3ZZ3, 4E03, 4FF3, 4KK3, 4P03, 4Q03, 4T03, 4X03, 4Z03, 4ZZ3, including at least six units from Levels 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, 1H03
18 units from BIOLOGY 2F03, 2G03, 2H03, 2K03, 2Q03, 3D03, 3E03, 3F03, 3K03, 3P03, 3Q03, 3V03, 3Z03, 3ZZ3, 4E03, 4FF3, 4KK3, 4P03, 4Q03, 4T03, 4X03, 4Z03, 4ZZ3

DIPLOMA IN SPATIAL ANALYSIS AND G.I.S.
AND CERTIFICATE IN G.I.S.
(Geographical Information Systems)
For further information see the Certificate and Diploma Programmes section of this Calendar.

DEPARTMENT OF KINESIOLOGY
WEB ADDRESS: http://kinlabserver.mcmaster.ca

Honours Bachelor of Kinesiology (B.Kin.) and Bachelor of Kinesiology Major (B.Kin.Major)
(See Faculty of Social Sciences, Department of Kinesiology)

All students admitted to Kinesiology I register in the Faculty of Social Sciences in Level I. (See Department of Kinesiology listing in Faculty of Social Sciences section of this Calendar.)

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. For further information and programme requirements for Honours Bachelor of Kinesiology, see Department of Kinesiology listing in Faculty of Social Sciences section of this Calendar.

Students interested in pursuing the Honours Kinesiology (B.Sc.) programme, must be registered in Kinesiology I and complete the required Kinesiology and Science courses as outlined below.

<table>
<thead>
<tr>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Term</td>
<td>Term 1</td>
<td>Term 2</td>
<td>Summer Term</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| YEAR 3 | Term 1 | 15 units from Academic Level III + Work Orientation Course |
|YEAR 4 | Term 1 | 15 units from Academic Level IV |

| YEAR 5 | Term 1 | 15 units from Academic Level IV |
|YEAR 6 | Work Term | Term 2 | Summer Term |
Honours Kinesiology (B.Sc.) \{2671\}

**ADMISSION**
Completion of the Kinesiology I requirements, including:
- 12 units KINESIOL 1A06, 1E03, 1H03
- 3 units MATH 1A03
- 3 units STATS 1CC3
- 6 units from BIOLOGY 1A03, 1AA3, CHEM 1A03, 1AA3, PHYSICS 1B03, 1BA3, PSYCH 1A03
- 6 units Level I electives (See Note 3 below.)
- 2 courses KINESIOL 1KL0 (See Note 1 below.), SCIENCE 1A00

**MINIMUM AVERAGES/GRADES:**
- **2003-2004 Only:** A Cumulative Average of 5.0 and an average of 6.0 in KINESIOL 1A06, 1E03, 1H03.
- **Effective 2004-2005:** A Cumulative Average of 6.0 and an average of 6.0 in KINESIOL 1A06, 1E03, 1H03.

**NOTES**
1. KINESIOL 1KL0 (Introduction to Kinesiology) 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 3.9 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 (Major) programme. The Bachelor of Kinesiology Major programme is being phased out. The last entry into this programme was in September 2003.
3. BIOLOGY 1A03, 1AA3 and CHEM 1A03, 1AA3 are required for students wishing to take upper level Biology courses.
4. 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 III and IV courses.
5. Some Kinesiology Level III and IV courses require current CPR/First Aid certification. Students are responsible for checking the course outlines and ensuring this requirement is met.

**COURSE LIST**
KINESIOL 3AA3, 3BB3, 3CC3, 3DD3, 3EE3, 3FF3, 3GG3, 3HH3, 3II3, 3JJ3, 3KK3, 3LL3, 3MM3, 3NN3, 3OO3, 3PP3, 3QQ3, 3RR3, 3SS3, 3TT3, 3UU3, 3VV3, 3WW3, 3XX3, 3YY3, 3ZZ3

**LEVEL I**
- 30 units (See Admission above.)

**LEVEL II: 30 UNITS**
- 15 units KINESIOL 2A03, 2B03, 2H03
- 9 units from the Faculty of Science
- 3 units HUMAN 2C03
- 3 units Electives

**LEVELS III AND IV: 60 UNITS**
- 30 units Level III or IV Kinesiology, including at least 18 units from Course List
- 6 units from Levels II, III, IV Faculty of Science courses
- 12 units from Levels III, IV courses from the Faculty of Science
- 6 units from the Faculties of Business, Humanities, Social Sciences
- 6 units Electives

**MATERIALS SCIENCE AND ENGINEERING**

**WEB ADDRESS:** http://mse.eng.mcmaster.ca

Honours Materials Science \{2360\}

**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 1A00

**PHYSICS 1B03 is recommended.**

**MINIMUM AVERAGES/GRADRES:**
- **2003-2004 Only:** A Cumulative Average of 5.0 and a grade of at least C+ in each of CHEM 1A03, 1AAS, MATH 1AA3.
- **Effective 2004-2005:** A Cumulative Average of 6.0 and a grade of at least C+ in each of CHEM 1A03, 1AAS, MATH 1AA3

**OR**
Completion of Engineering I requirements. (See Faculty of Engineering section of this Calendar under the heading Level I Programme.)

**MINIMUM AVERAGES/GRADRES:**
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; MECH ENG 3004; PHYSICS 3M03, 4K03

**REQUIREMENTS**
- 124-129 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses

**LEVEL I**
- 30 units (See Admission above.)

**LEVEL II: 32-33 UNITS**
- 6 units ENGI 2003, 2I03, 2WW2
- 7 units ENGINEER 2003 (unless MATLS 1A03 already completed), 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
- 6 units MATLS 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**
- 23-25 units total
- 3 units from ENGINEER 2003, MATLS 1M03
- 1 course from CHEM ENG 2A04, MATLS 3A03
- 11-12 units from 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**
- 23-24 units total
- 3 units from ENGINEER 2003, MATLS 1M03
- 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 Arts & Science and Mathematics
(B.Arts.Sc.; See Arts & Science Programme)

Honours Biology and Mathematics
(See Department of Biology)

Honours Computer Science and Mathematics
(See Department of Computing and Software)

Honours Computer Science and Statistics
(See Department of Computing and Software)

Honours Economics and Mathematics
(B.A.; See Faculty of Social Sciences, Department of Economics)

Honours Philosophy and Mathematics
(See Faculty of Humanities, Department of Philosophy)

Honours Mathematics and Statistics

NOTES
1. The Honours Mathematics and Statistics programmes have been restructured into a single programme consisting of four options: a core and three specializations.
   The core option of this programme consists of a specified set of basic requirements but otherwise allows a wide choice of other courses (including those from outside the Faculty of Science). The opportunity is therefore available for interdisciplinary studies possibly leading to a Minor in another subject. Alternatively, students may choose one of several specializations which are more appropriate for graduate studies in Mathematics or Statistics.
   The options currently available are:
   • Mathematics and Statistics (Core)
   • Mathematics Specialization
   • Statistics Specialization
   • Applied Mathematics Specialization
2. Students will be registered in Mathematics and Statistics (Core) unless they elect otherwise. It is possible to transfer to another option at any time subject to satisfying its requirements. Registration in a specialization will be noted on a student's transcript.
3. A Cooperative Education programme is available; see the requirements for Honours Mathematics and Statistics Co-op programmes in this section of the Calendar. Admission to the co-op programme is in Level III.

ADMISSION
Completion of a Level I programme in any Faculty, including:
9 units MATH 1A03, 1A3, 2B03
21 units Level I courses to complete a Level I programme

MINIMUM AVERAGES/Grades:
2003-2004 Only: A Cumulative Average of 5.0 and a grade of C+ in each of MATH 1A03, 1A3.
Effective 2004-2005: A Cumulative Average of 6.0 and a grade of C+ in each of MATH 1AA3, 1B03.

NOTES
1. The Mathematics and Statistics Department recommends the Mathematics Specialization or Applied Mathematics Specialization to students considering graduate studies in Mathematics and recommends the Statistics Specialization to students considering graduate studies in Statistics.
2. MATH 1J03, which is recommended for the Applied Mathematics Specialization, may be taken in Level I or Level II.

COURSE LIST
MATH 2E03, 2S03, 2T03, 3B03, 3E03, 3F03, 3FF3, 3S03, STATS 2MB3, 3D03, 3DD3, 3S03, 3U03

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
12 units MATH 2A03, 2AB3, 2C03, 2R03
3 units STATS 2D03
15 units from the option requirements (see below)

LEVEL III: 30 UNITS
6 units MATH 3A03, 3X03
6 units from Course List
3 units from Levels II, IV Mathematics and Statistics
15 units from the option requirements (see below)

LEVEL IV: 30 UNITS
15 units from Levels III, IV Mathematics and Statistics
15 units from the option requirements (see below)

OPTIONS

Core

LEVELS II, III, IV: 45 UNITS
18 units from Level III, IV courses
27 units Electives

If not completed: three units from the Science Inquiry Course List

Mathematics Specialization

LEVEL II: 15 UNITS
3 units MATH 2S03
12 units Electives

LEVEL III: 15 UNITS
9 units MATH 3A03, 3E03, 3EE3
6 units Electives

LEVEL IV: 15 UNITS
3 units from MATH 4B03, 4E03, 4G03, 4X03
12 units Electives

Statistics Specialization

LEVEL II: 15 UNITS
3 units STATS 2MB3
3 units from MATH 2S03, 2T03
9 units Electives

LEVEL III: 15 UNITS
3 units MATH 3A03
6 units STATS 3D03, 3DD3
6 units Electives

LEVEL IV: 15 UNITS
6 units STATS 4D03, 4M03
0-3 units STATS 4B03 (See Note above.)
6-9 units Electives

Applied Mathematics Specialization

LEVEL II: 15 UNITS
3 units MATH 2T03
12 units Electives

MATH 1J03 (may be taken in Level I or Level II) and MATH 2E03 are recommended.

NOTE
STDS 4B03 is required for the Statistics Specialization but may be included as part of the 15 unit Level III and IV Mathematics and Statistics requirement.

LEVEL II: 15 UNITS
3 units STATS 2MB3
3 units from MATH 2S03, 2T03
9 units Electives

LEVEL III: 15 UNITS
3 units MATH 3A03
6 units STATS 3D03, 3DD3
6 units Electives

LEVEL IV: 15 UNITS
6 units STATS 4D03, 4M03
0-3 units STATS 4B03 (See Note above.)
6-9 units Electives

NOTE
Students registered in the Applied Mathematics Specialization may substitute certain courses offered by the Faculty of Engineering and the Department of Physics and Astronomy for up to 12 units of the Level III and IV Mathematics and Statistics course requirements, subject to approval by the Department of Mathematics and Statistics. Please consult with an advisor in the Department of Mathematics and Statistics for further information.

LEVEL II: 15 UNITS
3 units MATH 2T03
12 units Electives
MATH 1J03 (may be taken in Level I or Level II) and MATH 2E03 are recommended.
LEVEL III: 15 UNITS
3 units MATH 3A03
6 units from MATH 3F03, 3FF3, 3Q03
6 units Electives

LEVEL IV: 15 UNITS
3 units from MATH 4G03, 4GG3, 4V03, 4X03
12 units Electives

Honours Mathematics (Specialist Option) [2320]

The Honours Mathematics (Specialist Option) programme is being phased out. Registration in Level IV will be last available in September 2003.

NOTE
A minor in Statistics is not permitted in the Honours Mathematics (Specialist Option) programme.

COURSE LIST
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 IV: 30 UNITS
3 units from MATH 4B03, 4E03, 4G03, 4X03
18 units from Course List
9 units Electives

Honours Mathematics and Physics {2320440}

ADMISSION
Completion of the Science I requirements, including:
6 units MATH 1A03, 1AA3
6 units CHEM 1A03, 1AA3
6 units PHYSICS 1B03, 1BA3 (or 1BB3)
3 units MATH 1BB3
3 units from Science I Course List
6 units Level I electives
1 course SCIENCE 1A00
MATH 1J03 is recommended in Level I.

MINIMUM AVERAGES/GRADES:
2003-2004 Only: A Cumulative Average of 5.0 and a grade of C+ in each of MATH 1A03, 1B03, PHYSICS 1BB3, 1BA3.
Effective 2004-2005: A Cumulative Average of 6.0 and a grade of C+ in each of MATH 1A03, 1BB3.

NOTES
1. Students who complete Level II of Honours Mathematics and Physics are eligible to proceed to Level III of Honours Mathematics, Statistics or Level III of Honours 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 2MD3, 2SC3; MATH 2E03; STATS 2D03, 2MB3; all Level III and IV Astronomy courses; all Level III and IV Mathematics and Statistics courses; PHYSICS 4J03, all Level III and IV Physics courses except PHYSICS 3T03, 4R06

REQUIREMENTS
121 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV 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 UNITS
9 units MATH 3A03, 3F03, 3X03
9 units PHYSICS 3C03, 3K03, 3MM3
3 units from Course List
9 units Electives

LEVEL IV: 30 UNITS
6 units MATH 3AA3, 4X03
3 units PHYSICS 4B03
15 units from Course List
6 units Electives

Honours Mathematics and Statistics {2320543}
(Complementary Studies Option)

The Honours Mathematics and Statistics (Complementary Studies Option) programme is being phased out. Registration in Level IV will be last available in September 2003.

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

LEVEL IV: 30 UNITS
6 units from the Science Inquiry Course List
3 units from MATH 3A03, 3E03, 3X03
12 units from Levels 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)

The Honours Mathematics and Statistics (Specialist Option) programme is being phased out. Registration in Level IV will be last available in September 2003.

NOTE
A minor in Mathematics is not permitted in the Honours Statistics (Specialist Option) programme.

COURSE LIST 1
All Level III and IV Statistics courses

COURSE LIST 2
COMP SCI 3IA3; MATH 3E03, 3EE3, 3F03, 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 Level I courses

LEVEL IV: 30 UNITS
6 units STATS 4D03, 4M03
6 units from Course List 1
9 units from Course Lists 1 and 2
9 units Electives

Honours Mathematics and Statistics 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 Mathematics and Statistics 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 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 mathematics or statistics 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.
4. Students must register in one of the following specializations:
   • Mathematics Specialization
   • Statistics Specialization
   • Applied Mathematics Specialization
5. Admission to Honours Mathematics and Statistics Co-op is in Level III.

COURSE LIST
MATH 2E03, 2S03, 2T03, 3B03, 3E03, 3F03, 3FF3, 3S03, STATS 2MB3, 3D03, 3DD3, 3S03, 3UC3

REQUIREMENTS
120 units total (Levels I to IV) of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses

LEVEL I
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

Mathematics Co-op Specialization {2325842}

LEVEL II
30 units from Level II Honours Mathematics and Statistics (Mathematics Specialization). Students who have completed Level II of any Mathematics or Statistics programme as of September 2003 and who wish to enter the Mathematics and Statistics Co-op programme, should consult with the Undergraduate Advisor for the Department of Mathematics and Statistics.

YEAR 3
15 units from Academic Level III, Term 1, plus Work Orientation course, and completion of the first eight-month work term, Term 2 and Summer Term.

TERM 1
3 units STATS 3D03
3 units MATH 3A03
3 units from Course List
3 units from Levels III, IV Mathematics and Statistics
3 units Electives
→ Work Orientation Course

TERM 2 AND SUMMER
Work Term

YEAR 4
30 units from Academic Levels III, IV, Term 1, and Academic Levels III, IV, Term 2, plus beginning of second eight-month work term, Summer Term.

TERMS 1 AND 2
6 units MATH 3AA3, 3X03
6 units STATS 3D03, 4B03
3 units from Course List
6 units from Levels III, IV Mathematics and Statistics
9 units Electives

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 Levels III, IV Mathematics and Statistics
6 units from Levels III, IV Statistics
6 units Electives

Applied Mathematics Co-op Specialization {2325846}

NOTE
Students registered in the Applied Mathematics Co-op Specialization may substitute certain courses offered by the Faculty of Engineering and the Department of Physics and Astronomy for up to 12 units of the Level III and IV Mathematics and Statistics course requirements, subject to approval by the Department of Mathematics and Statistics. Please consult with an advisor in the Department of Mathematics and Statistics for further information.

LEVEL II
30 units from Level II Honours Mathematics and Statistics (Applied Mathematics Specialization). Students who have completed Level II of any Mathematics or Statistics programme as of September 2003 and who wish to enter the Mathematics and Statistics Co-op programme, should consult with the Undergraduate Advisor for the Department of Mathematics and Statistics.

YEAR 3
15 units from Academic Level III, Term 1, plus Work Orientation course, and completion of the first eight-month work term, Term 2 and Summer Term.
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, 1BB3
18 units from Level II, III, IV Mathematics and Statistics, including at least six units from Levels III, IV Mathematics and Statistics

MEDICAL PHYSICS AND
APPLIED RADIATION SCIENCES

WEB ADDRESS: http://www.science.mcmaster.ca/medphys/index.htm

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

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 1AA3 and PHYSICS 1BA3 (or 1BB3) must be completed by the end of Level II. PHYSICS 1BA3 (or 1BB3) is strongly recommended in Level I.

MINIMUM AVERAGES/GRADERS:
2003-2004 Only: A Cumulative Average of 5.0, an average of 6.0 in MATH 1A03, 1AA3, 1BB3 and a grade of C+ in PHYSICS 1B03.
Effective 2004-2005: A Cumulative Average of 6.0, an average of 7.0 in MATH 1A03, 1AA3, 1BB3, PHYSICS 1B03.

NOTE
A minor in Astronomy or Mathematics or Mathematics and Statistics is not permitted in the Honours Medical and Health Physics programme.

REQUIREMENTS
121 units total (Levels I to IV), of which no more than 48 units may be from Level I courses and at least 36 units must be Level III, IV courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 31 UNITS
3 units MED PHYS 2A03
3-6 units CHEM 2E03; or both CHEM 20A3 and 20B3
9 units MATH 2A03, 2C03, 2E03
13 units PHYSICS 2B06, 2E03, 2H04
0-3 units Electives
If not completed: BIOLOGY 1AA3, PHYSICS 1BA3 (or 1BB3)

LEVEL III: 30 UNITS
9 units BIOLOGY 2B03, MATH 3C03, 3D03
6 units MED PHYS 3R03, 3T03
12 units PHYSICS 2C03, 3H03, 3MM3, 3N03
3 units from BIOCHEM 3G03, BIOLOGY 2C03, PSYCH 3A03, 3AA3, 3BN3, 3J03, 3WW3. (Psychology courses require permission of the Departmental Academic Advisor or instructor.)

LEVEL IV: 30 UNITS
3 units BIOLOGY 4U03
15 units MED PHYS 4A03, 4R06, 4T03, 4XX3
9 units PHYSICS 4D06, 4E03
3 units Electives

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.
MOLECULAR BIOLOGY

Honours Biochemistry and Molecular Biology
(See Department of Biochemistry)

Honours Molecular Biology  (2365)

ADMISSION

Enrolment 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 1CC3
- 6 units BIOLOGY 1A03, 1AA3
- 3 units CHEM 1A03, 1AA3
- 3 units PHYSICS 1B03
- 3 units from Science I Course List
- 6 units Level I electives

- 1 course SCIENCE 1A00

Physics courses require permission of the Departmental Academic Advisor or Instructor.

- 3 units MATH 3C03
- 7 units PHYSICS 2C03, 3HC1, 3N03
- 3 units from BIOCHEM 3G03, BIOLOGY 2C03, PSYCH 3A03, 3A3, 3B3, 3J03, 3WW3. (Psychology courses require permission of the Departmental Academic Advisor or Instructor.)

- 3 units from Academic Level III, Term 1, plus Work Orientation course, and completion of the first eight-month work term, Term 2 and Summer Term

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 2B03, 4U03
- 3 units MATH 3D03
- 13 units MED PHYS 4A03, 4R06, 4T03, 4XX3
- 9 units PHYSICS 3MM3, 4D06

SUMMER

Work Term

YEAR 5

- 13 units from Academic Level IV, Term 2, plus completion of second eight-month work term, Term 1:

TERM 1

Work Term

TERM 2

- 5 units MED PHYS 3R03, 4AB2
- 5 units PHYSICS 3HD2, 4E03
- 3 units Electives

NEURAL COMPUTATION

WEB ADDRESS: http://www.psychology.mcmaster.ca/NeuralComp

Honours Neural Computation

NOTES

1. The Honours Programme in Neural Computation has been restructured into a single programme consisting of four options: a core and three specializations. At the completion of Level I or Level II, students may choose to specialize in one of the following three options:
   - Behavioural Neuroscience Specialization
   - Mathematics and Statistics Specialization
   - Computer Science Specialization
LEVEL III: 30-31 UNITS
3-4 units from MATH 2A03 (or 2Q04), 2C03 (or 2P04), 2R03
3 units from PSYCH 2RR3, STATS 2MB3 (See Note 5 above.)
6 units MATH 3BN3
9 units from Course Lists A, B, C
12 units Electives

LEVEL IV: 30 UNITS
9 units NEURCOMP 4D09
9 units from Course Lists A, B, C
12 units Electives

Mathematics and Statistics Specialization
LEVEL I
30 units (See Admission above.)
LEVEL II: 30-32 UNITS
3 units MATH 1B03
9-11 units from MATH 2A03 (or 2Q04), 2C03 (or 2P04), 2E03
3 units COMP SCI 2MD3
3 units STAT 2D03
6 units NEURCOMP 3W03, PSYCH 2F03
6 units Electives
LEVEL III: 30 UNITS
9 units MATH 2R03, 3F03, 3N03
3 units STAT 2MB3
3 units PSYCH 3BN3
6 units from Course Lists A, B, C
9 units Electives
LEVEL IV: 30 UNITS
9 units NEURCOMP 4D09
3 units from Course List A
6 units from Course Lists A, B, C
12 units Electives

Computer Science Specialization
LEVEL I
30 units (See Admission above.)
LEVEL II: 30 UNITS
3 units COMP SCI 1A03
9 units COMP SCI 2MD3
9 units STAT 2D03
6 units NEURCOMP 3W03, PSYCH 2F03
6 units Electives
LEVEL III: 30-31 UNITS
3-4 units from MATH 2A03 (or 2Q04), 2C03 (or 2P04), 2R03
3 units from PSYCH 2RR3, STATS 2MB3 (See Note 5 above.)
6 units NEURCOMP 3W03, PSYCH 2F03
9 units from Course Lists A, B, C
12 units Electives
LEVEL IV: 30 UNITS
3 units COMP SCI 4IB3
9 units NEURCOMP 4D09
3 units from Course List A
6 units from Course Lists A, B, C
9 units Electives

Behavioural Neuroscience Specialization
LEVEL I
30 units (See Admission above.)
LEVEL II: 30 UNITS
3 units COMP SCI 1A03
9 units COMP SCI 2MD3
9 units from STAT 1CSC, 1D03 (See Note 5 above.)
6 units NEURCOMP 3W03, PSYCH 5F03
6 units from Course Lists A, B, C
9 units Electives

Neural Computation (Core)
LEVEL III: 30-31 UNITS
3-4 units from MATH 2A03 (or 2Q04), 2C03 (or 2P04), 2R03
3 units PSYCH 3BN3
3 units from PSYCH 3FAQ, 3J03
3 units from Course List C
6 units from Course Lists A, B, C
12 units Electives

LEVEL IV: 30 UNITS
3 units PSYCH 4BN3
9 units NEURCOMP 4D09
3 units from Course List C
6 units from Course Lists A, B, C
9 units Electives

DEPARTMENT OF PHYSICS
AND ASTRONOMY
WEB ADDRESS: http://www.physics.mcmaster.ca/

NOTE
Students in all 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 such as Basic, C, Fortran or Pascal. COMP SCI 1SA3 or MATH 1J03 is recommended for students without those skills.

Honours Arts & Science and Physics
(B.Arts.Sc.; See Arts & Science Programme)

Honours Mathematics and Physics
(See Department of Mathematics and Statistics)

Honours Medical and Health Physics
(See Medical Physics and Applied Radiation Sciences)

Honours Medical and Health Physics Co-op
(See Medical Physics and Applied Radiation Sciences)

Honours Physics

ADMISSION
Completion of the Science I requirements, including:
6 units MATH 1A03, 1AA3
6 units CHEM 1A03, 1AA3
6 units PHYSICS 1B03, 1BA3 (or 1BB3)
3 units from Science I Course List
9 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. The Biophysics Specialization requires completion of BIOLOGY 1A03 by the end of Level II and it is strongly recommended in Level I. BIOLOGY 1AA3 is also strongly recommended for this specialization.

MINIMUM AVERAGES/GRADERS:
2003-2004 Only: A Cumulative Average of 5.0, an average of 6.0 in MATH 1A03, 1AA3 and an average of 6.0 in 6 units from PHYSICS 1B03, 1BA3 (or 1BB3).
Effective 2004-2005: A Cumulative Average of 6.0, an average of 6.0 in MATH 1A03, 1AA3 and an average of 6.0 in 6 units from PHYSICS 1B03, 1BA3 (or 1BB3).

NOTES
1. This programme consists of five options: a core and four specializations. The core of this programme consists of a specified set of basic requirements but otherwise allows a wide choice of other courses (including those from outside the Faculty of Science). The opportunity is therefore available for interdisciplinary studies possibly leading to a Minor in another subject. Alternatively students may wish to follow one of several specializations which are more appropriate for graduate studies in Physics or Astronomy.
2. Students will be registered in the Physics (Core) (formerly Interdisciplinary) until they elect otherwise. Transfer between options is possible at any time, subject to satisfying the requirements for that option. Registration in a specific specialization will be noted on the student's transcript.
3. Admission to Honours Physics Co-op is in Level III and possible from any of these options.
4. The Physics Department considers the Astrophysics, Biophysics, Computation and Theory or Experimental specializations to be more appropriate for graduate studies in Physics.
5. A minor in Astronomy or Mathematics or Mathematics and Statistics is not permitted in the Honours Physics programme.
6. For the Biophysics Specialization, PHYSICS 4G03 may count towards the nine units from Levels III, IV Astronomy, Mathematics, Physics required in Level IV of the core.
7. Students wishing to take Level III, IV Biology courses must complete the prerequisites required for these courses. Most require at least one of BIOLOGY 2B03, 2C03.

REQUIREMENTS
121 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses

LEVEL I
30 units (See Admission above.)

LEVEL II: 31 UNITS
16 units PHYSICS 2B06, 2C03, 2E03, 2H04
6 units MATH 2A03, 2C03
9 units from the option requirements (see below)
If not completed: MATH 1B03

LEVEL III: 30 UNITS
6 units PHYSICS 3H03, 3MM3
6 units MATH 3G03, 3C03
18 units from the option requirements (see below)

LEVEL IV: 30 UNITS
3 units PHYSICS 4A03
9 units from Levels III, IV Astronomy, Mathematics, Physics, GEO 3V03 (See Note 8 above.)
18 units from the option requirements (see below)

OPTIONS

Core

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 Specialization

LEVEL II: 9 UNITS
3 units ASTRON 1F03
6 units Electives

LEVEL III: 18 UNITS
3 units ASTRON 3K03
3 units PHYSICS 2G03
3 units PHYSICS 3N03
9 units Electives

LEVEL IV: 18 UNITS
3 units ASTRON 3Y03
6 units PHYSICS 4B03, 4F03
9 units Electives. PHYSICS 4G03 is strongly recommended.

Biophysics Specialization

BIOPHYSICS COURSE LIST 1
BIOCHEM 3C03, 3L03; BIOLOGY 3FF3, 3HH3, 3J03; MATH 2E03; PHYSICS 3N03

BIOPHYSICS COURSE LIST 2
BIOCHEM 4K03; BIOLOGY 4DD3, 4K03; MATH 3N03

LEVEL II: 9 UNITS
3 units CHEM 2E03
6 units Electives. BIOLOGY 2B03, BIOLOGY 2C03 are recommended. (See Note 7 above.)
If not completed: BIOLOGY 1A03, MATH 1B03
LEVEL III: 18 UNITS
3 units BIOCHEM 3G03
6 units PHYSICS 3K03, 3S03
9 units Electives. See Biophysics Course List 1 for recommended courses.

LEVEL IV: 18 UNITS
3 units BIOCHEM 4Y03
3 units PHYSICS 4S03 (See Note 6 above.)
1 course from BIOCHEM 4B06, 4P03, PHYSICS 4P05, 4Q03
6-9 units Electives. See Biophysics Course List 2 for recommended courses.

Computation and Theory Specialization [2440888]

LEVEL II: 9 UNITS
6 units MATH 2R03, 2T03
3 units PHYSICS 2G03

LEVEL III: 18 UNITS
9 units PHYSICS 3A03, 3K03, 3N03
9 units Electives. PHYSICS 3Q03 is recommended.

LEVEL IV: 18 UNITS
12 units PHYSICS 3C03, 4B03, 4F03, 4G03
6 units Electives

Experimental Specialization [2440810]

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: 18 UNITS
15 units PHYSICS 4B03, 4D06, 4F03, 4J03
3 units Electives

Theory Specialization [2440815]

The Honours Physics Theory Specialization is being phased out. Registration in Level III will be last available in September 2003. Students who intend to register in Level II of this programme should refer to the Computation and Theory specialization in the Honours Physics programme. Students who wish to transfer to Computation and Theory Specialization should consult the Department of Physics and Astronomy.

LEVEL III: 18 UNITS
9 units PHYSICS 3A03, 3K03, 3N03
9 units Electives. (MATH 3Q03 is recommended.)

LEVEL IV: 18 UNITS
12 units PHYSICS 3C03, 4B03, 4F03, 4G03
6 units Electives

Honours Physics Co-op [2445]

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 8.0. 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 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.
4. Students considering postgraduate studies in Physics should take PHYSICS 4F03 as one of the electives in Year 5.

REQUIREMENTS
121 units total (Levels I to IV) of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses

LEVEL I
30 units from the Science I requirements

LEVEL II
31 units from Honours Physics

YEAR 3
16 units from Academic Level III, Term 1, plus Work Orientation course, and completion of the first eight-month work term, Term 2 and Summer Term.

TERM 1
3 units MATH 3C03
7 units PHYSICS 3BA3, 3HC1, 3N03
6 units Electives

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
3 units MATH 3D03
9 units PHYSICS 3BB3, 3K03, 3MM3
13 units PHYSICS 4AA1, 4B03, 4D06, 4J03
6 units Electives

SUMMER
Work Term

YEAR 5
13 units from Academic Level IV, Term 2, plus completion of second eight-month work term, Term 1

TERM 1
Work term

TERM 2
2 units PHYSICS 3HD2
2 units PHYSICS 4AB2
3 units from PHYSICS 4E03, 4K03
6 units Electives. PHYSICS 4F03 is strongly recommended (See Note 4 above.)

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
27-30 units total
3 units from ASTRON 1F03, 2E03
6 units from MATH 2A03 and one of MATH 2C03, 2003
3-6 units from PHYSICS 2A03, 2B06
3-6 units from either one of PHYSICS 2H03, 2H04, CHEM 2P03, 2P05, or both CHEM 2P3 and 2P3
3 units from PHYSICS 2D03, 2E03, 2G03, 2K03
6 units from ASTRON 3X03, 3Y03
3 units from PHYSICS 2C03, 3M03, 3O03, CHEM 3BA3

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 MATH 2C03 is also completed.

REQUIREMENTS
24 units total
6 units from PHYSICS 1A06, 1B03 (or 1C03), 1B06, 1A03 (or 1B03) 1C06
18 units from GEO 3V03, 3ZZ3, Levels II, III, IV Astronomy, Physics including at least six units from Levels II, IV Astronomy, Physics

DEPARTMENT OF PSYCHOLOGY

WEB ADDRESS: http://www.mcmaster.ca/psychology

Honours Arts & Science and Psychology
(B.Arts.Sc.; See Arts & Science Programme)

Honours Biology and Psychology
(B.Sc.; See Department of Biology)

Honours Psychology (B.A.) and B.A. in Psychology
(See Faculty of Social Sciences, Department of Psychology)

Honours Psychology (B.Sc.)

NOTES
1. The Honours Psychology programme has been restructured to consist of five options: a core and four specializations. The Honours Psychology (B.Sc.) (Specialist Option) and the Honours Psychology (B.A.) (Complementary Studies Option) are being replaced with a single Honours Psychology B.Sc. programme. At the completion of Level I or Level II, students may choose one of the following four specializations:
   • Behavioural Neuroscience Specialization
   • Cognitive and Perception Specialization
   • Developmental Specialization
   • Evolution and Social Behaviour Specialization

2. Registration in a specialization will be noted on the student's transcript.

ADMSSION
Completion of the Science I requirements, including:
6 units MATH 1A03, 1B03
3 units from BIOLOGY 1A03, 1A03
3 units from CHEM 1A03, PHYSICS 1B03 (See Note 6 below.)
6 units from PSYCH 1A03, 1A03
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 1A03 instead of STAT 1CC3. However, STAT 1CC3 is strongly recommended and must be completed by the end of Term 1 in Level II.

MINIMUM AVERAGES/GRADERS:
2003-2004 Only: A Cumulative Average of 5.0 and an average of 6.0 in PSYCH 1A03, 2A03.
Effective 2004-2005: A Cumulative Average of 6.0 and an average of 7.0 in PSYCH 1A03, 2A03.

NOTES
1. Students considering applying for graduate school should complete a thesis (PSYCH 4D06).
2. In many cases there are Level II (and III) prerequisites for Level III (and IV) courses. These should be considered when choosing Level II (and III) courses.
3. BIOLOGY 4T03 (Neurobiology) may be taken as a substitute for three units of Level IV Psychology. KINESIO 3E03 (Neural Control of Human Movement) may be taken as a substitute for three units of Level III Psychology. KINESIO 4P03 (The Brain and Human Movement) may be taken as a substitute for three units of Level IV Psychology.
4. MATH 1B03 (Linear Algebra I) is strongly recommended for students intending to pursue graduate work in Psychology. MATH 1J03 (Mathematical Computing) or COMP SCI 1MC3 (Computer Science I) is highly recommended for students in the Behavioural Neuroscience and Cognition and Perception Specializations, and for students intending to pursue graduate work in Psychology.
5. Students wishing to have more mathematical statistics may replace STATS 1CC3 and PSYCH 2RR3 with STATS 2D03 and 2MB3. In this case, students are advised to take MATH 1B03 in Level I.
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 modelling of psychological processes.
7. Students may substitute three units from the Science Inquiry Course List.

LAB COURSE LIST A
NEURCOMP 3W03, PSYCH 3B03, 3E03, 3F03, 3L03, 3L3, 3Q03, 3S03, 3V03, 4Q03
CAPSTONE COURSE LIST B
PSYCH 3I06, 4B03, 4C03, 4D06, 4F03, 4J03, 4Q03, 4Q03, 4R03

REQUIREMENTS
120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses

OPTIONS
Psychology (Core) {2461856}

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
3 units PSYCH 2RR3 (See Note 5 above.)
9 units from PSYCH 2D03, 2E03, 2F03, 2H03, 2TT3
3 units from any courses in the Faculty of Science
15 units Electives

LEVEL III: 30 UNITS
12 units from PSYCH 2D03, 2E03, 2F03, 2H03, 2TT3 (if not completed in Level II), Levels III, IV Psychology
3 units from Lab Course List A
15 units Electives

LEVEL IV: 30 UNITS
9 units from Levels III, IV Psychology
6 units from Capstone Course List B (See Note 7 above.)
15 units Electives

Behavioural Neuroscience {2461858}

Specialization

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
3 units PSYCH 2RR3 (See Note 5 above.)
3 units PSYCH 2F03
6 units from PSYCH 2D03, 2E03, 2H03, 2TT3
6 units from any courses in the Faculty of Science
12 units Electives
LEVEL III: 30 UNITS
9 units from NEURCOMP 3W03, PSYCH 3A03, 3BN3, 3FA3, 3J03, 3WW3, 3Y03
6 units from PSYCH 2D03, 2E03, 2H03, 2TT3 (if not completed in Level II). Level III, IV Psychology
3 units from Lab Course List A. PSYCH 3L13, 3E03, 3L03, 3V03 or NEURCOMP 3W03 is recommended.
6 units from any courses in the Faculty of Science
6 units Electives

LEVEL IV: 30 UNITS
6 units from BIOLOGY 4T03, NEURCOMP 3W03, PSYCH 3A03, 3BN3, 3FA3, 3J03, 3WW3, 3Y03, 4BN3
6 units from Levels III, IV Psychology
6 units from Capstone Course List B (See Note 7 above.)
12 units Electives

Cognition Specialization {2461860}
The Cognition Specialization programme is being phased out. Students who intended to register in this programme should refer to the new Cognition and Perception Specialization. Students who are currently registered in this programme should contact the Academic Advisor for the Department of Psychology to discuss ways of fulfilling their programme requirements. Students who wish to transfer to the new Cognition and Perception Specialization should consult the Department of Psychology.

Cognition and Perception {2461890}
Specialization

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
3 units PSYCH 2RR3 (See Note 5 above.)
6 units PSYCH 2E03, 2H03
3 units from PSYCH 2D03, 2F03, 2TT3
6 units from any courses in the Faculty of Science
12 units Electives

LEVEL III: 30 UNITS
12 units from PSYCH 3A03, 3AA3, 3BB3, 3BN3, 3FA3, 3HH3, 3J03, 3P03, 3Q03, 3VV3, 3W03
3 units from PSYCH 2D03, 2F03, 2TT3 (if not completed in Level II). Level III, IV Psychology
3 units from Lab Course List A. PSYCH 3EE3, 3L03 or 3V03 is recommended.
6 units from any courses in the Faculty of Science
6 units Electives

LEVEL IV: 30 UNITS
6 units from PSYCH 3HH3, 3I03, 3JJ3, (if not completed in Level III), 3B03, 3Z03, 3Z03, 4C03
6 units from Levels III, IV Psychology
6 units from Capstone Course List B (See Note 7 above.)
12 units Electives

Evolution and Social Behaviour Specialization

LEVEL I
30 units (See Admission above.)

LEVEL II: 30 UNITS
3 units PSYCH 2RR3 (See Note 5 above.)
3 units PSYCH 2TT3
6 units from PSYCH 2D03, 2E03, 2F03, 2H03
6 units from any courses in the Faculty of Science
12 units Electives

LEVEL III: 30 UNITS
9 units PSYCH 2C03, 3F03, 3J03, 3M03, 3P03, 3RR3, 3T03, 3Y03
6 units from PSYCH 2D03, 2E03, 2F03, 2H03 (if not completed in Level II). Level III, IV Psychology
3 units from Lab Course List A. PSYCH 3L03 or 3S03 is recommended.
6 units from any courses in the Faculty of Science
6 units Electives

LEVEL IV: 30 UNITS
6 units PSYCH 2C03, 3F03, 3J03, 3M03, 3P03, 3RR3, 3T03, 3Y03, 4R03
6 units from Levels III, IV Psychology
6 units from Capstone Course List B (See Note 7 above.)
12 units Electives

Perception Specialization {2461866}
The Perception Specialization programme is being phased out. Students who intended to register in this programme should refer to the new Cognition and Perception Specialization. Students who are currently registered in this programme should contact the Academic Advisor for the Department of Psychology to discuss ways of fulfilling their programme requirements. Students who wish to transfer to the new Cognition and Perception Specialization should consult the Department of Psychology.

Honours Psychology (B.Sc.) (Complementary Studies Option) {2462}
The Honours Psychology (B.Sc.) (Complementary Studies Option) programme is being phased out. Registration in Level IV will be last available in September 2003.

COURSE LIST
PSYCH 3BL3, 3EE3, 3L03, 3L13, 3Q03, 3S03, 4Q03

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

LEVEL IV: 30 UNITS
6 units from the Science Inquiry Course List (PSYCH 4D06 may be substituted if space is available)
15 units from Levels III, IV Psychology
6 units from Level III, IV courses, excluding Psychology
3 units Electives
If not completed: one course from Course List.

Honours Psychology (B.Sc.) (Specialist Option) {2461}
The Honours Psychology (B.Sc.) (Specialist Option) programme is being phased out. Registration in Level IV will be last available in September 2003.

COURSE LIST
PSYCH 3BL3, 3EE3, 3L03, 3L13, 3Q03, 3S03, 3V03, 4Q03
REQUIREMENTS

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

LEVEL IV: 30 UNITS

18 units from Levels III, IV Psychology which must include PSYCH 4D06
6 units Electives, excluding Psychology
6 units Electives

If not completed: one course from Course List.

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 prerequisite requirements for the various Level III courses.

REQUIREMENTS

24 units total

6 units from PSYCH 1A03, 1AA3
18 units from Level I, III Psychology courses, including at least six units from Level III Psychology courses.

SCIENCE

Honours Science (Geoscience)  (2513)

ADMISSION

Completion of Science I, including:
3 units MATH 1A03
3 units STATS 1CC3
6 units ENVIR SC 1A03, 1B03, 1G03
12 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 two of ENVIR SC 1A03, 1B03, 1G03

Honours Science (Life Science)  (2514)

ADMISSION

Completion of Science I, including:
3 units MATH 1A03
3 units STATS 1CC3
3 units BIOLOGY 1A03, 1AA3, PSYCH 1A03, 1AA3
15 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 one of BIOLOGY 1A03, 1AA3, PSYCH 1A03, 1AA3

Honours Science (Mathematical Science)  (2515)

ADMISSION

Completion of Science I, including:
6 units MATH 1A03, 1AA3
3 units COMP SCI 1MC3, 1MD3, MATH 1B03
15 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 two of COMP SCI 1MC3, 1MD3, MATH 1AA3, 1B03

Honours Science (Physical Science)  (2516)

ADMISSION

Completion of Science I, including:
6 units MATH 1A03, 1AA3
6 units from CHEM 1A03, 1AA3; or PHYSICS 1B03, 1AA3, 1BB3
12 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 one of CHEM 1AA3, PHYSICS 1AA3, 1BB3

NOTES

1. Students are responsible for ensuring that prerequisites for anticipated courses for Level III (and IV) are completed in Level II (and III).
2. Minors within the Faculty of Science are not permitted in the Honours Science programme.

GEOSCIENCE COURSE LIST

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.

PHYSICAL SCIENCE COURSE LIST

All Level II, III and IV Astronomy, Chemistry and Physics courses, MATH 2A03, 2C03, 3C03, 3D03; MED PHYS 3T03

REQUIREMENTS

120 units total (Levels I to IV), of which no more than 48 units may be Level I courses and at least 36 units must be Level III, IV courses

LEVEL I

30 units (See Admission above.)

LEVEL II: 30 UNITS

12 units from Level II courses from the Course List of the selected programme
6 units from Level II courses from any Course List other than the Course List of the selected programme
6 units from courses outside the Faculty of Science
6 units Electives from any courses other than courses from the Course List of the selected programme

ELECTIVES FOR LEVEL II MUST INCLUDE:

(IF NOT COMPLETED IN LEVEL I)

All Honours Science programmes: 3 units from ENVIR SC 1A03, 1B03, 1G03
Geoscience: 9 units from ENVIR SC 1A03, 1B03, 1G03
Life Science: 12 units BIOLOGY 1A03, 1AA3, PSYCH 1A03, 1AA3
Mathematical Science: 9 units from COMP SCI 1MC3, 1MD3, MATH 1AA3, 1BB3
Physical Science: 12 units CHEM 1A03, 1AA3, PHYSICS 1B03, 1BB3 (or 1BB3)

LEVEL III: 30 UNITS

12 units from Level III courses from the Course List of the selected programme
3 units Level II, III, IV courses from any Course List other than the Course List of the selected programme
9 units from courses outside the Faculty of Science
6 units Electives from any courses other than courses from the Course List of the selected programme

LEVEL IV: 30 UNITS

6 units from the Science inquiry Course List
12 units from Level III, IV courses from the Course List of the selected programme
6 units Level II, III, IV courses from any Course List other than the Course List of the selected programme
6 units Electives from any courses other than courses from the Course List of the selected programme
THREE-LEVEL B. SC. PROGRAMMES

B. Sc. in Geoscience

ADMISSION
Completion of the Science I requirements, including:
6 units MATH 1A03, STATS 1CC3
6 units from ENVIR SC 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 1A03, 1B03, 1G03.

NOTES
1. There are Level II prerequisites for many Level III courses; these should be considered when choosing Level II courses. As an aid to choosing a coherent set of courses in a single discipline, students should consult the required specialist option courses in the Honours Earth and Environmental Sciences programme.

2. Students should seek academic counselling from the School of Geography and Geology to ensure that their choices are appropriate.

COURSE LIST
GEO 2A03, 2B03, 3C03, 2DD3, 2EO3, 2GO3, 2GG3, 2K03, 2Q03, 2W03, 3A03, 3CC3, 3DD3, 3EO3, 3GO3, 3J03, 3K03, 3NN3, 3PO3, 3Q03, 3SO3, 3UO3, 3VO3, 3W03, 3Z03

LEVEL III: 30 UNITS
12 units Level III courses from Course List. No more than six units from Biology may be taken.
6 units Electives, excluding Level II, III, IV Biochemistry, Biology, Psychology

B. Sc. in Mathematical Science

ADMISSION
Completion of any Level I programme, including:
6 units MATH 1A03, 1AA3
3 units from COMP SCI 1MC3, MATH 1B03
21 units Level I courses from Course List. No more than six units from Biology may be taken.
1 course SCIENCE 1A00

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. Students are responsible for ensuring that prerequisites for anticipated courses for Level III are completed in Level II. As an aid in selecting appropriate courses for Level II, students should refer to the programme requirements for the Core Programmes in Honours Mathematics and Statistics or Honours Computer Science.

2. For assistance with the selection of courses, students may seek academic counselling with the Department of Mathematics and Statistics and/or the Department of Computing and Software.

COURSE LIST
COMP SCI 2MD3, 2ME3, 2MF3, 2MJ3, 2SC3, all Level III Computer Science; MATH 2A03, 2AB3, 2C03, 2EO3, 2K03, 2R03, 2S03, 2T03, STATS 2D03, 2MB3, all Level III, IV Mathematics, Statistics

LEVEL III: 30 UNITS
15 units Level II courses from Course List.
9 units from courses outside the Faculty of Science
3 units Electives, excluding Computer Science, Mathematics, Statistics
3 units Electives, excluding Level IV Biology, Computer Science
if not completed: MATH 1B03, SCIENCE 1A00

B. Sc. in Life Science

ADMISSION
Completion of the Science I requirements, including:
6 units MATH 1A03, 1AA3
3 units BIOLOGY 1A03
3 units CHEM 1A03
3 units PSYCH 1A03
6 units from BIOLOGY 1AA3, CHEM 1AA3, PSYCH 1AA3
3 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 an average of 4.0 in six units from BIOLOGY 1AA3, 1B03, PSYCH 1AA3, 1AA3.

NOTES
1. Students are responsible for ensuring that prerequisites for anticipated courses for Level III are completed in Level II. As an aid in selecting appropriate courses for Level II, students should refer to the programme requirements for the Core Programmes in Honours Biology or Honours Psychology.

2. For assistance with the selection of courses, students may seek academic counselling with the Department of Biology or Psychology.

COURSE LIST
BIOCHEM 2EE3, 3G03, 3H03, 3N03; BIOLOGY 2A03, 2B03, 2C03, 2D03, 2F03, all Level III Biology; CHEM 2E03, or 2A3, 2B3; GEO 2A03, 2B03, 3A03, 3J03; PSYCH 2D03, 2EO3, 2H03, 2F03, 2R03, 2T03, all Level III Psychology; STATS 2MA3

LEVELS I: 30 UNITS
30 units (See Admission above.)

LEVEL II: 30 UNITS
18 units Level II courses from Course List. No more than six units from Biology may be taken.
6 units from courses outside the Faculty of Science
6 units Electives, excluding Level II, III, IV Biochemistry, Biology, Psychology

LEVEL III: 30 UNITS
12 units Level III courses from Course List. No more than six units from Biology may be taken.
9 units from courses outside the Faculty of Science
3 units Electives, excluding Biochemistry, Biology, Psychology
6 units Electives, excluding Biology
**B.Sc. in Physical Science**

**ADMISSION**

Completion of the Science I requirements, including:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>MATH 1A03, 1AA3</td>
</tr>
<tr>
<td>3</td>
<td>CHEM 1A03</td>
</tr>
<tr>
<td>3</td>
<td>PHYSICS 1B03</td>
</tr>
<tr>
<td>3</td>
<td>from CHEM 1AA3, PHYSICS 1BA3 (or 1BB3)</td>
</tr>
<tr>
<td>9</td>
<td>from Science I Course List</td>
</tr>
<tr>
<td>6</td>
<td>Level I electives</td>
</tr>
</tbody>
</table>

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.

**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. Students are responsible for ensuring that prerequisites for anticipated courses for Level III are completed in Level II. As an aid in selecting appropriate courses for Level II, students should refer to the programme requirements for the Core Programmes for Honours Chemistry or Honours Physics.

2. Students should seek academic counselling to ensure that their choices are appropriate. For counselling, students should approach the department of Chemistry or Physics.

3. Students proceeding in Physics must include PHYSICS 2B06 and MATH 2A03 and MATH 2C03 in Level II.

**COURSE LIST**

Levels II, III Astronomy, Chemistry, Physics; MATH 2A03, 2C03, 3C03, 3D03; MED PHYS 3T03

**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**

<table>
<thead>
<tr>
<th>Units</th>
<th>From Course List</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>1A03, 1AA3, 1B03, 1BA3 (or 1BB3)</td>
</tr>
<tr>
<td>6</td>
<td>courses outside the Faculty of Science</td>
</tr>
<tr>
<td>6</td>
<td>Electives, excluding Level II, III, IV Astronomy, Chemistry, and Physics</td>
</tr>
</tbody>
</table>

If not completed: MATH 1B03, CHEM 1AA3, PHYSICS 1BA3 (or 1BB3)

**LEVEL III: 30 UNITS**

<table>
<thead>
<tr>
<th>Units</th>
<th>From Course List</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>1A03, 1AA3, 1B03, 1BA3 (or 1BB3)</td>
</tr>
<tr>
<td>9</td>
<td>courses outside the Faculty of Science</td>
</tr>
<tr>
<td>6</td>
<td>Electives, excluding Astronomy, Chemistry and Physics</td>
</tr>
<tr>
<td>3</td>
<td>Electives, excluding Biology</td>
</tr>
</tbody>
</table>
FACULTY OF SOCIAL SCIENCES

Dean of Social Sciences
A. Harrison/B.A., M.A., Ph.D.
Associate Dean (Acting)
C. Rosenthal/B.A., M.A., Ph.D.
Assistant Dean (Studies)
E. Frank/M.A.
Assistant to the Dean
J. Smith/B.A.

Student Advisors
K. Cale/B.A.
E. Moore

The social sciences are concerned with the systematic study of activities and human relationships in societies which range from the pre-industrial to the post-industrial. Social scientists examine political, economic and social problems and the interaction between people and their natural and artificial environments. Developments in theory and refinements of method have, in recent years, given great impetus to social science studies and research.

The Faculty of Social Sciences offers degrees in the following: Anthropology, Communication Studies, Economics, Geography, Geology, Health Studies, Kinesiology, Labour Studies, Political Science, Psychology, Religious Studies, Social Work and Sociology.

The Faculty offers Honours Bachelor of Arts, Honours Bachelor of Kinesiology, Bachelor of Kinesiology Major (which is currently being phased out), Bachelor of Social Work and Bachelor of Arts Degrees.

Students are strongly advised to take advantage of the extensive advisory services provided by the Faculty. New students in particular should plan a programme of study that will allow them a number of options for Level II.

PROGRAMMES AND DEGREES

A. Level I Programmes

Social Sciences I

PROGRAMME NOTE

Students registered in Honours A.A. or B.A. programmes in the Faculty of Social Sciences, with the exception of Honours Psychology, 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 this requirement be completed in Level I.

COURSE LIST

ANTHROP 1A03, 1B03, 1Z03
CMST 1A03, 1B03
ECON 1A06
GEO 1HS3, 1HU3
GERONTOL 1A03
HEALTHST 1A03
INQUIRY 1SS3
LABR ST 1A03, 1Z03
POL SCI 1G06
PSYCH 1A03, 1AA3
RELIG ST 1B06, 1D06, 1E03, 1I03
SOC WORK 1A06
SOCIOLOG 1A06

REQUIREMENTS: 30 UNITS

12 units from Course List 1
18 units Electives, which may include courses from Course List 1 (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 intend 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 B.Sc. programme must successfully complete MATH 1A03; STATS 1CC3; two of BIOLOGY 1A03, 1AA3, CHEM 1A03, 1A03, PHYSICS 1B03, 1B03 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.

REQUIREMENTS: 30 UNITS

12 units KINESIO 1A06, 1E03, 1H03
1 course KINESIO 1KL0
15 units Electives (See Note 2 above.)

B. Degree Programmes

HONOURS PROGRAMMES (HONOURS BACHELOR OF ARTS AND 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 combination of courses which attempt to give an extended time of study, and are normally a requirement for those who contemplate proceeding to graduate studies. Kinesiology students who successfully complete all requirements of the first three levels of an Honours Kinesiology degree may request permission of the Office of the Associate Dean of Social Sciences for transfer to a three-year Bachelor of Kinesiology degree. Students enrolled in an Honours programme in the Faculty of Social Sciences, with the exception of Honours Psychology, 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(s)
- a course in critical thinking (HUMAN 2C03)

Internship Options: Internships allow students to explore career options, to develop employability skills and to make important contacts for job searches after graduation. The Faculty of Social Sciences offers both part-time and full-time, non-credit, paid work opportunities. Part-time and summer internships are open to all students and provide valuable workplace experience without extending the degree beyond 4 years. Full-time internships of 8 months or more, require registration in an Honours programme and there is a nominal administrative fee. Only those students who have successfully completed all of the Level I programme requirements and SOC SCI 2E05 may apply for posted opportunities. Internships must be undertaken before a student has completed all requirements for the degree. A brief notation describing the internship is placed on the student's transcript upon receipt of a job report from the student and a performance evaluation by the employer.

Further details of internship options may be obtained from:

Kenneth Taylor Hall, Room 102
(905) 525-9140, extension 23228
email: exp.ed@mcmaster.ca

Honours Bachelor of Arts (Specialist Option): Economics, offers an Honours (Specialist Option) programme which involves greater concentration of work in Economics.

Stockwell Taylor Hall, Room 102
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 Sciences programme. All Combined Honours programmes must be approved by both departments concerned as well as by the Office of the Associate Dean(s) Studies. 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 towards 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. Normally, students must 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.

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 new academic performance.

Advising is available throughout the year from the Office of the Associate Dean for 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.

Additional Resources

ACADEMIC REGULATIONS

Studtents 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:

ADMISSION TO LEVEL II PROGRAMMES

Any student seeking admission to a Level II programme in the Faculty of Social Sciences, with the exception of Combined B.A./B.S.W. programmes, for the following Fall/Winter session must submit an Application for Admission to Level II through MUGSI by April 30. The application allows students to rank four programme choices. Students will be notified of their eligibility for admission to Level II by mid-May.

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).
**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 or 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**

Normally students may not register in more than 30 units during the Fall/Winter Session (36 units for students in a B.A./B.S.W. programme). In the following circumstances an overload of up to six units may be taken:

1. If a student has a Sessional Average of at least 7.0 in their immediately preceding review period.
2. With the approval of the Office of the Associate Dean, Social Sciences, if the student is registered in the final level of his/her programme.

Students wishing to register in more than 12 units during the Spring/Summer Session, or more than six units in either term of that Session may do so only with the permission of the Office the Associate Dean, Social Sciences.

**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 of this Calendar. Information concerning Canadian Scholars Exchange Programme (CANEX), 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**

**Gilmour Hall, Room 104**

**Telephone:** (905) 525-9140, extension 24748

---

**DEPARTMENT OF ANTHROPOLOGY**

**WEB ADDRESS:** http://www.socsci.mcmaster.ca/~anthro

**Honours Arts & Science and Anthropology (B.Arts.Sc.; See Arts & Science Programme)**

**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 Listings* section in this Calendar.)

**CULTURAL/SOCIAL ANTHROPOLOGY**

ANTHROP 2B03, 2F03, 2H03, 2P03, 2V03, 2XX3, 2Z03, 3B03, 3CN3, 3F03, 3G03, 3L03, 3P03, 3Q03, 3R33, 3SY3, 3T03, 3Y03, 3Z03, 3ZZ3, 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, 4JJ3, 4R03, 4S03 (Relevant courses are also offered by Biology and Kinesiology.)

**ARCHEOLOGY**

ANTHROP 2O03, 2PA3, 2VV3, 2W03, 3AS3, 3CC6, 3DD3, 3E03, 3EE3, 3K03, 4E03, 4EE3, 4F03, 4HF3, 4J03 (Relevant courses are also offered by the School of Geography and Geology, History and Classics.)

**LINGUISTICS**

ANTHROP 2LC3, 2LC3, 2LL3, 2LP3, 2M03, 3A03, 3I03, 3II3, 4LB3, 4LC3, 4XX3

**OTHER COURSES**

Courses not distinguished by subfield include the independent study course ANTHROP 3S3; topic courses ANTHROP 3W03, 3WW3, 4G03, 4GG3, as well as the seminar courses ANTHROP 4B03 and 4B33.

In planning a programme, it is important for students to take note of the prerequisites of certain upper-level courses.

**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 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 above.)

3 units from ANTHROP 2DD3, 2FF3, 2Z03, 3H03, 3K03, 3P03

3 units from ANTHROP 2B03, 2P03, 2V03, 2V3, 2W03, 3B03, 3F03

3 units ANTHROP 4103

21 units Level IV Anthropology

3 units from SOC SCI 2J03 or STATS 1C3*

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.
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 programme.
2. Students who have completed ANTHROP 2I03 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, 2F03, 2Z03, 3H03, 3K03, 3P03
3 units from ANTHROP 2B03, 2P03, 2V03, 2VV3, 2W03, 3B03, 3F03
3 units ANTHROP 4I03
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.

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 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 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.

CONCURRENT CERTIFICATE IN APPLIED BUSINESS MANAGEMENT

HUMAN RESOURCES MANAGEMENT SPECIALIZATION
(EFFECTIVE SEPTEMBER 2004)

The Concurrent Certificate in Applied Business Management is a joint initiative between McMaster University and Mohawk College. It provides eligible McMaster students with the opportunity to complete an Honours degree and a Post-Diploma College Certificate in four years of full-time study. For admission and programme requirements, see the Certificate and Diploma Programmes section of this Calendar.

COMMUNICATION STUDIES

WEB ADDRESS: http://www.humanities.mcmaster.ca/~cmst

Honours Communication Studies
(See Faculty of Humanities, Communication Studies section)

Combined Honours in Communication Studies and Another Subject

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. Satisfaction of the admission requirements for the Honours programme in the other B.A. subject. 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 wishing to combine Communication Studies with a subject in the Faculty of Social Sciences should follow the requirements as outlined below. Those students wishing to combine Communication Studies with a subject in the Faculty of Humanities should follow the requirements as outlined in Combined Honours in Communication Studies and Another Subject in the Faculty of Humanities section of this Calendar. (See Faculty of Humanities section of this Calendar.)
2. Students in this programme must complete one of the following Streams:
The Language and Discourse Stream involves the study and discovery of patterns in human language and society. Focus is placed on the art and science of persuasion, rhetoric and the importance of language in political and social life.
The Cultural Studies Stream focuses on the critical analysis of popular culture through film, the visual arts and a variety of other forms. Unique to the Communication approach to Cultural Studies is a focus on empirical analysis as well as the social, political and cognitive significance of popular cultures. Graduates of this stream will have both practical and theoretical skills necessary to pursue careers in the field of communications.
The Performance Studies Stream examines artistic and everyday performances (from theatre, concerts, and performance art to storytelling, ceremonies and public protests) and the relationships between them, with a particular emphasis of the role of the body in social communication.
The Mass Communication Stream focuses on the organization and functioning of information media such as television, radio and the press as major institutions and sources of knowledge and understanding about society.
3. Students must take at least three units of Level IV courses in their Stream.
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

6 units CMST 2E03, 3G03
12 units from CMST 2F03, 2U03, 2V03, 2W03, 3C03, 3D03, 3E03, 3V03, 3W03, 3Y03, 4G03, 4H03, 4I03, 4J03, PSYCH 2C03, 2H03, 3J03
FACULTY OF SOCIAL SCIENCES

COURSE LIST 2 - CULTURAL STUDIES STREAM

<table>
<thead>
<tr>
<th>Units</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>CMST 2J03, 2K03</td>
</tr>
<tr>
<td>12</td>
<td>from CMST 2I03, 2M03, 2M3, 2N03, 2O03, 2T03, 2Y03, 3B03, 3CC, 3F03, 3P03, 3S03, 3T03, 3U03, 3W03, 3XX, 4F03, 4F03</td>
</tr>
</tbody>
</table>

COURSE LIST 3 - PERFORMANCE STUDIES STREAM

<table>
<thead>
<tr>
<th>Units</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>CMST 2G03, 4C03</td>
</tr>
<tr>
<td>6</td>
<td>from CMST 2H03, 2P03, 2R03, 2S03, 3U03</td>
</tr>
<tr>
<td>6</td>
<td>from CMST 2Q03, 3H03, 3M03, INDIG ST 3G03, KINESIOL 4J03</td>
</tr>
</tbody>
</table>

COURSE LIST 4 - MASS COMMUNICATION STREAM

<table>
<thead>
<tr>
<th>Units</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>from CMST 2K03, 2L03, 2Z03</td>
</tr>
<tr>
<td>3</td>
<td>from CMST 3C03, 3D03</td>
</tr>
<tr>
<td>12</td>
<td>from CMST 2K03, 2L03, 2Z03, 3C03, 3D03 (if not already completed), 3I03, 3K03, 4D03, 4E03</td>
</tr>
</tbody>
</table>

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 into the programme (See Admission above.)
9 units CMST 2B03, 2C03, 2D03
3 units CMST 2A03 or, with permission of Communication Studies Committee of Instruction, an equivalent research methods/statistics course as prescribed by other Social Sciences programmes
3 units from CMST 3A03, 3B03
3 units from CMST 4A03, 4B03, 4K03
18 units from one of the Course Lists (See Note 2 above.)
36 units Courses specified for the other subject.
3-6 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
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.

DEPARTMENT OF ECONOMICS

WEB ADDRESS: http://www.soscl.mcmaster.ca/~econ

Honours Arts & Science and Economics (B.Arts.Sc.; See Arts & Science Programme)

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 Advanced Functions and Introductory Calculus U or OAC Calculus or MATH 1K03 or equivalent.

NOTE
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 units may be Level I
30 units from the Level I programme completed prior to admission into the programme. (See Admission above.)
30 units ECON 2G03, 2G3, 2H03, 2H3, 3A03, 3A3, 3F03, 3G03, 3L03, 4A03
21 units Level II, III, IV Economics with no more than six units from ECON 2A03, 3B03, 2D03, 2F03, 2F03, 2T03, 2I03, 2J03, 2N03, 2P03, 2T03 (See Note above.)
6 units ECON 2B03 and 3U03
3 units* from MATH 1A03 or 1M03
3 units** from STATS 1L03, 2D03 (or Mathematics of Data Management U or OAC Finite Mathematics)
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 Grade 12 U or M (or OAC) courses, 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 Advanced Functions and Introductory Calculus U (or OAC Calculus) or MATH 1K03 or equivalent.

NOTE
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 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, 2G3, 2H03, 2H3, 3F03, 3L03, 4A03
21 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 Note above.)
6 units ECON 2B03 and 3U03
3 units from MATH 1A03 or 1M03
3 units** from STATS 1L03, 2D03 (or Mathematics of Data Management U or OAC Finite Mathematics)
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. 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 Grade 12 U or M (or OAC) courses, these units will be taken as electives.

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 Advanced Functions and Introductory Calculus U (or 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 Mathematics of Data Management U (or OAC Finite Mathematics) or STATS 1L03 or STATS 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. 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 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, 2G3, 2H03, 2H3, 3F03, 3L03, 4A03 (See Note 3 above.)
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 Note 4 above.)
36 units courses specified for the other subject.
6 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.)
B.A. in Economics \{1150\}

**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 Advanced Functions and Introductory Calculus U (or OAC Calculus) or MATH 1K03 or equivalent.

**NOTE**

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

15 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 Note above.)

3 units* from MATH 1A03 or 1M03

3 units** from STATS 1L03, 2D03 (or Mathematics of Data Management U or OAC Finite Mathematics)

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.

---

Honours Economics \{2150145\}

**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, 1AA3 and 1B03. MATH 1B03 may be postponed until Level II.

**NOTE**

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 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, 2I03, 3F03, 3L03, 4A03

15 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 Note above.)

12 units COMP SCI 2MD3, 2ME3, 2MF3, 2MJ3

15 units from COMP SCI 3EA3, 3MG3, 3MH3, 3M3, 3TA3, 4EB3, 4MN3, 4TB3

3 units Level III or IV Computer Science

6-9 units STATS 2D03 and either STATS 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 \{2150320\}

**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, 1AA3 and 1B03.

**NOTE**

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 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, 2I03, 3F03, 3L03, 4A03

15 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 Note above.)

18 units MATH 2A03, 2AB3, 2C03, 2R03, 3A03, 3AA3

3 units from MATH 2S03, 2T03

15 units from Level III, IV Mathematics, Statistics

6-9 units STATS 2D03 and either STATS 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.

---

Honours Arts & Science and Geography (B.Arts.Sc.; See Arts & Science Programme) \{2240\}

**ADMISSION**

Completion of any Level I programme with a Cumulative Average of at least 6.0 including 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 1C3 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.

4. Upon completion of 60 units, including satisfactory completion of admission requirements, Honours Geography students may choose to register in one of the three following specializations:

- Environment and Health
- Geographic Information Systems (G.I.S.) and Spatial Analysis
- Urban Social Geography
These specializations are intended to provide students with opportunities to select courses from recognized areas of geographic inquiry and to acquire knowledge and skills for employment and/or graduate study in these areas. Programme codes and requirements for Levels III and IV of each specialization are outlined below. Honours Geography students are not required to complete a specialization. Those who decide not to specialize will remain registered in the Honours Geography programme.

5. Students interested in completing a specialization should review admission requirements below.

6. A Minor in Environmental Studies is not permitted for students who are registered in the Honours Geography/Environment and Health Specialization.

7. A Minor in Geographic Information Systems (G.I.S.) is not permitted for students who are registered in the Honours Geography/G.I.S. and Spatial Analysis Specialization Programme.

**REQUIREMENTS**

120 units total (Levels I to IV), of which 48 units may be Level I

**LEVEL I: 30 UNITS**

30 units from the Level I programme completed prior to admission to the programme (See Admission above.)

**LEVEL II: 30 UNITS**

3 units GEO 2I03
3 units from GEO 2E03, 2HR3
12 units from Level II or III Geo, excluding GEO 2G93, 2HC3, 2HG3, 2HU3, 2WW3, 3CC3, 3DD3, 3HJ3, 3HR3, 3NN3 (See Note 5 above.)

- 3 units from SOC SCI 2J03 or STATS 1CC3 (See Note 1 above.)
- 3 units HUMAN 2C03
- 6 units Electives

**LEVEL III AND IV: 60 UNITS**

(See below for Level III and IV requirements for specializations)

- 3 units GEO 3R03
- 3 units from GEO 3FE3, 3HF3
- 15 units Level IV GEO, including one of GEO 4CC3 or 4R06 (See Note 3 above.)
- 12 units Level III GEO, excluding GEO 3CC3, 3DD3, 3HJ3, 3HR3, 3NN3
- 27 units Electives. If not already completed, 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 or II, these units will be taken as electives.

**Environment and Health Specialization**

**ADMISSION:**

Completion of Level II Honours Geography, including GEO 2A03. (See Note 6 above.)

**REQUIREMENTS**

- Levels III and IV: 60 UNITS
  - 3 units GEO 3R03
  - 3 units from GEO 3FE3, 3HF3
  - 12 units from GEO 3A03, 3HE3, 3H93, 3HH3, 3HU3
  - 9 units GEO 4A03, 4HH3, 4HY3
  - 6 units Level IV GEO, including one of GEO 4CC3 or 4R06
  - 27 units Electives. If not already completed, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.

**G.I.S. and Spatial Analysis Specialization**

**ADMISSION**

Completion of Level II Honours Geography, including a grade of at least C+ in GEO 2I03 and completion of GEO 2H03. (See Note 7 above.)

**REQUIREMENTS**

- Levels III and IV: 60 UNITS
  - 3 units GEO 3R03
  - 3 units from GEO 3FE3, 3HF3
  - 6 units from GEO 3HD3, 3HG3, 3Y03
  - 15 units GEO 3I03, 3S03, 4D03, 4I03, 4S03
  - 6 units Level IV GEO, including one of GEO 4CC3 or 4R06
  - 27 units Electives. If not already completed, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.

**Urban Social**

**Geography Specialization**

**ADMISSION:**

Completion of a Level II Honours Geography programme, including one of GEO 2HB3, 2HD3, 2HY3.

**REQUIREMENTS:**

- Levels III and IV: 60 UNITS
  - 3 units GEO 3R03
  - 3 units from GEO 3FE3, 3HF3
  - 12 units from GEO 2HB3, 2HD3, 2HY3 (if not completed in Level II), 3HD3, 3HG3, 3HT3, 3HU3, 3H3Z
  - 9 units GEO 4HT3, 4HY3, 4H3Z
  - 6 units Level IV GEO, including one of GEO 4CC3 or 4R06
  - 27 units Electives. If not already completed, a minimum of six units must be from the Faculty of Humanities and/or the Department of Religious Studies.

**Honours Geography and Environmental Studies**

**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 1H53, 1H93, ENVIR SC 1A03, 1B03, 1G03. (See Note 1 below.)

**NOTES**

1. GEO 1H53, 1H93 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, 2HR3
- 3 units from GEO 3FE3, 3HF3
- 15 units Level IV GEO, including one of GEO 4CC3 or 4R06
- 12 units Level III GEO, excluding GEO 3CC3, 3DD3, 3HJ3, 3HR3, 3NN3
- 12 units Level II or III GEO, excluding GEO 2G93, 2HC3, 2HU3, 2WW3, 3CC3, 3DD3, 3HJ3, 3HR3
- 6 units* GEO 1H53, 1H93, 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.

**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 1H53, 1H93, ENVIR SC 1A03, 1B03, 1G03 and satisfaction of admission requirements for the Honours programme in the other B.A. subject.
Minor in Environmental Studies

NOTES
1. The Minor in Environmental Studies is not permitted for students who are registered in the Honours Geography/Environment and Health Specialization Programme.
2. At least nine of the 12 Course List units must be selected from outside the student's own department or school.
3. At least six Course List units must be outside of GEO.

COURSE LIST

ANTHROP 2AN3, 2F03, 2H03, 2U03, 3C03, 3Z03, 4AE3, 4P03
BIOLOGY 2D03, 2E03, 2F03, 3SS3, 3TT3, 4Y03
ECON 2J03, 3W03
GEO 2A03, 2G03, 2H03, 2WW3, 3A03, 3CC3, 3HE3, 3HH3, 4A03, 4HH3, 4HY3
HEALTHST 4E03
PHILOS 2G03, 2N03
POL SCI 2EO6, 3Z03, 3ZZ3, 4D06
RELIG ST 2W03

REQUIREMENTS
24 units total

3 units from GEO 1HS3, 1HU3
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 2 and 3 above.)

Minor in Geographic Information Systems (G.I.S.)

NOTES
1. The Minor in Geographic Information Systems (G.I.S.) is not permitted for students who are registered in the Honours Geography/G.I.S. and Spatial Analysis Specialization Programme.
2. Students registered in the Honours Geography (B.A.) or any Earth and Environmental Sciences (B.Sc.) programme may use 6 units from GEO 1HS3, 1HU3, ENVIR SC 1A03, 1B03, 1G03, 1H03; and GEO 2103 and 3Y03 toward both their programme requirements and the G.I.S. Minor.
3. Progression to Level III courses is conditional upon achieving a grade of at least C+ in GEO 2103. 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 1HS3, 1HU3 (See Note 2 above.)
18 units GEO 2103, 3I03, 3S03, 3Y03, 4I03, 4S03 (See Notes 2 and 3 above.)

DIPLOMA IN SPATIAL ANALYSIS AND G.I.S. AND CERTIFICATE IN G.I.S.

(GEOGRAPHICAL INFORMATION SYSTEMS)

For further information see the Certificate and Diploma Programmes section of this Calendar.

GERONTOLOGICAL STUDIES

WEB ADDRESS: http://www.socsci.mcmaster.ca/gerontology

Honours Gerontology

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 GERONTOL 1A06 or 1A03.

NOTES
1. Application for admission must be made by April 30. See Admission to Level II Programmes in Academic Regulations in this section of the Calendar.
2. Students who have not taken GERONTOL 1A06 or 1A03 in Level I may be considered for admission to the programme if they have an equivalent introductory gerontology course. Such students must consult the Director regarding equivalency prior to applying.
3. Courses other than those listed in Course List 1 may be substituted with the prior permission of the Director.
4. Students are strongly recommended to complete GERONTOL 2C03 and SOC SCI 2J03 (or another approved statistics course) by the end of Level II and to complete GERONTOL 3R03 by the end of Level III.

5. Students are strongly recommended to complete GERONTOL 2E03 prior to registration in GERONTOL 3B03.

6. Students are encouraged to complete a professional development course for each year they are in the programme.

**COURSE LIST 1**

**ANTHROP** 3Z03, 3ZZ3

**ECON** 3D03, 3Q03, 3Z03

**GEO** 2HG3, 3HH3

**HEALTHST** 2C03, 2D03

**HTH SCI** 3B03

**KINESIOL** 3F03

**PHILOS** 2D03, 3C03

**RELG ST** 2C03, 2M03, 2N03, 2WW3

**SOC WORK** 3C03, 4L03, 4R03

**SOCIOl** 3C03, 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.)
- 18 units GERONTOL 2B03, 2D03, 3B03, 3D03, 4A06
- 3 units Level IV Gerontology
- 18 units Level II, III or IV Gerontology or courses from Course List 1
- 6 units GERONTOL 2C03, 3R03 (See Note 4 above.)
- 3 units from SOC SCI 2J03, STATS 1CC3 (See Note 4 above.)
- 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.

*If requirement completed in Level I, these units will be taken as electives.

**Combined Honours 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 GERONTOL 1A06 or 1A03 and satisfaction of admission requirements for the Honours B.A. programme in the other subject.

**NOTES**

1. Students enrolled prior to September 2003 in combined Honours B.A. in Gerontology, Health Studies and another subject should consult an academic advisor in the Office of the Associate Dean, Social Sciences for programme requirements.
2. Application for admission must be made by April 30. (See Admission to Level II Programmes in Academic Regulations in this section of the Calendar.)
3. Students who have not taken GERONTOL 1A06 or 1A03 in Level I may be considered for admission to the programme if they have an equivalent introductory gerontology course. Such students must consult the Director regarding equivalency prior to applying.
4. Courses other than those listed in Course List 1 may be substituted with the prior permission of the Director.
5. Students are strongly recommended to complete GERONTOL 2C03 and SOC SCI 2J03 (or another approved statistics course) by the end of Level II and complete GERONTOL 3R03 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 GERONTOL 4A06 with six units of Level II or IV Gerontology or courses from Course List 1. This substitution must be approved by the Director.
7. Students are strongly recommended to complete GERONTOL 2E03 prior to registration in GERONTOL 3B03.

8. Students who entered the programme prior to September 2003 do not need to complete GERONTOL 3R03 and will replace these units with electives.

9. Students are encouraged to complete a professional development course for each year they are in the programme.

**COURSE LIST 1**

**ANTHROP** 3Z03, 3ZZ3

**ECON** 3D03, 3Q03, 3Z03

**GEO** 2HG3, 3HH3

**HEALTHST** 2C03, 2D03

**HTH SCI** 3B03

**KINESIOL** 3F03

**PHILOS** 2D03, 3C03

**RELG ST** 2C03, 2M03, 2N03, 2WW3

**SOC WORK** 3C03, 4L03, 4R03

**SOCIOl** 3C03, 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 GERONTOL 2B03, 2D03
- 6 units GERONTOL 3B03, 3D03 (See Note 7 above.)
- 6 units GERONTOL 4A06 or if available, a thesis in the other subject (See Note 8 above.)
- 3 units Level IV Gerontology
- 12 units Level II, III or IV Gerontology or courses from Course List 1 (See Note 4 above.)
- 36 units Courses as specified for the other subject
- 6 units GERONTOL 2C03, 3R03 (See Notes 5 and 8 above.)
- 3-6 units from SOC SCI 2J03, STATS 1CC3* (or GERONTOL 3G03) 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 Arts and Science with Gerontology 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.

*If requirement completed in Level I, these units will be taken as electives.

**B.A. in Gerontology**

{1265}

**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 GERONTOL 1A06 or 1A03

**NOTES**

1. Application for admission must be made by April 30. See Admission to Level II Programmes in Academic Regulations in this section of the Calendar.
2. Students who have not taken GERONTOL 1A06 or 1A03 in Level I may be considered for admission to the programme if they have an equivalent introductory gerontology course. Such students must consult the Director regarding equivalency prior to applying.
3. Courses other than those listed in Course List 1 may be substituted, with the prior permission of the Director.
4. Students in the B.A. in Gerontology and Social Work programme should consult with the Director regarding GERONTOL 3B03 (the Gerontology Field Observation requirement) and SOC WORK 3DD6.
5. Students are strongly recommended to complete GERONTOL 2E03 prior to registration in GERONTOL 3B03.
6. Students are encouraged to complete a professional development course for each year they are in the programme.

**COURSE LIST 1**

**ANTHROP** 3Z03, 3ZZ3

**ECON** 3D03, 3Q03, 3Z03

**GEO** 2HG3, 3HH3

**HEALTHST** 2C03, 2D03

**HTH SCI** 3B03
KINESIOL 3F03  
PHILOS 2D03, 3C03  
RELIG ST 2C03, 2M03, 2N03, 2WW3  
SOC WORK 3C03, 4L03, 4R03  
SOCIOl 3CC3, 3G03, 3HH3  
or other designated and approved courses. (See Note 3 above.)

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 GERONTOL 2B03, 2D03, 3B03, 3D03  
3 units GERONTOL 2C03  
9 units Level II, III or IV Gerontology or courses from Course List 1 (See Note 2 above.)

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.

B.A. in Gerontology and Another Subject

NOTES

1. With the introduction of the B.A. in Gerontology, the Combined B.A. in Gerontology and Another Subject is being phased out. Students who registered in a combined B.A. Gerontology programme prior to September 2003 will be given the option of completing that programme or transferring to the B.A. Gerontology or the B.A. in the other programme.

2. Courses other than those listed in Course List 1 may be substituted, with the prior permission of the Director.

3. 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.

4. 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 GERONTOL 3B03 (the Gerontology Field Observation requirement) and SOC WORK 3D03.

5. Students are strongly recommended to complete GERONTOL 2E03 prior to registration in GERONTOL 3B03.

COURSE LIST 1

ANTHROP 3Z03, 3ZZ3  
ECON 3D03, 3Q03, 3Z03  
GEO 2HG3, 3H3  
HEALTHST 2C03, 2D03  
HTH SCI 3B03  
KINESIOl 3F03  
PHILOS 2D03, 3C03  
RELIG ST 2C03, 2M03, 2N03, 2WW3  
SOC WORK 3C03, 4L03, 4R03  
SOCIOl 3CC3, 3G03, 3HH3  
or other designated and approved courses. (See Note 2 above.)

REQUIREMENTS

For the B.A. in Gerontology and Sociology (Programme requirements only)

For Programme Notes, see B.A. in Gerontology (above).

NOTE

With the introduction of the B.A. in Gerontology, the Combined B.A. in Gerontology and Sociology programme is being phased out. Students who registered in this programme prior to September 2003 will be given the option of completing it or transferring either to the B.A. Gerontology or the B.A. in Sociology programme.

COURSE LIST 1

ANTHROP 3Z03, 3ZZ3  
ECON 3D03, 3Q03, 3Z03  
GEO 2HG3, 3H3  
HEALTHST 2C03, 2D03  
HTH SCI 3B03  
KINESIOl 3F03  
PHILOS 2D03, 3C03  
RELIG ST 2C03, 2M03, 2N03, 2WW3  
SOC WORK 3C03, 4L03, 4R03  
SOCIOl 3CC3, 3G03, 3HH3  
or other designated and approved courses. (See Note 2 above.)

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

6 units GERONTOL 2B03, 2D03  
6 units GERONTOL 3B03, 3D03  
9 units Level II, III or IV Gerontology or courses from Course List 1 (See Note 2 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.

HEALTH STUDIES

WEB ADDRESS: http://www.socsci.mcmaster.ca/healthst

Honours Health Studies  

2273

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 minimum Cumulative Average of 6.0 including a grade of at least B in 3 units from HEALTHST 1A03, 1E03, 1S03 or (SOC SCI 1H03)

NOTES

1. Application for admission must be made by April 30. See Admission to Level II Programmes in Academic Regulations in this section of the Calendar.

2. Courses other than those listed below in Course List 2 may be substituted with the prior permission of the Director of the Health Studies Programme. Students wishing to apply for substitutions must contact the Academic Coordinator of the Health Studies Programme.

3. Students who previously completed SCIENCE 2G03 may use these units toward Course List 2

COURSE LIST 1

HEALTHST 2C03, 2D03, 2H03, 3C03, 3D03, 3E03, 3F03, 3Y03, 4C03, 4D03, 4E03, 4F03, 4G06, 4H03, 4I03

COURSE LIST 2

(Students are responsible for ensuring that course prerequisites are fulfilled.)

ANTHROP 2AN3, 2U03, 3C03, 3Q03, 3Y03, 3Z03, 3ZZ3  
ECON 2CC3, 3Z03  
GEO 3H3  
GERONTOL 2B03, 3C03  
HTH SCI 2G03, 2J03, 3Y03  
HISTORY 3V03, 3Y03
INDIG ST 3H03, 3HH3
KINESIOL 3A03, 3SS3
LABR ST 3D03
PHILOS 2D03, 3C03
PSYCH 3B03, 3N03, 3NN3
RELIG ST 2C03, 2M03, 2N03, 2WW3
SOC WORK 3C03
SOCIOl 3G03, 3HH3
WOMEN ST 2HH3

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.)
15 units HEALTHST 2A03, 3A03, 3B03, 4A03, 4B03
18 units from Course List 1 (at least six units must be Level IV)
12 units from Course List 2 (See Note 3 above.)
3 units HEALTHST 2B03
3 units from SOC SCI 2J03 or STATS 1CC3* or an equivalent statistics course
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.

If requirement completed in Level I, these units will be taken as electives.

Combined Honours in Health Studies and Another Subject

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 minimum Cumulative Average of 6.0 including a grade of at least B- in 3 units from HEALTHST 1A03, 1E03, 1S03 (or SOC SCI 1H03), and satisfaction of admission requirements for the Honours B.A. programme in the other subject.

NOTES
1. Application for admission must be made by April 30. See Admission to Level II Programmes in Academic Regulations in this section of the Calendar.
2. Students who previously completed SCIENCE 2G03 may use these units toward Course List 2

COURSE LIST 1
HEALTHST 2C03, 2D03, 2H03, 3C03, 3D03, 3E03, 3F03, 3Y03, 4C03, 4D03, 4E03, 4F03, 4G06, 4H03, 4I03

COURSE LIST 2
(Students are responsible for ensuring that course prerequisites are fulfilled.)

ANTHROP 2AN3, 2FF3, 2U03, 3C03, 3Q03, 3Y03, 3Z03, 3ZZ3, 4S03
ECON 2CC3, 3Z03
GEO 3HH3
GERONTOL 2B03, 3C03, 3I03
HTH SCI 2G03, 2J03, 3Y03
HISTORY 3V03, 3Y03
INDIG ST 3H03, 3HH3
KINESIOL 3A03, 3SS3
LABR ST 3D03
PHILOS 2D03, 3C03
PSYCH 3B03, 3N03, 3NN3
RELIG ST 2C03, 2M03, 2N03, 2WW3
SOC WORK 3C03
SOCIOl 3G03, 3HH3, 4G03
WOMEN ST 2HH3

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.)
15 units HEALTHST 2A03, 3A03, 3B03, 4A03, 4B03
9 units from Course List 1
9 units from Course List 2 (See Note 3 above.)
36 units courses specified for the other subject
3 units HEALTHST 2B03 or an equivalent research methods course if required by the other subject (See Note 2 above.)
3-6 units from SOC SCI 2J03 or STATS 1CC3* or an equivalent statistics course as prescribed by other Social Sciences programmes
3 units HUMAN 2C03
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.

Combined Honours in Gerontology, Health Studies and Another Subject

It is no longer necessary for students to include a third subject when combining two interdisciplinary programmes. Therefore, the Combined Honours programme in Gerontology, Health Studies and Another Subject is being phased out and replaced with the Combined Honours programme in Health Studies and Another Subject (see above). Level I students who had intended to register in this programme or students who registered prior to September 2003 should see an Academic Advisor in the Office of the Associate Dean, Social Sciences for programme requirements and individual counselling.

B.A. in Health Studies

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 minimum Cumulative Average of 6.0 including a grade of at least C- in 3 units from HEALTHST 1A03, 1E03 or 1S03 (or their equivalent), and satisfaction of admission requirements for the B.A. in the other subject.

NOTES
1. Application for admission must be made by April 30. See Admission to Level II Programmes in Academic Regulations in this section of the Calendar.
2. Courses other than those listed below in Course List 2 may be substituted with the prior permission of the Director of Health Studies Programme. Students wishing to apply for substitutions must contact the Administrative Coordinator of the Health Studies Programme.
3. Students who previously completed SCIENCE 2G03 may use these units toward Course List 2

COURSE LIST 1
HEALTHST 2C03, 2D03, 2H03, 3C03, 3D03, 3E03, 3F03, 3Y03

COURSE LIST 2
(Students are responsible for ensuring that course prerequisites are fulfilled.)

ANTHROP 2AN3, 2U03, 3C03, 3Q03, 3Y03, 3Z03, 3ZZ3, 4S03
ECON 2CC3, 3Z03
GEO 3HH3
GERONTOL 2B03, 3C03, 4I03
HTH SCI 2G03, 2J03, 3Y03
HISTORY 3V03, 3Y03
INDIG ST 3H03, 3HH3
KINESIOL 3A03, 3SS3
LABR ST 3D03
PHILOS 2D03, 3C03
PSYCH 3B03, 3N03, 3NN3
RELIG ST 2C03, 2M03, 2N03, 2WW3
SOC WORK 3C03
SOCIOl 3G03, 3HH3, 4G03
WOMEN ST 2HH3
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 HEALTHST 2A03, 3A03, 3B03
3 units HEALTHST 2B03, or an equivalent research methods course
8 units from Course List 1
6 units from Course List 2 (See Note 3 above.)
38 units Electives

Combined B.A. in Health Studies and Another Subject

Level I students who had intended to register in this programme or students who were registered prior to September 2003 should see the Student Advisor in the Office of the Associate Dean, Social Sciences for programme requirements.

Minor in Health Studies

NOTES
1. Students are responsible for ensuring that course prerequisites are fulfilled.
2. Students who completed HISTORY 3S03 or HTH SCI 3B03 before September 2001 may use these as units toward the minor requirements.
3. Students who completed SCIENCE 2G03 before September 2003 may use these units toward the minor requirements.

COURSE LIST

ANTHROP 3A03, 3A04, 3L03, 3O03
ECON 3B03, 3B04
GEO 3H3
GERONTOL 2B03, 2B04
HEALTHST 2C03, 2C04, 2H03, 3D03, 3E03, 3F03, 3G03, 3H03, 3I03, 3J03, 3K03, 3L03, 3M03, 3N03, 3O03, 3P03, 3Q03, 3R03, 3S03, 3T03, 3U03, 3V03, 3W03
HISTORY 2B03, 3B03, 3C03
LABR ST 3B03, 3B04
PSYCH 3C03, 3D03, 3E03, 3F03, 3G03
RELIG ST 3H03, 3J03, 3L03, 3M03, 3N03
SOCIOLOG 3A03
WOMEN ST 3A03, 3B03, 3C03, 3D03, 3E03

REQUIREMENTS
24 units total
3 units from Level I Health Studies (or SOC SCI 1H03)
21 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://kinlabserver.mcmaster.ca

Honours Kinesiology (B.Sc.)
(See B.Sc. Programmes in Kinesiology, Faculty of Science, Department of Kinesiology)

Kinesiology I {0308}

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 intend 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 B.Sc. programme must successfully complete MATH 1A03; STATS 1CC3; two of BIOLOGY 1A03, 1A04, 1A07, CHEM 1A03, 1A04, PHYSICS 1B03, 1B04 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.

REQUIREMENTS: 30 UNITS
12 units KINESIOL 1A06, 1E03, 1H03
1 course KINESIOL 1KL0
16 units Electives (See Note 2 above.)

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.
3. Some Level III and IV Kinesiology courses require current CPR/First Aid certification. Students are responsible for checking course outlines and ensuring this requirement is met.

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 III 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 Major {3308}
(Formerly Bachelor of Kinesiology)

ADMISSION
Completion of Kinesiology I with a Cumulative Average of at least 4.0.

NOTES
1. The Bachelor of Kinesiology (Major) programme is being phased out. Last entry into Level II of the programme for qualified students will be in September 2003.
2. Students may register in a maximum of 9 units of Level III or IV Kinesiology courses in Level III of their programme.
3. Some Level III and IV Kinesiology courses require current CPR/First Aid certification. Students are responsible for checking course outlines and ensuring this requirement is met.

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 2 above.)
42 units Electives

*If requirement was completed in Level I, these units may be taken as electives.

LABOUR STUDIES

WEBSITE: http://www.socsci.mcmaster.ca/labourstudies

Honours Labour Studies (2640)

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 including an average of at least 7.0 in LABR ST 1A03 and 1Z03 (or 1AA3).

NOTES

1. Application for admission must be made by April 30. See Admission to Level II Programmes in Academic Regulations in this section of the Calendar.
2. Students who entered the programme prior to September 2003, and who completed LABR ST/SOCIOL 2106, will use this course to satisfy six units of Course List 1 and not Course List 2.
3. Students who have completed LABR ST 4D03 need not complete LABR ST 4C03 or 4E03.

COURSE LIST 1

COMMERCE 2BA3, 4BC3, 4BD3
LABR ST 2B03, 2B03, 2G03, 3A03, 3B03, 3C03, 3D03, 3E03, 3F03

COURSE LIST 2

COMMERCE 3BC3
ECON 2C03, 2E03, 2F03, 2K03, 2N03
GERONTOL 3J03
HISTORY 3N03
POL SCI 3D03, 3E03, 3EE3, 3F03
SOCIOL 2E06, 2I06, 2G06, 2R03, 2R3, 2V06, 3F06, 3LL3

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 LABR ST 2A03, 2C03, 2D03, 3G03, 3H03, 4A06
15 units from Course List 1, where at least 9 units must be selected from Level III or IV courses (See Note 3 above.)
3 units from LABR ST 4C03, 4E03 (See Note 6 above.)
3-6 units from Course List 2 (See Note 5 above.)
3 units from SOC SCI 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 HUMAN 2C03
39-42 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 but requires, as a minimum, completion of any Level I programme with a Cumulative Average of at least 5.5 including an average of at least 7.0 in LABR ST 1A03 and 1Z03 (or 1AA3). Satisfaction of admission requirements for the Honours B.A. programme in the other subject.

NOTES

1. Application for admission must be made by April 30. See Admission to Level II Programmes in Academic Regulations in this section of the Calendar.
2. Students who entered the programme prior to September 2003, and who completed LABR ST/SOCIOL 2106, will use this course to satisfy six units of Course List 1.
3. Students who completed Level II and who have completed LABR ST/SOCIOL 2106, will use this course to satisfy six units of Course List 1 and not Course List 2.

B.A. in Labour Studies (1640)

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 4.0 in LABR ST 1A03 and 1Z03 (or 1AA3).

NOTES

1. Application for admission must be made by April 30. See Admission to Level II Programmes in Academic Regulations in this section of the Calendar.
2. Students who entered the programme prior to September 2003, and who completed LABR ST/SOCIOL 2106, may use this course to satisfy six units of Course List 1.
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 2006 and 3N06 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 POL SCI 2006

9 units Level II Political Science

9 units Level III, IV Political Science

6 units Level IV Political Science

36 units courses specified for the other subject

6 units POL SCI 2006 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 Political Science are exempt from this requirement. (The maximum Political Science courses to be taken is 54 units).

15 units Electives. If not completed in Level I, a minimum of six units must be from the Faculty of Humanities and/or with a Humanities subject, are exempt from this requirement. (The maximum Political Science courses to be taken is 54 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 2006 and 3N06 are required for students enrolled in Honours Political Science programmes and they are recommended for students in the B.A. 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.)

12 units Level II Political Science

12 units Level III Political Science

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. (The maximum Political Science courses to be taken is 36 units.)

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.
DEPARTMENT OF PSYCHOLOGY

WEBSITE ADDRESS: http://www McMaster.ca/psychology

Honours Arts & Science and Psychology

B.A., Sc. - See Arts & Science Programmes

Honours Biology and Psychology

(See B.Sc. Programmes in Biology, Faculty of Science, Department of Biology)

Honours Psychology

(See B.Sc. Programmes in Psychology, Faculty of Science, Department of Psychology)

Honours Psychology (B.A., Specialist Option)

The Honours Psychology (B.A. Specialist Option) is being phased out. Registration in Level IV will be last available in September 2003. Students who intended to register in Level II of this programme should refer to the Honours Psychology B.A. programme for an equivalent option.

NOTES

1. At some time during the programme, the student:
   a) must meet a laboratory requirement by completing one of NEURCOMP 3W03, PSYCH 3BL3, 3EE3, 3L03, 3LL3, 3Q03, 3S03, 3V03, 4Q03. Enrolment in Psychology Laboratory courses is limited.
   b) must complete HUMAN 2C03.

2. 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.

COURSE LIST 1

NEURCOMP 3W03
PSYCH 3BL3, 3EE3, 3L03, 3LL3, 3Q03, 3S03, 3V03, 4Q03

REQUIREMENTS

120 units total (Levels I to IV), of which 48 units may be Level I

LEVELS III AND IV: 60 UNITS

27 units Level III, IV Psychology; or three units from PSYCH 2D03, 2E03, 2F03, 2H03, 2TT3 (if not taken in Level III) and 24 units of Level III, IV Psychology.

3 units from Course List 1

6 units PSYCH 4D06
24 units Electives (See Note 1(b) above.)

Honours Psychology (B.A.)

(2460)

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 1AA3 (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.

2. STATS 1C3 and PSYCH 2RR3 must be completed before entrance into Level III of the programme. Students wishing to have more mathematical statistics may replace STATS 1C3 and PSYCH 2RR3 with STATS 2D03 and 2MB3. In this case, students are advised to take MATH 1B03 in Level 1.

3. Upon satisfactory completion of Level II Honours Psychology and subject to meeting the admission requirements, students may choose to register in one of the following four specializations:

- Behavioural Neuroscience Specialization
- Cognition and Perception Specialization
- Developmental Specialization
- Evolution and Social Behaviour Specialization

Admission requirements, programme codes and requirements for each specialization are outlined below. Students who choose not to specialize will remain registered in the Honours Psychology programme.

4. Beginning September 2002 for students who entered Level II, one of BIOLOGY 1K03, 1A03, 1AA3 must be completed by the end of Level II. Students who entered prior to September 2002 must complete three units from the Faculty of Science, excluding the Math and Statistics courses required for the programme. Credit or registration in BIOLOGY 1A03 or 1K03 is a prerequisite for PSYCH 2F03.

5. Students considering applying to graduate school should complete a thesis (PSYCH 4D06).

6. In many cases there are Level II (and III) prerequisites for Level III (and IV) courses. These should be considered when choosing Level II (and III) courses.

7. BIOLOGY 4T03 (Neurobiology) may be taken as a substitute for three units of Level IV Psychology. 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.

8. MATH 1B03 (Linear Algebra I) is strongly recommended for students intending to pursue graduate work in Psychology. MATH 1J03 (Mathematical Computing) or COMP SCI 1M03 (Computer Science I) is highly recommended for students in the Behavioural Neuroscience and Cognition and Perception specializations, and for students intending to pursue graduate work in Psychology.

9. Students who entered the programme prior to September 2002, may replace six units of courses chosen from the Course List 2 (Capstone Courses) with any six units of Level III or IV Psychology.

COURSE LIST 1 (LAB COURSES)

NEURCOMP 3W03
PSYCH 3BL3, 3EE3, 3L03, 3LL3, 3Q03, 3S03, 3V03, 4Q03

COURSE LIST 2 (CAPSTONE COURSES)

PSYCH 3I06, 4BN3, 4C03, 4D06, 4F03, 4J03, 4Q03, 4Q03, 4R03

REQUIREMENTS

120 units total (Levels I to IV), of which 48 units may be Level I

LEVEL I: 30 UNITS

30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)

LEVEL II: 30 UNITS

6 units STATS 1C3*, PSYCH 2RR3 (See Note 2 above.)
9 units from PSYCH 2D03, 2E03, 2F03, 2H03, 2TT3 (Students interested in completing a specialization should review admission requirements below.)
3 units from BIOLOGY 1A03, 1AA3, 1K03 (See Note 4 above.)
3 units HUMAN 2C03
9 units Electives

*If requirement completed in Level I, these units will be taken as electives.

LEVELS III AND IV: 60 UNITS

(See below for the Level III and IV requirements for specializations.)

21 units Level III, IV Psychology; or three units from PSYCH 2D03, 2E03, 2F03, 2H03, 2TT3 (if not taken in Level II) and 18 units of Level III, IV Psychology

3 units from Course List 1 (Completion recommended by the end of 90 units.)
6 units from Course List 2 (See Note 9 above.)
30 units Electives
Honours Psychology Specializations

Upon satisfactory completion of Level II Honours Psychology, and subject to meeting the admission requirements, students may choose to register in one of the following four specializations. Students who choose not to specialize will remain registered in the Honours Psychology programme.

Behavioural Neuroscience (2460874)

Specialization

ADMISSION
Completion of Level II Honours Psychology, including PSYCH 2F03.

NOTE
Completion of MATH 1J03 or COMP SCI 1MC3 in Level I is highly recommended for students intending to complete this specialization.

REQUIREMENTS
LEVELS III AND IV: 60 UNITS
15 units from PSYCH 3A03, 3A3, 3BB3, 3BN3, 3FA3, 3HH3, 3I3, 3J03, 3P03, 3U03, 3V3, 3W03, 4BN3, 4C03, 4Z03
3 units from Course List 1. One of PSYCH 3BL3, 3EE3, 3L03, 3V03 is recommended. (Completion is recommended by the end of 90 units.)
12 units Level III, IV Psychology; or three units from PSYCH 2E03, 2H03, 2TT3 (if not taken in Level II) and nine units of Level III, IV Psychology
6 units from Course List 2 (See Note 9 above.)
24 units Electives

Cognition and Perception (2460882)

Specialization

ADMISSION
Completion of Level II Honours Psychology, including PSYCH 2E03, 2H03.

REQUIREMENTS
LEVELS III AND IV: 60 UNITS
18 units from PSYCH 3A03, 3AA3, 3BB3, 3BN3, 3FA3, 3HH3, 3I3, 3J03, 3P03, 3U03, 3V3, 3W03, 4BN3, 4C03, 4Z03
3 units from Course List 1. One of PSYCH 3EE3, 3LL3, 3V03 is recommended. (Completion is recommended by the end of 90 units.)
9 units Level III, IV Psychology; or three units from PSYCH 2E03, 2H03, 2TT3 (if not taken in Level II) and nine units of Level III, IV Psychology
6 units from Course List 2 (See Note 9 above.)
24 units Electives

Developmental Specialization (2460878)

ADMISSION
Completion of Level II Honours Psychology.

REQUIREMENTS
LEVELS III AND IV: 60 UNITS
3 units from PSYCH 3GG3
6 units from 3I3, 3JJ3, 3HH3
6 units from 3I3, 3JJ3, 3HH3 (if not already taken), 3B03, 3Z03, 3ZZ3, 4C03
3 units from Course List 1. One of PSYCH 3EE3, 3LL3, 3V03 is recommended. (Completion is recommended by the end of 90 units.)
12 units Level III, IV Psychology; or three units from PSYCH 2E03, 2F03, 2H03, 2TT3 (if not taken in Level II) and nine units of Level III, IV Psychology
6 units from Course List 2 (See Note 9 above.)
24 units Electives

Evolution and Social Behaviour Specialization (2460880)

ADMISSION
Completion of Level II Honours Psychology, including PSYCH 2TT3.

REQUIREMENTS
LEVELS III AND IV: 60 UNITS
15 units from PSYCH 2C03, 2F03, 3J03, 3M03, 3P03, 3RR3, 3TT3, 3Y03, 4R03
3 units from Course List 1. One of PSYCH 3LL3 or 3S03 is recommended. (Completion is recommended by the end of 90 units.)
12 units Level III, IV Psychology; or three units from PSYCH 2D03, 2E03, 2F03, 2H03 (if not taken in Level II) and nine units of Level III, IV Psychology
6 units from Course List 2 (See Note 9 above.)
24 units Electives

Combined Honours in Psychology and Another Subject (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 1A03 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. 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. 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 1CC3 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, 3L03, 3Q03, 3S03, 3V03, 4Q03. Enrollment in Psychology Laboratory courses is limited.
   b) must complete HUMAN 2C03.
5. Beginning September 2002 for students who entered Level II, one of BIOLOGY 1K03, 1A03, 1A3, must be completed by the end of Level II. Credit or registration in BIOLOGY 1A03 or 1K03 is a prerequisite for PSYCH 2F03.

COURSE LIST 1
NEURCOMP 3W03
PSYCH 3BB3, 3EE3, 3L03, 3LL3, 3QP3, 3S03, 3V03, 4G03, 4Q03

REQUIREMENTS
120 units total (Levels I to IV), of which 48 units may be Level I
LEVEL II: 30 UNITS
6 units STAT 1CC*- PSYCH 2RR3
6 units from PSYCH 2D03, 2E03, 2F03, 2H03, 2TT3
3 units* from the Faculty of Sciences, 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 2D03, 2E03, 2F03, 2H03, 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) 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) 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 of 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

LEVEL I: 30 UNITS
3 units from PSYCH 2G03, STATS 1A03, 1CC3*. (See Note 2 above.)
6 units from PSYCH 2D03, 2E03, 2F03, 2H03, 2TT3
3 units Level II Psychology
3 units* from MATH 1A03, 1K03 or 1M03 (See Note I above.)
6 units from Humanities or Science, excluding Psychology
6 units Electives, excluding Psychology
3 units Electives
*If requirement completed in Level I, these units will be taken as electives.

LEVEL II: 30 UNITS
12 units Level III Psychology, or three units from PSYCH 2D03, 2E03, 2F03, 2H03, 2TT3 (if not taken in Level II) and nine units from Level III Psychology
6 units from Humanities or Science, excluding Psychology
6 units Electives, excluding Psychology
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.socsci.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
RELI ST 2B03, 2D03, 2E03, 2G03, 2H03, 2V03, 2YY3, 2Z03, 3D03, 3M03, 3N03, 3R03, 3T03
SANSKRIT 3A06, 4B06

II. BIBLICAL STUDIES
RELI ST 2B03, 2D03, 2E03, 2G03, 2H03, 2V03, 2YY3, 2Z03, 3D03, 3M03, 3N03, 3R03, 3T03
HEBREW 2A03, 2B03, 3A03, 3B03

III. WESTERN RELIGIOUS THOUGHT
RELI ST 2C03, 2I33, 2J03, 2KK3, 2MM3, 2U03, 2ZZ3, 3A03, 3B03, 3D03, 3M03, 3Kk3, 3LL3, 3MM3, 3NN3, 3W03, 3Z03, 3ZZ3

IV. CONTEMPORARY AND COMPARATIVE RELIGIONS
RELI ST 2B03, 2E03, 2E03, 2H03, 2M03, 2N03, 2Q03, 2Q03, 2S03, 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) or Hebrew or both.

Honours Religious Studies (2745)

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 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.
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
3 units from Biblical Studies
3 units from Western Religious Thought
3 units from Contemporary 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 or Statistics
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.
*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.
4. With the written approval of a departmental undergraduate advisor, courses from other departments may be substituted for Religious Studies.
5. Students must consult both departments to determine the manner in which the Research Methods/Statistics requirement is to be satisfied.
6. Students required to complete a thesis in the other subject may replace RELIG ST 4A06 and 4J06 with 12 units of Levels III or IV Religious Studies courses. This substitution must be approved in writing by a departmental undergraduate advisor.

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 Asian Religions
6 units three units each from two of Biblical Studies, Western Religious Thought and Contemporary and Comparative Religions
15 units RELIG ST 3F03, 4A06, 4J06 (See Note 6 above.)
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 courses specified for the other subject
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. (See Note 5 above.)
3 units HUMAN 2C03. Students combining Honours Arts and Social 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.

B.A. in Religious Studies (1475)

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 six units of Religious Studies courses, preferably including one Level I Religious Studies course.

NOTES
1. All students should consult the Departmental Handbook and are strongly urged to consult a departmental undergraduate advisor at least once each year.
2. Part-time students should note that RELIG ST 3F03 is 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
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.)
3 units from Asian Religions
6 units three units each from two of Biblical Studies, Western Religious Thought and Contemporary and Comparative Religions
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 I

SCHOOL OF SOCIAL WORK

WEB ADDRESS: http://www.socsci.mcmaster.ca/~socwork

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 1A04 or (1A0B), SOCIOLOGY 1A06, SOC WORK 1A06, normally with a C 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 of Social Work prior to 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:
   - Foundation for Social Work includes core courses which are required.

**FOUNDATION FOR SOCIAL WORK**
SOC WORK 2A06, 2B03, 2BB3, 2E03, 3A03, 3D06, 3D6D, 4D06, 4DD6, 4D03, 4X03

**SOCIAL AND POLITICAL CONTEXT OF SOCIAL WORK**
SOC WORK 3C03, 3H03, 3003, 4B03, 4C03, 4F03, 4G03, 4I03, 4J03, 4L03, 4M03, 4R03, 4W03

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, 4R03, 4W03, and a Pass in SOC WORK 2B03, 3A03, 3D06, 4D06, 4J03, 4006, and 4X03, and 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. SOCIOl 2203, or GERONTOL 2C02). 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, 2E03, 3A03, 3D06, 4D06, 4J03, 4R03, 4W03, and 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 1 to IV), of which 48 units may be Level I

30 units from the Level I programme completed prior to admission (See Admission above).

15 units SOC WORK 2A06, 2B03, 2BB3, 2E03, (which must be completed prior to enrolling in SOC WORK 3D06 and 3D6D)

12 units SOC WORK 3D06, 3D6D (which must be completed prior to enrolling in SOC WORK 4D06 and 4DD6)

12 units SOC WORK 4D06, 4DD6

9 units SOC WORK 3A03, 4C03, 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.) [1620]

**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 1A04 or 1A06), and SOC WORK 1A06) normally with an average of at least 6.0 or its 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.

**Enrolment 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 **directed to the School well before March 1** for the Fall/Winter term. Applicants must also apply to the University.

**TWO-YEAR 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, a 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, 3D6D, 4D06, 4DD6, 4D03, 4X03

**SOCIAL AND POLITICAL CONTEXT OF SOCIAL WORK**
SOC WORK 3C03, 3H03, 3003, 4B03, 4C03, 4F03, 4G03, 4I03, 4J03, 4L03, 4M03, 4R03, 4W03
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, 4003 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

60 units total

15 units  SOC WORK 2A06, 2B03, 2BB3, 2E03 (which must be completed prior to enrolling in SOC WORK 3D06 and 3D66)
12 units  SOC WORK 3D06, 3D66 (which must be completed prior to enrolling in SOC WORK 4D06 and 4D66)
12 units  SOC WORK 4D06, 4DD6
9 units    SOC WORK 3A03, 4003, 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://socerv2.mcmaster.ca/sociology/

Honours Arts & Science and Sociology

(B.Arts.Sc.; See Arts & Science Programme)

Honours Sociology (Specialist Option) {2522}

Students who registered 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, 4MM6 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 3GG3 and 4GG3.

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, 3PP3
- 3 units from SOCIOl 3003, 3003, 3W03
- 12 units Level IV Sociology
- 18 units Level II or III Sociology
- 3 units SOCIOl 2Z03 which must be completed by the end of 60 units
- 6 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 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, 4MM6 or 4N03).
4. Students should check both this Calendar and the Departmental Handbook for prerequisites and course descriptions.
5. Students may take a maximum of nine combined units of SOCIOl 3GG3 and 4GG3.

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, 3PP3
- 3 units from SOCIOl 3003, 3003, 3W03
- 12 units Level IV Sociology (See Note 2 above.)
- 12 units Level II or III 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 3H05 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 {1520}

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 2Z03
- 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 2C06 or 2D06 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 2R53, 2V06 (See Note 1 above.)
- 12 units Level II or III Sociology
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.

Indigenous 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 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>REQUIREMENTS</th>
<th>COURSE LIST 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 units total (Levels I to III), of which 42 may be Level I</td>
<td>ANTHROP 2B03, 2H03, 2VV3, 2W03, 3F03, 3Y03</td>
</tr>
<tr>
<td>30 units from the Level I programme completed prior to admission to the programme. (See Admission above.)</td>
<td>POL SCI 3C03</td>
</tr>
<tr>
<td>6 units from INDIG ST 2A03, 2A06, 2AA3</td>
<td>SOC WORK 4I03</td>
</tr>
<tr>
<td>3 units from INDIG ST 2C03, 2D03</td>
<td></td>
</tr>
<tr>
<td>12 units from INDIG ST 2B03, 2E03, 3C03, 3CC3, 3D03, 3E03, 3G03, 3HH3, 3I03, 3J03, 3K03, CAYUGA 2Z03, MOHAWK 2Z03, OJIBWE 2Z03 or courses from Course List 2.</td>
<td></td>
</tr>
<tr>
<td>3 units Level III Indigenous Studies or courses from Course List 2 (See Note above.)</td>
<td></td>
</tr>
<tr>
<td>24 units Electives</td>
<td></td>
</tr>
<tr>
<td>12 units Electives</td>
<td></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. The minor consists of 24 units including INDIG ST 1A03 and 1AA3.
3. No more than six of the 18 units from Course List 2 may be Level I courses.
4. 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>REQUIREMENTS</th>
<th>COURSE LIST 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 units</td>
<td>INDIG ST 1A03 Introduction to Indigenous Studies</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 1AA3 Introduction to Contemporary Indigenous Studies</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 2A03 Introduction to Indigenous Peoples' Spirituality</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 2AA3 Indigenous Knowledge and Methodology</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 2B03 History Of Indigenous Peoples' Political Economy</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 2C03 Contemporary Indigenous Societies and Issues</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 2D03 Traditional Indigenous Ecological Knowledge</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 2E03 Aboriginal Community and Economic Development</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3C03 Study Of Iroquois First Nations in Contemporary Times</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3CC3 Contemporary Indigenous Societies: Selected Topics</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3D03 Topic 2003-2004: TBA</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3E03 Contemporary Native Literature in Canada</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3G03 Contemporary Native Literature in the United States</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3H03 Indigenous Creative Arts and Drama</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3HH3 Traditional Approaches to Healing And Wellness I (Philosophy)</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3I03 Traditional Approaches to Healing And Wellness II (Practical)</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3J03 Indigenous Peoples and Social Policy</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3K03 Government and Politics of Indigenous Peoples</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3KK3 Indigenous Human Rights</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3L03 Introduction to Cayuga Language and Culture</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3M03 Intermediate Cayuga</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3N03 Introduction to Mohawk Language and Culture</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3O03 Intermediate Mohawk</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3P03 Introduction to Ojibwe Language and Culture</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3Q03 Intermediate Ojibwe</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3R03 Indigenous Peoples of North America</td>
</tr>
<tr>
<td>18 units</td>
<td>INDIG ST 3S03 Environment and Culture</td>
</tr>
<tr>
<td>18 units</td>
<td>ANTHROP 2B03 The Ancient Maya</td>
</tr>
<tr>
<td>18 units</td>
<td>ANTHROP 2H03 The Aztecs and Incas</td>
</tr>
<tr>
<td>18 units</td>
<td>ANTHROP 2VV3 Contemporary Northern Peoples</td>
</tr>
<tr>
<td>18 units</td>
<td>ANTHROP 2W03 Aboriginal Community and Economic Development</td>
</tr>
<tr>
<td>18 units</td>
<td>ANTHROP 3F03 Indigenous Knowledge and Methodology</td>
</tr>
<tr>
<td>18 units</td>
<td>ANTHROP 3Y03 Contemporary Indigenous Societies and Issues</td>
</tr>
<tr>
<td>18 units</td>
<td>SOC SCI 3C03 Indigenous Peoples and Social Policy</td>
</tr>
<tr>
<td>18 units</td>
<td>SOC WORK 4I03 Government and Politics of Indigenous Peoples</td>
</tr>
<tr>
<td>18 units</td>
<td>SOC WORK 4J03 Social Work and Indigenous Peoples</td>
</tr>
</tbody>
</table>

WEB ADDRESS: http://www.mcmaster.ca/indigenous/
Chester New Hall, Room 228
Ext. 27426
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
Michele George (Classics)

Committee of Instruction
Aubrey Cannon (Anthropology)
Laura Finsten (Anthropology)
Eduard Reinhardt (Geography and Geology)
W. Jack Rink (Geography and Geology)
Shelley Saunders (Anthropology)
Henry Schwarz (Geography and Geology)

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 2F3: Human Skeletal Biology and Bioarchaeology
ANTHROP 2003: North American Prehistory
ANTHROP 2V3: The Ancient Maya
ANTHROP 2W3: The Aztecs and Incas
ANTHROP 3A3: Archaeology and Society
ANTHROP 3C3: Archaeological Field School
ANTHROP 3D3: Archaeology of Death
ANTHROP 3E3: Special Topics in Archaeology I
ANTHROP 3E3: Special Topics in Archaeology II
ANTHROP 3K3: Archaeological Interpretation
ANTHROP 3N3: Primate Evolution
ANTHROP 3P3: Paleopathology
ANTHROP 4F3: Advanced Topics in Archaeology I
ANTHROP 4E3: Advanced Topics in Archaeology II
ANTHROP 4P3: Archaeological Theory
ANTHROP 4P3: Archaeology of Hunters and Foragers
ANTHROP 4R3: Skeletal Biology of Earlier Human Populations
ANTHROP 4U3: Prehistory of the British Isles
CLASSICS 2B3: Greek Art
CLASSICS 2C3: Roman Art
CLASSICS 3E3: Greek Sanctuaries
CLASSICS 3S3: The Archaeology of the City of Rome and Roman Italy
CLASSICS 4B3: Seminar in Classical Archaeology
GEO 2B3: Soils and the Environment
GEO 2E3: Earth History
GEO 2G3: Earth Surface Processes
GEO 2GG3: Natural Disasters
GEO 203: GIS and Digital Cartography
GEO 3D3: Geoarchaeology
GEO 3E3: Sedimentary Environments
GEO 3G3: Glacial Sediments and Environments
GEO 3I3: Applied GIS
GEO 3J3: Climate Change and Ecosystem Impacts
GEO 3P3: Environmental Paleontology
GEO 4I3: Advanced GIS

REQUIREMENTS

24 units total
12 units: ANTHROP 1B03 (or 1Z03, if completed prior to 1999), 2PA3, CLASSICS 1A03 (formerly CLASSICS 2A03), EVNR SC 1G03
12 units from Course List (see above). At least nine of the twelve 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.

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 2D3: The Five Books of Mosaic
RELIG ST 2EE3: Prophets of the Bible
RELIG ST 2V3: Bible as Story
RELIG ST 2YY3: The Bible and Film
RELIG ST 3A03: Modern Jewish Thought
RELIG ST 3D3: The Jewish World in New Testament Times
RELIG ST 3M03: 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 3ZZ3: Judaism and the Jewish People in the Twentieth Century

LIST B

ANTHROP 3B03: Ethnology: Europe
ANTHROP 3G3: Comparative Mythology
ANTHROP 3H3: Anthropological Demography
ANTHROP 3EA3: Islam and Mediterranean Society, 600-1300
ANTHROP 3EB3: Islam in the World, 1300-1800
ANTHROP 3HA3: The Modern Middle East
ANTHROP 3AA3: The International Relations of the European Powers, 1870-1945
### Interdisciplinary Minors and Thematic Areas

| PHILOS 2A06 | Ancient Greek Philosophy |
| PHILOS 2D03 | Moral Issues |
| PHILOS 3A06 | From Kant to Hegel |
| PHILOS 3H03 | Philosophy of Religion |
| POL SCI 3A3A | International Politics in the Postwar Period |
| POL SCI 4D06 | Human Rights and International Politics |
| SOC WORK 4C03 | Racism and Social Marginalization in Canadian Society |
| SOC WORK 4J03 | Social Change: Social Movements and Advocacy |
| SOC WORK 4M03 | International and Comparative Social Welfare |
| SOCIO 3Z00 | Social and Ethnic Group 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 programme 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

| CMST 2A03 | Japanese Communication |
| COMMERCE 4S03 | Japanese Business |
| COMP LIT 3M03 | Asian Literatures |
| COMP LIT 3N03 | Arabic and Persian Literatures |
| COMP LIT 3T03 | Modern Japanese Literature in Translation |
| GEO 3H03 | Geography of Japan |
| HISTORY 2A03 | Islam and Mediterranean Society, 600-1100 |
| HISTORY 2B03 | Islam in the World, 1300-1800 |
| HISTORY 2GG3 | China: Historical Foundations |
| HISTORY 3A03 | The Modern Middle East |
| HISTORY 3B03 | Modern Japan |
| HISTORY 3G03 | China: the Revolutionary Century, 1895-1995 |
| HISTORY 4B6 | Special Topics in the History of Modern Japan |
| HISTORY 4G06 | Topics in Middle Eastern and Islamic History |
| RELIG ST 2B03 | Engaged Buddhism |
| RELIG ST 2F03 | Storytelling in East Asian Religions |
| RELIG ST 2I03 | Storytelling in Indian Religion |
| RELIG ST 2L03 | Life, Work and Teachings of Mahatma Gandhi |
| RELIG ST 2P06 | Japanese Civilization |
| RELIG ST 3A03 | Popular Religion in India |
| RELIG ST 3C03 | Japanese Religion |
| RELIG ST 3L03 | The Indian Religious Tradition |
| RELIG ST 3L03 | The Buddhist Tradition in India |
| RELIG ST 3L03 | Buddhism in East Asia |
| RELIG ST 3V03 | Indian Philosophy |
| RELIG ST 4A03 | Advanced Reading: Asian Religions |
| THTR&FLM 2H03 | The Contemporary Japanese Film |

### Courses with Significant Asian Content

| ECON 2C03 | Asian-Pacific Economies |
| POL SCI 4M06 | Topics in International Political Economy |
| RELIG ST 1B08 | World Religions |
| RELIG ST 2D03 | Images of the Divine Feminine |
| RELIG ST 2H03 | Theory and Practice of Non-Violence |
| RELIG ST 2G03 | Women and Religion |
| RELIG ST 2W03 | Health, Healing and Religion |

### Language Courses

| CHINESE 2A03 | Introductory Modern Chinese I |
| CHINESE 2A03 | Introductory Modern Chinese II |
| JAPANESE 1Z06 | Beginner's Intensive Japanese |
| JAPANESE 2Z03 | Intermediate Intensive Japanese I |
| JAPANESE 2Z03 | Intermediate Intensive Japanese II |
| JAPANESE 3A03 | Advanced Intensive Japanese I |
| JAPANESE 3A03 | Advanced Intensive Japanese II |
| JAPANESE 3B03 | Business Japanese I |
| JAPANESE 3C03 | Business Japanese II |
| JAPANESE 4L03 | Japanese Literature |
| JAPANESE 4Z03 | Advanced Practice in Japanese |
| JAPAN ST 4A06 | Guided Reading in Japanese Studies |
| JAPAN ST 4B03 | Guided Reading in Japanese Studies |
| SANSKRIT 3A06 | Introduction to Sanskrit Grammar |
| SANSKRIT 4B06 | 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 3A03 | The Modern French-Canadian Novel |
| FRENCH 4U03 | Topics in French-Canadian Literature |
| HISTORY 2T03 | Survey of Canadian History, Beginnings to 1865 |
| HISTORY 2TT3 | Survey of Canadian History, 1865 to the Present |
| HISTORY 3G03 | Business History: The Canadian Experience in International Perspective |
| HISTORY 3K03 | Canadian Political Evolution since 1840 |
| HISTORY 3N03 | The History of the Canadian Working Class |
| HISTORY 3NN3 | Canada's Revolutions: 1939-1982 |
| HISTORY 3P03 | History of Women in Canada and the U.S. to 1920 |
| HISTORY 3WW3 | History of Women in Canada and the U.S. from 1920 |
| HISTORY 3Y03 | Death, Disease and Degeneration: A History of Health and Health Care in Canada |
| MUSIC 3T03 | Canadian Music |
| WOMEN ST 1A06 | Women in Canadian Society |

### Social Sciences

| ANTHROP 3F03 | Contemporary Northern Peoples |
| ANTHROP 3Y03 | Aboriginal Community Health and Well-Being |
| ECON 2K03 | Economic History of Canada |
| GEO 2HC3 | Geography of Planning |
| GEO 3HT3 | 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 3G03 | Federalism: Theoretical, Constitutional and Institutional Issues |
| POL SCI 3HH3 | Intergovernmental Policy Issues in Canada |
| POL SCI 3JJ3 | Provincial Politics in Canada |
| POL SCI 4O06 | 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 Level I courses will give you the information you need for this purpose, as well as provide the prerequisites for more advanced courses and admission to programmes 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, Programmes and Courses 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, community 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 through Friday until 4:00 p.m. Hours are extended various times throughout the year to accommodate the registration process.

More detailed information concerning programmes and courses is provided by the Academic Counsellors within each Faculty as follows:
  - Business: ext. 23941
  - Humanities: ext. 27532
  - Science: ext. 27590
  - Social Sciences: ext. 23772

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 or at the following url: http://www.mcmaster.ca/conted/

MAPS

The McMaster Association of Part-time Students (MAPS) maintains an office and student lounge in the McMaster University Student Centre, Room 234, telephone (905) 525-9140, ext. 22021. MAPS also 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.
CERTIFICATE AND DIPLOMA PROGRAMMES

CERTIFICATE AND DIPLOMA PROGRAMMES

CENTRE FOR CONTINUING EDUCATION

Located at 50 Main Street East, Hamilton, 2nd Floor, 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 24921 or http://www.mcmastercce.com

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 Credit Toward Degree Studies - 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).

ADDITION CARE WORKER, DIPLOMA IN

Maximum Credit Toward Degree Studies - 24 units

The diploma requirements consist of 24 units of study organized in compulsory courses and skill and knowledge electives.

ADDITION STUDIES, CERTIFICATE IN

Maximum Credit Toward Degree Studies - 15 units

This 15 unit programme is designed to provide elective studies in the field of addictions.

CASE MANAGEMENT, CERTIFICATE IN

Maximum Credit Toward Degree Studies - 15 units

This six-course programme is 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 Credit Toward Degree Studies - 15 units (Certificate)

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.

HUMAN RESOURCES MANAGEMENT, DIPLOMA IN

Maximum Credit Toward Degree Studies - 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 CHRP and HRPAO designations.

INFORMATION TECHNOLOGY (INFOTECH), CERTIFICATE IN

Maximum Credit Toward Degree Studies - 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 four days (or eight evenings) in duration. Courses are limited enrolment.

MANAGEMENT STUDIES, DIPLOMA IN

Maximum Credit Toward Degree Studies - 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 Credit Toward Degree Studies - 15 units

This six-course programme comprehensively covers metallurgical principles involved in the extraction, refining and manufacturing of ferrous products.

MULTIMEDIA STUDIES, DIPLOMA IN

Maximum Credit Toward Degree Studies - 24 units

This programme focuses on technical, design and communication skills development in the multimedia field.

POLICE STUDIES, DIPLOMA IN

Maximum Credit Toward Degree Studies - 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 Credit Toward Degree Studies - 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 Credit Toward Degree Studies - 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 (AlA)
- 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 (FII)
- 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.

CONCURRENT CERTIFICATE IN

APPLIED BUSINESS MANAGEMENT

HUMAN RESOURCES MANAGEMENT SPECIALIZATION

Subject to approval by the Ministry of Training, Colleges and Universities, beginning in the 2004-2005 academic year, the Concurrent Certificate in Applied Business Management - Human Resources Management Specialization will be offered.

The Concurrent Certificate in Applied Business Management is a joint initiative between McMaster University and Mohawk College. It provides eligible McMaster students with the opportunity to complete an Honours degree and a Post-Diploma College Certificate in four years of full-time study. Students who are admitted to this concurrent certificate will attend Mohawk College for up to one year (normally their third year of study) to complete the courses required for the Human Resources Management Specialization. These courses will be used as elective credit towards their degree. For further information or details regarding this Certificate students may contact either the Business Management Programmes Office at Mohawk College, (905) 575-2005 or the Office of the Associate Dean of Humanities, Science or Social Sciences.
ADMISSION
Enrolment in this specialization is limited. Selection is based on academic achievement but requires, as a minimum, completion of Level II of any Honours Humanities, Science or Social Sciences programme with a minimum Cumulative Average of 6.0 including a grade of at least B- in APBUSMGT 1A03.

NOTES
1. Application for admission must be made by April 30. Applications may be obtained from the Offices of the Associate Deans in Humanities, Science or Social Sciences.
2. The Human Resources Management Specialization is normally completed during Level III at Mohawk College in one Fall/Winter session, followed by a field placement in the Spring/Summer session. Beginning in Level II, students should plan their course of study with their Departmental Undergraduate Advisor. Please note: this Certificate may not be available in combination with every Honours programme.
3. APBUSMGT 3E00, 3F00, 3I003, 3N00 are graded on a Pass/Fail basis.

REQUIREMENTS
30 units APBUSMGT 3A03, 3B03, 3C03, 3D03, 3G03, 3H03, 3J03, 3K03, 3L03, 3M03 (See Note 2 above.)
4 courses from APBUSMGT 3E00, 3F00, 3I00, 3N00 (See Note 3 above.)

SCHOOL OF GEOGRAPHY AND GEOLOGY
The part-time certificate and diplomas offered by the School of Geography and Geology can be completed in one or two years and are intended for students with basic academic or experiential training in GIS who wish to obtain a qualification in the theoretical and practical aspects of spatial analysis as well as in the more technical aspects of GIS. Further information can be obtained at http://sciwebserver.science.mcmaster.ca/gislab/postgraduate/postgraduate.html or by contacting the GIS Laboratory, School of Geography and Geology at (905) 525-9140 ext. 22542.

DIPLOMA IN SPATIAL ANALYSIS AND GIS (8919) (GEOGRAPHICAL INFORMATION SYSTEMS)
The eight-course diploma programme is designed for students with basic academic or experiential training in GIS who wish to obtain a qualification in the theoretical and practical aspects of spatial analysis as well as in the more technical aspects of GIS.

CERTIFICATE IN GIS (8947) (GEOGRAPHICAL INFORMATION SYSTEMS)
The six-course certificate programme is intended for students with basic academic or experiential training in GIS who wish to obtain a qualification in the more technical aspects.

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.
### ANTHROPOLOGY

#### COURSE LISTINGS

The courses listed in this section include all courses approved for the undergraduate curriculum for the 2003-2004 academic year. Not all courses in the approved curriculum will be offered during the year. Students are advised to refer to the course timetables available 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/~anthro](http://www.socsci.mcmaster.ca/~anthro)

**Chester New Hall, Room 524**

**Ext. 24423**

#### Faculty of as of January 15, 2003

### Chair
Matthew Cooper

### Professors

Michael Cooper, B.A. (Brooklyn College), M.Phil., Ph.D. (Yale)

Harvey Feit, B.A. (Queen's), M.A. Ph.D. (McGill)

William L. Rodman, B.A. (Sydney), M.A., Ph.D. (Chicago)

Shelley Saunders, B.A., M.A., Ph.D. (Toronto)/Canada Research Chair in Human Disease and Population Relationships

### Associate Professors
Regina Darnell, B.A. (Western Ontario), B.A. (Bryn Mawr), M.A., Ph.D. (Pennsylvania)

Michael Spence (Western Ontario), B.A., M.A., Ph.D. (Southern Illinois)

### Adjunct Professors
Ellen Badone (Religious Studies), B.A., M.A., Ph.D. (California-Berkeley)

Audrey Cannon, B.A. (Simon Fraser), Ph.D. (Cambridge)

Laura Finnlen, B.A., M.A. (Calgary), M.A., Ph.D. (Purdue)

D. Ann Haring, B.A., M.A., Ph.D. (Toronto)

Petra Rothmann, B.A. (Vienna), M.A. (Munich), Ph.D. (McGill)

Wayne Warr, B.A., M.A. (McMaster), Ph.D. (ANU)

Dennis Wills, B.A. (Waterloo), M.A. (McMaster), Ph.D. (British Columbia)

### Adjunct Associate Professors
Christopher Ellis (Western Ontario), B.A. (Waterloo), M.A., M.C.Master, Ph.D. (Simon Fraser)

Trudy Nicks (Royal Ontario Museum), B.A., M.A., Ph.D. (Alberta)

### Assistant Professors
Eva Mackey, B.A. (Toronto), M.A., Ph.D. (Sussex)

Christina Morris, B.Sc. (Toronto), B.A., Ph.D. (McMaster)

Ana Ning, B.A., M.A., Ph.D. (York)

### Adjunct Assistant Professor
Robert W. Park, B.A. (Waterloo), M.A., Ph.D. (Alberta)

### Associate Member
Eduard G. Reinhardt (Geography and Geology), B.A., Ph.D. (Carleton)

### Department Notes:

1. Not all Anthropology courses listed in this Calendar are taught every year. Students are advised to consult the department's website 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1A03</td>
<td>INTRODUCTION TO ANTHROPOLOGY: CULTURE AND SOCIETY</td>
</tr>
<tr>
<td>ANTH 1B03</td>
<td>WORLD ARCHAEOLOGY</td>
</tr>
<tr>
<td>ANTH 1Z03</td>
<td>THE HUMAN SPECIES: BECOMING AND BEING HUMAN</td>
</tr>
<tr>
<td>ANTH 2A03</td>
<td>THE ANTHROPOLOGY OF FOOD AND NUTRITION</td>
</tr>
<tr>
<td>ANTH 2B03</td>
<td>INDIGENOUS PEOPLES OF NORTH AMERICA</td>
</tr>
<tr>
<td>ANTH 2F03</td>
<td>PRIMATE BEHAVIOUR</td>
</tr>
<tr>
<td>ANTH 2E03</td>
<td>HUMAN VARIATION AND EVOLUTIONARY CHANGE</td>
</tr>
<tr>
<td>ANTH 2F03</td>
<td>CULTURAL ANTHROPOLOGY</td>
</tr>
<tr>
<td>ANTH 2F03</td>
<td>FORENSIC ANTHROPOLOGY IN THE FORENSIC SCIENCES</td>
</tr>
<tr>
<td>ANTH 2F03</td>
<td>HUMAN SKELETAL BIOLOGY AND BIOARCHAEOLOGY</td>
</tr>
</tbody>
</table>

- **If no prerequisite is listed, the course is open.**
- **Enrolment is limited.**

**ANTHROP 1A03**

An introduction to the cross-cultural study of existing peoples, their ways of life, and the ways in which they interpret and experience the world. The course discusses a broad range of societies in order to explore some fundamental issues involving human cognition and behaviour. Two hours (lecture), one hour (tutorial); one term

**ANTHROP 1B03**

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. Two hours (lecture), one hour (tutorial); one term

**ANTHROP 1Z03**

The study of the interaction between biology and culture. Topics may include: human origins, non-human primates, the concept of race, disease, sex and gender. Two hours (lecture), one hour (tutorial); one term

**ANTHROP 2A03**

An anthropological perspective on nutrition at the population level. Prehistoric, historic, and contemporary human nutrition, emphasizing links with the environment. Three hours (lecture and discussion); one term

**ANTHROP 2B03**

A comparative study of selected cultures of this continent, dealing with traditional and modern situations. Three hours (lectures and discussion); one term

**ANTHROP 2D03**

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

**ANTHROP 2E03**

An introduction to the study of human evolution and variability in living species of humans and non-human primates. Three hours (lectures and discussion); one term

**ANTHROP 2F03**

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

**ANTHROP 2F03**

General introduction to anthropological methods used in the collection and analysis of forensic evidence. Also examines the nature of evidence, professionalism, and human rights applications. Three hours (lectures and discussion); one term

**ANTHROP 1Z03**

This course is required of all students registered in an Honours Programme in Anthropology.

**ANTHROP 1A03**

This course is required for advanced courses in Physical Anthropology.

**ANTHROP 1Z03**

This course is required of all students registered in an Honours Programme in Anthropology.

**ANTHROP 2F03**

This course is required for advanced courses in Physical Anthropology.

**ANTHROP 1Z03**

This course is required for advanced courses in Physical Anthropology.
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 2JL3 HUMAN GROWTH AND CONSTITUTION
Variation in body form and composition examined in the context of normal growth and evolutionary development. Three hours (lectures); one term

ANTHROP 2L03 PHONETICS
A study of the sounds of language and human articulatory capabilities. Three hours (lectures); one term

Prerequisite: LINGUIST 1A03 or permission of the instructor

Cross-list: LINGUIST 2L03

This course is administered by the Department of Modern Languages and Linguistics.

ANTHROP 2LC3 LINGUISTICS AND CULTURE: 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: ANTHROP 2G03, 3L03, LINGUIST 2Q03

ANTHROP 2LL3 INTRODUCTION TO LINGUISTIC TYPEOLOGY
The study of diversity in the languages of the world, language universals and the parameters of cross-linguistic analysis of grammatical systems. Three hours (lectures and discussion); one term

Prerequisite: LINGUIST 1A03 and 1A03 (or 1A06); or permission of the Department

Cross-list: LINGUIST 2L03

This course is administered by the Department of Modern Languages and Linguistics.

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 2003 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. ANTHROP 1B03 or 2P03 is strongly recommended.

ANTHROP 2P03 PEOPLES OF THE PACIFIC
Introduction to the peoples of the islands of the Pacific - their history, traditions and current ways of life, and their responses to contact, colonialism and cultural change. Focus will be equally upon the past and the present in Oceania. 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
Selected issues in the study of religion, magic, and witchcraft, science, and the supernatural. Perspectives from history, psychology, and sociology also will be discussed. Three hours (lectures and discussion); one term

Prerequisite: ANTHROP 1A03 or 2F03

ANTHROP 2S03 PEOPLES OF RUSSIA
This survey course examines the ethnology, languages and histories of the people that fall 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 2V03 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

Enrollment is limited.

ANTHROP 2V03 THE ANCIENT MAYA
An introduction to prehistoric Maya society and culture, with an emphasis on the Classic period civilization. Three hours (lectures); one term

Not open to students with credit in ANTHROP 2V03, AZTECS, MAYA AND INKA prior to September 2001.

ANTHROP 2W03 THE AZTECS AND INCAS
An introduction to and comparison of the late pre-Columbian Aztec em- pire of Mexico and the Inca empire of Andean South America. Three hours (lectures); one term

Antirequisite: ANTHROP 2V03

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 2XX3 CONFLICT, CULTURE AND THE QUEST FOR PEACE
An interdisciplinary introduction to everyday violence, ethnic conflict, nonviolence, 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 any Anthropology programme

Cross-list: SOCIOI 2Z03

Antirequisite: CMST 2A03, GEO 2H03, GERONTOI 2C03, HEALTH ST 2B03

This course is administered by the Department of Sociology.

ANTHROP 3A03 PHONOLOGY
A study of the patterns of distinctive sounds in the world's languages. Three hours (lectures); one term

Prerequisite: One of ANTHROP 2L03, LINGUIST 1A03 or 2L03

Antirequisite: ANTHROP 2M03, LINGUIST 3A03

Cross-list: LINGUIST 3A03

This course is administered by the Department of Modern Languages and Linguistics.

ANTHROP 3A53 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: 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. ANTHROP 2E03 is highly recommended.

ANTHROP 3CC6 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: ANTHROP 2P03 or an equivalent course in archaeological methods

Not open to students with credit in an equivalent field school from another university.

Enrollment is limited.
ANTHROP 3CN3 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 ritual.
Three hours (lectures and discussion); one term
Prerequisite: ANTHROP 2PA3

ANTHROP 3EE3 SPECIAL TOPICS IN ARCHAEOLOGY I
The topic varies with each instructor (e.g., one class may examine Ancient Mesopotamian Cities and another focus on The Archaeology of Hierarchy).
Three hours (lectures and discussion); one term
Prerequisite: ANTHROP 2PA3

ANTHROP 3EE3 SPECIAL TOPICS IN ARCHAEOLOGY II
As per ANTHROP 3EE3.
Three hours (lectures and discussion); one term

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 3H03 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: One of ANTHROP 2L3, LINGUIST 2L3 or permission of the Department
Cross-list: LINGUIST 3I03
Offered in alternate years.
This course is administered by the Department of Modern Languages and Linguistics.

ANTHROP 3L03 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 3L03
Offered in alternate years.
This course is administered by the Department of Modern Languages and Linguistics.

ANTHROP 3M03 INDEPENDENT STUDY IN ANTHROPOLOGY
Independent study of a research problem through published materials and/or fieldwork. 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 and permission of the instructor
ANTHROP 3M03 may be repeated, if on a different topic, to a total of six units.

ANTHROP 3N03 ARCHAEOLOGICAL INTERPRETATION
Technique and methodology in the investigation of archaeological material.
Three hours (lectures and discussion); one term
Prerequisite: ANTHROP 2PA3
Enrolment is limited.

ANTHROP 3P03 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 nationalities, and the spread of universalizing cultures.
Three hours (lectures and discussion); one term
Prerequisite: Six units of Social/Cultural Anthropology or registration in any programme in Gerontology
Cross-list: GEPONTOLO 3P03

ANTHROP 3Q03** SPECIAL TOPICS IN ANTHROPOLOGY I
The topic varies with each instructor (e.g., one class may examine current issues in Medical Anthropology and other classes may focus on Readings in Myth or Contemporary issues in Archaeology).
One term
Prerequisite: Registration in any programme in Anthropology

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 any Anthropology programme

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 nationalities, 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
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 humeral medicine, Chinese, Shamanic, etc. Emphasis will be on cultural and psychological parameters of healing.
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 3AE3  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 may be repeated, if on a different topic, to a total of six units.
ANTHROP 4BB3  CURRENT PROBLEMS IN ANTHROPOLOGY II
As per ANTHROP 4B03.
Three hours (seminar); one term
Prerequisite: Registration in Level IV Honours Anthropology
ANTHROP 4BB3 may be repeated, if on a different topic, to a total of six units.
ANTHROP 4C03  COLONIAL HISTORIES, LIBERAL PRACTICES
This course examines issues of power and colorization, and the effects of decolonization and decolonization 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 4E03  ADVANCED TOPICS IN ARCHAEOLOGY I
Study at an advanced level of selected topics in the sub-discipline. Topics may change from year to year.
Three hours (seminar); one term
Prerequisite: ANTHROP 2PA3
ANTHROP 4E03 may be repeated, if on a different topic, to a total of six units.
ANTHROP 4EE3  ADVANCED TOPICS IN ARCHAEOLOGY II
As per ANTHROP 4E03.
Three hours (seminar); one term
Prerequisite: ANTHROP 2PA3
ANTHROP 4F03  ARCHAEOLOGICAL THEORY
A seminar in current topics and issues in archaeological theory.
Three hours (lectures and discussion); one term
Prerequisite: ANTHROP 2PA3 and registration in any honours programme
ANTHROP 4G03**  INDEPENDENT RESEARCH
Independent study of a research problem through published materials and/or fieldwork. Study may include museum internship, participation in faculty research, or student-initiated practice or library research. Students will be required to write up the results of their inquiry in 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 historical 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 2PA3
ANTHROP 4J03 may be repeated, if on a different topic, to a total of six units.
ANTHROP 4JJ3  ADVANCED TOPICS IN PHYSICAL ANTHROPOLOGY II
As per ANTHROP 4J03.
Three hours (seminar); one term
Prerequisite: ANTHROP 2PA3
ANTHROP 4JJ3 may be repeated, if on a different topic, to a total of six units.
ANTHROP 4L83  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 4L83
Antirequisite: ANTHROP 4LA3, LINGUIST 4LA3
This course is administered by the Department of Modern Languages and Linguistics.
ANTHROP 4LC3  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 4LC3
Antirequisite: ANTHROP 4LA3, LINGUIST 4LA3
This course is administered by the Department of Modern Languages and Linguistics.
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 any Honours programme in the Faculty of Social Sciences
ANTHROP 4O03  GLOBAL PROCESSES AND LOCAL CONSEQUENCES
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 scale social theory.
Three hours (seminar); one term
Prerequisite: Registration in any Honours programme in the Faculty of Social Sciences
APBUSMGT 3A03 HUMAN RESOURCES MANAGEMENT IN CANADA

Students are introduced to the field of Human Resources through employment legislation, HR planning, recruitment, selection, orientation, training, performance appraisal, compensation, health and safety and labour relations.

Three hours (lectures); one term
Prerequisite: Registration in the Concurrent Certificate in Applied Business Management, Human Resources Management Specialization
Antirequisite: COMMERCE 2B83, 3B03
First offered in 2004-2005.

APBUSMGT 3B03 ORGANIZATIONAL BEHAVIOUR

This course focuses on the development of individual and team based skills. The core concepts of this course include motivation, perception, attitudes, communication, team dynamics and leadership.

Three hours (lectures); one term
Prerequisite: Registration in the Concurrent Certificate in Applied Business Management, Human Resources Management Specialization
Antirequisite: COMMERCE 2B83, 3B03
First offered in 2004-2005.

APBUSMGT 3C03 COMPENSATION ADMINISTRATION

This course is designed to provide the student with an understanding of the process and issues involved in designing, implementing and administering an effective compensation system.

Three hours (lectures); one term
Prerequisite: APBUSMGT 3A03 and registration in the Concurrent Certificate in Applied Business Management, Human Resources Management Specialization
First offered in 2004-2005.

APBUSMGT 3D03 ACCOUNTING AND FINANCE

This course focuses on the requirement of HR practitioners to have an understanding of and to make decisions based on the principles of financial accounting, management accounting and finance.

Three hours (lectures); one term
Prerequisite: Registration in the Concurrent Certificate in Applied Business Management, Human Resources Management Specialization
Antirequisite: COMMERCE 2A13
First offered in 2004-2005.

APBUSMGT 3E00 HUMAN RESOURCES SOFTWARE APPLICATION

This course assists the student in developing Microsoft computer skills necessary to be successful in the ever-changing field of Human Resources Management.

One term
Prerequisite: Registration in the Concurrent Certificate in Applied Business Management, Human Resources Management Specialization
First offered in 2004-2005.

APBUSMGT 3F00 HRM CAREER DEVELOPMENT

This course prepares students to present a professional image to prospective employers through the development of an effective resume, cover letter, interviewing skills and job search techniques.

One term
Prerequisite: Registration in the Concurrent Certificate in Applied Business Management, Human Resources Management Specialization
First offered in 2004-2005.

APBUSMGT 3G03 LABOUR LAW

This course provides the student with the working knowledge and skills required to adhere to current Canadian employment law, both federal and provincial, as it impacts HR departments.

Three hours (lectures); one term
Prerequisite: Registration in the Concurrent Certificate in Applied Business Management, Human Resources Management Specialization
Antirequisite: COMMERCE 4BF3, LABR ST 3C03
First offered in 2004-2005.

APBUSMGT 3H03 LABOUR RELATIONS

This course will provide the student with the skills to work in a unionized workplace with emphasis on collective agreements, grievances, negotiations, collective bargaining, and the arbitration process.

Three hours (lectures); one term
Prerequisite: APBUSMGT 3A03 and registration in the Concurrent Certificate in Applied Business Management, Human Resources Management Specialization
First offered in 2004-2005.
APBUSMGT 3K03 TRAINING AND DEVELOPMENT
This course provides students with a comprehensive model of training, which includes needs analysis, designing and implementing a training program and program evaluation.
Three hours (lectures); one term
Prerequisite: APBUSMGT 3A03 and registration in the Concurrent Certificate in Applied Business Management, Human Resources Management Specialization
First offered in 2004-2005.

APBUSMGT 3L03 CANADIAN OCCUPATIONAL HEALTH AND SAFETY
This course will provide the student with an introduction to workplace health and safety requirements specified under the Ontario Occupational Health and Safety Act.
Three hours (lectures); one term
Prerequisite: APBUSMGT 3A03 and registration in the Concurrent Certificate in Applied Business Management, Human Resources Management Specialization
Antirequisite: HEALTHST 3C03, LABR ST 3D03
First offered in 2004-2005.

APBUSMGT 3M03 HUMAN RESOURCES RESEARCH AND INFORMATION SYSTEMS
This course provides the student with the knowledge, skills and abilities to identify, assess, develop and maintain an effective system of managing Human Resources information.
Three hours (lectures); one term
Prerequisite: APBUSMGT 3A03 and registration in the Concurrent Certificate in Applied Business Management, Human Resources Management Specialization
First offered in 2004-2005.

APBUSMGT 3N03 HUMAN RESOURCES MANAGEMENT - WORK PLACEMENT
A seven week unpaid field placement in a Human Resources Department supplements the theory and application provided in the classroom setting.
One term
Prerequisite: Registration in the Concurrent Certificate in Applied Business Management, Human Resources Management Specialization
First offered in 2004-2005.

ART
WEB ADDRESS: http://www.humanities.mcmaster.ca/~sota/
Togo Salmon Hall, Room 414
Ext. 27671

Courses and programmes in Art are administered within the School of the Arts 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: Portfolio required. Entrance to any Honours Art Programme requires the permission of the School of the Arts as these programmes and courses have limited enrolments. Students who wish to enrol in ART 1F06 must first complete a portfolio interview. Portfolio interviews occur between January and April each year for entrance in September of the same calendar year. Only those students who call the office of the School of the Arts before March 1 to book appointments for portfolio interviews will be guaranteed consideration for entrance into ART 1F06. Late applicants will only be interviewed if space availability permits. Acceptance into ART 1F06 will be verified with written confirmation from the School of the Arts. School of the Arts verification and a Letter of Acceptance from the University guarantee a space in the programme as long as the student meets the minimum academic requirements as outlined under School of the Arts programmes in this section of the calendar. Applicants for this course should use the MHA QUAC code. The portfolio should contain a variety of works in different media that represent the applicant's creative abilities and interests. Aptitude in art, academic ability and demonstrated commitment to the discipline are 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.
Corequisite: SCIENCE 1A00. Students registering in ART 1F06 must also register in SCIENCE 1A00 when completing their registration.

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

ART 2F06 PRINTMAKING I
An introduction to printmaking techniques including monotypes, collotypes 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 students with credit or registration in ART 1F06 or an Honours Art programme.
Enrolment is limited to 25 students.

ART 2H03 VISUAL INQUIRY
This course provides an in-depth investigation into one or more aspects of art. Students will be given opportunity for writing, discussing and responding creatively to assignments. No previous training in art required.
Three hours; one term

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 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 in 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 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, architecture, and a discussion of various genres.  
Two lectures, one tutorial; one term

ART HIST 1A03  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

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 or 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 or 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 or above

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 or above. Prior completion of ART HIST 1A03 and 1A03 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 or above

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 or above

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 1580-1750 with a special emphasis on the continuing evolution of the classical tradition.

Three lectures; one term
Prerequisite: Registration in Level II or above. Prior completion of ART HIST 2H03 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 2G03  
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 1400-1580  
An advanced level lecture course dealing with selected artists and works from the Early Renaissance to Mannerism.

Three lectures; one term
Prerequisite: Registration in Level II or 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 or above. Prior completion of ART HIST 2D03 is recommended.
Alternates with ART HIST 3B03.

ART HIST 3P03 ISSUES IN STUDIO CRITICISM
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 3P33 HISTORY OF 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 or above
Cross-list: CMST 3P33

ART HIST 3S03 ART AND CIVILIZATION AT THE DAWN OF THE ITALIAN RENAISSANCE 1200-1400
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 or above. Prior completion of ART HIST 2J03 is recommended.
Alternates with ART HIST 3J03.

ART HIST 4A03 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
Prerequisite: ART HIST 3AA3
Alternates with ART HIST 4H03.
Enrolment is limited.

ART HIST 4B03 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, 2C03 and registration in Level III or IV of an Honours programme in Art History
Cross-list: CLASSICS 4B03
ART HIST 4BB3 may be repeated, if on a different topic, to a total of six units.
Enrolment is limited.
This course is administered by the Department of Classics.

ART HIST 4C03 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 3J03
Alternates with ART HIST 4E03
Enrolment is limited.

ART HIST 4E03 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, or Multimedia programme
Alternates with ART HIST 4C03.
ART HIST 4E03 may be repeated, if on a different topic, to a total of six units.
Enrolment is limited.

ART HIST 4H03 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, 3AA3
Alternates with ART HIST 4A03.
ART HIST 4H03 may be repeated, if on a different topic, to a total of six units.
Enrolment is limited.

ART HIST 4B06 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 Art or Art History, Communication Studies or Multimedia
Cross-list: CMST 4F03
Enrolment is limited.

ART HIST 4X03 ESSENTIAL FACTS AND MUSEUMS
A study of the history and methods of institutions created for the purpose of collecting, preserving, displaying and interpreting art objects.
Seminar (two hours); one term
Prerequisite: Registration in Level III or IV of a programme in Art History
Offered in alternate years.
Enrolment is limited.

ARTS AND SCIENCE
WEB ADDRESS: http://www.mcmaster.ca/artsci
Commons Building, Room 105
Ext. 24655 or 23153

Faculty as of January 15, 2003

Director
Gary A. Warner

Council of instructors
Sylvie Bowerbank (English and Arts & Science) B.A. (McMaster), B.Ed. (Toronto); M.A. (Simon Fraser), Ph.D. (McMaster); John D. Browning (Modern Languages and Linguistics) B.A., M. Phil. (London), Ph.D. (Essex); Nilbaldo H. Galleguillos (Political Science) B.A. (Chile), M.A., Ph.D. (Toronto);
Kathleen Garay (History/Librarian) B.A. (East Anglia), M.A., (Toronto), Ph.D. (McMaster); Phyllis Granoff (Religious Studies) B.A. (Radcliffe College), Ph.D. (Harvard);
Josh Greenberg (Sociology) B.A. (Guelph), M.A. (McMaster); Louis I. Greenspan (Religious Studies) M.A. (Dalhouse), Ph.D. (Brandeis); Robert C. Hudspith (Mechanical Engineering) B.Eng., M.Eng. (McMaster), P.Eng.; Heelsh C. Jain (Business) B.Com. (Delhi), M.B.A. (India), Ph.D. (Wisconsin); Graeme M. Luke (Physics and Astronomy) B.Sc. (Queen's), Ph.D. (British Columbia);
Brian McHattie (Geography and Geology) B.S. (Waterloo), M.Sc. (Guelph);
Alan Mendelson (Religious Studies) A.B. (Kenyon College), M.A. (Bard College); Sara H. Mendelson (Arts & Science) B.A. (Chicago), D.Phil. (Oxford)
Darcy Otto (Philosophy) B.A. (Toronto), M.A. (McMaster); P.K. Rangachar (Medicine) M.B.B.S. (All India Institute of Medical Sciences, New Delhi), Ph.D. (Alberta);
Koichi Shinohera (Religious Studies) B.L., M.L. (Tokyo), Ph.D. (Columbia); Roman Viveros Aguilera (Mathematics and Statistics) B.A. (Universidad Veracruzana, Mexico), M.A. (National Polytechnic Inst., Mexico), Ph.D. (Waterloo);
Notes:
1. **Prerequisites:** The prerequisite for all Level I, II, III and IV Arts & Science courses is registration in the Arts and Science Programme.
2. **Limited Enrollment:** Enrolment in Level I of the Arts and Science Programme is limited to approximately 60 students.

Courses

**ARTS & SCI 1A06 WESTERN CIVILIZATION**
An examination of significant themes in Western social and intellectual history, including theories of historical change and the influence of class, race and gender on the evolution of social systems.

**ARTS & SCI 1B06 WRITING AND INFORMAL LOGIC**
The primary aim of this course is to develop the student’s critical and analytical skills in dealing with the written word. Students will examine the structure of selected texts, analyze various types of reasoning, and receive individual attention in expository writing.

**ARTS & SCI 1C06 INQUIRY**
This inquiry course, designed to develop skills basic to the systematic evidence-based investigation of public issues, focuses on issues relevant to Third World Development.

**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 multivariable calculus and differential equations.

**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, Tocqueville, 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 qualitative way. 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 TECHNOLOGY AND NATURE**
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 ethical 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 I**
The Culture of Technology. Current technological practices and approaches are studied as a cultural activity with its own beliefs, values, social structures and institutions.

**ARTS & SCI 3B04 TECHNOLOGY AND SOCIETY II**
The Social Control of Technology. The dominant mechanisms of the social control of technology will be studied. It includes an examination of assessment methods and the role of ethics.

**ARTS & SCI 3C06 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 with a residential field experience.

**ARTS & SCI 3C06 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 ethos.

**ARTS & SCI 3C66 INQUIRY TOPIC: MEDIA**
This course consists of four sections dealing with theoretical and analytical perspectives, political economy of the media, news media and entertainment media and their cultural effects.

**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 3EE3 EXPERIENTIAL LEARNING STUDY I**
Experiential study under the supervision of a McMaster faculty member, including a presentation at a final defence.

**ARTS & SCI 3L03 THE EAST ASIAN 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.

**ARTS & SCI 4A06 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 Programme office.

**ARTS & SCI 4A12 INDIVIDUAL STUDY**
The same as ARTS & SCI 4A06 but based on more extensive study.

**ARTS & SCI 4C12 THESIS**
This course consists of original research under the supervision of a McMaster faculty member. Proposal deadline is March 1; Information package is available in the Programme office.

**ARTS & SCI 4C16 THESIS**
The same as ARTS & SCI 4C06 but based on more extensive research.

**ARTS & SCI 4EE5 EXPERIENTIAL LEARNING STUDY II**
Experiential study under the supervision of a McMaster faculty member, including a presentation at a final defence.

**ASIAN STUDIES**
(SEE INTERDISCIPLINARY MINORS AND THEMATIC AREAS)

**ASTRONOMY**
(SEE PHYSICS AND ASTRONOMY)

**BIOCHEMISTRY**

WEB ADDRESS: [http://www.fhs.mcmaster.ca/biochem/](http://www.fhs.mcmaster.ca/biochem/)

Health Sciences Centre, Room 4N59
Ext. 22059

Faculty as of January 15, 2003

Chair
Gerard D. Wright

Professors
Vettai S. Ananthanarayanan/B.Sc., M.Sc., Ph.D. (Madras)
David W. Andrews/B.Sc. (Ottawa), Ph.D. (Toronto), Senior Canada Research Chair
John P. Capone/B.Sc. (Western Ontario), Ph.D. (McMaster)
Richard M. Epand/A.B. (Johns Hopkins), Ph.D. (Columbia)
Courses

If no prerequisite is listed, the course is open.

BIOCHEM 2B03  NUCLEIC ACID STRUCTURE AND FUNCTION
Fundamental concepts and experimental methods in studying both DNA and RNA. Nature of genetic information and its storage. Molecular basis of replication, transcription and translation.
Three lectures; second term
Prerequisite: BIOCHEM 2B03; and CHEM 2A03 or 2O3A; and registration in CHEM 2B03 or 2O3B; or credit in BIOLOGY 2C03
Antirequisite: BIOCHEM 2A06, 3B03, 3B05, 3G03

BIOCHEM 2B03  PROTEIN STRUCTURE AND ENZYME FUNCTION
Three lectures; first term
Prerequisite: BIOLOGY 1A03. CHEM 1A03
Co-requisite: CHEM 2B03 or 2B03A; and CHEM 2PA3 or 2R03
Antirequisite: BIOCHEM 2A06, 3B03, 3B05, 3G03

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: One of CHEM 2B06, 2B03, 2D03, 2E03, 2O3, 2O3A
Antirequisite: BIOCHEM 2A06, 2E03, 3D03

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; second term
Prerequisite: BIOCHEM 2A06 or 3D03; and registration in Honours Biochemistry (Molecular Biology Specialization) or Honours Physics (Biophysics Specialization)

BIOCHEM 3D03  METABOLISM AND REGULATION
Three lectures; first term
Prerequisite: BIOCHEM 2B03
Antirequisite: BIOCHEM 2A06, 2E03

BIOCHEM 3G03  BIOCHEMISTRY OF MACROMOLECULES
Chemical and conformational properties of proteins and their 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: CHEM 2A03 and 2O3B; or CHEM 2B03 and 2B03; or a grade of at least B+ in CHEM 2D03 or 2E03; or CHEM 2E03 and registration in a Chemical Engineering programme of Honours Physics (Biophysics Specialization)
Antirequisite: BIOCHEM 2A06, 2B03, 2B03, 2E03, 3B03, 3G03

BIOCHEM 3H03  CLINICAL BIOCHEMISTRY
An outline of clinical chemistry; Its relation to disease and relevance to health care.
Three lectures; second term
Prerequisite: BIOCHEM 2A06 or 3D03; or BIOCHEM 2E03 and 3G03; or a grade of at least C+ in BIOCHEM 2E03

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); second term
Prerequisite: BIOCHEM 2A06 or 2B03 and registration in Honours Biochemistry or Honours Molecular Biology; or BIOCHEM 2E03 and 3G03 and registration in Honours Biological Chemistry or Honours Chemistry (Biological Specialization); or registration in Honours Physics (Biophysics Specialization)

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; second term
Prerequisite: BIOCHEM 2A06 or 3D03; or BIOCHEM 2E03 and 3G03; or a grade of at least C+ in BIOCHEM 2E03

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 2A06 or 2B03 and registration in Honours Biochemistry or Honours Molecular Biology; or BIOCHEM 2E03 and 3G03 and registration in Honours Biological Chemistry or Honours Chemistry (Biological Specialization); or registration in Honours Physics (Biophysics Specialization)
Antirequisite: BIOCHEM 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 AND MOLECULAR BIOLOGY
An extended 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.
Two terms
Prerequisite: BIOCHEM 3P03 and registration in an Honours Biochemistry Specialization; or registration in Honours Physics (Biophysics Specialization). Permission of the Department is required. Application for permission must be received by March 3rd of the academic year prior to registration.
Antirequisite: BIOCHEM 3V03
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; second term
BIOCHEMISTRY

Prerequisite: Registration in Level IV of an Honours Biochemistry programme.
Antirequisite: HTH SCI 3H03, 4A06, 4B06
Not open to students registered in Honours Biochemistry (Specialist) or in an Honours Biochemistry Specialization.

BIOCHEM 4E03 RECOMBINANT DNA TECHNOLOGY AND GENE EXPRESSION
Recombinant DNA techniques; theory and applications to the study of gene function and evolution and to disease diagnostics and gene therapy. Current concepts of gene regulation at different levels.
Three lectures; first term
Prerequisite: One of BIOCHEM 2B03, 3B03, 3BT3; or BIOLOGY 3H03 and BIOCHEM 3G03; or a grade of at least B+ in BIOCHEM 3G03

BIOCHEM 4E13 ADVANCED TOPICS IN GENE EXPRESSION
A critical study of the literature from recent primary manuscripts on gene regulation and inter-related regulatory pathways. Emphasis is on the molecular and cellular biology of multiple pathways that interact to affect phenomena in biology and disease.
Three lectures; second term
Prerequisite: BIOCHEM 4E03

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.
Two terms
Prerequisite: BIOCHEM 3P03 and registration in an Honours Biochemistry Specialization. Permission of the department is required. Application for permission must be received by March 3rd of the academic year prior to registration. Students are expected to have a C.A. of at least 9.5. For further information, please refer to www.fhs.mcmaster.ca/biochem/Undergraduate.htm.
Antirequisite: BIOCHEM 4B06, 4BB6, 4G03, 4L03, 4LL3, 4P03, CHEM ENG 4LL3
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOCHEM 4G03 BIOENGINEERING LABORATORY
Recombinant DNA technology, including experiments on cloning, directed mutagenesis, DNA sequencing, expression of cloned genes and fermentation.
Two labs (four hours); second term
Prerequisite: BIOCHEM 3P03, 4E03; and credit or registration in BIOCHEM 4H03; and registration in an Honours Biochemistry programme.
Permission of the Department is required. Application for permission must be received by March 3rd of the academic year prior to registration. For further information, please refer to www.fhs.mcmaster.ca/biochem/Undergraduate.htm.
Antirequisite: BIOCHEM 4B06, 4BB6, 4G03, 4L03, 4LL3, CHEM ENG 4LL3
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOCHEM 4H03 BIOCHEMICAL IMMUNOLOGY
This advanced course applies small-group-based learning to immunological problems. Topics concern development of immunosassrets, resistance to infection and immunity in health and disease. One session (two hours), one tutorial; one term
Prerequisite: BIOLOGY 3X03 or HTH SCI 3I03; and one of BIOCHEM 3H03, 3BT3, 3D03, 3G03, BIOLOGY 3H03
Cross-list: HTH SCI 4J03, MOL BIOL 4J03

BIOCHEM 4K03 STRUCTURE AND FUNCTION OF MEMBRANES AND MACROMOLECULES
Three lectures; second term
Prerequisite: One of BIOCHEM 3BB3, 3BT3, 3D03, 3G03
Antirequisite: BIOCHEM 4I03, 4M03

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, 3BT3; or BIOCHEM 3L03 and one of BIOCHEM 2B03, 3B03, 3H03, and one of BIOCHEM 3BB3 or 3D03
Antirequisite: BIOCHEM 4B06, 4BB6, 4F08, 4G03, 4L03, CHEM ENG 4LL3, MOL BIOL 4R09

BIOCHEM 4L13 BIOTECHNOLOGY AND GENETIC ENGINEERING LABORATORY
Recombinant DNA technology including cloning, directed mutagenesis, DNA sequencing and expression of cloned genes. Reaction kinetics and reactor design for enzyme and fermentation reactions. Advanced separation methods for bioprocessing operations.
Two labs (four hours); second term
Prerequisite: Credit or registration in BIOCHEM 4H03; and either registration in Level II Honours Biochemistry (Biotechnology and Genetic Engineering Specialization), or BIOCHEM 3G03 and registration in a Chemical Engineering programme
Antirequisite: BIOCHEM 4B06, 4BB6, 4F09, 4G03, 4L03
Cross-list: CHEM ENG 4LL3
Not offered in 2005-2006

BIOCHEM 4P03 RESEARCH PROJECT IN BIOCHEMISTRY AND MOLECULAR BIOLOGY
A project supervised by a member or associate member of the Department of Biochemistry. Assessment is based on laboratory work and a final report.
May be taken first or second term
Prerequisite: BIOCHEM 3P03 or BIOLOGY 3V03; and one of BIOCHEM 3B03, 3BT3, 3D03, BIOLOGY 3H03; and registration in an Honours Biochemistry Specialization, Honours Molecular Biology or Honours Physics (Biophysics Specialization). Permission of the Department is required. Application for permission must be received by March 3rd of the academic year prior to registration. Students are expected to have a C.A. of at least 7.0. For further information, please refer to www.fhs.mcmaster.ca/biochem/Undergraduate.htm.
Antirequisite: BIOCHEM 4B06, 4F09, HTH SCI 3H03, 4A09, 4B06, MOL BIOL 4R09
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: One of BIOCHEM 3BB3, 3BT3, 3D03; or BIOCHEM 2EE3 and 3G03

BIOCHEM 4Y03 COMPUTATIONAL BIOLOGY
Theory and computational algorithms used in bioinformatics: sequence alignments; database searches; phylogenetic methods; hidden Markov models; neural networks; computational genomics; database design; information management.
Three lectures; second term
Prerequisite: One of BIOLOGY 4K03, MATH 2C03, 2P04

BIOLOGY
WEB ADDRESS: http://www.science.mcmaster.ca/biology/
Life Sciences Building, Room 118
Ext. 23049
Faculty of as of January 15, 2003

Chair
Turkough M. Finan

Associate Chairs
John N.A. Lott
Elizabeth A. Weretilnyk

Professors
Turkough M. Finan/B.Sc., M.Sc. (Dalhousie), Ph.D. (Guelph)
G. Brian Golding/B.Sc., Ph.D. (Alberta)/Senior Canada Research Chair
Delsworth G. Harnish/Pharmacology and Molecular Medicine) B.Sc., M.Sc. (Queen’s), Ph.D. (McMaster)
John A. Hassell/Biochemistry, Pathology and Molecular Medicine/BSc. (Brooklyn College), Ph.D. (Connecticut)
J. Roger Jacobs/BSc. (Calgary), MSc., Ph.D. (Toronto)
Jurek Kola/MSc., Ph.D., (Poznan)
John N.A. Lott/BSc. (British Columbia), MSc., Ph.D. (California-Davis)
Colin A. Nurse/BSc. (Western Ontario), Ph.D. (Harvard)
Michael J. O'Donnell/BSc., Ph.D. (Toronto)
Andrew J. Rainbow/BSc. (Manchester), MSc. (London), Ph.D. (McMaster)/Undergraduate Advisor
C. David Rollo/BSc., MSc. (Guelph), Ph.D. (British Columbia)
Rama S. Singh/BSc. (Agra), MSc. (Karunpur), Ph.D. (California-Davis)
George J. Sorgner/BSc. (McGill), MSc., Ph.D. (Yale)
Elizabeth A. Weretilnyk/BSc., Ph.D. (Alberta)
Christopher M. Wood/BSc., MSc. (British Columbia), Ph.D. (East Anglia)/Senior Canada Research Chair

Associate Professors
Andre Bedard/BSc. (Montreal), Ph.D. (McGill)
Ana Campos/B.A., M.A. (Rio de Janeiro), Ph.D. (Brasilia)
Patricia Chow-Fraser/BSc., MSc. (Waterloo), Ph.D. (Toronto)/Undergraduate Advisor
Susan A. Dudley/BSc., MSc. (McGill), Ph.D. (Chicago)/Undergraduate Advisor
James S. Quinn/BSc. (Queen's), MSc. (Brook), Ph.D. (Oklahoma)
Herbert E. Schellhorn/BSc., MSc. (Guelph), Ph.D. (North Carolina)

Adjunct Associate Professor
James S. Pring/e/Royal Botanical Gardens, A.B. (Dartmouth), M.S. (New Hampshire), Ph.D. (Tennessee)

Assistant Professors
Juliet M. Daniel/BSc. (Queen's), Ph.D. (British Columbia)
Ian M. Fearon/BSc., Ph.D. (Leeds)
Suleiman A. Igodour/BSc. (Victoria), MSc. (Western Ontario), Ph.D. (McGill)
Lovaye Kejura/BSc., MSc., Ph.D. (McMaster)
Ite M. O'Kelly/BSc. (Galway), Ph.D.(Leeds)
Jonathan Stone/BSc., MSc., Ph.D. (Toronto)
Jianping Xu/BSc. (Jianxi), MSc. (Nanjing and Toronto), Ph.D. (Toronto)
Xu-Dong Zhu/BSc. (Nanjing), MSc. (Regina), Ph.D. (Toronto)

Instructorial Assistants
Marvin Gunderman/BSc., MSc. (McMaster)
Thelma Leech/BSc., V.Sci. (Guelph), M.Sci.(T.) (McMaster)
Beryl Piccinin/BSc. (Mount Allison), MSc. (McMaster)
Raymond Procaw/BSc. (McMaster), B.Ed. (Toronto)

Note:
No more than six units of Level II, III, IV Biology may be taken in any given Fall/Winter session by students enrolled in a three year Baccalaureate degree programme. Detailed course descriptions are available on the program website at http://www.sci. mcmaster.ca/biology/undergraduate/courses.htm

Courses
If no prerequisite is listed, the course is open.

BIOLOGY 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: Biology U (or OAC Biology) and registration in one of Science I, Arts & Science I, Health Sciences I, Kinesiology I, Mathematics and Statistics I, Chemical Engineering and Bioengineering, any programme above Level II; or a grade of at least 80% in Biology U (or OAC Biology). Registration in or completion of CHEM 1A03, 1A04 is strongly recommended. CHEM 1A03, 1A04 are prerequisites for many Biology courses in Level II, III, and IV.
Corequisite: SCI2K03. Students registering in BIOLOGY 1A03 must also register in SCI2K03 when completing their registration. Antirequisite: BIOLOGY 1A06

Students in non-Science programmes should consider registering in BIOLOGY 1K03 and SCI2K03 which do not require laboratories.

BIOLOGY 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: Biology U (or OAC Biology) and registration in one of Science I, Arts & Science I, Health Sciences I, Kinesiology I, Mathematics and Statistics I, any programme above Level II; or a grade of at least 80% in Biology U (or OAC Biology). Registration in or completion of CHEM 1A03, 1A04 is strongly recommended. CHEM 1A03, 1A04 are prerequisites for many Biology courses in Level II, III, and IV.
Corequisite: SCI2K03. Students registering in BIOLOGY 1A03 must also register in SCI2K03 when completing their registration. Antirequisite: BIOLOGY 1A06

Students in non-Science programmes should consider registering in BIOLOGY 1K03 and SCI2K03 which do not require laboratories.

BIOLOGY 2F03 PLANT BIODIVERSITY
An introduction to plants emphasizing their diversity in structure, development, ecology, mechanisms of reproduction, adaptations for survival in different environment, and human uses.
Two lectures, one lab (three hours); one term
Prerequisite: BIOLOGY 1A03 (or 1A06), and BIOLOGY 1A03 or ENVIR SC 1B03

BIOLOGY 2K03 FUNDAMENTAL AND APPLIED ECOLOGY
An introduction to fundamental ecological principles and illustration of how these are applied to current environmental problems at the level of organisms, populations and ecosystems.
Two lectures, one optional tutorial, one mandatory lab (3 hours); one term
Prerequisite: BIOLOGY 1A03 (or 1A06)
BIOLOGY 2G03  INQUIRY II - CURRENT ISSUES IN BIODIVERSITY
An interactive course exposing students to current issues in the understanding, preservation and management of biodiversity and ecological integrity.
One lecture (two hours), one tutorial; one term
Prerequisites: BIOLOGY 2D03, 2F03; and registration in Level II or III of any programme in the Faculty of Science, Health Sciences or the Arts & Science programme

BIOLOGY 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 tutorial (three hours); one term
Prerequisites: Credit or registration in one of BIOLOGY 3P03, 3U03, 3UU3; and credit in one of BIOCHEM 2A06, 2BB3, 2EE3, 3A03, 3G03
Not open to students with registration in Honours Biology and Pharmacology.

BIOLOGY 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, 2D03

BIOLOGY 3BB3  ULTRASTRUCTURE, DEVELOPMENT AND FUNCTION OF PLANT CELLS
Cells and tissues will be studied. Students will take photomicrographs and electron micrographs.
Two lectures, one lab (three hours); one term
Prerequisite: BIOLOGY 2B03, 2D03


BIOLOGY 3E03  FUNDAMENTALS OF MICROBIOLOGY
Microbial structure-function relationships, taxonomy, antimicrobial agents and use of microorganisms in biotechnology.
Two lectures, one lab (three hours); one term
Prerequisite: BIOLOGY 2B03, 2C03; and one of CHEM 2BB3, 2D03, 2E03, 2OB3. BIOCHEM 2EE3 or equivalent is strongly recommended.

BIOLOGY 3F03  VERTEBRATE ANATOMY
An introduction to the development of structure and function in vertebrates.
Three lectures, one lab (three hours); one term
Prerequisite: BIOLOGY 2E03 or 2B03. BIOLOGY 2A03 is highly recommended.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of this Calendar.

BIOLOGY 3F03  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.

BIOLOGY 3G03  INQUIRY II - CURRENT RESEARCH IN BIODIVERSITY
An interactive course highlighting current research programmes in the general area of biodiversity within the Biology Department. Preparation for BIOLOGY 4C09 and 4F06 project on a biodiversity topic.
One lecture (two hours), one tutorial; one term
Prerequisite: BIOLOGY 3G03. Restricted to students registered in Level III Honours Biology (Biodiversity Specialization).

BIOLOGY 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 3H33  ORGANIZATION OF THE CYTOPLASM
A detailed examination of the molecular organization and function of cytoskeletal structures in metazoa, 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, recombinat and chromosome structure, sex determination.
Three lectures, one lab (three hours); one term
Prerequisite: BIOLOGY 2B03, 2O03

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
Prerequisites: BIOLOGY 2E03 or 2B03. BIOLOGY 2A03 is highly recommended.
Antirequisite: HTHSCI 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, 2O03
Antirequisite: BIOLOGY 3N03

BIOLOGY 3MM3  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 2A03 or 2E03

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 and gene regulation.
Two lectures, one tutorial; one term
Prerequisite: BIOLOGY 2A03 or 2B03. BIOLOGY 3O03 is strongly recommended.

BIOLOGY 3P03  CELL PHYSIOLOGY
Analysis of cell function with an emphasis on electrical properties, ion transport proteins, signalling via second messengers, mechanisms of cell homeostasis, and epithelial transport.
Two lectures, one tutorial; one term
Prerequisite: BIOLOGY 2A03 or 2B03. BIOLOGY 3P03 is strongly recommended.

BIOLOGY 3R03  FIELD BIOLOGY!
Field work plus written assignments chosen from an assortment of modules offered by McMaster and other Ontario Universities' Biology Departments. Available modules are posted in December 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, 1A03 (or 1A06) or one of ENVIR SC 1A03, 1B03 or 1G03; and permission of the Course Administrator. Information on Field Biology, please refer to the Biology website at http://www.science.mcmaster.ca/biology/undergraduate/courses.html and contact the Course Administrator.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOLOGY 3SS3  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

BIOLOGY 3TT3  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 2B03 and STATS 1C03 are recommended.
BIOL 3U03 ANIMAL PHYSIOLOGY - HOMEOSTASIS
Respiration, circulation, acid-base balance and renal function.
Two lectures, one lab/tutorial (three hours); one term
Prerequisite: BIOL 2A03. BIOLCHEM 2EE3 and 3G03 are recommended.
Antirequisite: ENGR 4X03, HTH SCI 1D06, 2F03, 2FF3, 2L03, 2L3
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOL 3U03 ANIMAL PHYSIOLOGY - CONTROL SYSTEMS
Nervous function, endocrinology, muscle function, metabolism and gastro-intestinal physiology.
Two lectures, one lab/tutorial (three hours); one term
Prerequisite: BIOL 2A03. BIOLCHEM 2EE3 and 3G03 are recommended.
Antirequisite: ENGR 4X03, HTH SCI 1D06, 2F03, 2FF3, 2L03, 2L3
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOL 3V03 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 BIOL 3G03 and registration in Level III or IV of any Honours Biology or Molecular Biology programme; or permission of the instructor
Antirequisite: BIOLCHEM 3P03

BIOL 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: BIOL 2B03, 2C03, 2D03. BIOL 3BB3 is recommended.
Antirequisite: BIOL 4H03

BIOL 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 BIOL 3J03, 3SS3 or 3TT3

BIOL 4A03 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: BIOL 2C03; and one of BIOL 3J03, 3SS3 or 3TT3

BIOL 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: One of BIOLCHEM 2A06, 2B03 or 3G03. BIOLCHEM 3B03 and 3H03 are recommended.
Offered in alternate years.

BIOL 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 Honours Biology programme and permission of the Course Administrator, Life Sciences Building, Room 118.
Students are expected to have a C.A. of at least 8.5. Arrangements to take BIOL 4C09, including agreement of the supervisory committee, should be made according to Departmental Guidelines before the end of March in Level III. For information on Departmental Guidelines, please refer to the Biology website at http://www.science.mcmaster.ca/biology/undergraduate/courses.htm and click on BIOL 4F06, or contact the Course Administrator.
Antirequisite: BIOL 4C09, 4GG9, HTH SCI 3H03, 4A09, 4B08, MOL BIOL 4R09, PHARMAC 4F09

BIOL 4D01 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: BIOL 2A03, 2C03, 3SS3
Offered in alternate years.

BIOL 4D03 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: BIOL 3J03
Offered in alternate years.

BIOL 4E03 HUMAN DIVERSITY AND HUMAN NATURE
The nature of genetic diversity in humans; the nature versus nurture debate in relation to genetic determinism and biological basis of behaviour.
Three lectures and one tutorial; one term
Prerequisite: BIOL 2C03 and one of ANTHROP 2E03, BIOL 3FF3, 3J03

BIOL 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 Level IV of any Honours Biology programme and permission of the Course Administrator, Life Sciences Building, Room 118.
Students are expected to have a C.A. of at least 8.5. Arrangements to take BIOL 4F06, including the agreement of the supervisory committee, should be made according to Departmental Guidelines before the end of March in Level III. For information on Departmental Guidelines, please refer to the Biology website at http://www.science.mcmaster.ca/biology/undergraduate/courses.htm and click on BIOL 4F06, or contact the Course Administrator.
Antirequisite: BIOL 4C09, 4GG9, HTH SCI 3H03, 4A09, 4B08, MOL BIOL 4R09, PHARMAC 4F09
Not open to students with credit or registration in courses in the Science Inquiry Course List in the Faculty of Science section of the Calendar. Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOL 4FF3 INQUIRY IN BIOLOGY
This course provides an opportunity to explore a specialized area of Biology in a small group setting. Module(s) available in Terms 1 and 2. Lectures, seminars and discussions (three hours); one term
Prerequisite: Registration in Level IV Honours Biology (Core or Complementary Studies Option). BIOL 4FF3 may not be repeated for information regarding module offerings, please refer to the Biology website at http://www.science.mcmaster.ca/biology/undergraduate/courses.htm and click on BIOL 4FF3, or contact the Course Administrator, Life Sciences Building, Room 118.
Antirequisite: BIOL 4C09, 4FF6, 4GG9, HTH SCI 3H03, 4A09, 4B08, MOL BIOL 4R09, PHARMAC 4F09
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

BIOL 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 BIOL 3F03 or 3K05, (or co-registration in BIOL 3F03 or 3K03); and permission of the instructor.
Application for permission must be received by the Course Administrator, Life Sciences Building, Room 118, by March 31st of the academic year prior to registration. These are minimum requirements, and final selection will be based on academic merit.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar. Offered in alternate years.

BIOL 4GG9 SENIOR GENETICS CO-OP THESIS
A thesis based upon a research project in an area of genetics carried out under the direction of a member of the Faculty.
Prerequisite: Registration in Level IV of the Honours Biology Genetics Specialization Co-Op programme and permission of the Course Administrator, Life Sciences Building, Room 118. Arrangements to take BIOL 4GG9, including the agreement of the supervisory committee, should be made according to Departmental Guidelines before the end of March in Level III. For information on Departmental Guidelines, please refer to the Biology website at http://www.science.mcmaster.ca/biology/undergraduate/courses.htm and click on BIOL 4GG9.
Antirequisite: BIOLOGY 4C09, 4F06, 4FF3, HTH SCI 3H03, 4A09, 4B06, MOI BIOL 4R09, PHARMAC 4F09

Not open to students with credit or registration in courses in the Science Inquiry Course List in the Faculty of Science section of the Calendar. Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

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 complete for credit in BIOLOGY 3R03. Available modules are posted in December 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 3X03 or 1A03 (or 1A09) or one of ENVIR SCI 1A03, 1B03 or 1G03; and permission of the Course Administrator, Life Sciences Building, Room 118. Some modules have additional prerequisites. For information on Field Biology, please refer to the Biology website at http://www.science.mcmaster.ca/biology/undergraduate/courses.html and click on BIOLOGY 4J03, or contact the Course Administrator.

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. 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 this Calendar.

BIOLOGY 4P03 MEDICAL MICROBIOLOGY


Two lectures, one tutorial; one term
Prerequisite: BIOLOGY 3E03. Credit or registration in BIOLOGY 3003 is strongly recommended.

Offered in alternate years.

BIOLOGY 4P03 MICROBIAL DIVERSITY AND ENVIRONMENTAL BIOTECHNOLOGY

Study of interaction of microorganisms with their environment with emphasis on topics of ecological significance including plant-microbe interactions, nutrient cycling and waste treatment.

Two lectures, one tutorial; one term
Prerequisite: BIOLOGY 3E03. Credit or registration in BIOLOGY 3003 is strongly recommended.

Offered in alternate years.

BIOLOGY 4R03 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, 3103

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, 3HH3, 3UU3, PSYCH 2F03, 3FA3 are also recommended.

Cross-list: HTH SCI 4R03

Offered in alternate years.

This course is administered by the Department of Biology.

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: One of BIOLOGY 2B03 or 2C03, and one of BIOLOGY 3L03, MED PHYS 3T03, PHYSICS 3T03; or registration in Year 4 of Medical and Health Physics Co-op; or permission of the instructor.

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: One of BIOCHEM 3C03, BIOLOGY 3H03, 3HH3 or permission of the instructor.

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, 3F03, 3U03, 3U13

Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

Offered in alternate years.

BIOLOGY 4X3 WORKSHOP IN MOLECULAR GENETICS

An intensive two week laboratory/lecture course. Topics covered will include scientific reasoning, ethics, technology transfer, molecular genetics techniques, techniques used in cell culture and gene expression studies.

Note: Course will consist of two weeks of laboratory instruction, seminars and workshops. To be held the first two weeks of May.

Prerequisite: BIOLOGY 3EO3; and registration in an Honours Biology program; and permission of the instructor. Application for permission must be received by March 31st 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 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; and BIOLOGY 2D03 or 2E03; and BIOLOGY 3S33 or 3T3

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; one term
Prerequisite: BIOLOGY 2B03 or HTH SCI 2K03

Antirequisite: BIOLOGY 3X03

HTH SCI 4I3 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; one term
Prerequisite: BIOLOGY 3X03 or HTH SCI 3I03

Antirequisite: BIOLOGY 4I3

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, 1B33 or permission of the instructor

Antirequisite: BIOLOGY 3L03, PHYSICS 3T03

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 15, 2003

Chair
A. N. Hrymak

University Professor

Professors
James M. Dickson/ B.A.Sc., M.A.Sc. (Waterloo), Ph.D. (Virginia Tech.),
John F. MacGregor/ B.Eng. (McMaster), M.Sc., Ph.D. (Wisconsin),
Thomas E. Martin/ B.S. (UNLV), M.S. (Dayton), Ph.D. (Massachusetts)
Robert H. Pelton/ B.Sc., M.Sc. (Guelph), Ph.D. (Bristol)
Paul A. Taylor/ B.Sc., Ph.D. (Univ. of Wales), P.Eng.
John Vlachopoulos/ Dipl. Ch. Eng. (Nat. Tech. Univ. of Athens), M.S.,
D.Sc. (Washington, St. Louis), F.C.I.C., P.Eng.
Philip E. Wood/ B.A.Sc. (Waterloo), Ph.D. (California Inst. Tech.), F.C.I.C.,
P.Eng.

Adjunct Professor

Associate Professor
Christopher L. E. Swartz/ B.Sc.Eng. (Cape Town), Ph.D. (Wisconsin)

Adjunct Associate Professor
Theodora Kount/ Dipl. Eng. (Chemical) (Aristotle), Ph.D. (McMaster)

Assistant Professors
Lisa Crossley/ B.Sc. (McGill), B.Sc.E., Ph.D. (Queen's)
Carlos Filipe/ B.S. (Universidade Catolica Portuguesa), Ph.D. (Clemson)
Raja Ghosh/ B.S., M.S. (Jayapura), D.Phil. (Oxford)
Yudi Samyudia/ B.Eng. (Institute of Technology, Bandung), Ph.D. (Queensland)
Heather Sheardown/ B.Eng. (McMaster), Ph.D. (Toronto), P.Eng.
Michael Thompson/ B.Sc., B.Eng., M.Eng. (McMaster), Ph.D. (Waterloo)

Adjunct Assistant Professors
Leopold K. (Kris) Kostanski/ M.Eng., Ph. D. (Technical University of Szczeni)
Shannon L. Quinn/ B.Sc., B.A.Sc. (Ottawa), Ph.D. (Queen's)

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
Prerequisite: Registration in a Chemical Engineering or Materials Engi-
neering programme
Corequisite: One of CHEM ENG 2B03, 2F04, MATLS 2B06, 2003

CHEM ENG 2B03 INTRODUCTION TO BIOPROCESS ENGINEERING
Unit operations approach; material and energy balances; survey of mo-
momentum, heat and mass transfer; basics of chemical process design.
Two lectures (one hour each), one tutorial (two hours); first term
Prerequisite: Registration in Level II Honours Biochemistry (Biotechnol-
ogy and Genetic Engineering Specialization); or Level II Civil Engineering
(Water/Environmental Engineering Stream)
Not open to students registered in a Chemical Engineering programme

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 of any Chemical Engineering pro-
gramme

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: Registration or credit in CHEM ENG 2004

CHEM ENG 2G03 PROBLEM SOLVING AND TECHNICAL COMMUNICATION
Developing awareness, strategies, creativity, analysis and interpersonal
skills in the context of solving homework problems and preparing technical
communications. Interpretation, retrieval manipulation and communi-
cation of information.
One lecture (two hours), one tutorial; first term
Antirequisite: CHEM ENG 2Z02, 2G02

CHEM ENG 3B04 CELL BIOLOGY AND MICROBIOLOGY
Introduction to cell structure and function, including transport and physi-
cal signals, adaptation of structure and function. Use of micro organ-
isms in biotechnology. Biology of the prokaryotic cell.
Three lectures, one lab (three hours); second term

CHEM ENG 3B03 BIO-REACTION ENGINEERING
Kinetics of cellular processes, microbial processes and enzyme reac-
tions including those of immobilized cells and enzymes. Cell culturing.
Bioreactor design. Bioprocess development including downstream
processing.
Prerequisite: Registration in Level IV of any Chemical Engineering pro-
gramme; or CHEM ENG 2G03; or permission of the Department
Not offered in 2003-2004

CHEM ENG 3M03 BIOSEPARATIONS ENGINEERING
Introduction to bioseparations engineering: cell disintegration, precipi-
tation based separation processes, extraction, adsorption, chromatogra-
phy, centrifugal separations, filtration, reverse osmosis and nanofiltration,
dialysis, liquid membrane based separation processes, electrophoresis.
Prerequisite: Registration in Level IV or a Chemical Engineering Programme;
or CHEM ENG 2B03; or permission of the Department
Not offered in 2003-2004

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-ideal-
ity.
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 mode equa-
tions, 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 3G04 SIMULATION, MODELLING AND PROBLEM SOLVING
Chemical process simulation including models for heat exchangers, sepa-
rators and reactors. Group skills, decision-making and self-directed, prob-
lem-based learning.
Three lectures; one tutorial (two hours); second term
Prerequisite: CHEM ENG 2G02 or 2G03; 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: MATH 2M06 and registration or credit in CHEM ENG 2F04 and
3D03; or a grade of at least 5 in CHEM ENG 2B03 and permission of the Department
CHEM ENG 3L02  INTERMEDIATE LABORATORY SKILLS
Experiments and projects in heat transfer, thermodynamics, mass trans­
fer and fluid mechanics with appropriate data analysis and report writing.
One lecture, one lab (three hours); second term
Prerequisite: CHEM ENG 3D03, 3M04, 3O04 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 2P04

CHEM ENG 3Q03  FLUID MECHANICS
The laws of statics and dynamics in both compressible and incompressible
fluids. Equations of conservation and modern turbulence and bound­
ary-layer theory applied to submerged and conduit flow. Similitude, un­
steady flow, measuring devices and fluid machinery.
Three lectures, one tutorial (three hours); first term
Prerequisite: MATH 2M06 or both MATH 2P04 and 2Q04, (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 au­
tomatic control. Introduction to computer process control.
Two lectures; one tutorial (two hours); second term
Prerequisite: MATH 2M06 and registration or credit in CHEM ENG 2A04,
3E04, 3G03, 3K04, 3O04

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 introduc­
tion to polymer characterization.
Three lectures; second term
Prerequisite: One of CHEM 2D06, 2D03, 2E03, 2O06, 2W02, 2W04

CHEM ENG 4B03  POLYMER REACTION ENGINEERING
Kinetics of polymerization: step-growth and chain-growth (free radical,
anionic, anionic coordination and cationic). Polymerization processes:
solution, suspension, emulsion, gas-phase, slurry and reactive processing.
Principles of polymer process and reactor design, optimization and
control.
Three lectures; first term
Prerequisite: CHEM ENG 3K04, 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 opti­
mal designs. Special emphasis on methods appropriate to engineering
problems.
Three lectures; one term
Prerequisite: One of COMMERCE 2Q03, STATS 3N03 or 3Y03

CHEM ENG 4E03  DIGITAL COMPUTER PROCESS CONTROL
This course addresses key aspects of implementing control via discrete
calculations using digital computers. Topics include discrete-time dy­
namic models, system identification, analysis of discrete-time systems,
design of digital control systems and model predictive control.
Three lectures; first term
Prerequisite: CHEM ENG 3E04, 3G03, 3K04, 3M04, 3P03

CHEM ENG 4G03  OPTIMIZATION IN CHEMICAL ENGINEERING
The application on optimization methods to important engineering prob­
lems in equipment design and operation, statistics, control, engineering
economics and scheduling. The course will emphasize problem defini­
tion, model formulation and solution analysis, with sufficient details on
existing algorithms and software to solve problems.
Two lectures, one tutorial (two hours); second term
Prerequisite: CHEM ENG 3E04, 3G03, 3M04, 3O04, 3P03
Corequisite: CHEM ENG 4N04

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, re­
actor 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 of any Chemi­
cal Engineering programme

CHEM ENG 4L13  BIO LABORATORIES
Introduction to recombinant DNA technology including cloning, directed
mutagenesis, DNA sequencing and expression of cloned genes. Reac­
tion kinetics and reactor design for enzyme and fermentation reactions.
Advanced separation methods for bioprocessing operations.
Prerequisite: BIOCHEM 4D03; and either BIOCHEM 3P03 and registration
in Honours Biochemistry (Biotechnology and Genetic Engineering Spe­
cialization), or registration in a Chemical Engineering programme
Antirequisite: BIOCHEM 4B06, 4BB6, 4F09, 4G03, 4L03
Cross-list: BIOCHEM 4L13

CHEM ENG 4M03  SEPARATIONS
Overview of separation processes, liquid-liquid extraction, supercritical
fluid extraction, adsorption, chromatography, filtration, membrane sepa­
ration processes, introduction to bioseparations.
Three lectures; first term
Prerequisite: CHEM ENG 2A04, 3C04, 3M04

CHEM ENG 4N04  ENGINEERING ECONOMICS
AND PROBLEM SOLVING
Making decisions about the design and operation of engineering sys­
tems, with the analysis emphasizing safety, economics, equipment per­
f ormance, uncertainty, flexibility and monitoring, including trouble shoot­
ing. Students will work individually and in groups on problem-based
projects.
Three lectures; one tutorial (two hours); first term
Prerequisite: CHEM ENG 3D03, 3G03, 3K04, 3M04, 3O03
Antirequisite: ENGR 2E03 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 oxy­
genation, artificial kidney systems, controlled drug release, biosensors
and biomaterials.
Three lectures; second term
Prerequisite: One of CHEM ENG 3D04, ENG PHYS 3C03 or MECH ENG
3D04

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 or Level V Chemical Engineering and Bioengineering

CHEM ENG 4X03  POLYMER PROCESSING
An introduction to the basic principles of polymer processing, stressing
the development of models. Rheology of polymers, extrusion, molding,
fibres, fibers, and mixing. Reactive processing.
Three lectures; one term
Prerequisite: One of CHEM ENG 2A04, MATLS 3E04 or MECH ENG 3P03;
and CHEM ENG 3O04 or MECH ENG 3O04

CHEM ENG 4Y04  SENIOR INDEPENDENT PROJECT
A research and design project with students working independently
under the direction of a Faculty member.
Two labs (three hours); both terms. The hours assigned can be freely
scheduled to suit those involved in a particular project and may include
compilation classes, laboratory work, discussions, or individual study.
Prerequisite: Registration in Level IV Chemical Engineering or Level V
Chemical Engineering and Management or Level V Chemical Engineering
and Society or Level V Chemical Engineering and Bioengineering; and a
CA of at least 95

CHEM ENG 4Z03  INTERFACIAL ENGINEERING
The physics and chemistry at the "nano" scale including interactions
forces, colloids, surface active systems, wetting, adhesion, and
flocculation.
Three lectures; second term
Prerequisite: Registration in final level of any Engineering programme
Faculty as of January 15, 2003

Chair
W.J. Leigh

Associate Chair
J. Barbier

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)
Peter T. Dawson/B.Sc. (Birmingham), Ph.D. (Cambridge)
John E. Gready/B.A. (Bucknell), Ph.D. (Tufts), F.C.I.C.
Acum H. Hitchcock/B.Sc. (McMaster), Ph.D. (British Columbia), F.C.I.C., (McGill Canada Research Chair)
William J. Leigh/B.Sc., M.Sc., Ph.D. (Western Ontario), F.C.I.C.
Brian E. McCarr/B.Sc. (British Columbia), Ph.D. (Stanford), F.C.I.C.,
Stephen A. Jarlowsky Chair in Environment and Health
Gary J. Schrobilgen/B.Sc. (Loras College, Iowa), M.Sc. (Brock), Ph.D. (McMaster), F.R.S.C.
Harald D.H. Störmer/B.Sc. (Darmstadt), Ph.D. (Ottawa), NSERC/3M Industrial Research Chair in Polymers for Advanced Materials
Johan K. Terlouw/B.Sc., M.Sc., Ph.D. (Utrecht)
Nick H. Westruik/B.Sc. (Alberta), M.A., Ph.D. (Johns Hopkins), F.C.I.C.

Adjunct Professor
Christopher R. Paige/B.Sc. (London), M.Sc. (Brock), Ph.D. (McMaster)

Associate Professors
John D. Brannan/B.Sc., M.Sc., Ph.D. (Toronto), Canada Research Chair
Randall S. Dumont/B.Sc. (Western Ontario), Ph.D. (Toronto)
Paul H.M. Harrison/B.A. (Oxford), Ph.D. (Alberta)

Assistant Professors
Alex Adronov/B.Sc. (McMaster), Ph.D. (California-Berkeley)
Paul W. Ayers/B.S. (David Lipscomb), Ph.D. (North Carolina-Chapel Hill), Canadian Research Chair
Paul J. Berti/B.Sc. (Waterloo), M.Sc. (Ottawa), Ph.D. (McGill)
James F. Britten/B.Sc. (St. Francis Xavier), Ph.D. (McMaster)
Gillian R. Goward/B.Sc. (McMaster), Ph.D. (Waterloo)
Donald W. Hughes/B.Sc., Ph.D. (McMaster)
Peter Kruse/Dipl. Chem. (FSU-Jena), Ph.D. (California-San Diego)
Yinfu Li/B.Sc., (Anhui U., China), M.Sc. (Beijing Agr. U.), Ph.D. (Simon Fraser), Canada Research Chair
Philippa Lock/B.Sc., Ph.D. (McMaster)
Barbara Russer/M.Sc. (Jagiellonian, Cracow), Ph.D. (Cracow)
John F. Valliant/B.Sc., Ph.D. (McMaster)
Ignacio Vargas-Baca/B.Sc., M.Sc. (UNAM), Ph.D. (Calgary)/Undergraduate Advisor

Associate Members
Raman Chirilal/(Radiology) B.Sc. (Kerala, India), M.Sc. (Brock), Ph.D. (McMaster)
Richard M. Epand/(Biochemistry) AB (Johns Hopkins), Ph.D. (Columbia)
Robert H. Petroll/(Chemical Engineering) M.Sc. (Guelph), Ph.D. (Bristol)
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)

Courses

If no prerequisite is listed, the course is open.

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: Chemistry U (or OAC Chemistry) and either registration in one of Science I, Engineering I, Arts & Science I, Health Science I, Kinesiology I, Mathematics and Statistics I, any programme above Level I; or a grade of at least 80% in Chemistry U (or OAC Chemistry); or CHEM 1R03
Corequisite: SCIENCE 1A00. Students registering in CHEM 1A03 must also register in SCIENCE 1A00 when completing their registration.
Antirequisite: CHEM 1E03

CHEM 1A3A
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

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

CHEM 1R03
GENERAL CHEMISTRY
A general introduction to chemistry, suitable for students without Chemistry U (or OAC Chemistry).
Three lectures; first term
Prerequisite: OSS Grade 11 Chemistry (or OSIISS Grade 12 Chemistry Advanced)

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: Registration in a Chemical Engineering programme; or credit or registration in CHEM 2B03 or 2R03
Antirequisite: CHEM 2N03

CHEM 2B03
ORGANIC CHEMISTRY B
Three lectures, one lab (three hours) every week; second term
Prerequisite: CHEM 2B03 (or registration in CHEM 1A03, honour's programme) with a grade of C+ in CHEM 1A03, an Honours Chemistry programme, B.Sc. Physical Science or the Honours Science (Stream D) programme
Antirequisite: CHEM 2E03, 2O0A3, 2W2W

CHEM 2B03
ORGANIC CHEMISTRY B
Three lectures, one lab (three hours) every week; second term
Prerequisite: Chemical Engineering, Chemistry, or permission of the instructor
Antirequisite: CHEM 2W2W, 2W4W

CHEM 2E03
INTRODUCTORY ORGANIC CHEMISTRY
An introduction to the chemistry of monofunctional aliphatic and aromatic compounds.
Three lectures; first term
Prerequisite: CHEM 1A03
Antirequisite: CHEM 2B03

CHEM 2O0A3
NOT A PREREQUISITE FOR FURTHER COURSES IN ORGANIC CHEMISTRY

CHEM 2W2W
STRUCTURE AND REACTIONS OF THE MAIN GROUP ELEMENTS
Comparative chemistry of the non-transition elements; introduction to symmetry.
Three lectures, one lab (three hours) every week; second term
Prerequisite: Registration in a Biochemistry, Chemistry, Honours Materials Science, Honours Science (Stream D) or B.Sc. Physical Science programme; or permission of the instructor
Antirequisite: CHEM 2W2W, 2W4W
CHEM 2N03  ANALYTICAL CHEMISTRY
An introduction to the basic principles of analytical chemistry with application to selected classical and instrumental methods of analysis.
Two lectures, one lab (three hours); second term
Prerequisite: Registration in an Honours Biochemistry programme; or credit or registration in either CHEM 2R03 or both CHEM 2P03 and 2PB3; or permission of the instructor
Antirequisite: CHEM 2A03

CHEM 2A03  ORGANIC CHEMISTRY I
An introduction to organic chemistry with emphasis on the reactions of functional groups and an introduction to spectroscopic techniques for structure determination.
Three lectures, one lab (three hours) every other week; first term
Prerequisite: CHEM 1AA3 with a grade of at least C-; or registration in Honours Biochemistry, Honours Biology and Psychology or Honours Molecular Biology
Antirequisite: CHEM 2B03, 2E03, 2W04
Students who receive special permission to register in this course after completing CHEM 2E03 will not retain credit for CHEM 2E03 on completion of this course.

CHEM 2B03  ORGANIC CHEMISTRY II
Nucleophilic substitutions at carbonyl centres, aromatic chemistry, carbohydrate, applications of spectroscopic techniques in organic chemistry.
Three lectures, one lab (three hours) every other week; one tutorial (two hours) every other week; second term
Prerequisite: CHEM 2A03
Antirequisite: CHEM 2BB3

CHEM 2PA3  THERMODYNAMICS AND PHASE EQUILIBRIA
An introduction to macroscopic and microscopic aspects of thermodynamics and their application to physical transformations.
Three lectures, one lab (three hours) or tutorial; first term
Prerequisite: CHEM 1AA3, MATH 1AA3
Antirequisite: CHEM 2P03, PHYSICS 2H04

CHEM 2PB3  CHEMICAL THERMODYNAMICS AND KINETICS
Thermodynamics of equilibrium chemical and electrochemical systems, and macroscopic and microscopic aspects of kinetics.
Three lectures, one lab (three hours) or tutorial; second term
Prerequisite: CHEM 2PA3
Antirequisite: CHEM 2R03

CHEM 2R03  GENERAL PHYSICAL CHEMISTRY
Physical chemistry as applied to life and environmental sciences. Topics include thermodynamics, chemical equilibria, physical equilibria, transport phenomena, kinetics and enzyme kinetics.
Three lectures; first term
Prerequisite: CHEM 1AA3; and ARTS/SCI 1D06 or MATH 1A03
Antirequisite: CHEM 2PA3, 2PB3, PHYSICS 2H04

CHEM 2W02  INTRODUCTORY INORGANIC CHEMISTRY
An introduction to inorganic chemistry. Emphasis on bonding and structure in inorganic compounds of representative main group and transition elements.
Two lectures; second term
Prerequisite: CHEM 1E03 and registration in a Ceramic, Chemical, Materials or Metallurgical Engineering programme
Antirequisite: CHEM 2W03, 2W04, 3Q03

CHEM 3A03  ANALYTICAL CHEMISTRY II
An introduction to modern instrumental methods of analysis.
Two lectures, one lab (three hours); first term
Prerequisite: CHEM 2A03 or 2N03; and CHEM 2PA3 or 2R03
Antirequisite: ENVIRO SCI 3A03

CHEM 3B03  QUANTUM MECHANICS AND SPECTROSCOPY I
An introduction to quantum chemistry, group theory and symmetry, and vibrational and rotational spectroscopy.
Three lectures, one tutorial; first term
Prerequisite: CHEM 2PA3 or a grade of at least B in CHEM 2R03
Antirequisite: CHEM 3803

CHEM 3BB3  QUANTUM MECHANICS AND SPECTROSCOPY II
An introduction to the electronic structure and spectroscopy of atoms and molecules.
Three lectures; second term
Prerequisite: CHEM 3BA3; and MATH 2A03 or 2P04
Antirequisite: CHEM 3803

CHEM 3D03  ORGANIC CHEMISTRY
A mechanistically oriented discussion of mono- and polyfunctional organic compounds with emphasis on applications to synthesis.
Three lectures, one lab (three hours); second term
Prerequisite: CHEM 2BB3 or 2O03
Antirequisite: CHEM 3F03

CHEM 3F03  BIO-ORGANIC CHEMISTRY
Topics in bio-organic chemistry; a sequel to CHEM 2BB3.
Three lectures, one lab (three hours); second term
Prerequisite: One of CHEM 2BB3 or 2O03, and registration in an Honours Biochemistry programme or Honours Arts & Science and Biochemistry; or permission of the instructor
Antirequisite: CHEM 3D03

CHEM 3G03  INDUSTRIAL CHEMISTRY
A survey of processes in the chemical industry, with examples drawn from inorganic, organic and polymer chemistry.
Three lectures; one term
Prerequisite: CHEM 2I03 and one of CHEM 2BB3, 2E03, 2O03; or registration in Level III or IV of a Chemical Engineering programme

CHEM 3L03  CHEMISTRY LABORATORY INQUIRY
An experimental chemistry laboratory. Experiments will be selected based on the student's Chemistry Specialization.
One lab (three hours); second term
Prerequisite: CHEM 2A03, 2B03, 2I03, 2P03 and registration in a Level III Honours Chemistry programme
Antirequisite: CHEM 4A03

CHEM 3P03  TRANSITION METAL CHEMISTRY
The chemistry of the heavier transition elements. An introduction to organometallic chemistry and bio-inorganic chemistry.
Three lectures, one lab (three hours); second term
Prerequisite: CHEM 3Q03

CHEM 3Q03  INORGANIC CHEMISTRY
The properties, structures and reactions of inorganic compounds with emphasis on transition metal chemistry.
Three lectures, one lab (three hours); first term
Prerequisite: CHEM 2I03

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 2PB3 and registration in CHEM 2B03

CHEM 4A02*  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 electronic excited 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 3B03

CHEM 4C03*  SOLID STATE CHEMISTRY
Structure and properties of crystalline solids. Topics include crystal chemistry and crystal symmetry, introduction to space groups, defects in ionic crystals, non-stoichiometry, electronic structure and properties of semiconductors and metals.
Two lectures; one term
Prerequisite: CHEM 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 4E03*  MECHANISTIC BIOLOGICAL CHEMISTRY
Amino acid, nucleic acid, enzyme and coenzyme chemistry with emphasis on molecular reaction mechanisms.
Two lectures; one term
Prerequisite: CHEM 3D03 or 3F03
CHEM 4F03*  SURFACE CHEMISTRY
Current topics in surface science; surface characterization, adsorption and heterogeneous catalysis.
Two lectures; one term
Prerequisite: CHEM 2PBS

CHEM 4G06  SENIOR THESIS
A thesis based on a project under the direction of a Chemistry Department faculty member.
Prerequisite: Registration in Level IV of any Honours Chemistry programme and a C.A. of 6.0; or permission of the Department. Application must be received by March 31st 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.

CHEM 4P03*  ADVANCED ANALYTICAL CHEMISTRY
A course dealing with modern topics in analytical chemistry.
Two lectures; one term
Prerequisite: CHEM 2N03 or 3A03; and CHEM 2P03 or 2R03

CHEM 4P03*  POLYMER CHEMISTRY
Chemistry of monomers, polymers, polymerization mechanisms and processes, with emphasis on organic polymer chemistry.
Two lectures, one term
Corequisite: CHEM 3D03 or 3F03

CHEM 4Q03*  ADVANCED QUANTUM MECHANICS
Applications of quantum mechanics to problems of chemical interest.
Two lectures; one term
Prerequisite: CHEM 3B03 or PHYSICS 3MM3

CHEM 4R03*  ADVANCED TRANSITION METAL CHEMISTRY
A selection from the following topics: mechanisms of reactions involving transition metal ions; homogeneous catalysis; applications of NMR and other physical methods; organometallic chemistry; ligand field theory.
Two lectures; one term
Prerequisite: CHEM 3Q03

CHEM 4S03*  ADVANCED MAIN GROUP CHEMISTRY
A selection from the following topics: chemistry of selected main group elements, electron deficient compounds, and applications of physical methods to inorganic structure determination.
Two lectures; one term
Prerequisite: CHEM 3Q03

CHEM 4T03  INSTRUMENTATION
Instrumentation and molecular structure determination.
Two lectures, one lab (three hours); one term
Prerequisite: CHEM 3A03
Antirequisite: CHEM 3L13

CHINESE

(SEE MODERN LANGUAGES AND LINGUISTICS, CHINESE)

CIVIL ENGINEERING

WEB ADDRESS: http://www.eng.mcmaster.ca/civil/
John Hodgins Engineering Building, Room 301
Ext. 24287 or 24315

Faculty as of January 15, 2003

Chair
Dieter 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., F.C.A.E., P.Eng., Martinl, Mascarin and George Chair in Masonry Design
Ahmed Ghobareh/B.Sc. (Cairo), M.Eng., Ph.D. (McMaster), P.Eng., Joe Ng/UNE Consulting Chair in Design, Construction and Management in Infrastructure Renewal
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

Assistant Professors
Paulin Coulibaly/B.A.Sc., M.A.Sc. (Nice), Ph.D. (Laval), Ing.
Sarah Dickson/B.A.Sc., Ph.D. (Waterloo)
Peljun Guo/B.Sc., M.Sc., Ph.D. (S.W.J.T.U), Ph.D. (Calgary)
Yiping Guo/B.Sc. (Zhejiang), M.Sc., Ph.D. (Toronto), P.Eng.

Adjunct Assistant Professor
Syed Moiz/B.S. (Osmania), M.S. (Nevada), Ph.D. (McMaster), P.Eng.

Department Notes:
1. 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.
2. Unless otherwise stated, the duration and the frequency of activities are as follows:
   • one lecture consists of one hour each week
   • one tutorial consists of two hours each week
   • one lab consists of three hours each week

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 or one lab; first term

CIV ENG 2D04  STRUCTURAL MECHANICS
Review of stress/strain state and strain-displacement relations; plastic deformations and residual stresses due to axial loading and bending; torsion of noncircular and thin-walled sections; asymmetric bending and eccentric axial loading, shear stresses and unsymmetric loading of thin-walled members; transformation of stress and strain; stress/strain invariants; yield and fracture criteria; energy methods; stability of columns.
Three lectures, one tutorial or one lab; second term
Prerequisite: Credit or registration in ENGINEER 2F04

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; second term
Prerequisite: ENGINEER 1D04, PHYSICS 1D03 and credit or registration in ENGINEER 2F04

CIV ENG 2I03  COMMUNICATIONS IN CIVIL ENGINEERING
Ooral and written communication in context of civil engineering activity. A professional liaison programme involving site visits.
Two lectures, one tutorial (three hours); first term

CIV ENG 2J04  ECOLOGICAL AND GEOLOGICAL ASPECTS OF CIVIL ENGINEERING
Three lectures, one tutorial or one lab; second term
Prerequisite: Credit or registration in CIV ENG 2I03

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 one lab; second term
Prerequisite: Credit or registration in ENGINEER 2P04 and MATH 2M06

CIV ENG 2L04  ENGINEERING MECHANICS: DYNAMICS
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 term
Prerequisite: Credit or registration in ENGINEER 2P04

Antirequisite: ENGINEER 2P04
CIV ENG 3A03 GEOTEchnICAL ENGINEERING I
Composition of soils, soil identification and classification; compaction; seepage theory; effective stress concept; stresses and displacements using elastic solutions; consolidation theory; numerical solutions.
Two lectures, one tutorial or one lab; first term
Prerequisite: CIV ENG 2J04, 2004

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 tutorial or one lab; 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; second term
Prerequisite: CIV ENG 2E03; and credit or registration in MATH 3J04 or STATS 3J04

CIV ENG 3D03 STRUCTURAL ANALYSIS
Structural analysis and modelling of linear elastic trusses, beam and frame structures; stress resultants and deformations of statically determinate structures; methods for analysis of indeterminate structures; stiffness matrix method; plane frame computer analysis.
Two lectures, one tutorial; first term
Prerequisite: CIV ENG 2D04

CIV ENG 3E03 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; first term

CIV ENG 3F03 WATER QUALITY
Physical, chemical and biological characteristics of water; Stoichiometry, reaction kinetics and material balances; Mathematical modelling of physical systems; Water quality in rivers, and lakes; Water quality standards.
Two lectures, one tutorial; second term
Prerequisite: CHEM ENG 3F03; or
Prerequisite: Credit or registration in CIV ENG 3F03
First offered in 2004-2005.

CIV ENG 3G03 MUNICIPAL HYDRAULICS
Analysis/design of water distribution networks; analysis and design of wastewater collection systems; pumps.
Two lectures, one tutorial or one lab; first term
Prerequisite: CIV ENG 2G04; and credit or registration in MATH 3J04 or STATS 3J04
First offered in 2004-2005.

CIV ENG 3H03 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 one lab; second term
Prerequisite: CIV ENG 2H04; and credit or registration in MATH 3J04 or STATS 3J04
First offered in 2004-2005.

CIV ENG 3I03 PROJECT MANAGEMENT WITH CONSTRUCTION APPLICATIONS
An introduction to construction project management; tender documents, estimating, bidding, proposals, and construction contracts; project planning, scheduling, controlling of time, cost and quality, dispute resolution; Safety Act and construction regulations, liability, legal and ethical considerations; Case histories.
Two lectures, one tutorial; second term
Prerequisite: Credit or registration in CIV ENG 3I03
First offered in 2004-2005.

CIV ENG 3J03 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; second term
Prerequisite: Credit or registration in CIV ENG 3J03

CIV ENG 3K03 PHYSICAL, CHEMICAL AND BIOLOGICAL PROCESSES
Water/wastewater quality/characteristics; Primary and secondary treatment; Theory and application materials related to a number of unit operations including reverse osmosis, ultra filtration, adsorption, air stripping, air flotation, chemical precipitation; Sludge treatment and disposal.
Two lectures, one tutorial; second term
Prerequisite: CHEM ENG 2K03
First offered in 2004-2005.

CIV ENG 4A03 ENGINEERING HYDROLOGY
Hydrologic cycle; climate; hydrologic processes, precipitation; unit hydrograph; hydrologic statistic, hydrologic routing; groundwater flow.
Design units = 1.0
Three lectures, one tutorial (three hours); first term
Prerequisite: CIV ENG 3M04

CIV ENG 4B03 ENVIRONMENTAL IMPACT AND SUSTAINABILITY
Natural and urban ecosystems; environmental impact/assessment/legislation; energy and environmental audits; life cycle analysis; solid and hazardous wastes; air quality and control; sustainable infrastructure design.
Design units = 1.5
Two lectures, one tutorial; first term

CIV ENG 4C03 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.
Design units = 3.0
Three lectures, one tutorial; first term
Prerequisite: CIV ENG 3K03

CIV ENG 4D03 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.
Design units = 2.0
Two lectures, one lab; second term
Prerequisite: CIV ENG 3B03

CIV ENG 4E03 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.
Design units = 0.0
Three lectures; second term
Prerequisite: MATH 3J04 or STATS 3J04
Cross-list: GEO 4D03
This course is administered by the School of Geography and Geology.

CIV ENG 4F04 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 computer programs.
Design units = 0.0
Three lectures, one tutorial; second term
Prerequisite: CIV ENG 3G03; MATH 3J04 or STATS 3J04

CIV ENG 4H04 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.
Design units = 4.0
Two lectures, one tutorial (one hour), one lab; second term
Prerequisite: CIV ENG 3M04

CIV ENG 4I04 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, structural walls and slabs. Analysis and design of actual buildings. Introduction to structural dynamics.
Design units = 4.0
Three lectures, one lab; first term
Prerequisite: CIV ENG 3J03, 3J04, 3S03
CIV ENG 4504  FOUNDATION ENGINEERING
Principles of foundation design; bearing capacity, settlement and location, footings, deep foundations, piles, pile groups and drilled piers; retaining walls. Design units = 3.0
Three lectures, one tutorial; first term
Prerequisite: CIV ENG 3B03

CIV ENG 4W04  DESIGN OF LOW RISE BUILDINGS
Structural systems and load distribution, design of masonry, wood, and concrete. Introduction to building envelope design. Design units = 4.0
Three lectures, one tutorial; first term
Prerequisite: CIV ENG 3G03, 3J04, 3S03

CIV ENG 4Y04  BRIDGES AND OTHER STRUCTURAL SYSTEMS
Bridge loads and analysis for load effects. Design of reinforced concrete solid-slab, T-beam type bridges, composite floor system and plate girder bridges. Stresses, ultimate strength, and design of pre-stressed concrete structures. Fatigue Design. Design units = 4.0
Three lectures, one tutorial; second term
Prerequisite: CIV ENG 3G03, 3J04, 3S03

CIV ENG 4Z04  INDEPENDENT STUDY
An experimental and/or analytical investigation related to any branch of civil engineering, under the direction of a faculty member. Students choose a project from a list of department approved projects. The student may be required to present a seminar, and will submit a final written report before April 1. Design units = variable according to project
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 9.5.
Enrolment is limited.

CLASSICS

WEB ADDRESS: http://www.humanities.mcmaster.ca/~classics/
Togo Salmon Hall, Room 706
Ext. 24311

Faculty as of January 15, 2003

Acting Chair
Michele G. George

Professors
Katherine M. D. Dunbabin/M.A., D. Phil. (Oxford)
Howard Jones/B.A. (London), M.A., Ph.D. (Indiana)
William J. Slator/M.A., Ph.D. (St. Andrews)

Associate Professors
Claude Ellers/B.A. (Saskatchewan), M.A. (McMaster), D.Phil. (Oxford)
Michele G. George/B.A. (Toronto), M.A., Ph.D. (McMaster)
Peter Kingston/B.A., Ph.D. (London)

Assistant Professor
Alexandra Retzleff/B.A. (McGill), M.A. (British Columbia), Ph.D. (North Carolina-Chapel Hill)

Department Note:
The following courses are available as electives to qualified students in any programs:

a) Classical Archaeology and Art History
CLASSICS 1A03, 1B03, 2A03, 2B03, 3G03, 3H03, 3Q03, 3S03

b) Ancient History and Society
CLASSICS 2K03, 2L03, 2LL3, 2Z03, 3C03, 3CC3, 3E03, 3EE3, 3LL3, 3TT3

C) Ancient Philosophy
CLASSICS 2P06, 4K03

d) Classical Literature in Translation
CLASSICS 2003, 2E03, 2H03, 3EE3, 3I03, CLASSICS 3L03, 3T03

e) Greek Language and Literature
GREEK 1203, 1Z23, 2A03, 2AA3, 3A03, 3B03, 4B03, 4BB3, 4C03

f) Latin Language and Literature
LATIN 1Z03, 1ZZ3, 2A03, 2AA3, 3A03, 3B03, 4A03, 4B03, 4BB3

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

CLASSICS 1B03  MYTH AND LITERATURE: THE TROJAN WAR AND BEYOND
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  MYTH AND LITERATURE: JUSTICE, POWER AND DESTINY
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 6th 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 or 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 2B03
Cross-list: ART HIST 2C03

CLASSICS 2D03  GREEK AND ROMAN MYTHOLOGY
A study of the myths of Greek and Roman gods and heroes, 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 or above
Cross-list: COMP LIT 2D03

CLASSICS 2E03  THE ANCIENT WORLD IN FILM
The emphasis is on myth (Aphrodite, 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 or above
Cross-list: CMST 2Y03, THTR&FLM 2G03

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 or above
Cross-list: COMP LIT 2H03

CLASSICS 1F03  LITERACY AND ORAL LITERATURE
An examination of Greek and Roman literature in oral and written form, with special emphasis on orality.
Three lectures; one term
Antirequisite: CLASSICS 1F06

CLASSICS 1F03  JEWISH HISTORY AND CULTURE
An introduction to the development and the diversity of Jewish culture through the transmission of oral and written traditions.
Three lectures; one term
Antirequisite: CLASSICS 1F06
CLASSICS 2K03 THE SOCIETY OF GREECE AND ROME
An examination 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 or above
Cross-list: HISTORY 2K03

CLASSICS 2L03 HISTORY OF CLASSICAL GREECE
Greece 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 or above
Cross-list: HISTORY 2L03

CLASSICS 2L3 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 archeological evidence. (No Greek or Latin required.)
Three lectures; one term
Prerequisite: Registration in Level II or above
Cross-list: HISTORY 2L3

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: One of three units of Philosophy, ARTS&SCI 1A06, registration in a programme in Classics or Philosophy or permission of the Department
Cross-list: PHILOS 2A06
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 or above
Cross-list: RELIG ST 2Z03

CLASSICS 3C03 THE LATE REPUBLIC
An examination of major themes in the political, social, and economic history of Rome from the mid-second century B.C. to the assassination of Caesar.
Three lectures; one term
Prerequisite: One of CLASSICS 1L06, 1L13, 2K03, 2L3, 3CC3, 3E03; and registration in Level III or 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 3C3 THE EARLY EMPIRE
An examination of major themes in the political, social, and administrative history of Rome under the early emperors.
Three lectures; one term
Prerequisite: One of CLASSICS 1L06, 1L13, 2K03, 2L3, 3CC3, 3E03; and registration in Level III or above
Cross-list: HISTORY 3C3
Not open to students with credit in CLASSICS 3MM3 if the topic was The Early Empire.
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 1L06, 1L13, 2K03, 2L3, 3CC3, 3CC0; and registration in Level III or above
Cross-list: HISTORY 3E03
Alternates with CLASSICS 3EE3.

CLASSICS 3EE5 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 or 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: ART HIST 2C03 or CLASSICS 2C03
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 2B03
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 3L3 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 CLASSICS 1L03, 1L10, 1L13, 2L03, 2L3, 3V03
Cross-list: HISTORY 3M3
Antirequisite: CLASSICS 3C03
CLASSICS 3M3 may be repeated, if on a different topic, to a total of six units.

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: One of CLASSICS 1A03 or 2B03
Alternates with CLASSICS 3Q03.

CLASSICS 3S03 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 Pompei, Ostia and other cities of Roman Italy.
Three lectures; one term
Prerequisite: CLASSICS 1A03 or 2C03
Alternates with CLASSICS 3Q03.

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
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 1A03, 3Q03, 3S03 and registration in Level III or IV of an Honours programme in Classics (A); or permission of the Department
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: CLASSICS 2B03, 2C03 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 4E03  SEMINAR IN ANCIENT GREEK
AND ROMAN SOCIETY
Consult the Department for the topic to be offered.
Prerequisite: Six units from CLASSICS 2K03, 2L03, 2L13, 3C03, 3C03,
3E03, 3L13 and registration in Level III or IV of an Honours programme in
Classes (A); or permission of the department
CLASSICS 4E03 may be repeated, if on a different topic, to a total of six
units. Enrolment is limited.

CLASSICS 4K03  ANCIENT 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 above
Cross-list: PHILOS 4K03
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 1203, 1223
   Intermediate Level Language Courses
   GREEK 2A03, 2A23
2. Students with Greek U (or OAC Ancient Greek) should normally register
   in GREEK 2A03, but with special permission, may register in either GREEK
   1203 or 1223.

Courses if no prerequisite is listed, the course is open.

GREEK 1203  BEGINNER'S INTENSIVE GREEK I
A rapid introduction to the basic grammar of Ancient Greek.
Five hours (lectures and tutorials); one term
Antirequisite: GREEK 1206
Not open to graduates of Greek U (or OAC Ancient Greek), who must
have special permission to register in the course.

GREEK 1223  BEGINNER'S INTENSIVE GREEK II
This course continues the study of the grammar of Ancient Greek begun
in GREEK 1203 and introduces students to the reading of passages from
Greek authors.
Five hours (lectures and tutorials); one term
Prerequisite: GREEK 1203. Students with Greek U (or OAC Ancient Greek)
must obtain special permission to register in the course
Antirequisite: GREEK 1206
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: One of Greek U (or OAC Ancient Greek), GREEK 1206 or
1223. Students using this course as a Humanities I requirement will
register for GREEK 2A03 and 2A23.

GREEK 2A23  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
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 1203, 1223
   Intermediate Level Language Courses
   LATIN 2A03, 2A23
2. Students with Latin U (or OAC Latin) should normally register in LATIN
   2A03, but with special permission, may register in either LATIN
   1203, 1223.

Courses if no prerequisite is listed, the course is open.

LATIN 1203  BEGINNER'S INTENSIVE LATIN I
A rapid introduction to the basic grammar of Classical Latin.
Five hours (lectures and tutorials); one term
Antirequisite: LATIN 1206
Not open to graduates of Latin U (or OAC Latin), who must obtain special
permission to register in the course.

LATIN 1223  BEGINNER'S INTENSIVE LATIN II
This course continues the study of Latin grammar begun in LATIN 1203
and introduces students to the reading of simple passages from Latin
authors.
Five hours (lectures and tutorials); one term
Prerequisite: LATIN 1203. Students with Latin U (or 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: One of Latin U (or OAC Latin), LATIN 1Z06, 1Z23. Students using this course as a Humanities I requirement will register for LATIN 2A03 and 2AA3.

LATIN 2AA3  INTERMEDIATE LATIN II
A study of selected passages from Latin authors designed to 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, 2AA3

LATIN 3B03  VERGIL
Readings from Vergil’s Aeneid, Georgics or Eclogues. Three lectures; one term
Prerequisite: LATIN 2A03, 2AA3

LATIN 4A03  CICERO
Readings from the works of Cicero. The course will also include grammatical exercises. Three lectures; one term
Prerequisite: LATIN 2A03, 2AA3

LATIN 4B03  LATIN LOVE POETRY
Readings in Latin Love Poetry. Three lectures; one term
Prerequisite: LATIN 2A03, 2AA3

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.

Vishwanath Baba/B. Eng. (Madras), M.B.A. (Western Illinois), Ph.D. (British Columbia)/(Organizational Behaviour)
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)
Richard W. Deaves/B.A., M.A., Ph.D. (Toronto)/(Finance and Business Economics)

COMMERCE

WEB ADDRESS: http://www.degroote.mcmaster.ca
M.G. DeGroote Building, Room 104
Ext. 23914

Faculty as of January 15, 2003

Chair, Marketing, International Business and Business Policy Area
Kenneth R. Deal

Chair, Finance and Business Economics Area
Richard Deaves

Chair, Accounting and Financial Management Services Area
Khalid Nair

Chair, Human Resources and Area
Willi Wiesner

Chair, Management Science and Information Systems Area
Mahmut Parlar

Professors
Prakash L. Abed/B.Tech. (Indian Institute of Technology), M.S., M.B.A., Ph.D. (Cincinnati)/(Management Science)
Naresh C. Agarwal/B.A., M.A. (Delhi), Ph.D. (Minnesota)/(Human Resources)/Coordinator, Ph.D. Programme (Human Resources)

Yuko Tanaka

F. Isik Zeytinoglu/B.A., M.A. (Bogazici), 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)
Kenneth R. Deal/B.S., M.B.A., Ph.D. (SUNY-Buffalo)/(Marketing and Management Science)/Chair, Marketing, International Business and Business Policy Area
Khaled Hassanein/B.Sc. (Kuwaiti), M.A.Sc. (Toronto), Ph.D. (Waterloo), M.B.A. (Wilfrid Laurier)/(Information Systems)
Milena Head/B.Math. (Waterloo), M.B.A., Ph.D. (McMaster)/(Management Science)/Information Systems Director, MeRC
Rosemary Luo/B.Eng., Graduated Diploma (Business) (Beijing), M.A. (McMaster), Ph.D. (Western Ontario)/(Finance)
Karen Low/B.Sc. (Waterloo), M.A., Ph.D. (McMaster), C.M.A./Accounting
All R. Montazemi/H.N.D. (Teesside Polytechnic), M.Sc. (Southampton), Ph.D. (Waterloo)/(Information Systems)
S.M. Khalid Nairn, B.A., M.A. (Delhi), Ph.D. (Florida)/(Accounting)/Chair, Accounting and Financial Management Services Area
 Sudipto Sarkar/B.Tech. (Indian Institute of Technology), Ph.D. (Columbia)/(Finance)
D. Wayne Taylor/B.A. (Toronto), M.P.A., Ph.D. (York)/(Business and Public Policy)/Director, Health Services Management Programme
James H. Tieken/B.Sc. (Alberta), M.Sc. (Geulph), Ph.D. (York)/(International Business)
Willi Wiesner/B.A. (Wilfrid Laurier), M.A.Sc., Ph.D. (Waterloo)/(Human Resources)/Chair, Human Resources and Management Area

Assistant Professors
Nick Bontis/B.A., Ph.D. (Western Ontario)/(Marketing, International Business and Policy)
Narat Charupat/B.A. (Thammasat), M.B.A. (Drexel), Ph.D. (York)/(Finance)
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 2AA3, 2BA3, 2FA3, 2MA3, 2QA3, 2QB3, 3BC3, 3FA3, 3MC3. Please note that all prerequisites for these courses must also be satisfied. Students registered in a McMaster Commerce, Engineering and 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. Effective September 1999, students taking COMMERCE 2AA3, 2FA3, 2MA3 as Business Minor courses will also be required to have obtained a minimum grade of B- in ECON 1A00 or 1B03 as a prerequisite.

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 4A03*, 4A04*, 4A05*, with the permission of the Academic Programmes Office. Such permission will be granted 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 Timetable at the following URL: http://www.mcmaster.ca/parttime. Other than those graduates specified above, Commerce courses are not open to 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 generally scheduled for two lectures per week (a two-hour lecture) and one review lecture per 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 1E03 BUSINESS ENVIRONMENT AND ORGANIZATION
This course will examine the relationship between business organizations, their functional areas, and the environments - social, political, legal, and regulatory - that affect them.
Prerequisite: Registration in Business I
Antirequisite: APBUSMG 1A03

COMMERCE 2A03 FINANCIAL ACCOUNTING
This is an introduction to the basic principles of financial accounting, which includes an examination of income measurement and asset and liability valuation, to provide an understanding of financial accounting information and the ethics of financial reporting.
Prerequisite: ECON 1A06 or 1B03 and registration in any Commerce or Engineering and Management programme; or a grade of at least B in ECON 1A06 or 1B03 and registration in any four- or five-level non-Commerce programme
Antirequisite: APBUSMG 3D03
Enrolment is limited. (See Note 2 above.)

COMMERCE 2A03 MANAGERIAL ACCOUNTING
An introduction to concepts underlying the use of cost accounting information for managerial planning and control, and for inventory valuation. The nature 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 any Commerce, Engineering and Management or four or five-level non-Commerce programme
Enrolment is limited. (See Note 2 above.)

COMMERCE 2B03 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 any Commerce, Engineering and Management, Engineering and Management or four or five-level non-Commerce programme
Antirequisite: APBUSMG 2A03, 3B03, 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; and one of MATH 1A03, 1M03, or 1N03; and COMMERCE 2A03; and registration in any Commerce, Engineering and Management or 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 2A03 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 any Commerce or Engineering and Management programme; or a grade of at least B- in ECON 1A06 or 1B03 and registration in any four- or five-level non-Commerce programme
Enrolment is limited. (See Note 2 above.)

COMMERCE 2A03 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 Mathematics of Data Management) or STATS 1L03; and registration in any Commerce, Engineering and Management or four or five-level non-Commerce programme
Antirequisite: ECON 2B03, STATS 1C03
Enrolment is limited. (See Note 2 above.)
COMMERC 2QB3 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 1B43, 1MC5, 1SA3, 1TA3, 1ZA3, ENGNEER 1D04, MMEDIA 1A03; and registration in any Commerce, Engineering and Management or four or five-level non-Commerce programme.
Antirequisite: COMMERC 3OB3
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 rhetoric; 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 2AA3 and registration in any Commerce or Engineering and Management programme.
Antirequisite: COMMERC 3AB3 and registration in any Commerce or Engineering and Management programme.
(Comm. students - see Note 5 above.)

COMMERC 3AC3 FINANCIAL ACCOUNTING III
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 penalties as well as the phenomenon of off-balance sheet financing are examined.
Prerequisite: COMMERC 3AB3 and registration in any Commerce or Engineering and Management programme.
Antirequisite: COMMERC 4AB3 and registration in any Commerce or Engineering and Management programme.
(Comm. students - see Note 5 above.)

COMMERC 3BC3 HUMAN RESOURCE MANAGEMENT AND LABOUR RELATIONS
This course builds on COMMERC 2AB3, focusing on human resource management and labour relations issues and practices from a general management education perspective.
Prerequisite: COMMERC 2SA3 or KINESIO 3L03; and registration in any Commerce, Labour Studies, Engineering and Management or four or five-level non-Commerce programme.
Antirequisite: APBUSMGMT 3A03, COMMERC 3BA3, 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 any Commerce, Engineering and Management or 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 any Commerce or Engineering and Management programme.
(Comm. 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 any Commerce or Engineering and Management programme.
(Comm. students - see Note 5 above.)

COMMERC 3IN0 COMMERC 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.
Limited to Workshop (six sessions); first term or second term.
Prerequisite: Successful completion of Level II Commerce. Transcript notation granted upon successful completion of an 8, 12 or 16 month approved internship.

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 COMMERC 2GA3 or STATS 3Y03; and registration in any Commerce or Engineering and Management programme.
(Comm. students - see Note 5 above.)

COMMERC 3MB3 CONSUMER BEHAVIOUR
This course examines why people buy, ways that satisfying consumer needs more effectively, and the creation of communications that will influence consumers.
Prerequisite: COMMERC 2MA3 and registration in any Commerce or Engineering and Management programme.
(Comm. 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 P's 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 any Commerce, Engineering and Management or 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 2A03 and registration in any Commerce or Engineering and Management programme.

COMMERC 3QC3 PRODUCTION/OPERATIONS MANAGEMENT
An introduction to the production/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 any Engineering and Management, Mechanical Engineering or Manufacturing Engineering programme.
Antirequisite: COMMERC 4QA3, MECN ENG 4C03

COMMERC 4A03 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 2AB3 or 3AA3; and registration in any Commerce or Engineering and Management programme.
(Comm. 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 any Commerce or Engineering and Management programme.
(Comm. students - see Note 5 above.)

COMMERC 4AD3 INTRODUCTION TO AUDITING
An examination of the attest 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 any Commerce or Engineering and Management programme.
(Comm. students - see Note 5 above.)
COMMERCE 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: COMMERCE 3AB3 and registration in any Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERCE 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 COMMERCE 3AC3 or 4AB3; and registration in any Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERCE 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 any Commerce or Engineering and Management programme or graduation from a Commerce programme. (B.Com. students - see Note 5 above.)
Available Summers 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 any Commerce or Engineering and Management programme or graduation from a Commerce programme. (B.Com. students - see Note 5 above.)
Available Summers 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 any Commerce or Engineering and Management programme or graduation from a Commerce programme. (B.Com. students - see Note 5 above.)
Available Summers subject to sufficient enrolments and availability of qualified instructors.
(Continuing Students - see Note 3 above.)

COMMERCE 4AJ3  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 School of Business website at http://www.degrote.mcmaster.ca/programs/commerce/courses.html or contact the Academic Programmes Office, MGD 104.
COMMERCE 4AJ3 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 any 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 any 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: One of COMMERCE 3BA3, 3BC3, LABR ST 2A03 or 2A06; and registration in any Commerce, Engineering and Management or Labour Studies programme. (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: One of COMMERCE 3BA3, 3BC3, LABR ST 2A03 or 2A06; and registration in any Commerce, Engineering and Management or Labour Studies programme. 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 any 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 any Commerce or Engineering and Management programme. Subject to space availability. (B.Com. students - see Note 5 above.)
Cross-list: LABR ST 3C03
Antirequisite: APUB/SMGT 3G03

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 3BA3 or 3BC3; and registration in any Commerce or Engineering and Management programme. Subject to space availability. (B.Com. students - see Note 5 above.)
Cross-list: LABR ST 3C03

COMMERCE 4BH3  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.
Prerequisite: COMMERCE 3BA3 or 3BC3; and registration in any Commerce or Engineering and Management programme. Subject to space availability. (B.Com. students - see Note 5 above.)
Antirequisite: LABR ST 4D03, 4E03

COMMERCE 4BJ3  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 any 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 any Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)
Cross-list: WOMEN ST 4B3
Not open to students with credit in COMMERCE 4S3X, 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 any Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)
Not open to students with credit in COMMERCE 4B0X, if taken in January 1999 or 1999.
COMMERCE 4FX3  SPECIAL TOPICS IN FINANCE
This course provides a comprehensive and up-to-date treatment of the analysis of financial statements as an aid to decision making. The relationship between financial markets and financial statements is studied using computerized data sets on personal computers.
Prerequisite: COMMERCE 3FA3 and registration in any Commerce or Engineering and Management programme.
(B.Com. students - see Note 5 above.)

COMMERCE 4FX3  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
For information on course offerings, please refer to the School of Business website at http://www.d degroat e.mcmaster.ca/programs/commerce/courses.html or contact the Academic Programmes Office, MGD 104.
COMMERCE 4FX3 may be repeated, if on a different topic, to a total of six units.

COMMERCE 4FX3  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 any Commerce or Engineering and Management programme.
(B.Com. students - see Note 5 above.)

COMMERCE 4FX3  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 any Commerce or Engineering and Management programme.
(B.Com. students - see Note 5 above.)

COMMERCE 4FX3  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 any Commerce or Engineering and Management programme.
(B.Com. students - see Note 5 above.)
Antirequisite: COMMERCE 4FC3

COMMERCE 4FX3  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 any Commerce or Engineering and Management programme.
(B.Com. students - see Note 5 above.)
Antirequisite: COMMERCE 4FB3

COMMERCE 4FX3  Mergers, Acquisitions and Corporate Control
This course examines the process 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 any Commerce or Engineering and Management programme.
(B.Com. students - see Note 5 above.)

COMMERCE 4F33  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 3FA3; and registration in Honours Commerce or any Engineering and Management programme; and permission of the instructor.
Enrolment is limited. Selection is by application only. Applications available in November in MGD/104.

COMMERCE 4FJ3  FIXED INCOME ANALYSIS
This course provides an advanced treatment of investments in the field of fixed income analysis and focuses on fixed income securities, fixed income portfolio management and fixed income derivatives.
Prerequisite: COMMERCE 3FA3 and registration in any Commerce or Engineering and Management programme.
(B.Com. students - see Note 5 above.)
COMMERCE 4QC3  OPTIMIZATION APPLICATIONS IN BUSINESS
An examination of the techniques of management science and their application to business problems. Topics include: linear programming, integer programming, and optimization problems on networks.
Prerequisite: COMMERCE 3OA3 and registration in any Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERCE 4QD3  DATABASE DESIGN AND IMPLEMENTATION
This course is designed to introduce the basic concepts of database design, implementation, and management. Students will gain hands on experience through assignments and team project.
Prerequisite: COMMERSE 2QB3 and registration in any Commerce or Engineering and Management programmes. (B.Com. students - see Note 5 above.)

COMMERCE 4QE3  TELECOMMUNICATION AND ELECTRONIC BUSINESS
The new trends and issues on telecommunication networks and their business applications including: wireless telecommunication, Web technology, Electronic business, Network security, Smart cards, Intelligent agents and the use of Intranet and Extranet.
Prerequisite: COMMERSE 2QB3 and registration in any Commerce or Engineering and Management programmes. (B.Com. students - see Note 5 above.)
Not open to students with credit in COMMERSE 4QX3, if the topic was Specific Topics in Business Data Communication (If taken in September 1997).

COMMERSE 4QF3  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.
Prerequisite: COMMERSE 2BA3, 3OA3 and registration in a Commerce programme; or registration in an Engineering and Management programme.
(B.Com. students - see Note 5 above.)

COMMERSE 4QG3  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.
Prerequisite: COMMERSE 3GC3 and registration in a Commerce programme; or registration in an Engineering and Management programme.
(B.Com. students - see Note 5 above.)

COMMERSE 4QH3  MANAGEMENT ISSUES IN ELECTRONIC BUSINESS
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 business solutions.
Prerequisite: COMMERSE 2QB3 and registration in any Commerce or Engineering and Management programme.
(B.Com. students - see Note 5 above.)

COMMERCE 4QX3  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.dregroot.mcmaster.ca/programs/commerce/courses.html or contact the Academic Programmes Office, MGD 104. COMMERCE 4QX3 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: COMMERSE 3MC3; and registration in Level IV of a Commerce programme or Level V of any Engineering and Management programme.
Antirequisite: COMMERSE 4FE3

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: Credit or registration in COMMERSE 3AB3 and registration in any Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)
Antirequisite: COMMERSE 4PB3

COMMERSE 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: COMMERSE 4SB3 or 4PB3; and registration in any Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)
Antirequisite: COMMERSE 4PC3

COMMERSE 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 any Commerce or Engineering and Management programme. (B.Com. students - see Note 5 above.)
Antirequisite: COMMERSE 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: COMMERSE 5FA3; and COMMERSE 3MA3 or 3MC3; and registration in any Commerce or Engineering and Management programme.
(B.Com. students - see Note 5 above.)
Cross-list: JAPAN ST 4S03

COMMERSE 4SF3  JAPANESE BUSINESS
An introduction to Japan's business system. The approach is integrative, as the course examines Japan's economic history, culture, politics, Industrial policy, management practices, advertising and doing business with Japan.
Prerequisite: Registration in any Commerce, Japanese Studies or Engineering and Management programme. (B.Com. students - see Note 5 above.)

COMMERSE 4SG3  INDEPENDENT STUDY IN BUSINESS
Facultly supervised project. A supervising faculty member must be arranged, and authorization of the Associate Dean secured, in the term preceding the term of study.
Prerequisite: To be determined by the supervising faculty member and registration in any Commerce or Engineering and Management programme. Project forms are available from MGD-104. (B.Com. students - see Note 5 above.)

COMMUNICATION STUDIES

WEB ADDRESS:  http://www.humanities.mcmaster.ca/-cmst
Togo Salmon Hall, Room 512
Ext. 23488

Director
Magda Stroinska (Modern Languages and Linguistics) M.A. (Warshaw), Ph.D. (Edinburgh)

Committee of Instruction
Susan Fast (School of the Arts)
Catherine Frost (Communication Studies and Political Science)
Violetta Igneski (Communication Studies and Philosophy)
Susie O'Brien (English)
Alexandre Sévigny (Communication Studies and French)

Courses
If no prerequisite is listed, the course is open.

CMST 1A03  INTRODUCTION TO COMMUNICATION
Students will examine both practical and fundamental concepts in communication studies and the effects of language, mass communications, performative acts and the Internet on social, cultural and cognitive processes in the context of the four streams of the Communication Studies Programme.
Three hours (lectures and tutorials); one term
CMST 1B03 DEVELOPMENTS IN HUMAN COMMUNICATION: PAST AND PRESENT
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

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 statistical analysis and inference.
Three hours (lectures and tutorials); one term
Prerequisite: Registration in a programme in Communication Studies
Cross-list: ANTHROP 2203, GEO 2H93, GERONTOL 2C03, HEALTHST 2B03, SOCIOLOGY 2Z03

CMST 2A03 JAPANESE COMMUNICATION
The Japanese language is examined from sociolinguistic and pragmatic viewpoints identifying the unique characteristics of the target culture that lie behind its use. Such knowledge is invaluable in solving problems of intercultural communication.
Three lectures; one term
Prerequisite: Registration in Level II or above
Cross-list: JAPAN ST 2A03
Offered in alternate years.
This course is administered by the Department of Modern Languages and Linguistics.

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 PRINCIPLES
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: CMST 1A03 and registration in Level II or 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 THE NATURE OF TEXTS: FROM SLANG TO FORMAL DISCOURSE
The course will investigate a variety of styles and registers from the conversational to the literary and academic.
Three hours; one term
Prerequisite: Registration in Level II or 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 reading of models 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 lab and practicum.
Three hours (lectures and discussion); one term
Prerequisite: MMEDIA 1C03 or registration in Level II or 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 or above
Cross-list: SOTA 2G03
This course is administered by the School of the Arts.

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 or 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 arts structure our understanding through images.
One lecture (two hours), one tutorial/discussion; one term
Prerequisite: Registration in Level II or above
Cross-list: ART HIST 2A03
This course is administered by the School of the Arts.

CMST 2J03 CONTEMPORARY POPULAR CULTURE
A study of one or more selected forms of popular culture, drawing on models of analysis from the field of cultural studies. Areas of investigation may include: television, magazines, advertising, computer culture, film, popular fiction, the culture of everyday life.
Three hours; one term
Prerequisite: Registration in Level II or above
Cross-list: CSCT 2J03, ENGLISH 2J03
This course is administered by the Department of English.

CMST 2K03 POLITICAL ECONOMY OF THE MEDIA
A comparative examination of changing patterns of ownership and control of the mass media in light of globalization, technological change, government policy, market re-structuring, and corporate consolidation.
Three lectures; one term
Prerequisite: Registration in Level II or above

CMST 2L03 MEDIA INSTITUTIONS
An examination of the institutional structure and production processes of the press, television, and radio. Topics include news gathering, tele­ vision and radio programme production and the relationship between media production and management.
Three hours (lectures and tutorials); one term
Prerequisite: CMST 1A03 and 1B03; or SOCIOLOGY 1A06
Cross-list: SOCIOLOGY 2L03
This course is administered by the Department of Sociology.

CMST 2M03 CONCEPTS OF CULTURE
An analysis of the development of the concept of culture from the Enlight­ enment 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, Cultural Studies and Critical Theory, or English; or permission of the English Departmental Counsellor
Cross-list: COMP LIT 2E03, CSCT 2M03, ENGLISH 2M03
This course is administered by the Department of English.

CMST 2N03 MODERN COUNTERCULTURES
An exploration of a variety of cultural forms (e.g., literature, art, photography, film, music) produced by avant-gardes counter-cultural groups from the mid-19th century to the present. Areas of investigation may include surrealism, futurism, the beat, the sixties, situationism, and punk.
Three hours; one term
Prerequisite: Registration in a programme in Communication Studies, Comparative Literature, Cultural Studies and Critical Theory, or English; or permission of the English Departmental Counsellor
Cross-list: COMP LIT 2E03, CSCT 2M03, ENGLISH 2M03
This course is administered by the Department of English.

CMST 2O03 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 in forms advertising, posters, book design and illustration, etc.
Three lectures; one term
Prerequisite: Registration in Level II or above.
Prior completion of ART HIST 1A03 and 1A3 is recommended.
Cross-list: ART HIST 2O03, MMEDIA 2F03
This course is administered by the School of the Arts.
CMST 2003 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 or above
Cross-list: ART HIST 2H03, PHILOS 2H03
Offered in alternate years.
This course is administered by the Department of Philosophy.

CMST 2P03 DRAMATIC FORMS
Different performance techniques and conventions demand particular forms of dramatic narrative. By comparing the way similar stories are told in different media and genres, students identify the structuring elements of dramatic texts written for live performance, film television and music theatre.
Three hours (lectures and group presentations); one term
Prerequisite: DRAMA 1A03, 1A03 (or 1A06); or THTR&FLM 1A03, 1B03
Cross-list: COMP LIT 2D03, THTR&FLM 2C03
Antirequisite: DRAMA 2003, 2006
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., from Eastern, Indian, African.
Three lectures; one term
Prerequisite: Registration in Level II or 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 or above
Cross-list: MUSIC 2AA3
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 performances reach audiences and our methods of analyzing and archiving performance.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II or above of a programme in Theatre and Film Studies or Communication Studies (Performance Studies Stream)
Antirequisite: DRAMA 2B03
Cross-list: THTR&FLM 2E03
This course is administered by the School of the Arts.
Enrolment is limited to 50 students.

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 or above
Cross-list: MUSIC 2F03
This course is administered by the School of the Arts.

CMST 2V03 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 or above
Cross-list: EUROP ST 2B03, LINGUIST 2A03
Antirequisite: ANTHROP 2AL3
This course is administered by the Department of Modern Languages and Linguistics.

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 judgment.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II or above
Cross-list: HUMAN 2C03
Antirequisite: ARTS&SCI 1B06
This course is administered by the Department of Philosophy.

CMST 2X03 FILM HISTORY TO THE SECOND WORLD WAR
An introduction to the history of narrative film from its beginnings to the Second World War. It focuses on narrative cinema's development from aesthetic, social, technological and economic perspectives while also touching on a selected number of issues in film theory.
Two lectures, plus one weekly film screening; one term
Prerequisite: Registration in Level II or above of a programme in Theatre and Film Studies or Communication Studies (Cultural Studies Stream)
Antirequisite: CMST 2X06
Cross-list: THTR&FLM 2F03
This course is administered by the School of the Arts.
Enrolment is limited to 150 students.

CMST 2Y03 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 or above
Cross-list: CLASSICS 2E03, THTR&FLM 2G03
This course is administered by the Department of Classics.

CMST 2Z03 POLITICS AND THE MEDIA
Theories and practices of the reciprocal relationship between communications media and the political system.
Three hours (lectures and tutorials); one term
Prerequisite: CMST 1A03 and 1B03; or POL SCI 1G06
Cross-list: POL SCI 2Z03
This course is administered by the Department of Political Science.

CMST 3A03 TOPICS IN COMMUNICATION
The study of specific issues in communication such as sex and the media, media ethics, racism and anti-racism, gender identity and discourse, democracy and the public sphere, and subcultural media practices.
Three hours (lectures and discussion groups); one term
Prerequisite: CMST 2C03 and one of CMST 2A03 or 2B03; or permission of the instructor
CMST 3A03 may be repeated, if on a different topic, to a total of six units.

CMST 3B03 INDEPENDENT STUDY IN APPLIED COMMUNICATION
In consultation with a faculty member, students will complete an independent project on an approved topic involving the application of communication skills, theories and methodologies. It is the student's responsibility to obtain the agreement of the instructor and to complete a proposal form (available in the Communication Studies Office). Independent Study proposals must be approved by the Committee of Instruction during the term the project is to be done. For more details please consult the Communication Studies Brochure.
Prerequisite: Registration in Level III or IV of a programme in Communication Studies with a Cumulative Average of at least 8.5 and permission of the Committee of Instruction.

CMST 3B03 WOMEN AND VISUAL CULTURE
Students will explore ideas about representation, spectatorship and production in relation to issues of social difference, such as gender, race and class. Emphasis is on visual modalities such as film, video, television, advertising, etc.
Two hour lecture and discussion, plus one weekly film screening; one term
Prerequisite: Registration in Level III or above and one of ART HIST 2A03, CMST 2F03, 2G03, DRAMA 2X03, THTR&FLM 1B03 or WOMEN ST 1A06
Cross-list: THTR&FLM 3P03, WOMEN ST 3B03
Not open to students with credit or registration in WOMEN ST 3B03 if taken in 2001-2002.
This course is administered by Women's Studies.

COMMUNICATION STUDIES 177
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: Registration in a Communication Studies or Sociology programme
Cross-list: SOCIO 3C03
This course is administered by the Department of Sociology.

CMST 3CC3  READING FILM

A critical examination of selected films and film genres as cultural texts, using methods drawn from film theory and cultural studies.

Three hours, plus one weekly film screening; one term
Prerequisite: Registration in Level II or above in a programme in Art History, Communication Studies, Comparative Literature, Cultural Studies and Critical Theory, or Theatre and Film Studies. It is recommended that students should already have taken CMST 2X03 or 2X06.
Cross-list: COMP LIT 3L03, CSST 3C03, ENGLISH 3C03, THTR&FLM 3R03 (formerly DRAMA 3H03)
This course is administered by the Department of English.

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: Registration in a Communication Studies or Political Science programme
Cross-list: POL SCI 3B03
This course is administered by the Department of Political Science.

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 lectures (lectures and discussion); one term
Prerequisite: CMST 2W03 or PHILOS 2903; and registration in Level II or above
Cross-list: PHILOS 3M03
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 or above
Cross-list: SOTA 3C03
This course is administered by the Department of the Arts.

CMST 3G03  INTRODUCTION TO SOCIOLINGUISTICS

An introduction to sociolinguistics with particular emphasis on the social situation of the major European languages. Topics covered include linguistic variation (regional, social, situational), language and gender, language and disadvantage/power, language choice, language change, pidgin and creole languages.

Three lectures; one term
Prerequisite: LINGUIST 1A03 and 1AA3 (or 1A06); or permission of the Department of Modern Languages and Linguistics
Cross-list: LINGUIST 3K03
Antirequisite: ANTHROP 3X03
This course is administered by the Department of Modern Languages and Linguistics.

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 or above

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 or above

CMST 3J03  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, and audiences and cultivation analysis.

Three lectures; one term
Prerequisite: Three units of Communication Studies and registration in Level II or above; or permission of the instructor

CMST 3K03  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 or above
Cross-list: THTR&FLM 3G03 (formerly DRAMA 3H03)
Offered in alternate years.

This course is administered by the School of the Arts.

CMST 3L03  HISTORY OF 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 or above
Cross-list: ART HIST 3FF3
This course is administered by the School of the Arts.

CMST 3M03  TOPICS IN NATIONAL CINEMAS

This course examines cinematic forms in relation to national contexts and to perspectives about nation. Areas of investigation may include: filmic production of a particular country, national belonging, global/local characteristics, transnational identities.

Two hour lecture and discussion, plus one weekly film screening; one term
Prerequisite: One of CMST 2X03, 2X03 or 2X06
Cross-list: COMP LIT 3V03, THTR&FLM 3G03 (formerly DRAMA 3H03)
CMST 3T03 may be repeated, if on a different topic, to a total of six units.
Offered in alternate years.

This course is administered by the School of the Arts.

CMST 3N03  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 artisitic medium.

Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II or above
Cross-list: SOTA 3B03
This course is administered by the School of the Arts.

CMST 3U03  INDEPENDENT FILM AND VIDEO

An introduction to artists' film and video produced outside of dominant institutions. Works and practices analyzed may include: forms of documentary, community-based projects, experimental films, short films, video art, low-budget features. Two hour lecture and discussion, plus one weekly film screening; one term
Prerequisite: One of CMST 2X03, 2X03 or 2X06
Cross-list: THTR&FLM 3N03
Not open to students with credit in DRAMA 3T33, National Cinemas II, if taken in 2001-2002.
Offered in alternate years.

This course is administered by the School of the Arts.

CMST 3V03  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 of Modern Languages and Linguistics
Cross-list: LINGUIST 3P03
Antirequisite: ANTHROP 3P33
Offered in alternate years.

This course is administered by the School of the Arts.
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 or above. WOMEN ST 1A06 is recommended.
Cross-list: WOMEN ST 3D03
Antirequisite: WOMEN ST 3D06
This course is administered by Women's Studies.

CMST 3WW3 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 or above. WOMEN ST 1A06 is recommended.
Cross-list: WOMEN ST 3D03
Antirequisite: WOMEN ST 3D06
This course is administered by Women's Studies.

CMST 3XX3 FILM HISTORY: 1941 TO THE PRESENT
An exploration of narrative film from 1941 to the present day, incorporating a study of a variety of narrative cinema styles. Theoretical issues will include questions of cinema's relationship to other art forms, narrative, genre and authorship. Two lectures, plus one weakly screening; one term
Prerequisite: CMST 2X03
Cross-list: THTR&FLM 3L03
Antirequisite: CMST 2X06
Offered in alternate years.
This course is administered by the School of the Arts.

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: PHILGS 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 with a Cumulative Average of at least 9.0 and permission of the Committee of Instruction
Enrolment is limited.

CMST 4B03 INDEPENDENT STUDY IN ADVANCED APPLIED COMMUNICATION
Students will apply communication skills, theories and methodologies to complete an advanced independent project in the field of communications. This 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 course is to be taken. Prerequisite: Registration in Level IV of a programme in Communication Studies with a Cumulative Average of at least 8.5 and permission of the Committee of Instruction
Enrolment is limited.

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 Level 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.

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 Level III or IV of a programme in Communication Studies
Enrolment is limited.

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 4C03.
This course is administered by the School of the Arts.

CMST 4G03 APPLIED LINGUISTICS
The course acquaints the student with the contributions that the linguist, psycholinguist, sociolinguist can make to second language learning and teaching.
Three lectures; one term
Prerequisite: Registration in Level III or IV of a programme in Communication Studies (Language and Discourse Stream); and permission of the Departmental Counsellor in the Department of Modern Languages and Linguistics
Cross-list: LINGUSTR 4E03
Antirequisite: ANTHROP 4B3
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. Topics include: translation theory; forensic linguistics; ecocriticism. Consult the Department of Modern Languages and Linguistics for the topic to be offered.
Seminar (two hours), one practicum per week; one term
Prerequisite: Registration in Level III or IV of a programme in Communication Studies (Language and Discourse Stream) and permission of the Departmental Counsellor in the Department of Modern Languages and Linguistics
Cross-list: LINGUSTR 4B3
CMST 4H05 may be repeated, if on a different topic, to a total of six units.
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 (Language and Discourse Stream) and permission of the Departmental Counsellor in the Department of Modern Languages and Linguistics
Cross-list: LINGUSTR 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. Consult the Department of Modern Languages and Linguistics for the topic to be offered.
Prerequisite: CMST 3G03 or LINGUIST 3X03
This course 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.

CMST 4K03 ADVANCED TOPICS IN COMMUNICATION
Students will learn about specific areas or aspects of research in communication studies, such as critical media discourse, culture and consumption, media and globalization, etc.
Seminar (three hours); one term
Prerequisite: CMST 3A03 and registration in Level IV of a programme in Communication Studies
CMST 4K03 may be repeated, if on a different topic, to a total of six units.

COMPARATIVE LITERATURE

WEB ADDRESS: http://www.humanities.mcmaster.ca/~complit
Togo Salmon Hall, Room 726 Ext. 24255

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).

Director
John Stout (French) B.A. (British Columbia), Ph.D. (Princeton)

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

If no prerequisite is listed, the course is open.

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

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

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: COMP LIT 1A03 or 1A13

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: COMP LIT 1A03 or 1A13

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 or above

COMP LIT 2D03 DRAMATIC FORMS
Different performance techniques and conventions demand particular forms of dramatic narrative. By comparing the way similar stories are told in different media and genres, students identify the structuring elements of dramatic texts written for live performance, film television and music theatre.
Lectures and group presentations (three hours); one term
Prerequisite: Three units of Level I Theatre & Film or Drama and registration in Level II or above of a Comparative Literature programme
Cross-list: CMST 2P03, THTR/FLM 2P03
Antirequisite: DRAMA 2D03, 2D06
This course is administered by the School of the Arts.

COMP LIT 2E03 CONCEPTS 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, Cultural Studies and Critical Theory, English or permission of the Departmental Counsellor for English
Cross-list: CMST 2M03, CSCT 2M03, ENGLISH 2M03
This course is administered by the Department of English.

COMP LIT 2EE3 MODERN COUNTERCULTURES
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
Prerequisite: Registration in a programme in Communication Studies, Comparative Literature, Cultural Studies and Critical Theory, English or permission of the Departmental Counsellor for English
Cross-list: CMST 2MM3, CSCT 2MM3, ENGLISH 2MM3
This course is administered by the Department of English.

COMP LIT 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 or above
Cross-list: RELIG ST 2V03
This course is administered by the Department of Religious Studies.

COMP LIT 2H03 GREEK AND ROMAN MYTHOLOGY
A study of the myths of Greek and Roman gods and heroes, 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 or above
Cross-list: CLASSICS 2H03
This course is administered by the Department of Classics.

COMP LIT 2H3 MASTERWORKS OF GERMAN LITERATURE
A survey of major works from a variety of genres, by Goethe, Kleist, Heine, Büchner, Mann, Rilke, Brecht and others.
Three lectures; one term
Prerequisite: Registration in Level II or above

COMP LIT 2M03 GREEK AND ROMAN MYTHOLOGY
A study of the myths of Greek and Roman gods and heroes, 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 or above
Cross-list: CLASSICS 2D03
This course is administered by the Department of Classics.

COMP LIT 3AA3 THEORIES OF GENDER AND SEXUALITY
This course explores a range of theories of gender and sexuality by working through readings from the intersecting fields of feminist, queer and masculinity studies.
Three hours; one term
Prerequisite: Registration in a programme in Comparative Literature, Cultural Studies and Critical Theory, English, Women's Studies or permission of the Departmental Counsellor in the Department of English
Cross-list: CSCT 3A03, ENGLISH 3A03, WOMEN'S ST 3H03
This course is administered by the Department of English.
COMP LIT 3C03  |  TWENTIETH-CENTURY THEATRE
An exploration of important formal and social experiments that marked twentieth-century theatre and paved the way for contemporary theatre forms. Lecture and discussion (three hours); one term
Prerequisite: Three units of Theatre & Film or Drama and registration in Level III or IV of a Comparative Literature programme
Cross-list: THTR&FLM 3E03
Offered in alternate years.

This course is administered by the School of the Arts.

COMP LIT 3D03  |  TOPICS IN LITERARY GENRES_I
Previous topics include: Lyric Poetry, The Novel. Consult the Office of Interdisciplinary Studies concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: Registration in Level II or above of a Comparative Literature programme
COMP LIT 3D03 may be repeated, if on a different topic, to a total of six units.

COMP LIT 3D03  |  TOPICS IN LITERARY GENRES_II
Previous topics include: Short Fiction, Comedy, Tragedy. Consult the Office of Interdisciplinary Studies concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: Registration in Level II or above of a Comparative Literature programme
COMP LIT 3D03 may be repeated, if on a different topic, to a total of six units.

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 or above

COMP LIT 3G03  |  EUROPEAN DRAMA
A study of representative plays by major European dramatists from the 18th century to the present.
Three lectures; one term
Prerequisite: Registration in Level II or above

COMP LIT 3GG3  |  COMPARATIVE THEATRE
A comparison of two or more theatrical traditions.
Three lectures; one term
Prerequisite: Three units of Theatre & Film or Drama and registration in Level III or IV of a Comparative Literature programme
Cross-list: THTR&FLM 3H03
Offered in alternate years.
This course is administered by the School of the Arts.

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 or above
Cross-list: ENGLISH 3S03
This course is administered by the Department of English.

COMP LIT 3I03  |  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: CLASSICS 3I03
COMP LIT 3I03 may be repeated, if on a different topic, to a total of six units.
This course is administered by the Department of Classics.

COMP LIT 3J06  |  STUDIES IN SIXTEENTH-CENTURY LITERATURE
A critical study of the literature of the 1600s 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 3I08
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 or above

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 or above

COMP LIT 3L03  |  READING FILM
A critical examination of selected films and film genres as cultural texts, using methods drawn from film theory and cultural studies.
Three hours, plus one weekly film screening; one term
Prerequisite: Registration in Level II or above of a programme in Art History, Communication Studies, Comparative Literature, Cultural Studies and Critical Theory, English or Theatre & Film Studies. It is recommended that students should already have completed one of CMST 2X03, 2X06, DRAMA 2X06, THTR&FLM 2F03
Cross-list: CMST 3C03, CSCT 3CC3, ENGLISH 3CC3, THTR&FLM 3R03 (formerly DRAMA 3H03)
This course is administered by the Department of English.

COMP LIT 3L3  |  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 or above

COMP LIT 3M03  |  ASIAN LITERATURES
A study of representative texts from the literatures of Asia read in English translation. The course will focus, in particular, on the literatures of India, China and Japan.
Three lectures; one term
Prerequisite: Registration in Level II or above
Offered in alternate years.

COMP LIT 3N03  |  ARABIC AND PERSIAN LITERATURES
A study of representative texts from Arabic and Persian literatures, read in English translation. May include a segment on film.
Three lectures; one term
Prerequisite: Registration in Level II or above
Offered in alternate years.

COMP LIT 3O03  |  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 or above

COMP LIT 3Q03  |  THE HISTORY OF CRITICAL THEORY
A survey of the main developments in critical theory from Plato to the end of the 19th century. Areas of investigation may include: art, aesthetics, civil society, representation, ethics and knowledge.
Three hours; one term
Prerequisite: Registration in Level III or IV of a Comparative Literature programme
Cross-list: CSCT 3Q03, ENGLISH 3Q03
This course is administered by the Department of English.

COMP LIT 3Q03  |  CONTEMPORARY CRITICAL THEORY
This course examines selected issues in contemporary critical theory, Areas of investigation may include: representation, power/knowledge, discourse, subjectivity, and the body.
Three hours; one term
Prerequisite: Registration in a programme in Comparative Literature, Cultural Studies and Critical Theory, English or permission of the English Departmental Counsellor. COMP LIT 3Q03, CSCT 3Q03 or ENGLISH 3Q03 is recommended.
Cross-list: CSCT 3Q03, ENGLISH 3Q03
This course is administered by the Department of English.

COMP LIT 3R05  |  POSTCOLONIAL CULTURES: THEORY AND PRACTICE
A study of contemporary texts including literature, film, art and other forms of popular culture that engage the implications of living in a postcolonial world. Close consideration will be given to issues of Imperialism, globalization, 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: CSCT 3R06, ENGLISH 3R06, PEACE 3E06
This course is administered by the Department of English.
COMP LIT 3R3 CRITICAL RACE STUDIES
This course examines contemporary debates in critical race theory in an attempt to critically decode the operations of race in literary and cultural texts.
Three hours; one term
Prerequisite: Registration in a programme in Comparative Literature, Cultural Studies and Critical Theory, English, Peace Studies, Women's Studies or permission of the Department Counsellor in the Department of English.
Cross-list: CSCT 3A03, ENGLISH 3A03, PEACE ST 3A03, WOMEN ST 3H03
This course is administered by the Department of English.

COMP LIT 3S3 19TH-CENTURY RUSSIAN LITERATURE II
A study of the major novels by Dostoevsky and Tolstoy.
Three lectures; one term
Prerequisite: Registration in Level II or above

COMP LIT 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: COMP LIT 2H03 or six units of Classics
Cross-list: CLASSICS 3T03
This course is administered by the Department of Classics.

COMP LIT 3TT3 MODERN JAPANESE LITERATURE IN TRANSLATION
This is a survey course of major works in 20th-century Japanese literature with an emphasis on fiction published since the Second World War. Readings include Soseki, Tsosen, Masuji Ibuse, Kenzaburo Oe and Haruki Murakami.
Three lectures; one term
Prerequisite: Registration in Level II or above
Cross-list: JAPAN ST 3T03
Offered in alternate years.
This course is administered by the Department of Modern Languages and Linguistics.

COMP LIT 3U03 TOPICS IN MODERN LITERATURES
Topics include: Kafka after Kafka; The Surrealists and the Beats. Consult the Office of Interdisciplinary Studies concerning topic to be offered.
Two hours; one term
Prerequisite: Registration in Level II or above of a Comparative Literature programme or permission of the Director of Comparative Literature.
COMP LIT 3U03 may be repeated, if on a different topic, to a total of six units.

COMP LIT 3V03 TOPICS IN NATIONAL CINEMAS
This course examines cinematic forms in relation to national contexts and to perspectives about nation. Areas of investigation may include: Filmic production of a particular country, national belonging, global/local characteristics, transnational identities.
Two hour lecture and discussion, plus one weekly film screening; one term
Prerequisite: One of DRAMA 2B03, 2X06, LTTR&FLM 1B03, 2E03, 2F03; and registration in Level III or IV of a Comparative Literature programme
Cross-list: CMST 3T03, LTTR&FLM 3Q03 (formerly DRAMA 3T03)
COMP LIT 3V03 may be repeated, if on a different topic, to a total of six units.
Offered in alternate years.
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 or above

COMP LIT 4A3 TOPICS IN LITERARY MOVEMENTS
Previous topics include: European Romanticism. Consult the Office of Interdisciplinary Studies concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: Registration in Level III or IV of a Comparative Literature programme
COMP LIT 4A3 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 Office of Interdisciplinary Studies 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 Office of Interdisciplinary Studies 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 4E03 TOPICS IN COMPARATIVE LITERATURE
Previous topics include: Twentieth-Century Women Writers, Literature and Ideology. Consult the Office of Interdisciplinary Studies concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: Registration in Level III or IV of a Comparative Literature programme
COMP LIT 4E03 may be repeated, if on a different topic, to a total of six units.

COMP LIT 4I03 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 Office of Interdisciplinary Studies concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: Registration in Level III or IV of a Comparative Literature programme
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)

WEB ADDRESS: http://www.cas.mcmaster.ca
Information Technology Building, Room 202
Ext. 24614

Faculty as of January 15, 2003

Chair
Paul A. Taylor

Professors
Franlisek Franek/M.Sc., R.N.Dr. (Charles, Prague), Ph.D. (Toronto)
Ryszard Janicki/M.Sc. (Warsaw), Ph.D., D.Hab. (Polish Acad. Sci.)
Konstantin Kreyman/M.Sc., Ph.D. (Leningrad Hydrometeorological Institute), D.Sc. (Russian Academy of Sciences, Institute for Lake Research - St. Petersburg)
David L. Parnas/B.S., M.S., Ph.D. (Cambridge), Dr.h.c. (ETH Zürich), Dr.h.c. (Louvain), F.R.S.C., F.A.C.S., P.Eng.
Sanzheng Qiao/B.S., M.S. (Shanghai Teacher's College), M.S., Ph.D. (Cornell)
Paul A. Taylor/B.Sc., Ph.D. (Univ. of Wales), P.Eng.
Tamás Tóth/B.Sc., Ph.D. (Loránd Eötvös)
COMPUTER SCIENCE

Department Notes:
1. While the Faculty of Engineering is responsible for all Computer Science courses, Computer Science Programmes are administered by the Faculty of Science.
2. Students wishing to pursue a Computer Science Minor are referred to the Department of Computing and Software in the Faculty of Science section of this Calendar.
3. MATH 1N03 and 1N13 or ARTS & SCI 1D06 or ARTS & SCI 1E06 can serve as an equivalent prerequisite for the upper level Computer Science courses in which MATH 1A03, 1A93 or 1C03 is a prerequisite.
4. It is possible to take COMP SCI 1MD3 or COMP SCI 1SA3 was completed 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 interested in enrolling in a Computer Science programme are recommended to take COMP SCI 1MC3.

Courses
If no prerequisite is listed, the course is open.

COMP SCI 1BA3 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 Grade 12 U or M (or OAC) Mathematics credit; or one of MATH 1K03, 1M03, STATS 1L00
Antirequisite: MMEDIA 1A03

COMP SCI 1MC3 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 Advanced Functions and Introductory Calculus U (or OAC Calculus)
Antirequisite: ENGINEER 1D04

COMP SCI 1MD3 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, 1H13, 1H05, 1M03, 1N03, ARTS & SCI 1D06 and either COMP SCI 1MC3 or ENGINEER 1D04; or a grade of at least B+ in COMP SCI 1SA3

COMP SCI 1SA3 COMPUTER FUNDAMENTALS
Overview of the computer as a tool for problem solving: organization of microcomputers (hardware and operating systems); introduction to programming concepts; applications and networks; the Internet and Web pages; application packages.
Three lectures, one tutorial; one term
Prerequisite: MATH 1K03 or Advanced Functions and Introductory Calculus U (or OAC Calculus)
Antirequisite: ENGINEER 1D04
Not open to students with credit or registration in COMP SCI 1BA3, 1MC3, 1SA3

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: MMEDIA 1A03
Not open to students with credit or registration in COMP SCI 1BA3, 1MC3, 1SA3, ENGINEER 1D04 or HUMAN 2E03.

COMP SCI 2MD3 ADVANCED 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 1MD3
Antirequisite: COMP ENG 2SI4, ELEC ENG 2SI4, SFWR ENG 2C03, 2C04

COMP SCI 2ME3 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 2MD3, 2MJ3
Antirequisite: SFWR ENG 2A04

COMP SCI 2MF3 INTRODUCTION TO COMPUTER ARCHITECTURE
A first course in computing-systems architecture: the functional organization of the CPU; memory and input/output subsystems; an introduction to programming in assembler language; instruction set; vectors; an overview of instruction sets.
Two lectures, one lab (two hours); one term
Prerequisite: COMP SCI 1MD3, PHYSICS 1P03 (or at least 60% in Physics U (or OAC Physics))
Antirequisite: COMP ENG 2D14, ELEC ENG 2D14, SFWR ENG 2D03, 2D04
Not open to students with credit or registration in SFWR ENG 3F03.

COMP SCI 2MJ3 DISCRETE STRUCTURES
Three lectures; one term
Prerequisite: One of MATH 1B03, 1H03, 1H13, 1H05, STAT 1CC3
Antirequisite: SFWR ENG 2E03, 2E04

COMP SCI 2SC3 ADVANCED IMPERATIVE PROGRAMMING
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 one of MATH 1A03, 1B03, 1H03, 1H13, 1H05, 1M03, 1N03 or ARTS & SCI 1D06

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. Fortran, 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 in Level III of B.Sc. Mathematical Science
COMP SCI 3EA3  SOFTWARE DESIGN
Object-oriented modelling, design and implementation, fault tolerance and reliability, embedded software, configuration management.
Three lectures; one term
Prerequisite: COMP SCI 2ME3
Antirequisite: SFWR ENG 2B03, 2B04, 3K04

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: MATH 2R03; and one of COMP ENG 2SI4, COMP SCI 2MD3, SFWR ENG 2C04; and one of MATH 2A03, 2M06, 2Q04

COMP SCI 3IA3  SYMBOLIC PROCESSING AND LOGIC PROGRAMMING
Methodologies, data and 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 3SH3, 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, 2MJ3

COMP SCI 3SE3  DESIGN OF VISUAL PROGRAMMING ENVIRONMENTS
A study of visual programming environments: events, procedures, objects and attributes; paradigms: event-driven, object-oriented, www, markup languages; applications: graphical user interfaces, human factors, cognitive engineering and visualization techniques.
Three lectures; one term
Prerequisite: COMP SCI 2SC3
Corequisite: COMP SCI 2MD3

COMP SCI 3SH3  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; one term
Prerequisite: COMP SCI 2MD3; and one of COMP SCI 2MD3, 2MJ3
Antirequisite: COMP ENG 3L4, SFWR ENG 3K04, 3L04, 3M04

COMP SCI 3TA3  AUTOMATA, COMPUTATION AND LANGUAGES
Three lectures; one term
Prerequisite: COMP SCI 2MD3, 2MJ3; or permission of the instructor
Antirequisite: SFWR ENG 4103

COMP SCI 4CB3  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 either PHYSICS 4D06 or both PHYSICS 4DA3 and 4DB3

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 4CD3  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 SFWR ENG 3G03; or credit or registration in either PHYSICS 4D06 or both PHYSICS 4DA3 and 4DB3

COMP SCI 4EBS  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 4EF3  SOFTWARE REQUIREMENTS ACTIVITIES
Software requirements gathering and verification techniques. Using 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 4GB3  COMPUTATIONAL GEOMETRY
Discrete geometry from an algorithmic point of view. Searching, subdivision, proximity and intersection. Applications to problems in object modelling, computer graphics, and computer vision.
Three lectures; one term
Prerequisite: One of COMP SCI 2MD3, SFWR ENG 2C04 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, planners; PROLOG. Architectures and applications of expert systems.
Three lectures; one term
Prerequisite: COMP SCI 2MD3 or SFWR ENG 2C04

COMP SCI 4IK3  PROVING PROPERTIES OF SPECIFICATIONS
Discrete mathematical languages, 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 program and its execution, preconditions, postconditions, partial, semi-total and total correctness, proof rules and their practical application both to verifying and to designing programs.
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 arithmetics, 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: COMP SCI 3MG3, MATH 2A03, 2R03
Antirequisite: SFWR ENG 3X03
SOFTWARE ENGINEERING ...

Note:
All software engineering courses are open to students registered in a software engineering program, subject to prerequisite requirements. Prior permission of the Department is necessary for other students. Since the Software Engineering program is a CEAB accredited program, Software Engineering students are not allowed to substitute any of the required courses with Engineering Science or Engineering Design content by any courses offered by a non-CEAB accredited Engineering program.

Courses

**SFWR ENG 2AA4  SOFTWARE DESIGN I**
Software development based on precise specifications expressed using logic and discrete mathematics. Specification techniques. Specification, implementation, and testing of small software units called modules.
Three lectures, one tutorial; two terms
Prerequisite: SFWR ENG 2E03, 2S03; and SFWR ENG 2F03 or 2F04
Antirequisite: SFWR ENG 2A04

**SFWR ENG 2E03  DATA STRUCTURES AND ALGORITHMS**
Data structures: queues, stacks, lists, heaps, trees, balanced trees, sorting, searching, graph algorithms; general techniques of design and analysis of algorithms.
Three lectures, one tutorial; second term
Prerequisite: SFWR ENG 2E03, 2S03
Antirequisite: COMP ENG 2S04, COMP SCI 2M03, ELEC ENG 2S14, SFWR ENG 2F04

**SFWR ENG 2E04  DIGITAL SYSTEM PRINCIPLES AND LOGIC DESIGN FOR SOFTWARE ENGINEERING**
Systematic design procedures; combinatorial circuit design, design of sequential machines, error detection, correction; redundancy, number representations, organization of simple digital circuits. Introduction to logic simulators.
Three lectures, one lab; second term
Prerequisite: SFWR ENG 2E03; and 2F03 or 2F04
Antirequisite: COMP ENG 2D14, COMP SCI 2MF3, ELEC ENG 2D14

**SFWR ENG 2E0S  DISCRETE MATHEMATICS FOR SOFTWARE ENGINEERING**
Sets, functions, relations, trees, graphs, algebras. Combinatorial methods, permutations, combinations, partitions, representation of discrete functions, introduction to finite state machines and formal languages. Probability, random variables, distributions.
Three lectures, one tutorial; first term
Prerequisite: MATH 1H03
Antirequisite: COMP SCI 2M13

**SFWR ENG 2F03  LOGIC FOR SOFTWARE ENGINEERING**
Foundations of propositional, predicate, higher-order, multiple-value logic; normal forms; deduction systems, models; practical examples of usage of logic in software engineering; introduction to automated theorem proving systems.
Three lectures, one tutorial; first term
Prerequisite: MATH 1H03
Antirequisite: COMP SCI 2M13

**SFWR ENG 2M03  INTRODUCTION TO MATHEMATICAL MODELLING OF SYSTEMS**
Linear systems, signals, filters; sampling theorem; state domain and frequency space; simple input-output systems; the relation of discrete and continuous systems; introduction to mathematical models of systems, stochastic systems.
Three lectures, one tutorial; second term
Prerequisite: MATH 1H03, 1N03, 2P04

**SFWR ENG 2S03  PRINCIPLES OF PROGRAMMING**
Fundamental concepts of imperative programming languages: (Asser­ tion, Assignment, Control flow, Iteration, recursion, exceptions); Data representations; Basic concepts of operating systems; Composing and analyzing small programs.
Three lectures, one tutorial; first term
Prerequisite: ENGINEER 1D04

**SFWR ENG 3A04  SOFTWARE DESIGN II**
Software design process, design of large systems, design for change and expansion; Documentation, inspection; incremental design; Classes and objects, structured and object oriented analysis and design; Revision and version control; Project organization.
Three lectures, one tutorial; two terms
Prerequisite: SFWR ENG 2AA4; and 2C03 or 2C04
Co-requisite: SFWR ENG 3R03
First offered in 2004-2005

**SFWR ENG 3B04  SOFTWARE DESIGN III**
Three lectures, one lab (three hours); second term
Prerequisite: SFWR ENG 3P03, 3G03
SFWR ENG 3B04 DESIGN OF CONCURRENT AND OBJECT ORIENTED PROGRAMS
Processes, threads; Resource management and sharing, dead lock, synchronization mechanisms; Objects and concurrency; Reasoning about and testing of concurrent system.
Three lectures, one tutorial (two hours); second term
Prerequisite: SFWR ENG 3A04, 3E03
First offered in 2004-2005.

SFWR ENG 3C03 DISCRETE OPTIMIZATION METHODS AND GRAPH THEORETICAL MODELS
Linear and non-linear programming. Integer programming. Search techniques. Use of directed graphs in engineering problems, scheduling techniques, network optimization, route planning.
Three lectures, one tutorial (two hours) every other week; second term
Prerequisite: SFWR ENG 2C04; and SFWR ENG 2E03 or 2E04; and SFWR ENG 2F03 (or 2F04); and SFWR ENG 3X03

SFWR ENG 3D03 DYNAMIC MODELS AND CONTROL OF PHYSICAL SYSTEMS
Modelling of dynamic continuous physical phenomena in both continuous and discrete time. Control theory, stability analysis and feedback controller design. Application of computer control to continuous processes.
Data analysis, empirical modelling.
Three lectures, one tutorial; second term
Prerequisite: SFWR ENG 3X03
Antirequisite: ENGINEER 3L03
First offered in 2004-2005.

SFWR ENG 3E03 DESIGN AND SELECTION OF SEQUENTIAL PROGRAMMING LANGUAGES
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 (three hours); first term
Prerequisite: SFWR ENG 2B03 or 2B04; and SFWR ENG 2C04

SFWR ENG 3F03 MACHINE-LEVEL COMPUTER PROGRAMMING
Two lectures, one lab (three hours); first term
Prerequisite: SFWR ENG 2B03 or 2B04; and SFWR ENG 2C04, 2D04
Corequisite: SFWR ENG 3G03
Antirequisite: COMP ENG 3D04

SFWR ENG 3G03 ARCHITECTURE OF COMPUTERS AND MULTIPROCESSORS
Three lectures; first term
Prerequisite: SFWR ENG 2D04
Antirequisite: COMP ENG 4DM4, COMP SCI 3MG3

SFWR ENG 3H03 DATA MANAGEMENT TECHNIQUES
Three lectures, one lab (three hours) every other week; second term
Prerequisite: SFWR ENG 2E03
Antirequisite: COMP SCI 4E83

SFWR ENG 3I03 COMMUNICATION SKILLS - EXPLAINING SOFTWARE
Writing technical (reference) documentation and user (introductory) software documentation. Explaining software to expert and user audiences. Document structure. Writing precise software contracts. Oral presentations.
Two lectures, one seminar (two hours); first term
Prerequisite: ENGINEER 1C04

SFWR ENG 3J03 SOFTWARE AND SOCIAL RESPONSIBILITY
Two lectures, one seminar (two hours), second term
Prerequisite: SFWR ENG 2B03 or 2B04; and SFWR ENG 3G03

SFWR ENG 3K04 SOFTWARE DEVELOPMENT FOR COMPUTER ENGINEERING
Three lectures, one lab (four hours every other week); first term
Prerequisite: COMP ENG 2S14
Antirequisite: COMP SCI 3EA3

SFWR ENG 3M04 SOFTWARE DEVELOPMENT FOR ELECTRICAL ENGINEERING
Three lectures, one lab; first term
Prerequisite: COMP ENG 2S14 or ELEC ENG 2S14

SFWR ENG 3P03 SOFTWARE REQUIREMENTS, INSPECTION AND TESTING
Software requirements gathering and verification techniques. Software requirements management. Using requirements for software testing. Systematic, system, integration and unit testing, statistical testing, statistical inference, analysis of variance. Inspection.
Three lectures, one tutorial; first term
Prerequisite: SFWR ENG 2A04
Co-requisite: SFWR ENG 3A04
First offered in 2004-2005.

SFWR ENG 3Q03 SCIENTIFIC COMPUTATION AND CONTINUOUS OPTIMIZATION
Three lectures, one tutorial (one hour); first term
Prerequisite: SFWR ENG 2C04 or 2C03; and SFWR ENG 2F03 or 2F04; and either MATH 2M06 or both MATH 2P04 and 2P04
Antirequisite: COMP ENG 3K04, COMP SCI 4M3

SFWR ENG 4A03 DESIGN OF REAL-TIME SYSTEMS AND COMPUTERIZED CONTROL SYSTEMS
Three lectures, one lab (three hours); first term
Prerequisite: ENGINEER 3L03

SFWR ENG 4C03 COMPUTER NETWORKS AND COMPUTER SECURITY
Design of Computer Networks. Types of networks, protocols, network structures. Control of access rights. Protection against unauthorised use, data theft, data destruction and denial of service. Use of encryption.
Three lectures, one lab every other week; second term
Prerequisite: SFWR ENG 4A03, 4E03

SFWR ENG 4D03 DESIGN OF HUMAN COMPUTER INTERFACES
Three lectures; first term
Prerequisite: SFWR ENG 3B04

SFWR ENG 4E03 PERFORMANCE ANALYSIS OF COMPUTER SYSTEMS
Use of queuing models and simulation to predict computer system performance and find bottlenecks in a system. Types of models, distributions. Markov models. Modelling of storage and network behaviour, operating system critical sections, concurrency. Statistical inference, decision making.
Three lectures, one tutorial; first term
Prerequisite: SFWR ENG 3B04

SFWR ENG 4EF3 SOFTWARE REQUIREMENTS ACTIVITIES
Software requirements gathering and verification techniques. Using requirements for software testing. Software requirements management.
Three lectures, one tutorial; second term
Prerequisite: SFWR ENG 3B04
Cross-list: COMP SCI 4EF3
CULTURAL STUDIES AND CRITICAL THEORY

Courses in Cultural Studies and Critical Theory are administered within the Department of English of the Faculty of Humanities. For information and counselling, please contact the Department of English in Chaster New Hall, Room 321.

Courses

CSCT 2J03 CONTEMPORARY POPULAR CULTURE
A study of one or more selected forms of popular culture, drawing on models of analysis from the field of cultural studies. Areas of investigation may include: television, magazines, advertising, computer culture, film, popular fiction, the culture of everyday life.
Three hours; one term
Prerequisite: Registration in Level II or above
Cross-list: CMST 2J03, ENGLISH 2J03

CSCT 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 will be a component of the course.
Three hours; two terms
Prerequisite: Registration in a programme in Cultural Studies and Critical Theory or permission of the English Departmental Counsellor
Cross-list: ENGLISH 2K06, WOMEN ST 2K06

CSCT 2M03 CONCEPTS 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, Cultural Studies and Critical Theory or permission of the English Departmental Counsellor
Cross-list: CMST 2M03, COMP LIT 2E03, ENGLISH 2M03

CSCT 2MM3 MODERN COUNTERCULTURES
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
Prerequisite: Registration in a programme in Communication Studies, Comparative Literature, Cultural Studies and Critical Theory or permission of the English Departmental Counsellor
Cross-list: CMST 2MM3, COMP LIT 2EE3, ENGLISH 2MM3

CSCT 2P03 MODERNITY/POSTMODERNITY/VISUALITY
This course will examine modernity and postmodernity through an exploration of a variety of theoretical discourses and representational practices, with specific reference to visual culture.
Three hours; one term
Prerequisite: Registration in a programme in Cultural Studies and Critical Theory or permission of the English Departmental Counsellor
Cross-list: ENGLISH 2P03

CSCT 3A03 CRITICAL RACE STUDIES
This course examines contemporary debates in critical race theory in an attempt to critically decode the operations of race in literary and cultural texts.
Three hours; one term
Prerequisite: Registration in a programme in Comparative Literature, Cultural Studies and Critical Theory, Peace Studies, Women's Studies or permission of the English Departmental Counsellor
Cross-list: COMP LIT 3FR3, ENGLISH 3A03, PEACE ST 3A03, WOMEN ST 3H03

CSCT 3AA3 THEORIES OF GENDER AND SEXUALITY
This course explores a range of theories of gender and sexuality by working through readings from the intersecting fields of feminist, queer and masculinity studies.
Three hours; one term
Prerequisite: Registration in a programme in Comparative Literature, Cultural Studies and Critical Theory, Women's Studies or permission of the English Departmental Counsellor
Cross-list: COMP LIT 3AA3, ENGLISH 3AA3, WOMEN ST 3H03
CSCT 3CC3 READING FILM
A critical examination of selected film and film genres as cultural texts, using methods drawn from film theory and cultural studies. Three hours, plus one weekly film screening; one term.
Prerequisite: Registration in Level II or above of a programme in Art History, Communication Studies, Comparative Literature, Cultural Studies and Critical Theory or Theatre & Film Studies. It is recommended that students should already have completed DRAMA 2X06 or THTR&FLM 2F03.
Cross-list: COMP LIT 3L03, ENGLISH 3CC3, THTR&FLM 3R03 (formerly DRAMA 3H03)

CSCT 3Q03 THE HISTORY OF CRITICAL THEORY
A survey of the main developments in critical theory from Plato to the end of the 19th century. Areas of investigation may include: art, aesthetics, civil society, representation, ethics and knowledge. Three hours; one term.
Prerequisite: Registration in a programme in Comparative Literature, Cultural Studies and Critical Theory or permission of the English Departmental Counsellor.
Cross-list: COMP LIT 3Q03, ENGLISH 3Q03

CSCT 3Q03 CONTEMPORARY CRITICAL THEORY
This course examines selected issues in contemporary critical theory. Areas of investigation may include: representation, power/knowledge, discourse, subjectivity, and the body. Three hours; one term.
Prerequisite: Registration in a programme in Comparative Literature, Cultural Studies and Critical Theory or permission of the English Departmental Counsellor. COMP LIT 3Q03, CSCT 3Q03 or ENGLISH 3Q03 is recommended.
Cross-list: COMP LIT 3Q03, ENGLISH 3Q03

CSCT 3R06 POSTCOLONIAL CULTURES: THEORY AND PRACTICE
A study of contemporary texts including literature, film, art and other forms of popular culture that engage the implications of living in a postcolonial world. Close consideration will be given to issues of imperialist, globalization, race, gender, ethnicity, nation, language and representation. Three hours; two terms.
Prerequisite: Registration in a programme in Comparative Literature, Cultural Studies and Critical Theory, Peace Studies or permission of the English Departmental Counsellor.
Cross-list: COMP LIT 3R06, ENGLISH 3R06, PEACE ST 3E06

CSCT 3T03 TOPICS IN LITERARY AND CULTURAL STUDIES
Previous topics include: The Cyborg in Fiction and Critical Theory, Children's Fiction, African American Fictions. Contact the Department of English for the topic to be offered. Three hours; one term.
Prerequisite: Registration in Level II or above
Cross-list: ENGLISH 3T03
CSCT 3T03 may be repeated, if on a different topic, to a total of six units.

CSCT 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 1A03; or six units of Level I English; or permission of the instructor.
Cross-list: ENGLISH 3W03, INDIG ST 3D03, PEACE ST 3W03
This course is administered by Indigenous Studies.

CSCT 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 1A03; or six units of Level I English; or permission of the instructor.
Cross-list: ENGLISH 3X03, INDIG ST 3E03, PEACE ST 3X03
This course is administered by Indigenous Studies.
### CSCT 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 ecology approaches.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in Cultural Studies and Critical Theory
Cross-list: ENGLISH 4EL3
Enrolment is limited. Departmental permission required.

### CSCT 4FT3 THE FAIRY TALE
A study of the fairy tale from the structuralist, psychoanalytic, and sociological 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 Cultural Studies and Critical Theory
Cross-list: ENGLISH 4FT3
Enrolment is limited. Departmental permission required.

### CSCT 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 Cultural Studies and Critical Theory
Cross-list: ENGLISH 4GM3
Enrolment is limited. Departmental permission required.

### CSCT 4ID3 DISLOCATION AND BELONGING: CANADIAN WRITINGS OF IMMIGRATION AND DIASPORA
This course examines works by and about people who have moved between cultural locations to consider questions of cultural and cross-cultural identity.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in Cultural Studies and Critical Theory
Cross-list: ENGLISH 4ID3
Enrolment is limited. Departmental permission required.

### CSCT 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 Cultural Studies and Critical Theory
Cross-list: ENGLISH 4ON3
Enrolment is limited. Departmental permission required.

### CSCT 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 Cultural Studies and Critical Theory
Cross-list: ENGLISH 4PD3
Enrolment is limited. Departmental permission required.

### CSCT 4RR3 THE ROMANCE OF ROMANCE
Pairs of medieval and modern romances will be studied in the light of critical theories of romance, gender and reading.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in Cultural Studies and Critical Theory
Cross-list: ENGLISH 4RR3
Enrolment is limited. Departmental permission required.

### CSCT 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 Cultural Studies and Critical Theory
Cross-list: ENGLISH 4RT3
Enrolment is limited. Departmental permission required.

### CSCT 4SA3 POST-INDEPENDENCE SOUTHERN ASIAN FICTIONS
This seminar surveys a range of texts by men and women from South Asia (India, Pakistan, Bangladesh, Sri Lanka) and the South Asian diaspora, from the 1950s to the present.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in Cultural Studies and Critical Theory
Cross-list: ENGLISH 4SA3
Enrolment is limited. Departmental permission required.

### CSCT 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 Cultural Studies and Critical Theory
Cross-list: ENGLISH 4UT3
Enrolment is limited. Departmental permission required.

### CSCT 4WL3 GLOBALIZATION AND POSTCOLONIAL FICTION
This course examines fictional representations of the ideology and processes of globalization, while also considering how globalization shapes the production and consumption of postcolonial culture.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in Cultural Studies and Critical Theory
Cross-list: ENGLISH 4WL3
Enrolment is limited. Departmental permission required.

### DRAMA

**Former Course**

<table>
<thead>
<tr>
<th>Course</th>
<th>New Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAMA 1A03</td>
<td>No longer offered</td>
</tr>
</tbody>
</table>

**Course Title**

- Introduction to Drama: Cultural History in Contemporary Performance
- Introduction to Drama: Performance as Social Critique
- The Art of Acting
- New Media and Performance
- Dramatic Forms
- History of Western Theatre Performance to the Eighteenth Century
- The Art of the Film
- Topics in Acting
- Acting Shakespeare
- Independent Study in Theatre & Film
- Modern European Drama from Ibsen to Pirandello
- Modern European Drama from Brecht to the Present
- Introduction to Production Practices
- Development of Canadian Theatre
- Comparative Theatre
- Reading Film
- Topics in Film
- Modern European Theatre History
- Theatre and Community Development
- Plays in Performance
- The American Cinema I
- The American Cinema II
- Topics in National Cinemas
- Independent Study in Practical Theatre
ECONOMICS

WEB ADDRESS: http://socerv2.socsci.mcmaster.ca/~econ/
Kenneth Taylor Hall, Room 426
Ext. 22765

Faculty as of January 15, 2003

Chair
Stuart Masteiman

Associate Chair
A. Leslie Robb

Professors
Kenneth S. Chan/B.Sc. (Toronto), M.A., Ph.D. (Brown)
Martin Dooley/B.A. (Indiana), M.S., Ph.D. (Wisconsin-Madison)
Peter J. George/C.M., B.A., M.A., Ph.D. (Toronto), D.U. (Ottawa), D. Hon.
C. (Lyon), D.Litt. (Lpooling)
Alan Harrison/B.A., M.A., Ph.D. (Essex)
Jeremiah E. Hurley/B.A. (John Carroll), M.A., Ph.D. (Wisconsin-
Madison)
Ahl A. Kubursi/B.A., (American University, Beirut), M.S., Ph.D. (Purdue)
John E. Leach/B.A. (Alberta), M.A., Ph.D. (Queen's)
Wayne Lewchuk/ (Labour Studies) M.A. (Toronto), Ph.D. (Cambridge)
Lonne J. Magee/B. Math. (Waterloo), M.A., Ph.D. (Western Ontario)
Stuart Masteiman/B.A. (Pittsburgh), M.S., Ph.D. (Purdue)
R. Andrew Muller/B.A. (McGill), M.A., Ph.D. (Toronto)
Kenneth H. Norrie/B.A. (Saskatchewan), M.Phil., Ph.D. (Yale)
A. Leslie Robb/B.A., M.A. (British Columbia), Ph.D. (Essex)
William M. Scarth/B.A. (Queen's), M.A. (Essex), Ph.D. (Toronto)
Byron G. Spencer/B.A. (Queen's), Ph.D. (Rice)
Michael R. Veall/B.A. (McMaster), M.A. (Western Ontario), Ph.D. (M.I.T.)

Associate 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.
Ali A. Khilji/A.M. (Delhi), M.A. (Delhi School of Economics), Ph.D. (Boston)
Abigail Payne/B.A. (Denison), J.D.(Cornell), Ph.D.(Princeton)

Adjunct Assistant Professor
Paul Grootendorst/(Clinical Epidemiology and Biostatistics) B.A. (Vic-
toria), M.A. (Queen's),Ph.D. (McMaster)

Assistant Professors
Thomas F. Crossley/B.Sc.(Queen's), M.A., Ph.D.(McMaster)
Katherine Cuff/M.A. (York), Ph.D. (Queen's)
Marc-André Letendre/B.A. (HEC Montreal), M.A., Ph.D. (Queen's)
Peter J. McCabe/A.B. (Boston College), Ph.D. (Northwestern)

Adjunct Assistant Professor
Emile Temps/B.A. (York), M.B.A. (British Columbia), M.A. (Toronto),
Ph.D.(McMaster)

Associate Members
Paul Contoyannis/(Clinical Epidemiology and Biostatistics) B.Sc., M.Sc.,
Ph.D.(York)
Dean C. Mountain/(Business) B.A. (McMaster), M.A., Ph.D. (Western
Ontario)
Gregory L. Stoddart/(Clinical Epidemiology and Biostatistics) B.A.
(Western Ontario), Ph.D. (British Columbia)

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 such cases where prerequisites are
incomplete, consultation with a departmental counselor is required.
3. Students who complete ECON 2X03 are well placed to enrol in the
Canadian Securities Course (a correspondence course operated by
the Canadian Securities Institute which represents the licensing re-
requirement for individuals training to become investment advisors).
4. ECON 2C03 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 appli-
cation to the analysis of economic problems. Three lectures; two terms
Antirequisite: ECON 1B03 and 1B3

ECON 1B03  INTRODUCTORY MICROECONOMICS
An introduction to the method and theory of microeconomics for Engi-
neering, Kinesiology, and Business students. The analysis will involve
mathematics and will be applied to contemporary problems. Three
lectures; one term
Prerequisite: Registration in a Bachelor of Health Sciences (Honours),
Engineering, Kinesiology or Science programme
Antirequisite: ECON 1A06

ECON 1B33  INTRODUCTORY MACROECONOMICS
An introduction to the method and theory of macroeconomics for Engi-
neering, Kinesiology and Science students. The analysis will involve
mathematics and will be applied to contemporary problems.
Three lectures; one term

Prerequisite: Registration in a Bachelor of Health Sciences (Honours),
Engineering, Kinesiology or Science programme
Antirequisite: ECON 1A06

ECON 2A03  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. Three lectures; three terms
Prerequisite: ECON 1A06; or ECON 1B03 and 1B3
Cross-lists: LABR ST 3A03

ECON 2B03  ANALYSIS OF ECONOMIC DATA I
Application of statistical techniques 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 both ECON 1B03 and 1B3, and MATH 1K03
or Advanced Functions and Introductory Calculus U or (OAC Calculus); and
one of STATS 1L03 or 2D03 or Mathematics of Data Management U
(or OAC Finite Mathematics)
Antirequisites: COMMERC 2A03, COMM 3A03, GEOG 2S03, POL SCI 3N06,
PSYCH 2G03, 2N03, 2R03, SOC SCI 2J03, SOC SCI 2J03, SOC SCI 2L03
Not open to students with credit or registration in CHEM ENG 4C03,
SOCIOI 3H06, STATS 1C03, 2A03, 2B03, 2R03, 3N03, 3Y03, or if
COMMERC 2A03 is a programme requirement.
ECON 2G03  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 ECON 1B03 and 1BB3
Cross-list: JAPAN ST 2G03
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 ECON 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 ECON 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 ECON 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 one of Advanced Functions and Introductory Calculus U (or OAC Calculus), MATH 1K03 or equivalent; and credit or registration in MATH 1M03 or equivalent
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; and MATH 1M03 or equivalent
Antirequisite: ECON 2L06

ECON 2H03  INTERMEDIATE INCOME AND EMPLOYMENT THEORY I
Determinants of national income, employment, the rate of interest and the price level; introduction to the open economy.
Three lectures; one term
Prerequisite: ECON 1A06 or 1B03; and one of Advanced Functions and Introductory Calculus U (or OAC Calculus), 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 2H13  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 2L03  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 ECON 1B03 and 1BB3
Antirequisite: COMMERCE 3F03

ECON 2J03  ENVIRONMENTAL ECONOMICS
Allocation of environmental services: efficiency and market failure; measuring environmental benefits; environmental regulation in Canada and elsewhere: taxes, tradable permits and other instruments; further topics.
Three lectures; one term
Prerequisite: ECON 1A06 or 1B03

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 ECON 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 2N03  PUBLIC POLICY TOWARD BUSINESS
The economic effects of federal competition policy and the regulation of business by all levels of government.
Three lectures; one term
Prerequisite: ECON 1A06 or ECON 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 1B03

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 ECON 1B03 and 1BB3
Cross-list: LABR ST 3B03
Not open to students registered in Economics programmes.

ECON 3A03  ADVANCED ECONOMIC THEORY I
Mathematically oriented approaches to the analysis of the behaviour of individual consumers, workers and firms.
Three lectures; one term
Prerequisite: ECON 3G03, MATH 1M03 and an average of at least 7.0 in ECON 2G03 (or 2X03), 2G03 (or 2L03), 2H03, 2H13 (or 2M06)

ECON 3AA3  ADVANCED ECONOMIC THEORY II
Analysis of dynamic macroeconomic models including models of endogenous growth and other selected topics.
Three lectures; one term
Prerequisite: ECON 3G03, MATH 1M03 and an average of at least 7.0 in ECON 2G03 (or 2X03), 2G03 (or 2L03), 2H03, 2H13 (or 2M06)

ECON 3B03  PUBLIC SECTOR ECONOMICS: EXPENDITURES
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
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 3G03</td>
<td>PUBLIC SECTOR ECONOMICS: TAXATION</td>
<td>Three lectures; one term</td>
<td>One of ECON 2G03, 2X03, 2L06</td>
<td></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.</td>
<td>Three lectures; one term</td>
<td></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 (e.g., writing, library, Internet, data), and the subsequent application of the skills to an economic issue.</td>
<td>Three hours; one term</td>
<td></td>
</tr>
<tr>
<td>ECON 3H03</td>
<td>INTERNATIONAL MONETARY ECONOMICS</td>
<td>Macroeconomic problems of an open economy with special reference to Canada; the international financial system and proposals for its reform.</td>
<td>Three hours (lectures and seminars); one term</td>
<td></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.</td>
<td>Three lectures; one term</td>
<td></td>
</tr>
<tr>
<td>ECON 3J03</td>
<td>TOPICS IN MONETARY ECONOMICS</td>
<td>Analysis of monetary theory and policy. Topics include money demand and supply, money inflation, rational expectations, monetary policy and asset market analysis.</td>
<td>Three lectures; one term</td>
<td></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.</td>
<td>Three lectures; one term</td>
<td></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 coalitional games. Applications in economics, political science and evolutionary biology are discussed.</td>
<td>Three lectures; one term</td>
<td></td>
</tr>
<tr>
<td>ECON 3P03</td>
<td>LINEAR ECONOMIC MODELS</td>
<td>Application and interpretation in economics of linear programming, game theory and inter-industry analysis.</td>
<td>Three lectures; one term</td>
<td></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.</td>
<td>Three lectures; one term</td>
<td></td>
</tr>
<tr>
<td>ECON 3S03</td>
<td>INDUSTRIAL ORGANIZATION</td>
<td>A study of the structure, conduct and performance of industrial markets.</td>
<td>Three lectures; one term</td>
<td></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.</td>
<td>Three lectures; one term</td>
<td></td>
</tr>
<tr>
<td>ECON 3U03</td>
<td>ANALYSIS OF ECONOMIC DATA II</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.</td>
<td>Three lectures; one term</td>
<td></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.</td>
<td>Three hours (lectures and seminars); one term</td>
<td></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.</td>
<td>Two lectures (one hour); one tutorial (two hours); one term</td>
<td></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.</td>
<td>Three hours; one term</td>
<td></td>
</tr>
<tr>
<td>ECON 3Z03</td>
<td>HEALTH ECONOMICS</td>
<td>Analysis of allocation of resources in health care. Topics include markets for health care, insurance, biomedical research, technology assessment, organization and public policy.</td>
<td>Three lectures; one term</td>
<td></td>
</tr>
<tr>
<td>ECON 4A03</td>
<td>HONOURS SEMINAR IN ECONOMICS</td>
<td>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.</td>
<td>Three hours (seminars); one term</td>
<td></td>
</tr>
<tr>
<td>ECON 4B03</td>
<td>SELECTED TOPICS II</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.</td>
<td>Three hours; one term</td>
<td></td>
</tr>
</tbody>
</table>
ECON 4M06  DIRECTED RESEARCH I
A reading and/or research programme 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

ELECTRICAL AND COMPUTER ENGINEERING

WEB ADDRESS: http://www.ece.mcmaster.ca
Communications Research Laboratory, Room 101 Ext. 24347

Faculty as of January 15, 2003

Chair
Tom (Z-G.) Luo

Associate Chair (Undergraduate Programmes)
Ted Szymanski

Associate Chair (Graduate Studies)
M. Jamal Dean

University Professor
Simon Haykin/B.Sc., Ph.D., D.Sc. (Birmingham), F.R.S.C., F.I.E.E.

Professors
M. Jamal Deen/B.Sc. (Guelph), M.S., Ph.D. (Case Western Reserve)
Raymond D. Findlay/B.A.Sc., M.A.Sc., Ph.D. (Toronto), P.Eng, F.I.E.E.E.
Alex B. Gershman/M.Eng.Sc., Ph.D. (Nizhny Novgorod)
Wei-Ping Huang/B.S. (Shandong), M.S. (Science and Technology of China), Ph. D. (M.I.T.)
Tom (Z-G.) Luo/B.Sc. (Feking), Ph.D. (M.I.T.), P. Eng.
Barbara Szabados/Dipl.Eng. (Gringoble), M.Eng., Ph.D. (McMaster), P.Eng.
Terrence D. Todd/B.A.Sc., M.S., Ph.D. (Waterloo), P.Eng.

Adjunct Professor
Jim Lee/B.Sc. (Calgary), M.A.Sc. (Toronto), Ph.D. (Carleton)

Associate Professor
Hubert deBruin/(Medicine), M.Eng., Ph.D. (McMaster), P.Eng.

Adjunct Associate Professor
Eloi Bosse/B.Sc.A., M.Sc. (Laval), Ph.D. (Carleton, Ottawa, Laval)

Assistant Professors
M. Bakr/B.Sc., M.Sc. (Cairo), Ph.D. (McMaster), P.Eng.
I. Bruce/B.Eng., Ph.D. (Melbourne)
S.H. Chen/B.A.Sc. (National Central Univ., Taiwan), M.A.Sc. (Simon Fraser), Ph.D. (McMaster)
T. Davidson/B.Eng. (Western Australia), D. Phil. (Oxford)
N. Georgiadi/Dipl. (Tech. University of Varza), Ph.D. (University of Electrowoemunications, Tokyo), P.Eng.
Y. Haddara/B.Eng. (Memorial), M.Sc., Ph.D. (Stanford)
D. Jones/B.Sc. (Western Ontario), Ph.D. (Stanford)
X. Li/B.S. (Shandong), M.S. (Wuhan Research Inst. of Posts & Telecommunications), Ph.D. (Northern Jiaotong)

Nicola Nicolici/B.Eng. (Technical University Timisoara), Ph.D. (Southampton)
S. Shirani/B.Sc. (Isfahan University of Technology), M.Sc. (Amirkabir University of Technology), Ph.D. (British Columbia), P.Eng.
D. Zhao/B.S. (Northern Jiaotong, Beijing), Ph.D. (Waterloo)

Adjunct Assistant Professors
Javier F. de la Hidalga-W.B.Sc., M.Sc., Ph.D. (ITACE, Puebla, Mexico)
Gu Jin/B.Eng., M.Eng. (Dalian Maritime), Ph.D. (McMaster)

Associate Members
G. Bonel/(Mechanical Engineering), B.Sc.App.Sc. (Queen's), M.Eng., Ph.D. (McMaster)
D. Down/(Computing and Software), B.Sc., M. Sc. (Toronto), Ph.D. (Illinois-Urbana)
Marked V. Kamath/(Medicine), M.S., Ph.D. (Indian Inst. of Tech., Madras), Ph.D. (McMaster)
Tamás Terlaky/(Computing and Software), M.Sc., Ph.D. (Lendand Eötvös)

COMPUTER ENGINEERING ...

Department Note:
Computer Engineering is a multidisciplinary 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 2D04  LOGIC DESIGN
Binary numbers and codes; Boolean algebra; combinational circuit design; electrical properties of logic circuits; sequential circuit design; computer arithmetic; programmable logic; CPU organization and design. Three lectures, one tutorial, one lab every other week; first term
Prerequisite: Registration in a programme in Computer Engineering Antirequisite: COMP SCI 2MF3, ELEC ENG 2D04, SFWR ENG 2D03, 2D04

COMP ENG 2S14  DATA STRUCTURES, ALGORITHMS AND DISCRETE MATHEMATICS
Application of logic and finite state machines programming; data types; data abstractions and algorithms for sorting and searching; application of graph algorithms and combinatorics in programming; estimating program resource utilization.
Three lectures, one tutorial (two hours); second term
Prerequisite: ENGINEER 1D04
Antirequisite: COMP SCI 2MD3, ELEC ENG 2S14, SFWR ENG 2C03, 2C04

COMP ENG 3D04  DIGITAL SYSTEMS DESIGN
CAD tools for digital circuits; hardware description language; program- mable logic and applications; arithmetic state machine design; microprocessor-based system design including memory and peripheral interfaces; machine-level programming.
Three lectures, one tutorial, one lab every other week; first term
Prerequisite: COMP ENG 2D04 or ELEC ENG 2D04
Antirequisite: PHYSICS 4D06, 4D33, SFWR ENG 3F03

COMP ENG 3S14  COMPUTER-ANALOG ENGINEERING
Numerical analysis; linear and nonlinear systems; least squares and quadratic factorization; optimization; numerical differentiation; sensitivity analysis; finite differences and finite elements; engineering applications.
Three lectures, one tutorial, one lab every other week; second term
Prerequisite: COMP ENG 2D04 or ELEC ENG 2D04; and ELEC ENG 2C04
Antirequisite: MATH 3K03

COMP ENG 3K04  COMPUTER COMMUNICATION NETWORKS
Introduction to switching and communication networks; packet switching; shared media access and LANs; error control; network layer operation and the Internet; ISDN; wireless networks; performance and simulation.
Three lectures, one tutorial, one lab every other week; first term
Prerequisite: ELEC ENG 3T04
All students in the Electrical Engineering program initially follow a common curriculum consisting of a combination of Electrical Engineering and Computer Engineering courses. In their senior year, students 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 any Electrical or Computer Engineering programme or the Electrical and Biomedical Engineering programme, subject to prerequisite requirements. Prior permission of the Department is necessary for students from other Engineering departments or faculties.
ELEC ENG 3TP4 SIGNS 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 2CJ4
Corequisite: MATH 3K03
Antirequisite: MECH ENG 4R03

ELEC ENG 3TQ4 PROBABILITY AND RANDOM PROCESSES
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 2CJ4, MATH 2P04, 2Q04

ELEC ENG 3TR4 COMMUNICATION SYSTEMS
Review of continuous-time signals and systems; analysis and implementation of amplitude modulation (DSB-SC, SSB), phase and frequency modulation schemes; digital modulation; noise performance.
Three lectures, one tutorial, one lab every other week; second term
Prerequisite: ELEC ENG 3TP4, 3TQ4
Corequisite: MATH 3K03

ELEC ENG 4BC4 MODELLING OF BIOLOGICAL SYSTEMS
Introduction to mathematical and engineering methods for describing and predicting the behaviour of biological systems; including sensory receptors, neuromuscular and biomechanical systems; statistical models of biological function; kinetic models of biological thermodynamics.
Three lectures, one tutorial, one lab every other week; first term
Prerequisite: Registration in Level IV Electrical and Biomedical Engineering
First offered in 2005-2006.

ELEC ENG 4BD3 BIOMEDICAL INSTRUMENTATION
Genes, immune and neural network, bioelectric potentials; electrodes and other transducers; principles of instrumentation; electrical safety; neuromuscular and cardiovascular instrumentation; ultrasounds and other medical imaging.
Three lectures, one tutorial, one lab every other week; first term
Prerequisite: One of ELEC ENG 3EJ4, ENGINEER 3N03 or PHYSICS 3B06
Antirequisite: ELEC ENG 4EL3
First offered in 2005-2006.

ELEC ENG 4BF4 MEDICAL ROBOTICS
Fundamentals of robotics and telerobotics; feedback from the environment using sensors and machine vision; application of robotics to medicine and surgery.
Three lectures, one tutorial, one lab every other week; second term
Prerequisite: Registration in Level IV Electrical and Biomedical Engineering
First offered in 2005-2006.

ELEC ENG 4BF3 MEDICAL IMAGE PROCESSING
Physical principles of medical image formation; imaging technology for X-ray, ultrasound, magnetic resonance; image quality descriptions and enhancement; 3D imaging.
Two lectures, one tutorial, one lab every other week; second term
Prerequisite: ELEC ENG 3TQ4
Antirequisite: COMP ENG 4TN3
First offered in 2005-2006.

ELEC ENG 4BH4 BIOMEDICAL DESIGN PROJECT
The design process; establishing objectives; preliminary design; planning; scheduling; decision matrices; modelling tools, economic impact; optimization methods; reliability; safety; a term project composed of small teams of students.
Three lectures, two tutorials; one capstone project; second term
Prerequisite: Registration in Level IV Electrical and Biomedical Engineering
Antirequisite: COMP ENG 4OJ4, ELEC ENG 4B4
First offered in 2005-2006.

ELEC ENG 4CL4 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 3TP4

ELEC ENG 4EL3 BIOMEDICAL ELECTRONIC INSTRUMENTATION
Generation and nature of bioelectric potentials; electrodes and other transducers; principles of instrumentation; electrical safety; neuromuscular and cardiovascular instrumentation; ultrasonics and other medical imaging.
Two lectures, one tutorial, one lab every other week; second term
Prerequisite: One of ELEC ENG 3EJ4, ENGINEER 3N03 or PHYSICS 3B06
Antirequisite: ELEC ENG 4E03

ELEC ENG 4FJ4 PHOTONIC DEVICES AND SYSTEMS
Two lectures, one tutorial, one lab every other week; second term
Prerequisite: ELEC ENG 3EJ4

ELEC ENG 4FJ4 MICROWAVE 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 3FJ4

ELEC ENG 4HI3 COMMUNICATION SKILLS
Organizational behavior; 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
Not open to students registered in an Engineering and Management or Engineering and Society programme.

ELEC ENG 4HJ1 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.

ELEC ENG 4J04 ENGINEERING DESIGN
The design process; establishing objectives; preliminary design; planning; scheduling; decision matrices; modelling tools, economic impact; optimization methods; reliability; safety; a term project composed of small teams of students.
Lectures, tutorials, one capstone project; first or second term
Prerequisite: Registration in Level IV or V of any Electrical or Computer Engineering programme
Antirequisite: COMP ENG 4OJ4

ELEC ENG 4P4J4 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 3EJ4, 3TP4

ELEC ENG 4P4J4 ENERGY SYSTEMS AND MANAGEMENT
Elements of generation, transmission, and distribution systems; system-wide energy flow and control; modelling and simulation; economics and management; fault prediction and management.
Three lectures, one tutorial, one lab every other week; first term
Prerequisite: ELEC ENG 3P4

ELEC ENG 4TK4 DIGITAL COMMUNICATIONS SYSTEMS
Digital modulation systems, intersymbol 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; second term
Prerequisite: ELEC ENG 3T4

ELEC ENG 4V04 PSYCHOPHYSICS
Sensation and perception; psychophysical methods; visual and auditory perception; electroencephalography.
ENGLISH (GENERAL)

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

Note:
Enrolment in these courses is limited to students registered in an Engineering programme.

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 term
Prerequisite: Registration in any Engineering programme
This course must be successfully completed before registering in Level II Engineering.

ENGINEER 1C03 ENGINEERING DESIGN AND GRAPHICS
Graphical communication: sketching, 2D and 3D computer-aided design. Design skills workshops and group design project.
One lecture, one lab (three hours), one tutorial (two hours); first or second term
Prerequisite: Registration in any Engineering programme
Antirequisite: ENGINEER 1C04

ENGINEER 2B03 ENGINEERING ECONOMICS
Two lectures, one tutorial; second term
Prerequisite: Registration in any Engineering programme
Antirequisite: CHEM 4N04, ENGINEER 4B03

ENGINEER 2C03 ELECTRICITY, THERMO PHYSICS 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); first term
Prerequisite: PHYSICS 1E03 and registration in MATH 2M06

ENGINEER 2E03 STRUCTURE AND PROPERTIES OF ENGINEERING MATERIALS
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
Antirequisite: ENGINEER 2003, 2004, 3P03, MATLIS 1A03, 1M03, 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 2M33 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 or second term
Prerequisite: PHYSICS 1E03; and registration in either MATH 2M06 or both MATH 2P04 and 2Q04
Antirequisite: ENGINEER 3M03

ENGINEER 2P03 STRUCTURE AND PROPERTIES OF ENGINEERING MATERIALS
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, one tutorial; first term
Prerequisite: Completion of at least 12 units of Level I Chemistry, Mathematics or Physics
Antirequisites: ENGINEER 2E03, 2004, 3P03, MATLIS 1A03, 1M03, 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; statical 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 3M01 CO-OPERATIVE INDUSTRIAL PREPARATION
Mandatory for those wishing to complete a cooperative internship. Topics include: orientation to internships and the workplace; self assessment and goal setting; application and presentation skills; occupational health and safety.
Nine hours (seven sessions); first or second term
Prerequisite: Registration in Level II or III or IV of a five-year programme in Engineering or Computer Science or Level III or IV of a five-year programme in Engineering (registration in penultimate year preferred); and minimum of 5.0 sessional average; and permission of the instructor

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; first 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; second term
Prerequisite: Completion of Level II in any Software Engineering programme
Antirequisite: SFRW ENG 3D03

ENGINEER 3N03 ELECTRONICS AND INSTRUMENTATION
Two lectures, one tutorial (two hours) or one lab (three hours); second term
Prerequisite: One of ENGINEER 2M04, 2M33 or 3M03

ENGINEER 3P03 MECHANICAL BEHAVIOUR OF MATERIALS
Three lectures, two three-hour lab periods for concrete project; first term
Prerequisite: ENGINEER 2P04; and MATH 2M06 or both MATH 2P04 and 2Q04
Antirequisite: ENGINEER 2E03, 2003, 2004, 3P03, MATLIS 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 of 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.
Two lectures, one tutorial (two hours); second term
Prerequisite: One of MATLS 3M03, 3P03 or MECH ENG 3A03

ENGINEER 4J03 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: One of CHEM ENG 3C04, CIV ENG 3M04 or MECH ENG 3C04; and registration in Level IV or above of any Engineering programme

ENGINEERING AND MANAGEMENT
WEB ADDRESS: http://www.eng.mcmaster.ca/engandsoc/index.html
John Hodgins Engineering Building, Room A214-K
Ext. 27009
The Engineering and Management Programmes are described in the Faculty of Engineering section in this Calendar. These programmes are administered jointly by the Faculty of Business and the Faculty of Engineering and lead to the B.Eng. degree. An Industrial Advisory Council also participates in the education process.

Programme Director
G. John Mittenbury (Business) B.Eng., M.B.A. (McMaster), M.Eng. (Toronto), Ph.D. (Waterloo)

Courses
If no prerequisite is listed, the course is open.

ENGMGT 2A02 COMMUNICATION SKILLS
Writing skills: interpersonal communications, business letters, formal reports. Speaking, listening and presentation skills: oral communications, speeches, technical presentations. Communication technology.
One lecture, one tutorial (two hours); first term
Prerequisite: Registration in any Engineering and Management programme

ENGMGT 3A01 TEAMWORK SKILLS
Team skills: working in groups, oral communications in groups, writing group reports. Leadership; leading a group, negotiating, presentations. Management of Technology is the setting in which these skills are learned.
One seminar/class; second term
Prerequisite: Registration in any Engineering and Management programme

ENGMGT 4A01 ENGINEERING AND MANAGEMENT REPORT
Students prepare a written report and make an oral presentation on an engineering and management problem encountered during summer work experience. Written and oral communications are assessed. Guidelines must be obtained from the Programme Director before the end of Level III.
One seminar/class; first term
Prerequisite: Registration in Level IV of any Engineering and Management programme

ENGMGT 5B03 ENGINEERING AND MANAGEMENT PROJECTS
Capstone course: Students work in multidisciplinary teams to solve an integrated engineering and business problem in an organization. Project management skills are taught and project management software is used.
One lecture, two tutorials (two hours); first term
Prerequisite: Registration in the final year of any Engineering and Management programme

ENGECON 1Y03 INQUIRY IN AN ENGINEERING CONTEXT I
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 the inquiry 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 2003-2004 is sustainability.
Three hours (lectures, discussion, group work); first term
Prerequisite: Registration in any Engineering and Society programme

ENGSOCY 2Y03 CASE STUDIES IN HISTORY AND TECHNOLOGY
History and philosophy of technology, from antiquity to modern times, with a special emphasis on the cultural aspects of technology, are addressed on a case study basis.
Three hours (lectures, discussion, group work); second term
Prerequisite: Registration in any Engineering and Society programme

ENGR 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: ENGSOCY 2X03

ENGSOCY 3X03 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: ENGSOCY 2Y03
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 orally. Topics for inquiry must bear on the relation of technology to society and have implications for the practicing engineer.
Prerequisite: ENGSOCTY 3X03

ENGSOCTY 4Z03 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

### Faculty as of January 15, 2003

**Chair**
Paul E. Jessop

**Professors**
Alexander A. Berezn\(\text{I}\)/B.Sc., M.Sc., Ph.D. (Leningrad State)
Daniel T. Cassidy/B.Eng. (McMaster), M.Sc. (Queen's), Ph.D. (McMaster), P.Eng.
Harold K. Haugen/B.Sc. (Auckland), M.Eng. (McMaster), Ph.D. (Aarhus)
Paul E. Jessop/B.Sc. (Waterloo), M.A., Ph.D. (Harvard)
Adrian H. Kita/B.Eng. (McMaster), Ph.D. (Cornell), P.Eng.
Peter Mascher/M.Eng., Ph.D. (Technical University of Graz), P.Eng.
David A. Thompson/B.Sc., Ph.D. (Reading), C.Eng.

**Associate Professor**
Chang Q. Xu/B.Sc., M.Sc. (University of Science and Technology of China), D.Eng. (Tokyo)

**Assistant Professor**
Andrew P. Knight/B.Sc., Ph.D. (University of East Anglia)

**Adjoint Professors**
Denis J. Corr/B.Sc., Ph.D. (Queen's, Belfast)
James S. Forster/B.Eng., Ph.D. (Liverpool)
David P. Jackson/B.Sc., M.A., M.Sc., Ph.D. (Toronto)
Krish V.S. Kilshnam/B.Tech. (MADRAS), M.S., Ph.D. (Rochester)
Nikola K. Popov/B.Eng. (Klif and Metodlij), M.Sc. (Belgrade), Ph.D. (Zagreb)

**Adjunct Assistant Professor**
Glenn D. Harvel/B.Eng., M.Eng., Ph.D. (McMaster)

**Associate Members**
Chen Y. Ching/Engineering (Mechanical Engineering), B.S. (Peridniva), Ph.D. (Syracuse)
M. Jamal Dewi/Electrical and Computer Engineering), B.Sc. (Guyana), M.Sc., Ph.D. (Case Western Reserve)
Fred M. Hoppe/Mechanical Engineering (Toronto), M.Sc. (Weizmann Institute of Science), M.A., Ph.D. (Princeton)
Jan Dirk Huizenga/Medicine) B.Sc., M.Sc., Ph.D. (Groningen)
Marlynn L. Lightstone/Mechanical Engineering), B.A.Sc. (Queen's), M.A.Sc., Ph.D. (Waterloo), P.Eng.

Mamdouh Shoukri/Mechanical Engineering, B.Sc. (Cairo), M.Eng., Ph.D. (McMaster), P.Eng.
PHOTONICS ENGINEERING ...

Courses

PHOTONIC 3A03 APPLICATIONS OF PHOTONICS
Applications of photonic systems to industrial, commercial and medical needs and opportunities. Students will design a simple photonic system to fulfill a need or opportunity.
Three lectures; first term
Prerequisite: Credit or registration in ENG PHYS 3E03

PHOTONIC 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
Antirequisite: PHOTONIC 4A04

PHOTONIC 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. Two term papers are required.
Two lectures, one tutorial; first term
Prerequisite: Registration in Level IV or above of any Engineering Physics programme
Antirequisite: ENGINEER 4A03, 4H03

PHOTONIC 4D03 NUCLEAR REACTOR ANALYSIS
Introduction to nuclear energy; nuclear physics and chain reactions; reactor statics and kinetics; multigroup analysis, core thermal hydraulic; reactor design.
Three lectures (including field trip); first term
Prerequisite: ENG PHYS 3D03

PHOTONIC 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 3C03 or ENG PHYS 3F03

PHOTONIC 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

PHOTONIC 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 CA of at least 9.5

PHOTONIC 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: CIV ENG 2C04 or ENG PHYS 3C03

PHOTONIC 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 3C03

PHOTONIC 4P03 NUCLEAR POWER PLANT SYSTEMS AND OPERATION
Systems and overall unit operations relevant to nuclear power plants; includes major reactor and process systems; nuclear power plant simulator; self-study using interactive CD-ROM.
One term
Prerequisite: Registration in Level IV or above of any Engineering programme

PHOTONIC 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, PHYSICS 3B06

ENGLISH TECH 1MA3 MATHEMATICS I
Ordinary and partial differential equations; Laplace transforms; Fourier series; vector calculus; integral theorems, with engineering applications.
Three lectures, one term

ENGLISH TECH 1ML3 STRENGTH OF MATERIALS
Stresses under combined loads, generalized Hooke's Law; two and three dimensional stresses, stress transformation, principal stresses, Mohr's circle; deflections by integration; energy methods, Castigliano's theorem; columns; yield criteria.
Three lectures, one term
Corequisite: ENGLISH TECH 1MA3

ENGLISH 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

Note:
Engineering Technology courses are open only to students registered in the Bachelor of Technology Programme in Manufacturing Engineering Technology and are subject to prerequisite requirements.

Courses

ENGLISH TECH 1MA3 MATHEMATICS I
Ordinary and partial differential equations; Laplace transforms; Fourier series; vector calculus; integral theorems, with engineering applications.
Three lectures, one term

ENGLISH TECH 1ML3 STRENGTH OF MATERIALS
Stresses under combined loads, generalized Hooke's Law; two and three dimensional stresses, stress transformation, principal stresses, Mohr's circle; deflections by integration; energy methods, Castigliano's theorem; columns; yield criteria.
Three lectures, one term
Corequisite: ENGLISH TECH 1MA3

ENGLISH 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
ENGLISH 3113: Students per

1. The following are courses open as electives to students registered in

- Anne Savage/B.A.
- Grace Kehler/B.A.
- Jeffery Donaldson/B.A., M.A.
- Imre Mary
- Sylvia John Ferns/B.A., M.A.
- Roger L. Hyman/B.A.
- Pete Anthony
- James King/B.A.
- Ronald Granofsky/B.A.
- Helen M.Ostovich/B.A., M.A.
- Donald Lorraine M.
- University

ENG TECH 2C3: SYSTEM ANALYSIS AND CONTROLS

Mathematical foundation: differential equations, Laplace transforms, transform by partial-fraction expansion; transfer functions; modeling of physical systems; stability; Routh criteria; time and frequency domain; Root-locus technique; design of control systems.

Three lectures, one term

Prerequisite: ENG TECH 1MA3, 1PG3

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; assembly of equations, boundary conditions.

Two lectures, one tutorial; one term

Prerequisite: ENG TECH 1MA3, 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, 1PG3

ENGLISH

WEB ADDRESS: http://www.humanities.mcmaster.ca/~english/

Chester New Hall, Room 321

Ext. 24491

Faculty as of January 15, 2003

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)
David Blewett/B.A., M.A. (Manitoba), Ph.D. (Toronto)
Anthony S. Brennan/B.A., M.A., Ph.D. (McMaster)
David L. Cark/B.A., M.A., Ph.D. (Western Ontario)
Donald C. Goellnicht/B.A. (Queen's), M.A., Ph.D. (McMaster)
Helen M. Ostovich/B.A., M.A., Ph.D. (Toronto)
Lorraine M. York/B.A., M.A., Ph.D. (McMaster)

Associate Professors
Sylvia Bowerbank/B.A. (McMaster), B.Ed. (Toronto), M.A. (Simon Fraser), Ph.D. (McMaster)
Daniel Coleman/B.Ed., M.A. (Regina), Ph.D. (Alberta), Canada Research Chair
Jeffery Donaldson/B.A., M.A., Ph.D. (Toronto)
Ronald Grancfsky/B.A. (Trent), M.A. (Canterbury), Ph.D. (Queen's)
Roger L. Hyman/B.A. (York), M.A., Ph.D. (Toronto)
Susie O'Brien/B.A. (Queen's), M.A. (Queensland), Ph.D. (Queen's)
Mary E. O'Connor/B.A. (McGill), 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 Wansley/B.A., M.A. (Toronto), Ph.D. (Cambridge)

Assistant Professors
Sarah Brophy/B.A. (Wilfrid Laurier), M.A., Ph.D. (McMaster)
Catherine Gisby/B.A. (Trent), M.A., Ph.D. (Western Ontario)
Melinda Gough/B.A. (McGill), M.A., Ph.D. (Yale)
Grace Kehler/B.A. (Regina), M.A., Ph.D. (Western Ontario)
Imre Szeman/B.A. (Queen's), M.A. (Western Ontario), Ph.D. (Duke)

Department Notes:

1. The following courses are open as electives to students registered in Level II and above of any university programme.

ENGLISH 3103: Contemporary Canadian Fiction
ENGLISH 3103: Twentieth-Century British Literature
ENGLISH 3103: Studies in American Literature
ENGLISH 3103: Contemporary Popular Culture
ENGLISH 3103: Shakespeare: Selected Plays
ENGLISH 3103: Feminist Utopias

ENGLISH 3113: Topics in Poetry
ENGLISH 3113: Topics in Prose
ENGLISH 3123: Topics in Literary and Cultural Studies
ENGLISH 3123: Contemporary Native Literature in Canada
ENGLISH 3X03: Contemporary Native Literature in the United States

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

Prerequisite: ENGLISH 1006

ENGLISH 1AA3: 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 the 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

Prerequisite: 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 1BB3: CULTURAL STUDIES AND CONSUMER CULTURE
An overview of the development of cultural studies as an interdisciplinary field of academic inquiry through an exploration of the history of mass and consumer culture. 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 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 2B06: 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 Departmental Counselor

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 or above

ENGLISH 2D03: 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. Departmental permission is required.
ENGLISH 2E03  TWENTIETH-CENTURY BRITISH LITERATURE
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
Prerequisite: Registration in Level II or above
Not open to students with credit or registration in ENGLISH 2106.

ENGLISH 2F03  STUDIES IN AMERICAN LITERATURE
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
Prerequisite: Registration in Level II or above
Not open to students with credit or registration in ENGLISH 2H06.

ENGLISH 2G06  CANADIAN LITERATURE
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
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor

ENGLISH 2H06  AMERICAN LITERATURE
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
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor

ENGLISH 2I06  MODERN BRITISH LITERATURE
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
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor

ENGLISH 2J03  CONTEMPORARY POPULAR CULTURE
A study of one or more selected forms of popular culture drawing on models of analysis from the field of cultural studies. Areas of investigation may include: television, magazines, advertising, computer culture, film, popular fiction, the culture of everyday life.
Three hours; one term
Prerequisite: Registration in Level II or above
Cross-list: CMST 2J03, CSCT 2J03

ENGLISH 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 will be a component of the course.
Three hours; two terms
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor
Cross-list: CSCT 2K06, WOMEN ST 2K06

ENGLISH 2L03  SHAKESPEARE: SELECTED PLAYS
A study of a representative selection of plays.
Three hours; one term
Prerequisite: Registration in Level II or above
Not open to students with credit or registration in ENGLISH 2K06.

ENGLISH 2M03  CONCEPTS 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, English or permission of the Departmental Counsellor
Cross-list: CMST 2M03, COMP LIT 2E03, CSCT 2M03

ENGLISH 2M3  MODERN COUNTERCULTURES
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

ENGLISH 2N03  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 or above.
Cross-list: WOMEN ST 1A06

ENGLISH 2P03  MODERNITY/POSTMODERNITY/VISUALITY
This course will examine modernity and postmodernity through an exploration of a variety of theoretical discourses and representational practices, with specific reference to visual culture.
Three hours; one term
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor
Cross-list: CSCT 2P03

ENGLISH 3A03  CRITICAL RACE STUDIES
This course examines contemporary debates in critical race theory in an attempt to critically decode the operations of race in literary and cultural texts.
Three hours; one term
Prerequisite: Registration in a programme in Comparative Literature, English, Peace Studies, Women's Studies or permission of the Departmental Counsellor
Cross-list: COMP LIT 3R03, CSCT 3A03, PEACE ST 3A03, WOMEN ST 3H03

ENGLISH 3A3  THEORIES OF GENDER AND SEXUALITY
This course explores a range of theories of gender and sexuality by working through readings from the intersecting fields of feminist, queer and masculinity studies.
Three hours; one term
Prerequisite: Registration in a programme in Comparative Literature, English, Women's Studies or permission of the Departmental Counsellor
Cross-list: COMP LIT 3A3, CSCT 3A3, WOMEN ST 3H03

ENGLISH 3C6  MIDDLE ENGLISH LITERATURE
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. However, other texts -such as lyrics, saints' lives, devotional works, courtesy books and romances- will also be studied.
Three hours; two terms
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor

ENGLISH 3C3  READING FILM
A critical examination of selected films and film genres as cultural texts, using methods drawn from film theory and cultural studies.
Three hours, plus one weekly film screening; one term
Prerequisite: Registration in Level II or above of a programme in Art History, Communication Studies, Comparative Literature, English or Theatre & Film Studies. It is recommended that students should already have completed DRAMA 2X06 or THTR&FLM 2F03.
Cross-list: CMST 3C3, COMP LIT 3L03, CSCT 3C3, THTR&FLM 3R03 (formerly DRAMA 3X03)

ENGLISH 3G06  ENGLISH LITERATURE (1660-1800)
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
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor

ENGLISH 3HH3  TOPICS IN POETRY
Previous topics include: Contemporary British Poetry, Women Poets of the 20th-century, Lesbian Poetry. Consult Department concerning topic to be offered.
Three lectures; one term
Prerequisite: Registration in Level II or above
ENGLISH 3HH3 may be repeated, if on a different topic, to a total of six units.
ENGLISH 3I06 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 English or permission of the Departmental Counsellor
Cross-list: COMP LIT 3J06

ENGLISH 3I13 TOPICS IN PROSE
Previous topics include: Jane Austen, The Early Novel. Consult the Departmental Counsellor concerning topic to be offered.
Three hours; one term
Prerequisite: Registration in Level II or above
ENGLISH 3I13 may be repeated, if on a different topic, to a total of six units.

ENGLISH 3J06 THE ENGLISH LANGUAGE
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
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor
Antirequisite: LINGUIST 1A03, 1A06, 1A09

ENGLISH 3K06 SHAKESPEARE
An extensive critical reading and discussion of selected plays.
Three hours; two terms
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor

ENGLISH 3L06 OLD ENGLISH LANGUAGE AND LITERATURE
The course will focus on translation 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, drills and the translation of simple prose. Grammar sessions will be complemented by classes on Anglo-Saxon cultural history and critical approaches.
Three hours; two terms
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor

ENGLISH 3M06 STUDIES IN NINETEENTH-CENTURY BRITISH LITERATURE AND CULTURE
A study of selected texts, genres, and issues of Nineteenth-Century British Literature, including reference to relevant social and political contexts.
Three hours; two terms
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor

ENGLISH 3N05 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 3T03 THE HISTORY OF CRITICAL THEORY
A study of the main developments in critical theory from Plato to the end of the 19th century. Areas of investigation may include: art, aesthetics, civil society, representation, ethics, and knowledge.
Three hours; one term
Prerequisite: Registration in a programme in Comparative Literature, English or permission of the Departmental Counsellor
Cross-list: COMP LIT 3QQ3, CSCT 3Q03

ENGLISH 3Q03 CONTEMPORARY CRITICAL THEORY
This course examines selected issues in contemporary critical theory. Areas of investigation may include: representation, power/knowledge, discourse, subjectivity, and the body.
Three hours; one term
Prerequisite: Registration in a programme in English or permission of the Departmental Counsellor. COMP LIT 3Q03, CSCT 3Q03 or ENGLISH 3Q03 is recommended.
Cross-list: COMP LIT 3QQ3, CSCT 3Q03

ENGLISH 3R06 POSTCOLONIAL CULTURES: THEORY AND PRACTICE
A study of contemporary texts including literature, film, art and other forms of popular culture that engage the implications of living in a postcolonial world. Close consideration will be given to issues of imperialism, globalization, race, gender, ethnicity, nation, language and representation.
Three hours; two terms
Prerequisite: Registration in a programme in Comparative Literature, English, Peace Studies or permission of the Departmental Counsellor
Cross-list: COMP LIT 3R06, CSCT 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 or above
Cross-list: COMP LIT 3H03

ENGLISH 3T03 TOPICS IN LITERARY AND CULTURAL STUDIES
Previous topics include: The Cyborg in Fiction and Critical Theory, Critical Literary Theory, African American Fictions. Consult the Department for the topic to be offered.
Three hours; one term
Prerequisite: Registration in Level II or above
Cross-list: CSCT 3T03

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 1A03 (or 1A06); or six units of Level I English; or permission of the instructor
Cross-list: CSCT 3W03, 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 1A03 (or 1A06); or six units of Level I English; or permission of the instructor
Cross-list: CSCT 3X03, INDIG ST 3E03, PEACE ST 3X03
This course is administered by Indigenous Studies.

ENGLISH 4X03 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 units of Level IV seminar work in the second term. Students who are interested in taking 4X03 should contact the faculty member chairing the 4X03 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 4AA3 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 Cross-list: CSCT 4AA3
Enrolment is limited. Departmental permission required.

ENGLISH 4AR3 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 Cross-list: CSCT 4AR3
Enrolment is limited. Departmental permission required.

ENGLISH 4AS3 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 Cross-list: CSCT 4AS3
Enrolment is limited. Departmental permission required.

ENGLISH 4AW3 ASIAN AMERICAN WRITING
An examination of selected prose texts by American writers of Asian origin. Issues of immigration, multiculturalism, race, and gender will be given close attention.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Cross-list: CSCT 4AW3
Enrolment is limited. Departmental permission required.

ENGLISH 4BG3 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 Cross-list: CSCT 4BG3
Enrolment is limited. Departmental permission required.

ENGLISH 4BL3 THE BIBLE AND LITERATURE
A critical discussion of the Bible’s overall narrative structure, the typological correspondences between Old and New Testaments and the use made of the Bible by poets and other artists.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Cross-list: CSCT 4BL3
Enrolment is limited. Departmental permission required.

ENGLISH 4BP3 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 Cross-list: CSCT 4BP3
Enrolment is limited. Departmental permission required.

ENGLISH 4CB3 READING THE BESTSELLER: CONTEMPORARY BRITISH FICTION
An exploration of possible critical vocabularies for the analysis of recent British fiction in light of how bestseller lists, prizes, publicity and media adaptability now shape the writing, marketing and reading of fiction.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Cross-list: CSCT 4CB3
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 the relationship between contemporary literary theory and fiction.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Cross-list: CSCT 4CF3
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 modern world.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Cross-list: CSCT 4DE3
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 Cross-list: CSCT 4EL3
Enrolment is limited. Departmental permission required.

ENGLISH 4FT3 THE FAIRY TALE
A study of the fairy tale from the structuralist, psychoanalytic, and sociological 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 Cross-list: CSCT 4FT3
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 Cross-list: CSCT 4FW3
Enrolment is limited. Departmental permission required.

ENGLISH 4GW3 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 Cross-list: CSCT 4GW3
Enrolment is limited. Departmental permission required.

ENGLISH 4HX3 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 Cross-list: CSCT 4HX3
Enrolment is limited. Departmental permission required.

ENGLISH 4HJ3 CANADIAN HOLOCAUST NOVELS
An examination of selected Canadian novels that respond to the Holocaust. Aesthetic and ethical issues involved in such responses will also be discussed.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Cross-list: CSCT 4HJ3
Enrolment is limited. Departmental permission required.

ENGLISH 4ID3 DISLOCATION AND BELONGING: CANADIAN WRITINGS OF IMMIGRATION AND DIASPORA
This course examines works by and about people who have moved between cultural locations to consider questions of cultural and cross-cultural identity.
Seminar (two hours); one term
Prerequisite: Registration in Level IV of an Honours programme in English Cross-list: CSCT 4ID3
Enrolment is limited. Departmental permission required.
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 40N3 MICHAEL ONDAATJE**

This course explores various approaches to Michael Ondaatje's poetry and prose; gender, postcoloniality, and interdisciplinary (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

Cross-list: CSCT 4ON3

Enrolment is limited. Departmental permission required.

**ENGLISH 40P3 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

Cross-list: CSCT 40P3

Enrolment is limited. Departmental permission required.

**ENGLISH 40Q3 19TH- AND 20TH-CENTURY POETRY OF QUEBEC IN TRANSLATION**

An examination of the work 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 40R3 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 40R3 THE ROMANCE OF ROMANCE**

Pairs of medieval and modern romances will be studied in the light of critical theories of romance, gender and reading.

Seminar (two hours); one term

Prerequisite: Registration in Level IV of an Honours programme in English

Cross-list: CSCT 40R3

Enrolment is limited. Departmental permission required.

**ENGLISH 40T3 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

Cross-list: CSCT 40T3

Enrolment is limited. Departmental permission required.

**ENGLISH 40T3 POST-INDEPENDENCE SOUTH ASIAN FICTIONS**

This seminar surveys a range of texts by men and women from South Asia (India, Pakistan, Bangladesh, Sri Lanka) and the South Asian diaspora, from the 1950s to the present.

Prerequisite: Registration in Level IV of an Honours programme in English

Cross-list: CSCT 4SA3

Enrolment is limited. Departmental permission required.

**ENGLISH 40C3 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

Cross-list: CSCT 4UT3

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 GLOBALIZATION AND POSTCOLONIAL FICTION**

This course examines fictional representations of the ideology and processes of globalization, while also considering how globalization shapes the production and consumption of postcolonial culture.

Seminar (two hours); one term

Prerequisite: Registration in Level IV of an Honours programme in English

Cross-list: CSCT 4WL3

Enrolment is limited. Departmental permission required.

**ENGLISH 4WP3 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 4WW3 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.

**ENVR SC 1A03 ATMOSPHERE AND HYDROSPHERE**

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; second term

**ENVR SC 1B03 THE LIVING ENVIRONMENT**

Characteristics of the biosphere and introduction to major environmental processes and issues. Two lectures, one tutorial, one lab; second term

**ENVR SC 1C03 EARTH AND THE ENVIRONMENT**

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; first term

**CHEM 3A03 ANALYTICAL CHEMISTRY II**

An introduction to modern instrumental methods of analysis. Two lectures, one lab (three hours); first term

Prerequisite: CHEM 2A03 or 2N03; and CHEM 2PA3 or 2R03

Antirequisite: ENVR SC 3A03
Faculty as of January 15, 2003

Chair
Michael Kliffer

Professors
Caroline Bayard/L. ès L., M. ès L. (Toulouse), M.A., Ph.D. (Toronto)
Suzanne Crosta/B.A., M.A. (McMaster), Ph.D. (Toronto)
Madeleine Jeay/L. ès L. (Bordeaux), M.A., Ph.D. (Montréal)

Associate Professors
Michael Kliffer/B.A. (British Columbia), M.A. (Michigan), Ph.D. (Cornell)
Dominique Leplo/L. ès L. (Caen), M.A. (Ottawa), Ph.D. (Toronto)
Gabriel Moyel/B.A., 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)

Assistant Professors
Jane A.C. Rush/B.A. (Toronto), M.A., Ph.D. (California-Los Angeles)
Alexandre Savigny/B.A. (York), M.A., Ph.D. (Toronto)
Hélène Trépanier/B.A., M.A. (Laval), D.E.S., D. ès L. (Geneva)

Programme Coordinator, Continuing Education

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: Grade 12 Core French (or 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 1Z06  BEGINNER’S INTENSIVE FRENCH I
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
Antirequisite: Grade 12 Core French or 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: One of FRENCH 1A06, 1N06 or 2M06
Antirequisite: FRENCH 2A03, 4R06

FRENCH 2B03  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-
Antirequisite: FRENCH 2A03, 4R06

FRENCH 2E03  LITERATURE OF QUEBEC
Selected novels, plays, and poems representative of the main currents of Quebec Literature.
Three hours; one term
Prerequisite: One of FRENCH 1A06, 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 FRENCH 1N06

FRENCH 2H03  INTRODUCTION TO FRENCH LINGUISTICS I
A view of language as system (Saussure, Jakobson, Martinet). 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: One of FRENCH 1A06, 1N06 or 2M06

FRENCH 2J03  19TH-CENTURY FRENCH LITERATURE I
Aspects of the development of 19th century French literature up to 1848.
Three hours; one term
Prerequisite: One of FRENCH 1A06, 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: One of FRENCH 1A06, 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
Not open to students with credit or registration in FRENCH 2B03.

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: One of FRENCH 1A06, 1N06 or 2M06

ENTRY INTO LEVEL I COURSES AND FRENCH PROGRAMMES

<table>
<thead>
<tr>
<th>NO FRENCH</th>
<th>NO *GR.12 FRENCH</th>
<th>*GR.12 FRENCH &lt; 80%</th>
<th>*GR.12 FRENCH ≥ 80%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1206</td>
<td>Grade of 1206</td>
<td>Grade of 1206</td>
<td>Grade of 1206</td>
</tr>
<tr>
<td></td>
<td>1N06</td>
<td>2M06</td>
<td>1A06/2M06</td>
</tr>
<tr>
<td></td>
<td>at least A</td>
<td>C or less</td>
<td></td>
</tr>
<tr>
<td>2Z06</td>
<td>Grade of 2Z06</td>
<td>Grade of 2Z06</td>
<td>Grade of 2Z06</td>
</tr>
<tr>
<td></td>
<td>at least C</td>
<td>CA of 3.5</td>
<td>CA of 6.0</td>
</tr>
<tr>
<td></td>
<td>B &amp;</td>
<td>CA of 6.0</td>
<td>CA of 6.0</td>
</tr>
<tr>
<td>2M06</td>
<td>B.A.</td>
<td>French</td>
<td>B.A.</td>
</tr>
<tr>
<td></td>
<td>Hon</td>
<td>French</td>
<td>Hon</td>
</tr>
</tbody>
</table>

* OAC French may be substituted for Grade 12 Core French.

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: Grade 12 Core French (or 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 2W03  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: One of FRENCH 1A06, 1N06 or 2M06

FRENCH 2WW3  20TH-CENTURY FRENCH LITERATURE II
Aspects of the development of 20th-century literature since the Second World War.
Three hours; one term
Prerequisite: One of FRENCH 1A06, 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
Antirequisite: FRENCH 1906, 1N06
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 3AA3  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 above 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: A grade of at least C- in FRENCH 2BB3. Students may repeat FRENCH 3C03 to improve their grade.
Antirequisite: FRENCH 4R06

FRENCH 3CC3  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: A grade of at least B- in each of FRENCH 2BB3 and 2G03

FRENCH 3F03  FRENCH LANGUAGE PRACTICE: FRENCH 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.

FRENCH 3GG3  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

FRENCH 3HH3  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 or 1AA3 (or 1A06) are recommended.

FRENCH 3K03  18TH-CENTURY FRENCH LITERATURE I
The early 18th century with emphasis on Montesquieu, Marivaux and Prévert, and on the early writings of Voltaire.
Three hours; one term
Prerequisite: Six units of French above Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 3K3K  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 above Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 3QQ3  17TH-CENTURY FRENCH LITERATURE II
A study of selected plays by Corneille, Molière and Racine.
Three hours; one term
Prerequisite: Six units of French above 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: One of FRENCH 1A06, 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 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 of French texts of a specialized nature (e.g., administration, business, politics).
Three hours; one term
Prerequisite: FRENCH 3C03, 3CC3

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 2H03
Enrolment is limited.

FRENCH 4F03  TOPICS IN 16TH-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 above Level I, excluding FRENCH 2M06 and 2Z06

FRENCH 4F03 may be repeated, if on a different topic, to a total of six units.
Enrolment is limited.

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 4H03 may be repeated, if on a different topic, to a total of six units.
Enrolment is limited.

FRENCH 4I03  TOPICS IN FRENCH POETRY
Previous topics include: Poets and Humour, Love Poetry, Women Poets, Poètes maudits. Consult the Department concerning topic to be offered.
Seminar (two hours); one term
Prerequisite: 12 units of French above Level I, excluding FRENCH 2M06 and 2Z06
FRENCH 4I03 may be repeated, if on a different topic, to a total of six units.
Enrolment is limited.
FRENCH 4R06 The study of linguistic variations within French-speaking communities with special emphasis on sociolinguistic issues arising in multinational societies (Africa, America, Europe...).

Enrolment is limited.

Three topics; one term
Prerequisite: FRENCH 2R03
Antirequisite: FRENCH 3L03

FRENCH 4R07 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 above Level I, excluding FRENCH 2M06 and 2Z06

Enrolment is limited.

FRENCH 4R08 FRENCH READING COURSE (TAUGHT IN ENGLISH)
Students intending to enter graduate programmes will be provided with reading skills and techniques which will enable them to comprehend academic texts. Reading materials are selected to practice textual analysis, study grammatical usage and aid in vocabulary development. Credit obtained in this course may be accepted in fulfillment of the second language reading requirement for graduate programmes.

Four hours, four days per week; one term
Offered during the first term of summer session only.
Prerequisite: FRENCH 1Z06 and registration in any Level IV Honours Programme or permission of the French Department
Antirequisite: FRENCH 2B03, 2B03, 3C03

Not open to students registered in a programme in French.

FRENCH 4S03 MEDIEVAL LITERATURE
A study of selected texts of Medieval French Literature: songs and poetry of the troubadours and trouvères, Arthurian romance, comic and satiric narratives. Modern French translations will be used.

Three hours; one term
Prerequisite: FRENCH 2B03

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 above Level I, excluding FRENCH 2M06 and 2Z06

Enrolment is limited.
School Notes:

1. The Honours Environmental Science (B.Sc.) and Honours Environmental Science Co-op (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 biogeoosciences, 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 during March counselling in Level II to ensure that their course choices are appropriate.

2. Course codes including the letter H indicate a non-science course.

3. Students are advised that not all courses will be offered in every year.

Courses if no prerequisite is listed, the course is open.

**ENVR SC 1A03** ATMOSPHERE AND HYDROSHERE
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; second term

**ENVR SC 1B03** THE LIVING ENVIRONMENT
Characteristics of the biosphere and introduction to major environmental processes and issues. Two lectures, one tutorial, one lab; second term

**ENVR SC 1G03** EARTH AND THE ENVIRONMENT
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; first term

**GEO 1H3** GEOGRAPHY OF THE HUMAN ENVIRONMENT
An introduction to human-environment relations and spatial analysis with special emphasis on urban, social, health and cultural environments. Two lectures, one lab (two hours); first term and second term

**GEO 1H3** URBAN ECONOMIC GEOGRAPHY
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); first term and second term

**GEO 2A03** INTRODUCTION TO ENVIRONMENTAL ISSUES
An introduction to issues, paradigms and models in environmental studies at local, regional, national and international scales. Two lectures, one lab (two hours); one term

**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 (two hours); one term

**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

**GEO 2D03** EARTH HISTORY
Geological evolution of the Earth and paleontological evidence for the evolution of marine life, with emphasis on the geological history of North America. Two lectures, one lab (three hours) one term

**GEO 2E03** EARTH SURFACE PROCESSES
An examination of the many dynamic processes that shape the face of the earth, including fluvial, eolian, coastal, mass wasting, karst and weathering processes. Two lectures, one lab (two hours); one term

**GEO 2F03** NATURAL DISASTERS
A study of natural processes including plate tectonics, earthquakes, volcanoes, landslides, river erosion and climate change and their impacts on human populations. 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

**GEO 2HB3** URBAN ECONOMIC GEOGRAPHY
Economic-geographical analysis applied to urban problems at different scales of aggregation. Topics include urbanization, urban spatial structure, major urban externalities and urban size. Two lectures; one lab (two hours); one term

**GEO 2HC3** CANADA
The geography of Canada emphasizing the economic and social geography of regions and current development issues. Three lectures; one term

**GEO 2HD3** URBAN HISTORICAL GEOGRAPHY
The historical development of cities with particular reference to old world origins, and focusing on North America since 1650. Two lectures, one lab (two hours); one term

**GEO 2TG3** POPULATION, SOCIETIES, AGING AND THE ENVIRONMENT
Differential growth of human populations and their changing age and sex structures with an emphasis on birth and death processes. The connections between population structures and processes and various aspects of environments and societies including aging, are emphasized. Three lectures; one term

**GEO 2TH3** 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

**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 lab (two hours); one term

**GEO 2IB3** 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. Three lectures, one lab (two hours); one term

**GEO 2IC3** OPTICAL CRYSTALLOGRAPHY AND MINERALOGY
Introduction to crystallography, optical theory, and the polarizing microscope. Identification of minerals in igneous and sedimentary rocks and discussion of their structure and chemistry. Two lectures, one lab (two hours); one term

**GEO 2JD3** 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

**GEO 2KE3** PHYSICAL HYDROLOGY: SURFACE
Hydrological processes including precipitation, snowmelt, slope runoff, streamflow and hydrological data analysis. Two lectures, one lab (two hours); one term

**GEO 2LF3** ENVIRONMENTAL ISSUES
Prerequisite: SOC SCI 2J03 or STATS 1CC3; and one of ENVIR SC 1A03, 1B03, 1G03
GEO 2WW3  WATER AND THE ENVIRONMENT
Selected environmental issues related to water, including floods and droughts, irrigation, effects of water management projects and pollution. Examples from Canada and the world.
Three lectures; one term
Prerequisite: Registration in Level II or above

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 Biology, an Engineering and Society programme or an Honours programme in the School of Geography and Geology

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; georheological record of this interaction.
Three lectures; one term
Prerequisite: Registration in Level III or above

GEO 3E03  SEDIMENTARY ENVIRONMENTS
Sedimentary processes, stratigraphy and depositional environments of clastic and carbonate systems.
Two lectures, one lab (two hours); one term
Prerequisite: GEO 2E03

GEO 3F03  FIELD CAMP
A field camp to introduce students to field equipment and methodologies used by earth and environmental scientists. Most of this course occurs outside the regular academic term, usually the two weeks preceding the start of term in September; details and applications are available in March. Students enrolling in this course must pay both the incidental fees as prescribed by the School and the regular tuition fees.
Prerequisite: GEO 2E03 and registration in Level III or above of an Honours programme in the School of Geography and Geology
Antirequisite: GEO 3F03

GEO 3G03  GLACIAL SEDIMENTS 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: GEO 2G03 or 2G03

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 ECON 1A03, GEO 1H03 or 1HU3

GEO 3H03  RESOURCE MANAGEMENT
An introduction to the methods and tools of resource management and economics, focusing on the development of resource systems and the environmental implications.
Three lectures; one term
Prerequisite: GEO 1HU3

GEO 3HR3  FIELD STUDY IN HUMAN GEOGRAPHY
Introduction to field research in Human Geography, usually in the Hamilton area.
One lecture (three hours); one term
Prerequisite: GEO 2HR3 and registration in Level III or above of an Honours programme in the School of Geography and Geology

GEO 3HH3  POPULATION DISTRIBUTION AND MIGRATION
Introduction of important theories, models and facts in the fields of population distribution and internal and international migration processes.
One lecture (three hours); one term
Prerequisite: GEO 1HH3 or 1HU3; and one of COMMERC 2QA3, HTH SCI 1F03, KINESIOL 2C03, SOC SCI 2C03, STATS 1A03, 1C03, 2D03, 2M03; and registration in Level III or above

GEO 3HH3  GEOGRAPHY OF HEALTH AND HEALTH CARE
An understanding of traditions in health geography and an exploration of the determinants of health, including the social environment, the physical environment and health care services.
Three lectures; one term
Prerequisite: GEO 1HS3 or 1HU3

GEO 3J03  GEOGRAPHY OF JAPAN
Human and physical geography of Japan with emphasis on historical, international, demographic and economic aspects.
One lecture (three hours); one term
Prerequisite: Registration in Level III or above

GEO 3JH3  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
GEO 3JH3 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.
One lecture (three hours); one term
Prerequisite: One of GEO 2HA3, 2HB3, 2HY3

GEO 3HU3  URBAN ISSUES IN THEORY AND PRACTICE
Critical evaluation of social and environmental problems facing contemporary urban society and the role that volunteerism and the non-profit sector play in responding to these problems. Students will undertake a ten-week (four hours per week) volunteer placement. Details and application for the course are available in November.
One lecture (two hours); week placement commitment; one term
Prerequisite: Registration in Level III of an Honours B.A. programme in the School of Geography and Geology

GEO 3HZ3  URBAN SOCIAL GEOGRAPHY
The social geography of North American cities. Topics include commuting, segregation, inner-city gentrification, suburban development.
Lectures and seminars (two hours, twice weekly); one term
Prerequisite: GEO 2D03. GEO 2H03 and 2HY3 are recommended.

GEO 3I03  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 automation through object-oriented programming.
Three lectures, one lab (two hours); one term
Prerequisite: A minimum grade of C+ in GEO 2103

GEO 3J03  CLIMATE CHANGE AND ECOSYSTEM IMPACTS
Past, present and future climate change is examined in terms of the underlying physical and global biogeochemical processes. The Kyoto Protocol and impacts of climate change on ecosystems are examined.
One lecture (two hours), one lab (two hours); one term
Prerequisite: One of BIOLOGY 2F03, GEO 2B03, 2C03
Antirequisite: GEO 3B03

GEO 3K03  PETROLOGY
Introduction to igneous and metamorphic petrology, including thin section examination of rock suites, use of phase diagrams in petrology, and discussion of petrogenesis.
Two lectures, one lab (two hours); one term
Prerequisite: GEO 2K03

GEO 3N03  NORTHERN ENVIRONMENTS
An appreciation of northern environments including climatic and hydrological setting, landforms, vegetation and associated development problems.
Three lectures; one term
Prerequisite: Registration in Level III or above

GEO 3P03  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: GEO 2D03 or 2P03

GEO 3P03  GEOCHEMISTRY
Chemistry of the earth including formation of the solar system and the earth, water-rock chemical interaction at the earth's surface, chemistry of environmentally-sensitive minerals in sediments and geological age determination of rocks using radiogenic isotopes.
Three lectures; one term
Prerequisite: ENVIR SCI 1G03; and one of CHEM 2PA3, 2R03, GEO 2003
GEO 3R03 RESEARCH DESIGN AND DISSEMINATION
Description of some of the changed and changing paradigms in the discipline; formulation of a research proposal; communication of research results.
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

GEO 3S03 INTRODUCTION TO SPATIAL STATISTICS
An introduction to the nature of geographic data and organization, descriptive statistical and inferential statistics.
Two lectures, one lab (two hours); one term
Prerequisite: MATH 1A03, and registration in B.Sc. Geoscience, or any Level III Honours programme in the Faculty of Science and Engineering
Antirequisite: CIV ENG 2J04

GEO 3U03 ENVIRONMENTAL SYSTEMS
Use of simple numerical models applied to solving environmental problems related to anthropogenic perturbations. Introduction to STELLA numerical simulator, statement of the problem and "what if" scenarios.
One lecture (three hours); one term
Prerequisite: MATH 1A03; and registration in B.Sc. Geoscience, or any Level III Honours programme in the Faculties of Science and Engineering
Antirequisite: CIV ENG 2J04

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: ENVR SC 1G03, PHYSICS 1E03

GEO 3W03 PHYSICAL HYDROLOGY
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
Prerequisite: One of GEO 2B03, 2G03, 2W03; and one of MATH 1A03, 1B03, 1K03, 1M03, 1N03

GEO 3Y03 REMOTE SENSING
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
Prerequisite: GEO 2J03

GEO 3Z03 STRUCTURAL GEOLOGY
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
Prerequisite: GEO 2E03

GEO 4A03 ENVIRONMENTAL ASSESSMENT
Technical and policy issues involved in the production and the appraisal of environmental impact assessments.
Two lectures, one lab; one term
Prerequisite: GEO 2A03; or registration in Honours Biology, a Civil Engineering programme, an Engineering and Society programme or an Honours programme in the School of Geography and Geology

GEO 4B03 WATERSHED ECOSYSTEM BIOGEOCHEMISTRY
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.
One lecture (two hours), one lab (two hours); one term
Prerequisite: One of GEO 2W03, 3B03, 3J03

GEO 4C03 ADVANCED PHYSICAL CLIMATOLOGY
This course develops energy and mass exchange processes in the near surface layer, the lower atmosphere and at the earth-atmosphere interface. Sensitivities of these processes to environmental change and feedback mechanisms are examined. Seminars and individual presentations are emphasized.
One lecture (two hours); one lab (two hours); one term
Prerequisite: GEO 2C03

GEO 4CC3 REVIEW PAPER
The student will conduct a comprehensive review of a selected topic. The review paper is due before the final examination period.
One seminar (two hours); first term
Prerequisite: GEO 3R03 and registration in Level IV of an Honours programme in the School of Geography and Geology
Antirequisite: GEO 4R06

GEO 4D03 LAND USE AND TRANSPORTATION
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 lab (two hours); one term
Prerequisite: GEO 2S03 or 4H03
Cross-list: CIV ENG 4H03

GEO 4EO3 COASTAL ENVIRONMENTS
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
Prerequisite: GEO 3E03

GEO 4FE3 FIELD COURSE
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 enrolling in this course must pay both the incidental fees, as prescribed by the School, and the regular tuition fees.
Prerequisite: Registration in Level III or above of an Honours B.Sc. programme in the School of Geography and Geology

GEO 4FF3 TOPICS OF FIELD RESEARCH
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 Schedule. Students enrolling in this course must pay the incidental fees, as prescribed by the School, and the regular tuition fees.
Prerequisite: Registration in Level III or above of an Honours programme in the School of Geography and Geology and permission of the instructor

GEO 4H03 FIELD RESEARCH IN THE HUMAN ENVIRONMENT
Models and methods for research and policy on environment and health.
One lecture/seminar (three hours); one term
Prerequisite: One of GEO 3A03, 3H03 or permission of the instructor
Cross-list: HEALTH 4E03

GEO 4HT3 URBAN PLACES AND URBAN DREAMS
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
Prerequisite: One of GEO 2HD3, 2HY3, 3HT3

GEO 4HY3 URBAN DEVELOPMENT AND POLICY ISSUES
Current debates on urban development and policy issues. Emphasis on the political economy of urban change.
Three lectures; one term
Prerequisite: GEO 2HY3 or permission of the instructor

GEO 4HZ3 URBAN HOUSING
The geography of housing, including the effects of land development, construction, municipal planning and public policy on the urban landscape of housing and homelessness.
One lecture/seminar; one term
Prerequisite: GEO 3H23, GEO 3HT3 and 3I03 are recommended.

GEO 4I03 ADVANCED GIS
Advanced methods in GIS using ARC/INFO. Topics will include raster based analysis, working with linear features, surface modelling and AML programming.
Three lectures, one lab (two hours); one term
Prerequisite: GEO 3I03

GEO 4K03 MINERALOGY
Advanced topics in crystal chemistry and mineralogy, with emphasis on mineral spectroscopies.
Two lectures, one tutorial; one term
Prerequisite: GEO 2K03 or 2KK3

GEO 4K33 INQUIRY: MINERALS AND SOCIETY
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
Prerequisite: GEO 3K33

GEO 4K43 INQUIRY: MINERALS AND SOCIETY
Case studies of mineral structures and properties with implications of practical importance. Gem and other economic minerals; workplace and environmental hazards.
Prerequisite: Registration in Level IV of an Honours programme in the Faculty of Science.

Antirequisite: ENVIR SC 4103

Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

GEO 4L03 PHYSICAL AND CHEMICAL PROCESSES IN FRESHWATER ENVIRONMENTS

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. Students enrolling in this course must pay both the incidental fees as prescribed by the School and regular tuition fees.

Two lectures, one lab (four hours), one term

Prerequisite: One of GEO 3B03, 3G03, 3W03; and permission of the instructor

Enrolment is limited. Application must be received by March 31st of the academic year prior to registration. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

GEO 4Q03 ENVIRONMENTAL ISOTOPES AND GEOCHRONOLOGY

Geological age determination techniques for the near-surface sedimentary record over the last two million years of earth history. Application of radiogenic and stable isotope tracers to environmental systems.

Three lectures; one term

Prerequisite: GEO 3Q03

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 above of an Honours programme in the School of Geography and Geology; and a grade of at least B+ in GEO 3R03; and permission of the instructor

Antirequisite: GEO 4C03

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

GEO 4W03 HYDROLOGIC MODELLING

Principles of numerical modelling and examination of selected hydrologic models.

Two lectures, one lab (two hours); one term

Prerequisite: GEO 2W06 or 3W03

GEO 4W03 CONTAMINANT HYDROGEOLOGY

Physical and chemical aspects of the fate and transport of contaminants in soils and groundwater, including multivariate flow.

Two lectures, one lab (two hours); one term

Prerequisite: GEO 3W03

GEO 4Z03 GEOPHYSICS I—REMOTE MAPPING METHODS

Advanced methods in regional geophysical resource mapping. Acquisition and interpretation of gravity, magnetics, radiometrics and EM conductivity; map generation, advanced numerical analysis and modelling.

Two lectures, one lab (two hours); one term

Prerequisite: GEO 2E03, 3G03, 3W03

Alternates with GEO 4Z23.


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, 3G03, 3W03

Alternates with GEO 4Z03.

GERMANY (SEE MODERN LANGUAGES AND LINGUISTICS, GERMAN)

GERONTOLOGY

WEB ADDRESS: http://www.socsci.mcmaster.ca/gerontology

Kenneth Taylor Hall, Room 226

Ext. 24449

Faculty as of January 15, 2003

Director

Margaret A. Denton

Professors

Margaret A. Denton (Sociology) B.A., M.A., Ph.D. (McMaster)
Carolyn J. Rosenthal (Sociology) B.A. (Toronto), M.A., Ph.D. (McMaster)
Ellen B. Ryan (Psychiatry) B.A., M.A. (Brown), Ph.D. (Michigan)

Associate Professor

Anju Joshi/B.A., M.A. (Dalhousie)

Adjunct Associate Professor

Sherry Dupuis (Brock) B.Mus. (Queen's), M.A. (Waterloo), Ph.D. (Waterloo)

Assistant Professors

Lori Campbell/B.A., M.A. (Western Ontario), Ph.D. (Guelph)
Christopher Justice/B.A. (Simon Fraser), M.A., Ph.D. (McMaster)

Members

Alan G. Bishop (English) B.A. (Rhodes, S. Africa), M.A., D.Phil. (Oxford)
Lauree C. Doering (Pathology and Molecular Medicine) B.Sc., Queen's, M.Sc., Ph.D. (Saskatchewan)
James W. Gladstone (Social Work) B.A. (McGill), M.S.W. (British Columbia), Ph.D. (Toronto)
Curtis McNerney (Psychiatry and Behavioural Neurosciences) B.A., M.A., Ph.D. (Waterloo)
Jenny Ploeg (Nursing) B.Sc.N., M.Sc.N. (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.
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 GERPONT 2E03 prior to GERPONT 3B03.
4. GERPONT 1A03 is available for elective credit for students enrolled in a non-Gerontology programme. GERPONT 2B03, 3A03, 3G03, 3H03, 3J03, 3K03, and 3M03 are available for elective credit for students enrolled in a non-Gerontology programme. In the case of 3A03, 3F03, 3H03, 3J03, 3K03 and 3M03, enrolment for non-Gerontology students is limited and places are assigned on a first come basis.

Courses

If no prerequisite is listed, the course is open.

GERONTOL 1A03 AGING AND SOCIETY

Examines issues in aging from a multidisciplinary perspective including such topics as: myths and stereotypes of aging, social ties in later life and the aging of the Canadian population. Provides a deeper understanding of aging and the changing body, mind and self, as well as the meaning and experiences, challenges and opportunities of aging and later life.

Three hours (lectures, inquiry and experiential components); one term

Antirequisite: GERPONT 1A06

GERONTOL 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.
GERONTOLOGY

Three hours (lectures); one term
Prerequisite: GERONTOLOGY 1A03 or 1A06
Not open to students with credit or registration in KINESIOLOGY 4S3.

GERONTOLOGY 2C03 RESEARCH METHODS IN SOCIAL GERONTOLOGY
A systematic investigation of 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. This course uses an inquiry based approach.
Three hours (lectures and practice); one term
Prerequisite: Registration in any Gerontology programme
Antirequisite: ANTHROPOLOGY 2Z03, CMST 2A03, GEO 2HR3, GERONTOLOGY 3C03, HEALTHST 2B03, SOCIOLOGY 2Z03

GERONTOLOGY 2D03 SOCIAL ASPECTS OF AGING
Examines the social experiences of aging at both the individual and societal levels using a variety of approaches such as life course perspective, political economy, social constructionism, self identity, and a feminist perspective of aging.
Three hours (lectures and discussions); one term
Prerequisite: Registration in any Gerontology programme
Antirequisite: GERONTOLOGY 2A03, 2A43

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
Prerequisite: Registration in any Gerontology programme
Antirequisite: GERONTOLOGY 2A03, 2A43

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
Prerequisite: GERONTOLOGY 1A03 or 1A06
The 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
Prerequisite: Registration in any Gerontology Second Degree programme; or Level III or IV of any Gerontology programme. (See Note 3 above.)

GERONTOLOGY 3B53 ADVANCED GERONTOLOGY PLACEMENT
A supervised experience linking classroom knowledge to a practical 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
Prerequisite: GERONTOLOGY 3B03 and registration in Level III or IV of any Gerontology programme and permission of the instructor; or credit or registration in GERONTOLOGY 3B03 and 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
Prerequisite: Registration in any Gerontology programme
Not open to students with credit in PSYCH 3D03.

GERONTOLOGY 3E03 INDEPENDENT STUDY IN GERONTOLOGY
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.
Prerequisite: 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
Prerequisite: GERONTOLOGY 3B03 and registration in any Gerontology Second Degree programme or Level III or IV of any Gerontology programme; or GERONTOLOGY 1A03 or 1A06 and an equivalent placement course and permission of the instructor.
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 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
Prerequisite: GERONTOLOGY 1A03 or 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
Topos may vary from year to year. Students should consult the McMaster Centre for Gerontological Studies prior to registration, concerning topics to be examined.
Three hours (lectures and discussion); one term
Prerequisite: 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
Prerequisite: Registration in any Gerontology Second Degree programme or Level III or IV of any Gerontology programme; or with permission of the instructor, registration in a Labour Studies programme or GERONTOLOGY 1A03 or 1A06 and registration in Level II or above of any programme
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 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
Prerequisite: GERONTOLOGY 1A03 or 1A06
Not open to students with credit in GERONTOLOGY 3I03, if the topic was Images of Aging.
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 3L03 LONG-TERM CARE FACILITIES: ISSUES AND CHALLENGES
Humanizing care for older adults living in long-term care facilities and other issues and challenges, including the structure and organization of long-term care facilities, policy, quality of life, and quality of care.
Three hours (lectures and discussion); one term
Prerequisite: Registration in any Gerontology programme
Not open to students with credit in GERONTOLOGY 3I03, if the topic was Long-term Care Facilities: Issues and Challenges.
GERONTOLOGY

GERONTOL 3M03 AGING IN A FAMILY CONTEXT
Examines a diversity of topics related to family relationships and life transitions of older adults from a life course perspective. Topics may include diversity in families, marital status and parent status, adult child/parent relationships, sibling ties, and grandparent/grandchild relationships.
Three hours (lectures and discussions); one term
Prerequisite: GERONTOL 1A03 or 1A06
Antirequisite: SOCIOL 3C03
Not open to students with credit in GERONTOL 4C03, if the topic was Aging in a Family Context.
This course may be taken as elective credit by undergraduate students registered in a non-Gerontology programme. However, enrolment for such students is limited.

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: ANTHROPOLOGICAL APPROACHES TO THE STUDY OF AGING

GERONTOL 4A06 GERONTOLOGY THESIS
Provides opportunity for students to integrate knowledge, practice, and research in a project related to their area of interest. Students may work with individual faculty members or community-based supervisors.
Prerequisite: GERONTOL 2C03 (or 3C03) and 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 may be repeated, II on a different topic, to a total of six units.

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 4J03 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, 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.

NON-CREDIT PLACEMENTS ...

GERONTOL 2P00 PROFESSIONAL DEVELOPMENT IN THE FIELD OF AGING I
This non-credit course enhances gerontology students' learning experience by providing a formal mechanism to recognize participation and learning in related extra-curricular activities. Students will create a learning portfolio to evaluate their participation and their progress towards their learning objectives.
Two terms
Prerequisite: Registration in any Gerontology Programme and permission of the instructor

GERONTOL 3P00 PROFESSIONAL DEVELOPMENT IN THE FIELD OF AGING II
This non-credit course enhances gerontology students' learning experience by providing a formal mechanism to recognize participation and learning in related extra-curricular activities. Students will create a learning portfolio to evaluate their participation and their progress towards their learning objectives.
Two terms
Prerequisite: GERONTOL 2P00; and registration in any Gerontology Programme; and permission of the instructor

GERONTOL 4P00 PROFESSIONAL DEVELOPMENT IN THE FIELD OF AGING III
This non-credit course enhances gerontology students' learning experience by providing a formal mechanism to recognize participation and learning in related extra-curricular activities. Students will create a learning portfolio to evaluate their participation and their progress towards their learning objectives.
Two terms
Prerequisite: GERONTOL 3P00; and registration in any Gerontology Programme; and permission of the instructor

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)
Delsworth G. Hamishi, 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 1EE3  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: Advanced Functions and Introductory Calculus U (or OAC Calculus)
Antirequisite: STATS 1CC3

HTH SCI 1GG3  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: HTH SCI 1E03 and credit 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, 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, 2L03
Antirequisite: BIOLOGY 1J03, 3U03, 3U3, HTH SCI 1D06, KINESIOLOGY 1A06, 1X06, 1Y03, 1Y33

HTH SCI 2FF3  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, one lab; one term
Prerequisite: HTH SCI 2F03
Cross-list: HTH SCI 1H03, 2L3
Antirequisite: BIOLOGY 1J03, 3U03, 3U3, HTH SCI 1D06, KINESIOLOGY 1A06, 1X06, 1Y03, 1Y33

HTH SCI 2GG3  HEALTH CONCEPTS
This course examines concepts of health from molecular, clinical, population to societal perspectives.
Two lectures, one tutorial; one term
Prerequisite: HTH SCI 1F03 or STATS 1CC3

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: One of HTH SCI 1G03 or PSYCH 1AA3, and one of HTH SCI 1F03 or STATS 1CC3, or HTH SCI 1F03 and registration in Level II or above of the B.H.Sc. (Honours) programme
Antirequisite: KINESIOLOGY 2G03

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
Prerequisites: BIOLOGY 1A09 (or 1A06), CHEM 1A03 (or 1A06) and registration in the B.H.Sc. (Honours) programme; or permission of the instructor
Antirequisite: BIOLOGY 2B03
Note: B.H.Sc. (Honours) students may elect to take either HTH SCI 2K03 or BIOLOGY 2B03 to meet programme requirements.

HTH SCI 3D03  GENETICS IN HEALTH SCIENCES
This course examines basic genetic issues including cytogenetics, genetic traits and inheritance as they relate to health care issues.
Two lectures, one tutorial; one term
Prerequisite: HTH SCI 2G03, 2FF3, 2K03

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

HTH SCI 3G03  HEALTH INTERVENTIONS
Participants will be introduced to four different types of health interventions (clinical treatments, community health programmes, prevention initiatives and screening programmes) and will learn how to use scientific standards of evidence.
Two lectures, one tutorial; one term
Prerequisite: HTH SCI 2G03

HTH SCI 3GG3  HEALTH SYSTEMS AND HEALTH POLICY
This course teaches critical reasoning about health policies and health systems, illustrating the role of values, the policy process, chief paradigms and challenges with managing conflicting goals.
Two lectures, one tutorial; one term
Prerequisite: HTH SCI 3G03

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
Antirequisite: BIOCHEM 4C09, 4P09, BIOLOGY 4C09, 4D09, 4E09, 4G09, MOL BIOLOGY 4R09, PHARMAC 4G09, PSYCH 4D09, 4E09

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; one term
Prerequisite: BIOLOGY 2B03 or HTH SCI 2K03
Antirequisite: BIOLOGY 3X03

HTH SCI 3J03  HEALTH, INJURY AND PATHOLOGY
An introduction to human pathology with emphasis on the mechanisms of pathogenesis and the morphologic changes induced to occur in cells and tissues.
Two lectures, one tutorial (three hours); one term
Prerequisite: BIOLOGY 2B03 or HTH SCI 2K03

HTH SCI 3L03  INTRODUCTION TO BIOETHICS
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.
Two lectures, one tutorial; one term
Prerequisite: BIOLOGY 1A3

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 or above
Cross-list: HEALTHISTORY 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; and registration in B.H.Sc. (Honours) programme; and permission of B.H.Sc. (Honours) Programme Office
Antirequisite: BIOCHEM 4C09, 4P09, BIOLOGY 4C09, 4D09, 4E09, 4G09, MOL BIOLOGY 4R09, PHARMAC 4G09, PSYCH 4D09, 4E09
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
Prerequisite: Registration in Level III or IV of the B.H.Sc. (Honours) program

HTH SCI 4003 SPECIAL TOPICS IN HEALTH SCIENCES
This course provides an opportunity for individual or small groups to integrate concepts from their undergraduate courses. Sessions arranged individually or in small groups; two terms
Prerequisite: Permission of Assistant Dean, B.H.Sc. (Honours)

HTH 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

HTH SCI 4G03 ACQUISITION AND PRESENTATION OF SCIENTIFIC KNOWLEDGE
Students will examine how health information is disseminated through forms 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) program

HTH SCI 4II3 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; one term
Prerequisite: BIOLOGY 3X03 or HTH SCI 3I03
Antirequisite: BIOLOGY 4I03

HTH SCI 4J03 BIOCHEMICAL IMMUNOLOGY
Topics include development of immunoassays, resistance 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 4II3
Cross-list: BIOCHEM 4J03, MOL BOL 4J03

HTH 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 1C03; and HTH SCI 1G03 or PSYCH 1A03. Students with a grade of less than B- in either HTH SCI 1F03 or STATS 1C03 should consult with the instructor before registering in this course.

HTH SCI 4P03 PSYCHOPHYSICAL ASSESSMENT
This course will cover the techniques used to measure a variety of neuropsychologic processes.
Three lectures; one term
Prerequisite: HTH SCI 4N03

HTH 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
This course is administered by the Department of Biology.

HTH 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 B.Sc.N. (A), (B) or (D) Streams, Nurse Practitioner (C) Stream, Oncology, Psychiatric-Mental Health Nursing or Midwifery, as applicable.

Courses

HTH SCI 1A03 HUMAN BIOCHEMISTRY I
Introduction to proteins, 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.
Lectures and problem-based tutorial (three hours); one term
Prerequisite: Registration in Level I of the B.Sc.N. (A) or (D) Stream; or permission of the instructor
Antirequisite: HTH SCI 1A06, 1C07

HTH SCI 1B03 HUMAN BIOCHEMISTRY II
DNA replication, transcription and translation; recombinant DNA technology; and the molecular biology of inherited and acquired diseases.
Lectures and problem-based tutorial (three hours); one term
Prerequisite: HTH SCI 1A03 and registration in Level I of the B.Sc.N. (A) or (D) Stream; or permission of the instructor
Antirequisite: HTH SCI 1A06, 1C07

HTH 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

HTH SCI 1C07 INTEGRATED BIOLOGICAL BASES OF NURSING PRACTICE I
Through a small group, self-directed problem-based learning format, students will apply principles of cellular biology, biochemistry and human anatomy and physiology essential to the assessment and understanding of health care problems.
Lecture (two hours), two problem-based tutorials (two hours each), self-study; one term
Prerequisite: Registration in Level III of the B.Sc.N. (B) or Nurse Practitioner (C) Stream
Antirequisite: HTH SCI 1A06, 1A03, 1B03, 1Z24

HTH SCI 1D06 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
Antirequisite: HTH SCI 1A06, 1B03, 2A03, 1Z24

HTH 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 Level I of the B.Sc.N. (A) or (D) Stream or permission of the instructor
Cross-list: HTH SCI 2F03
Antirequisite: BIOLOGY 1J03, 2A03, HTH SCI 1B07, KINESIOL 1A06, 1X06, 1Y03, 1Y13

HTH SCI 1H04 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 Level I of the B.Sc.N. (A) or (D) Stream; or permission of the instructor
Cross-list: HTH SCI 2FF3
Antirequisite: BIOLOGY 1J03, 2A03. HTH SCI 1B07, KINESIOL 1A06, 1X06, 1Y03, 1YY3

HTH SCI 1Z24 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/lab (three hours); one term
Prerequisite: Credit or registration in HTH SCI 1A03

HTH SCI 2B83 HEALTH SCIENCE AND SOCIETY
This course is concerned with the biological, environmental, behavioural, social and economic factors that determine health needs of the population. The major components to the course are: measuring health status, the determinants of health, and the provision of health care services. Offered by Web CT/Print Management Based.
Prerequisite: Registration in Level II of the Midwifery Education Program

HTH SCI 2C07 INTEGRATED BIOLOGICAL BASES OF NURSING PRACTICE II
Students will integrate concepts of pathophysiology and will include principles of microbiology and pharmacology essential to the assessment and understanding of health care problems.
Lecture (two hours), two problem-based tutorials (two hours each), journal club; one term
Prerequisite: HTH SCI 1C07 or 1Z24; and registration in Level III of the B.Sc.N. (B) Stream; or permission of the instructor
Antirequisite: HTH SCI 1C07

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 1Z24 or 1B03; and registration in Level II of the B.Sc.N. (A) or (D) Stream; or permission of the instructor
Antirequisite: HTH SCI 2B06, 2C07, 2D02

HTH SCI 2H33 INTRODUCTORY MICROBIOLOGY
An examination of the interactions of microbes in the human body including adaption, responses, treatment and prevention.
Lecture (two hours), tutorial or lab or clinical problem (three hours); one term
Prerequisite: HTH SCI 1A03, 1B03 (or 1A06), 1H03, 1H33 and registration in Level II of the B.Sc.N. (A) or (D) Stream; or permission of the instructor
Antirequisite: HTH SCI 2B06, 2C07, 2CC2

HTH SCI 2I03 SOCIAL ASPECTS OF REPRODUCTION
An interdisciplinary course exploring birth and reproduction. Topics may include: social determinants of reproductive health, fertility and birthing rituals, reproductive ethics, policy and technologies.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II or above

HTH SCI 2L03 ANATOMY AND PHYSIOLOGY I: COMMUNICATION
An examination of structure-function relationships in the human body systems that communicate with each other or the environment. The systems covered include: endocrine, central nervous system, hearing, taste, smell, vision, autonomic nervous system, skin, peripheral nervous system, and locomotion (musculo-skeletal).
Two lectures (one hour), clinical problem presentation (one hour), one lab (two hours); one term
Prerequisite: Registration in Chemical Engineering and Bioengineering
Cross-list: HTH SCI 1H03, 2F03
Antirequisite: BIOLOGY 1J03, 3U03, 3U08, HTH SCI 1D06, KINESIOL 1A06, 1X06, 1Y03, 1YY3

HTH SCI 2L33 ANATOMY AND PHYSIOLOGY II: HOMEOSTASIS
An examination of structure-function relationships in the human body systems that are responsible for maintaining normal internal physiological conditions despite a changing environment. The systems covered include: cardiovascular, respiratory, immunology, gastro-intestinal, nutrition, uro-genital, and renal.
Two lectures (one hour), clinical problem presentation (one hour), one lab (two hours); one term
Prerequisite: Registration in Chemical Engineering and Bioengineering
Cross-list: HTH SCI 1H03, 2F03
Antirequisite: BIOLOGY 1J03, 3U03, 3U08, HTH SCI 1D06, KINESIOL 1A06, 1X06, 1Y03, 1YY3

HTH SCI 3B03 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) or (D) Stream, or the Nurse Practitioner (C) Stream or Level III or IV of the B.Sc.N. (B) Stream; or registration in Level II of the Midwifery Education Program; or permission of the 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 related 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 B.Sc.N. (A), (B), (D) or Nurse Practitioner (C) Stream; or registration in the Midwifery Education Programme; or the Paediatric Oncology or Adult Oncology Programme; or the Psychiatric-Mental Health Nursing Programme; or permission of the instructor
Antirequisite: HTH SCI 3A03, 3L02, 3M03

HTH SCI 3L33 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 3R03 INDEPENDENT STUDY IN A HEALTH SCIENCES TOPIC
A non-clinical course in which special topics will be considered in depth under the supervision of a faculty member. The plan of study must be negotiated with the faculty member.
Lecture or equivalent (three hours); one term
Prerequisite: Registration in Level II or above of the B.Sc.N. programme; and permission of the instructor; and permission of the Coordinator of Studies (Nursing)

HTH SCI 4E06 INTRODUCTION TO HEALTHCARE 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 4G06

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/problem-based tutorials); one term
Prerequisite: HTH SCI 3B03 and registration in Level III or IV of the B.Sc.N. programme; or permission of the instructor
Antirequisite: NURSING 4H03

HTH SCI 4I03 LEADING EFFECTIVE TEAMS IN HEALTH CARE ORGANIZATIONS
This course introduces health care providers to the concepts and dynamics of teams within health care organizations. Theories and concepts related to leadership, communication and health systems are applied in the current work environment. Distance education and tutorial formats.
HEALTHST 2903 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
Antirequisite: ANTHROP 2203, CMST 2A03, GEO 2HR3, GERONTOL 2C03, SOCIOLOG 2203

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
Cross-list: ECON 2C03
Not open to students with credit or registration in ECON 3203. This course is administered by the Department of Economics.

HEALTHST 2D03 MENTAL HEALTH
An examination of mental health and illness from different social, cultural and historical perspectives, including consideration of changing notions of diagnosis, treatment and prevention.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II or above
Antirequisite: HISTORY 3V03

HEALTHST 2H03 SOCIAL ASPECTS OF REPRODUCTION
An interdisciplinary course exploring birth and reproduction. Topics may include: social determinants of reproductive health, fertility and birthing rituals, reproductive ethics, policy and technologies.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II or above
Cross-list: HTH SCI 2003, WOMEN ST 3D03

HEALTHST 3A03 HEALTH ISSUES
An examination of a selected health issue (such as tuberculosis, madness or healers) from various social sciences 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 or Labour Studies programme
Cross-list: LABR ST 3D03
This course is administered by Labour Studies.

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: One of HEALTHST 1A03, 1E03, 1S03; and registration in Level III or above of any programme
Enrolment is limited.

HEALTHST 3F03 may be repeated, if on a different topic, to a total of six units.
HEALTHST 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 settlers to the present day.

Two lectures one small group session (one hour); one term
Prerequisite: Registration in Level II or above of any programme
Cross-list: HTH SCI 3Y03, HISTORY 3Y03
This course is administered by the B.H.Sc.(Honours) programme.

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 any 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 any 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 Health Studies 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.

Prerequisite: Registration in Level IV of any Health Studies 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 any Health Studies programme

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 Health Studies 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 any Health Studies programme
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 any Health Studies programme
Enrolment is limited.

HEALTHST 4I03 THEORIZING HEALTH AND ILLNESS

An advanced exploration of the contribution of social theory to understanding topics and issues regarding health and illness.

Prerequisite: Registration in Level IV of any Health Studies programme
Enrolment is limited.

HEBREW

(SEE RELIGIOUS STUDIES, HEBREW)
3. 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).

4. 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
- KINESIOL 3N03 History of Sport in the Western World

The following courses may, with permission of the instructor and the Department of History, be applied towards degree requirements in an Honours programme in History at Level IV:

- KINESIOL 4L16 Advanced Topics in Canadian Sport History
- RELIG 2F03 Advanced Topics in Medieval Culture
- RELIG 2F03 Advanced Topics in Post-Classical Islamic History
- RESS 2L03 History of Ancient Greece and Rome
- RESS 2L03 History of the Byzantine Empire

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

HISTORY 1AA3 EUROPE FROM THE RENAISSANCE TO 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

HISTORY 1B03 NORTH 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 1BB3 AMERICA AND THE WORLD SINCE 1900
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 1L05, HISTORY 1L06
This course is administered by the Department of Classics.

HISTORY 1LL3 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 1LL3
Antirequisite: CLASSICS 1L06, HISTORY 1L06
This course is administered by the Department of Classics.

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 or above

HISTORY 2EA3 ISLAM IN THE WORLD, 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 or above
Cross-list: RELIG ST 2EA3

HISTORY 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 or above
Cross-list: RELIG ST 2EB3

HISTORY 2F03 HISTORY OF WOMEN IN EUROPE TO 1650
An exploration of the history of European women and gender during the medieval and early modern periods, focusing on the political, social, spiritual, intellectual and economic realms.
Three hours; one term
Prerequisite: Registration in Level II or above
Cross-list: WOMEN ST 2F03
Antirequisite: HISTORY 2B66, WOMEN ST 2B06

HISTORY 2F03 HISTORY OF WOMEN IN EUROPE FROM 1650
An exploration of the history of European women and gender in the modern era, focusing on women's changing roles in the economic and political spheres and the development of new visions of the family and sexuality.
Three hours; one term
Prerequisite: Registration in Level II or above
Cross-list: WOMEN ST 2F03
Antirequisite: HISTORY 2B66, WOMEN ST 2B06

HISTORY 2J06 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 or 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 or 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 or above
Cross-list: CLASSICS 2L03
This course is administered by the Department of Classics.

HISTORY 2L13 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 or above
Cross-list: CLASSICS 2L13
This course is administered by the Department of Classics.

HISTORY 2M03 EARLY MODERN BRITAIN, 1500-1600
A thematic study of British culture, society and governance between 1500 and 1600 AD.
Three hours (lectures and discussions); one term
Prerequisite: Registration in Level II or above
Antirequisite: HISTORY 2N06

HISTORY 2M03 BRITAIN IN THE MODERN ERA, 1600-2000
The political, social, economic and cultural history of Britain over the last two centuries, with particular attention to the domestic impact of the British Imperial experience.
Three hours (lectures and discussions); one term
Prerequisite: Registration in Level II or above
Antirequisite: HISTORY 2N06
HISTORY 2P03  HISTORICAL INQUIRY
An introduction to the systematic investigation of historical issues and problems in a small class setting. Topics will vary, representative of the interests of the department’s teaching staff.
Three hours (seminar); one term
Prerequisite: Permission of the Department. Priority will be given to students registered in Level II of an Honours programme in History. Students wishing to take this course must complete an application form in the History Department before March 31 to guarantee consideration for the following year.
Enrolment is limited. Departmental permission is required.

HISTORY 2R03  U.S. HISTORY TO THE CIVIL WAR
A survey of the political, cultural, social and economic development of the United States to 1877, from the colonial and revolutionary era to the Civil War and Reconstruction.
Three hours (lectures and discussion groups); one term
Prerequisite: Registration in Level II or above
Antirequisite: HISTORY 2H06

HISTORY 2R3  U.S. HISTORY SINCE THE CIVIL WAR
A survey of the political, cultural, social, and economic development of the United States from Reconstruction to the present.
Three hours (lectures and discussion groups); one term
Prerequisite: Registration in Level II or above
Antirequisite: HISTORY 2H06

HISTORY 2S03  WAR IN THE WEST, 1789-1945
A survey of the development of warfare in the Western World from 1789 to 1945. Particular attention is paid to the French Revolutionary and Napoleonic Wars, and the Two World Wars in the twentieth century.
Three hours; one term
Prerequisite: Registration in Level II or above
Cross-list: PEACE ST 2S03

HISTORY 2T03  SURVEY OF CANADIAN HISTORY, BEGINNINGS TO 1885
A survey of the political, cultural, social and economic development of Canada to 1885, from first nations and colonial origins to Confederation and the North West Rebellion.
Three hours (two lectures, one tutorial); one term
Prerequisite: Registration in Level II or above
Antirequisite: HISTORY 2J06

HISTORY 2T3  SURVEY OF CANADIAN HISTORY, 1885 TO THE PRESENT
A survey of the political, cultural, social and economic development of modern Canada, from the North West Rebellion and nation-building era to the present.
Three hours (two lectures, one tutorial); one term
Prerequisite: Registration in Level II or above
Antirequisite: HISTORY 2J06

HISTORY 2U03  HISTORICAL ANTECEDENTS OF GLOBALIZATION, 1200-1700
An introduction to interpretations of globalization, the appearance and expansion of cross-cultural trade systems, colonization, and population diasporas.
Three hours (two lectures, one tutorial); one term
Prerequisite: Registration in Level II or above
Antirequisite: HISTORY 2006

HISTORY 2U3  HISTORICAL ANTECEDENTS OF GLOBALIZATION, 1700-1850
The emergence of global economies, settlement colonies, the dispersal of flora and fauna, the spread of ideas about property and economic development, innovations in finance and communications.
Three hours (two lectures, one tutorial); one term
Prerequisite: Registration in Level II or above
Antirequisite: History 2006

HISTORY 3A3  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 or above
Cross-list: PEACE ST 3F03

HISTORY 3B03  MODERN JAPAN
A survey of 19th and 20th century Japan, with emphasis on political developments, social change, and Japan’s relations with East Asia and the West.
Three lectures; one term
Prerequisite: Registration in Level II or above
Cross-list: JAPAN ST 3B03

HISTORY 3B3  THE ROMAN FAMILY
The ancient Roman family, including social, economic and legal aspects.
Three lectures; one term
Prerequisite: One of HISTORY 1L06, 1L3, 2K03, 2LL3, 3C03, 3E03; and registration in Level III or above
Cross-list: CLASSICS 3C03
Antirequisite: HISTORY 3M03
Alternates with HISTORY 3C03.

HISTORY 3C03  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: One of HISTORY 1L06, 1L3, 2K03, 2LL3, 3C03, 3E03; and registration in Level III or above
Cross-list: CLASSICS 3C03
Antirequisite: HISTORY 3M03
Alternates with HISTORY 3C03.

HISTORY 3C3  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
Prerequisite: Registration in Level II or above
Cross-list: RELIG ST 3D03
This course is administered by the Department of Religious Studies.

HISTORY 3E03  THE ROMAN FAMILY
The ancient Roman family, including social, economic and legal aspects.
Three lectures; one term
Prerequisite: One of HISTORY 1L06, 1L3, 2K03, 2LL3, 3C03, 3C03; and registration in Level III or above
Cross-list: CLASSICS 3E03
Antirequisite: HISTORY 3E03

HISTORY 3E3  THE GREEK HISTORIANS
The study in translation of Herodotus, Thucydeus, 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 or above
Cross-list: CLASSICS 3E03

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: Registration in Level II or above

HISTORY 3G3  BUSINESS HISTORY: THE CANADIAN EXPERIENCE IN 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 or above

HISTORY 3G3  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 or above
Antirequisite: HISTORY 2B06
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 Level II or above

HISTORY 3I03  THE INTERNATIONAL RELATIONS OF THE EUROPEAN POWERS, 1870-1945
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 or 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, New Left, opposition to the Vietnam War, counterculture, feminism and the conservative backlash.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II or above

HISTORY 3J3J  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 reflected 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 or 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: Registration in Level II or above

HISTORY 3K3K  HISTORY OF THE VIETNAM WAR
The First and Second Indochine Wars (1945-1975) is examined from multiple perspectives. Explores how and why the war was fought, as well as its global legacy.
Prerequisite: Registration in Level II or above
Cross-list: PEACE ST 3KK3
Antirequisite: GSCHE 4H03

HISTORY 3L03  THE HISTORY OF SOCIAL ACTIVISM, 1500-2000
A thematic study of community activism in Europe and North America. Students will be exposed to the religious, social-economic and political contexts of social activism, and the historical theory and practice of community-based actions.
Three hours; one term
Prerequisite: Registration in Level II or above
Cross-list: PEACE ST 3L0S

HISTORY 3L3L  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 1L03, 1L06, 1L33, 2L03
Cross-list: CLASSICS 3L3L
This course is administered by the Department of Classics.

HISTORY 3M3M  TOPICS IN ROMAN HISTORY
Studies of Roman history and institutions during the Republic of the Empire. Consult the Department for the topic to be offered.
Three lectures; one term
Prerequisite: One of HISTORY 1L05, 1L33, 2K03, 2L03, 2L33
Cross-list: CLASSICS 3M3M
Antirequisite: CLASSICS 3CC9, HISTORY 3CC3
History 3M3M may be repeated, if on a different topic, to a total of six units.

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: Registration in Level II or above

HISTORY 3N3M  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 or above

HISTORY 3P03  RELIGION AND SOCIETY IN CANADA
This course will examine the origins, 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 or above
Offered in alternate years.

HISTORY 3P3P  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 or above

HISTORY 3Q03  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 or above

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 or above

HISTORY 3R3R  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 or above

HISTORY 3V03  MADNESS IN THE AGE OF REASON: MENTAL ILLNESS AND SOCIETY FROM 1750 TO THE PRESENT DAY
A survey of the historical experience of the asylum from the rise of the asylum to the present day.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II or above
Antirequisite: HEALTHST 2D03

HISTORY 3W03  HISTORY OF WOMEN IN CANADA AND THE U.S., 1900-1930
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 or above
Cross-list: WOMEN ST 3G03
Antirequisite: HISTORY 3X03

HISTORY 3W3W  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 or 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 or above
Cross-list: HEALTHST 3Y03, HTH SCY 3Y03
This course is administered by the B.H.Sc. (Honours) programme.
HISTORY 3YY3  MODERN LATIN AMERICA SINCE 1820
Liberalism, nationalism, militarism and the various revolutions will be covered as well as the U.S. rôle in Latin America and the Caribbean.
Three lectures; one term
Prerequisite: Registration in Level II or above
Cross-list: PEACE ST 3J03

HISTORY 3Z03  JUDAISM, THE JEWISH PEOPLE AND THE BIRTH OF THE MODERN WORLD
On the lures and threats of the modern world from the early nineteenth 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: Registration in Level II or above
Cross-list: RELIG ST 2X03
Antirequisite: RELIG ST 2X03
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: Registration in Level II or above
Cross-list: RELIG ST 3ZZ3
Antirequisite: RELIG ST 2X03
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. Enrolment 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 2M03, 2N06, 3SS3, or 3TT3; and registration in Level III or IV of any Honours programme in History
Enrolment 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. Topics 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: One of HISTORY 2J06, 2T03, 2TT3 or 3NN3; and registration in Level III or IV of any Honours programmes in History
Enrolment is limited. Departmental permission required.

HISTORY 4B06  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: One of 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
Enrolment is limited. Departmental permission required.

HISTORY 4C06  MODERN EUROPEAN CULTURE IN CRISIS
An examination of European intellectual and cultural history in the late nineteenth to the mid-twentieth centuries. Themes include the encounter with modernity; the intersection of culture and politics; the impact of two world wars; and the response of intellectuals, artists and scientists to ideological polarization.
Seminar (two hours); two terms
Prerequisite: One of HISTORY 2C06, 2S03, 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 4E06  SPECIAL TOPICS IN THE HISTORY OF MODERN BRITAIN
Seminar (two hours); two terms
Prerequisite: One of HISTORY 2M03, 2N06, 3PP3 or 3RR3 and registration in Level III or IV of any Honours programme in History
Enrolment is limited. Departmental permission required.

HISTORY 4F06  HISTORY OF HEALTH AND MEDICINE IN THE MODERN WESTERN WORLD
An examination of public health and medicine in the Modern Western World, with particular emphasis on Britain and North America, c.1760-1945. Topics will include: the impact of infectious diseases on First Nations' society; urban sanitary reform; the emergence of the medical profession; and the rise of universal health insurance.
Seminar (two hours); two terms
Prerequisite: HISTORY 3V03 or 3Y03; and registration in Level III or IV of any Honours programme in History
Enrolment is limited. Departmental permission required.

HISTORY 4G06  TOPICS IN MIDDLE 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
Enrolment is limited. Departmental permission required.

HISTORY 4H06  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 2B66, 2F03, 2FF3, 2J06, 2T03, 2TT3, 3W03, 3WW3 or 3X03; and registration in Level III or IV of any Honours programme in History
Enrolment 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, 2R03, 2RR3 or 3FF3; and registration in Level III or IV of any Honours programme in History
Enrolment is limited. Departmental permission required.

HISTORY 4J16  SPECIAL TOPICS IN THE HISTORY OF U.S. FOREIGN RELATIONS
Topics in the history of the United States Foreign relations in the modern era.
Seminar (two hours); two terms
Prerequisite: One of HISTORY 2H06, 2RR3, 3FF3 or 3KK3 and registration in Level III or IV of any Honours programme in History
Enrolment is limited. Departmental permission required.

HISTORY 4K06  ENVIRONMENT AND ENVIRONMENTALISM IN MODERN NORTH AMERICA, 1890-1990
Explores how different social groups in the United States and Canada confronted the sometimes adverse impact of urban and industrial growth on the physical environment of their communities.
Seminar (two hours); two terms
Prerequisite: Registration in Level III or IV of any Honours programme in History
Not open to students with credit in HISTORY 4J06 if taken in 2001-2002.
Enrolment is limited. Departmental permission required.

HISTORY 4O06  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, 2S03, 3H06, 3H3, 3I03, 3Q03, or 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, 2L03, 3F03, 3L03, 3MM3, 3U03, 3V03; 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 with a CA of at least 9.0; and permission of the Department
Enrolment is limited. Departmental permission required.

HISTORY 4V06 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: One of HISTORY 2I06, 2J06, 2R03, 2R03, 2T03 or 2TT3; 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, 2S03 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.

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 or above
Cross-list: CMST 2W03
Antirequisite: ARTS&SCI 1806, PHILOS 2R03
HUMAN 2C03 is administered by the Department of Philosophy.

HUMAN 2F03 SELECTED INTERDISCIPLINARY TOPICS IN MEDIEVAL LIFE AND CULTURE
This Internet delivered course (through WebCT) focuses on the theme Body and Soul, Pleasure and Pain in the Late Middle Ages. Contemporary texts, images, music and extensive on-line resources will promote discussion and analysis of the roles played by women and men in the medieval period. Students will complete an online course evaluation form. Further information is available at:
http://www.humanities.mcmaster.ca/hum2f03/
Approximately six hours of on-line work per week; one term
Prerequisite: Registration in Level II or above
HUMAN 2F03 is administered by Dr. M. Jeev (jeayma@mcmaster.ca)

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:308)
Enrolment is limited.

HUMAN 3W03 APPLIED HUMANITIES I
Students gain applied experience in a field related to a Humanities discipline by applying 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. Permission of the Associate Dean is required.

HUMAN 4W03 APPLIED HUMANITIES II
Students gain applied experience in a field related to a Humanities discipline by applying 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. Permission of the Associate Dean is required.

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)

Committee of Instructors
T. Deer, Mohawk Language Instructor
J. Longboat
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. Bowerbank (McMaster University Representative)
Roberta Jamieson (Chief of Six Nations Band Council)

INDIGENOUS STUDIES ...

Courses
If no prerequisite is listed, the course is open.

INDIG ST 1A03 INTRODUCTION TO INDIGENOUS STUDIES
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

INDIG ST 1AA3 INTRODUCTION TO CONTEMPORARY INDIGENOUS STUDIES
This course will explore the relationship between indigenous peoples and mainstream society in the twentieth-century with regard to governmental policy, land claims, economic development, and self-determination.
Three hours (lectures and seminars); one term
Antirequisite: INDIG ST 1A06

INDIG ST 2A03 INTRODUCTION TO INDIGENOUS PEOPLES' SPIRITUALITY
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
Antirequisite: INDIG ST 1A06

INDIG ST 2A06 INTRODUCTION TO INDIGENOUS PEOPLE'S SPIRITUALITY
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
Antirequisite: INDIG ST 1AA3; or one of CAYUGA 1203, MOHAWK 1Z03, OJIBWE 1Z03; or permission of the instructor

INDIG ST 2AA3 INDIGENOUS KNOWLEDGE AND METHODOLOGY
This course will explore the basis of Indigenous knowledge and how that translates into theory and methodology. It explores a range of inter-disciplinary approaches based on current work of Indigenous scholars redefining the field of Indigenous research.
Three hours (lectures and seminars); one term
Antirequisite: INDIG ST 1AA3; or one of CAYUGA 1203, MOHAWK 1Z03, OJIBWE 1Z03; or permission of the instructor

Antirequisite: INDIG ST 2A06
INDIG ST 2B03 HISTORY OF INDIGENOUS PEOPLES’ SOVEREIGNTY

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, 1A3; or permission of the instructor

INDIG ST 2C03 CONTEMPORARY INDIGENOUS SOCIETIES AND ISSUES

A review of the geographic, cultural and demographic composition of Inuit, First Nations and Métis, 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, 1A3; or permission of the instructor

INDIG ST 2D03 TRADITIONAL INDIGENOUS ECOLOGICAL KNOWLEDGE

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, 1A3; or permission of the instructor

INDIG ST 2E03 ABORIGINAL COMMUNITY AND ECONOMIC DEVELOPMENT

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, 1A3; or permission of the instructor

INDIG ST 3C03 STUDY OF IROQUOIS FIRST NATIONS IN CONTEMPORARY TIMES

An intensive examination of the Iroquois First Nations Confederacy and its efforts 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

INDIG ST 3CC3 CONTEMPORARY INDIGENOUS SOCIETIES: SELECTED TOPICS

2003-2004 Topic: TBA

An intensive examination of selected political, economic, or social problems faced by selected Indigenous peoples.

Three hours (lectures and seminars); one term

Prerequisite: A Level II Indigenous Studies Course or permission of the instructor

INDIG ST 3D03 CONTEMPORARY NATIVE LITERATURE IN CANADA

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, 1A3; or six units of Level I English; or permission of the instructor

Cross-list: CSCT 3W03, ENGLISH 3W03, PEACE ST 3W03

INDIG ST 3E03 CONTEMPORATIVE LITERATURE IN THE UNITED STATES

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, 1A3; or six units of Level I English; or permission of the instructor

Cross-list: CSCT 3X03, ENGLISH 3X03, PEACE ST 3X03

INDIG ST 3G03 INDIGENOUS CREATIVES ARTS AND DRAMA

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.

Three hours (lectures and seminars); one term

Prerequisite: INDIG ST 2A03, 2A3; or permission of the instructor

INDIG ST 3H03 TRADITIONAL APPROACHES TO HEALING AND WELLNESS (PHILOSOPHY)

This course will examine the Aboriginal concepts of health and wellness. The traditional justice system 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 3CC3, if the topic was Traditional Approaches to Healing and Wellness.

INDIG ST 3H13 TRADITIONAL APPROACHES TO HEALING AND WELLNESS II (PRACTICAL)

This course will examine the concepts 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 3CC3, if the topic was Traditional Approaches to Healing and Wellness.

INDIG ST 3I03 INDIGENOUS PEOPLES AND SOCIAL POLICY

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

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 ...

Courses

If no prerequisite is listed, the course is open.

CAYUGA 1203 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 1206

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 1203 or 1Z06

Antirequisite: CAYUGA 2206

MOHAWK ...

Courses

If no prerequisite is listed, the course is open.

MOHAWK 1203 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 1206
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 2206

OJIBWE ... Courses If no prerequisite is listed, the course is open.
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
Prerequisite: OJIBWE 1Z06

OJIBWE 2Z03 INTERMEDIATE OJIBWE
This course expands the vocabulary and the oral skills for the Ojibwe language.
Three hours (lecture and seminars); one term
Prerequisite: OJIBWE 1Z03 or 1Z06
Antirequisite: OJIBWE 2206

INQUIRY 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.

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 variety of Science-based topics. The choice of topics is guided by the students' interest.
One hour, term one; Two hours, term two
Prerequisite: Registration in Science I or Mathematics and Statistics 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, topics central to research in the Faculty of Social Sciences.
Three hours; one term
Prerequisite: Registration in Social Sciences I or Kinesiology I
Enrolment is limited.

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 3S03 TEACHING INQUIRY (PEER TUTORING)
This course provides an opportunity to learn about the teaching of inquiry through practical experience as a peer tutor working closely with an inquiry instructor, and through projects investigating some aspects of inquiry in more detail.
Peer tutoring responsibilities, weekly seminars; two terms
Prerequisite: Credit in three units of an Inquiry course and permission of the instructor
Antirequisite: INQUIRY 4S03, SOC SCI 2L03

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 programme in the Faculty of Science other than Chemistry
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 programme in the Faculty of Science other than Mathematics or Statistics
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 programme in the Faculty of Science other than Physics
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 programme in the Faculty of Science other than Psychology
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

INQUIRY 4S13 INQUIRY IN SCIENCE II (RADIATION AND LIFE)
Three hours (seminars and discussion); one term
Prerequisite: Registration in Level IV of an Honours programme in the Faculty of Science
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://kinlabserver.mcmaster.ca
Ivor Wynne Centre, Room 203
Ext. 24462 Faculty as of January 15, 2003
Chair
Janet Starkes
Associate Chair (Undergraduate Affairs)
Sue Inglis
Courses

All courses are open only to Kinesiology students unless otherwise specified. (See Notes 3 and 4 above.)

KINESIOL 1A06 HUMAN ANATOMY AND PHYSIOLOGY
An introduction to the anatomy and physiology of the skeletal, articular, muscular, nervous, endocrine, cardiovascular, respiratory, digestive, and urinary systems including a regional and systemic approach to examining the functional anatomy of the upper and lower extremities.
Three hours (lectures), two hours (labs/tutorial); two terms
Prerequisite: Registration in Kinesiology
Antirequisite: BIOLOGY 1J03, HTH SCI 1D06, 1H03, 1H3, 2P03, 2F3, 2L03, 2L3, KINESIOL 1X06, 1Y03, 1Y93
Not open to students with credit or registration in BIOLOGY 4G06.

KINESIOL 1E03 PSYCHOMOTOR BEHAVIOUR
The behavioural and psychological principles underlying motor control and motor learning.
Three hours (lectures, labs); one term
Prerequisite: Registration in Kinesiology

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
Antirequisite: KINESIOL 2B03

KINESIOL 1K01 INTRODUCTION TO KINESIOLOGY
This course gives students an insight into the discipline of Kinesiology. Lectures focus on human movement, holistic health options, faculty research and career options. Includes CPR/First Aid.
One hour; one term
Prerequisite: Registration in Kinesiology
Antirequisite: KINESIOL 1F0L0

KINESIOL 1Y03 HUMAN ANATOMY AND PHYSIOLOGY I
An introduction to the anatomy and physiology of the skeletal, articular, muscular, nervous, endocrine, cardiovascular, respiratory, digestive, and nervous systems including a regional approach to examining the functional anatomy of the upper and lower extremities.
Three hours (lectures), two hours (labs/tutorial); one term
Prerequisite: Behavioural Science 1 or OAC Biology is strongly recommended. Antirequisite: BIOLOGY 1J03, HTH SCI 1D06, 1H03, 1HH3, 2F03, 2F3, 2L03, 2L3, KINESIOL 1A06, 1Y06
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.

KINESIOL 1Y13 HUMAN ANATOMY AND PHYSIOLOGY II
A systematic approach to the examination of the endocrine, cardiovascular, respiratory, digestive, and urinary systems with a regional approach to examining the functional anatomy of the upper and lower extremities.
Three hours (lectures), two hours (labs/tutorial); one term
Prerequisite: KINESIOL 1Y03
Antirequisite: BIOLOGY 1J03, HTH SCI 1D06, 1H03, 1HH3, 2F03, 2F3, 2L03, 2L3, KINESIOL 1A06, 1Y06
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.

KINESIOL 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: KINESIOL 1A06 and registration in Level II of a Kinesiology programme

KINESIOL 2C06 PHYSIOLOGY OF EXERCISE
The effects of exercise on the physiological systems, and the application of physiological principles to human exercise performance.
Three hours (lectures, lab); two terms
Prerequisite: KINESIOL 1A06 and registration in Level II of a Kinesiology programme

KINESIOL 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
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KINESIOL 2H03</td>
<td>HISTORY AND PHILOSOPHY OF KINESIOLOGY</td>
<td>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: KINESIOL 1D03.</td>
</tr>
<tr>
<td>KINESIOL 3A03</td>
<td>HISTORY OF PHYSICAL CULTURE AND SPORTS MEDICINE</td>
<td>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 (lecture/seminar); one term. Prerequisite: Registration in Level III or above of any Kinesiology, Health Studies or history programme. Enrolment is limited.</td>
</tr>
<tr>
<td>KINESIOL 3AA3</td>
<td>BIOMECHANICS II</td>
<td>Study of kinematics and kinetics of human movement, including electromyography, fluid and tissue mechanics with applications. Three hours (lectures, lab); one term. Prerequisite: KINESIOL 1A06, 2A03 and registration in Level III or above of a Kinesiology programme. Antirequisite: KINESIOL 2A06.</td>
</tr>
<tr>
<td>KINESIOL 3B03</td>
<td>PHYSICAL ACTIVITY FOR CHALLENGED POPULATIONS</td>
<td>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: KINESIOL 1A06, 2G03. Corequisite: KINESIOL 3BP3. Students who do not successfully complete the required KINESIOL 3BP3 placement will forfeit credit in KINESIOL 3B03.</td>
</tr>
<tr>
<td>KINESIOL 3C03</td>
<td>STATISTICS AND RESEARCH DESIGN</td>
<td>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.</td>
</tr>
<tr>
<td>KINESIOL 3D03</td>
<td>GROWTH, MATURATION AND PHYSICAL ACTIVITY</td>
<td>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: KINESIOL 1A06, 2C06.</td>
</tr>
<tr>
<td>KINESIOL 3DD3</td>
<td>FOUNDATIONS OF OUTDOOR EXPERIENTIAL EDUCATION</td>
<td>An analysis of curricular programs in O.E.E. including, environmental, earth, and eco-political education; expeditionary and adventure based learning; eco-psychotherapy and eco-tourism. Prerequisite: Registration in Level III or above. Antirequisite: KINESIOL 4DD3. 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.</td>
</tr>
<tr>
<td>KINESIOL 3E03</td>
<td>NEURAL CONTROL OF HUMAN MOVEMENT</td>
<td>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: KINESIOL 1A06, 1E03 and registration in Level III or above of a Kinesiology programme; or PSYCH 2F03 and registration in Level III or above of an Honours Psychology programme and permission of the instructor. (See Note 5 above.)</td>
</tr>
<tr>
<td>KINESIOL 3F03</td>
<td>MANAGEMENT CONCEPTS AND PROGRAMME DESIGN</td>
<td>Combining theory and practice, the course provides an introduction to various work environments related to Kinesiology. An examination of organizational structure, management skills, and new project/programme design. 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.</td>
</tr>
<tr>
<td>KINESIOL 3H03</td>
<td>HISTORY OF SPORT IN THE WESTERN WORLD</td>
<td>A survey examining major themes and issues in sport history from ancient Greece to the modern day. Three hours (lecture/seminar); one term. Prerequisite: Registration in Level III or above of any Kinesiology or History programme. Enrolment is limited.</td>
</tr>
<tr>
<td>KINESIOL 3I03</td>
<td>SPORTS INJURIES</td>
<td>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. Prerequisite: KINESIOL 1A06, 2C06. (Approximately $30.00 will be charged for supplies used in labs.) Enrolment is limited. Priority will be given to Level IV Kinesiology students.</td>
</tr>
<tr>
<td>KINESIOL 3L03</td>
<td>ORGANIZATIONAL BEHAVIOUR AND APPLICATIONS TO KINESIOLOGY</td>
<td>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: KINESIOL 3F03. Antirequisite: APBUSMGT 3B03, COMMERCE 2BA3. This course may be taken as elective credit by undergraduates in Level III or above of a non-Kinesiology programme. Enrolment is limited.</td>
</tr>
<tr>
<td>KINESIOL 3M03</td>
<td>FOUNDATIONS OF ATHLETIC COACHING</td>
<td>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.</td>
</tr>
<tr>
<td>KINESIOL 3P03</td>
<td>SPORT AND SOCIAL DEVELOPMENT</td>
<td>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 KINESIOL 1H03, 2B03, SOCIOLOGY 1A06; and registration in Level III or above. Not open to students with credit or registration in SOCIOLOGY 3J03 if the topic was Sociology of Sport. 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.</td>
</tr>
<tr>
<td>KINESIOL 3S03</td>
<td>BODY, MIND, SPIRIT</td>
<td>An exploration of the relationships 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.</td>
</tr>
<tr>
<td>KINESIOL 3T03</td>
<td>DANCE PERFORMANCE</td>
<td>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.)</td>
</tr>
<tr>
<td>KINESIOL 3Y03</td>
<td>HUMAN NUTRITION AND METABOLISM</td>
<td>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: Either KINESIOL 1A06 or 1X06, or both KINESIOL 1Y03 and 1Y03; and registration in Level III or above. Antirequisite: KINESIOL 4Y03. 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.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>KINESIOL 3Z03</td>
<td>HUMAN MOVEMENT PRACTICUM</td>
<td>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.)</td>
</tr>
<tr>
<td>KINESIOL 3Z23</td>
<td>HUMAN MOVEMENT PRACTICUM</td>
<td>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.)</td>
</tr>
<tr>
<td>KINESIOL 4A06</td>
<td>ADVANCED BIOMECHANICS</td>
<td>An 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.</td>
</tr>
<tr>
<td>KINESIOL 4B03</td>
<td>PHYSICAL ACTIVITY AND CORONARY HEART DISEASE</td>
<td>An examination of the role of physical activity in the prevention and rehabilitation of coronary heart disease.</td>
</tr>
<tr>
<td>KINESIOL 4C03</td>
<td>CARDIO-RESPIRATORY AND METABOLIC REGULATION DURING EXERCISE AND TRAINING</td>
<td>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.</td>
</tr>
<tr>
<td>KINESIOL 4C03</td>
<td>NEUROMUSCULAR EXERCISE PHYSIOLOGY</td>
<td>Neuromuscular physiology of strength, power, and speed performance, including adaptations to training and training methods.</td>
</tr>
<tr>
<td>KINESIOL 4D03</td>
<td>OUTDOOR EDUCATION</td>
<td>An examination of skills, pedagogy and perspectives of outdoor (experiential) education. This course involves a 9 day canoe/camping field component before classes start.</td>
</tr>
<tr>
<td>KINESIOL 4EE3</td>
<td>ADVANCED PLACEMENT</td>
<td>Students take part in a supervised practical experience that links classroom knowledge to professional practice. Placements are offered in aging, cardiac rehabilitation, sports injuries, dance, management, outdoor education, special needs populations and teaching and coaching. Placement experience equivalent to one day per week (60 hrs.), seminars; one term</td>
</tr>
<tr>
<td>KINESIOL 4F03</td>
<td>SELECTED TOPICS IN KINESIOLOGY</td>
<td>Each year the Department of Kinesiology offers a number of different courses under this category reflecting topics of current 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.</td>
</tr>
<tr>
<td>KINESIOL 4F03</td>
<td>SELECTED TOPICS IN KINESIOLOGY</td>
<td>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.</td>
</tr>
<tr>
<td>KINESIOL 4G03</td>
<td>PEDAGOGY OF CONTEMPORARY AND TRADITIONAL WILDERNESS TRAVEL</td>
<td>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.</td>
</tr>
<tr>
<td>KINESIOL 4H03</td>
<td>EXERCISE PSYCHOLOGY</td>
<td>A hands-on applied study of functional anatomy for independent learners. The focus is on the structure and function of the osseous, articular, muscular, and supportive tissues of the human body as it relates to sport and activity.</td>
</tr>
<tr>
<td>KINESIOL 4J03</td>
<td>FUNCTIONAL ANATOMY</td>
<td>A review and evaluation of research from the areas of exercise psychology and behavioural medicine, and interventions use to promote physical activity participation.</td>
</tr>
<tr>
<td>KINESIOL 4J03</td>
<td>DANCE IN CONTEMPORARY SOCIETY</td>
<td>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.</td>
</tr>
<tr>
<td>KINESIOL 4K03</td>
<td>PERCEPTUAL-MOTOR BEHAVIOUR</td>
<td>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.</td>
</tr>
<tr>
<td>KINESIOL 4K03</td>
<td>PERCEPTUAL-MOTOR BEHAVIOUR</td>
<td>An advanced examination of current topics regarding perceptual-motor behaviour with particular reference to everyday experiences.</td>
</tr>
<tr>
<td>KINESIOL 4K33</td>
<td>FUNDAMENTALS OF REHABILITATION</td>
<td>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.</td>
</tr>
</tbody>
</table>
KINESIOL 4LL6  ADVANCED TOPICS IN CANADIAN SPORT HISTORY
An examination of selected topics and themes in the historical development of sport and physical activity in nineteenth and twentieth century Canada and supervised research involving scholarly secondary and primary source data.
Three hours (seminar); two terms
Prerequisite: KINESIOL 3A03 or 3F03, and registration in Level III or above of a Kinesiology programme or registration in Level II or above of an Honours History programme.
Not open to students with credit in KINESIOL 4FF3 if the topic was Canadian Sport History.

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 and registration in Level III or above of a Kinesiology programme.

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, neuroanatomy labs); one term
Prerequisite: KINESIOL 3E03; and registration in Level III or 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 a Kinesiology programme with a minimum C.A. of 7.0 and permission of the Associate Chair and Instructor.
Antirequisite: KINESIOL 4R6

KINESIOL 4R6  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 a Kinesiology programme with a minimum C.A. of 7.0 and permission of the Associate Chair and instructor.
Antirequisite: KINESIOL 4R6

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, 3B0P
Enrolment is limited.

KINESIOL 4S3  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, 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, SOCIOL 2Q06; 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
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 field component cost is $140.00.)
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.
Three hours (lectures, labs and group presentations); one term
Prerequisite: KINESIOL 1A06, 2A03, 3E03
Enrolment is limited.

KINESIOL 4X06  HEALTH PROMOTION AND REHABILITATION THEORY AND PRACTICE
Provides students with in-depth experiences working in health promotion and rehabilitation settings with a variety of special populations. Students explore exercise and lifestyle issues through an experiential component, seminars and research.
Three hours (seminars, lab); two terms
Prerequisite: Registration in Level IV of a Kinesiology programme with a minimum C.A. of 7.0; and two of KINESIOL 3B03, 4B03, 4I03, 4S03, 4SS3
Enrolment is limited.

KINESIOL 4Y03  NUTRITION AND ERGONOMIC AIDS
Emphasis on biochemical mechanisms behind the current fads and myths surrounding the use of popular ergonomic 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 if the topic was Nutrition and Ergonomic AIDS.
Enrolment is limited. Priority will be given to Level IV Kinesiology students.

KINESIOL 4Z03  SELECTED TOPICS IN SPORT MANAGEMENT
A senior level seminar course related to management theory and practice in sport, recreation and physical activity.
Three hours (seminars and presentations); one term
Prerequisite: KINESIOL 3F03; and COMMERCE 2B03 or 3L03; 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.

NON-CREDIT PLACEMENTS...

KINESIOL 3B03  SPECIAL POPULATIONS PLACEMENT
This placement is designed to supplement the student's classroom learning of the issues involving physical activity for special populations. Students design and/or implement physical activity programmes in a variety of community settings.
Prerequisite: Registration in Level III or above of a Kinesiology programme.
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.
The following courses may be taken for elective credit by qualified students.

**KINESIO 3FP0 MANAGEMENT PLACEMENT**
This placement is designed to provide practical experience in applying management concepts in a variety of community settings. Prerequisite: Registration in Level III or above of one of the Kinesiology programmes. This placement may be completed in conjunction with KINESIO 3F03.

**KINESIO 3JP0 DANCE PLACEMENT**
This placement is designed to provide practical experience in dance production, choreography and improvisation. Prerequisite: Registration in Level III or above of one of the Kinesiology programmes. This placement may be completed in conjunction with KINESIO 4J03.

**KINESIO 3KP0 SPORTS INJURIES PLACEMENT**
This placement is designed to provide practical experience in sports injuries in a variety of clinical settings. Prerequisite: Registration in Level III or above of one of the Kinesiology programmes. This placement may be completed in conjunction with KINESIO 3K03; and valid CPR/First Aid certification; and permission of the instructor. Enrolment is limited.

**KINESIO 3MP0 COACHING PLACEMENT**
This placement 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: Registration in Level III or above of one of the Kinesiology programmes. This placement may be completed in conjunction with KINESIO 3M03 or 4N03.

**KINESIO 4DP0 OUTDOOR EDUCATION PLACEMENT**
This placement is designed to allow the student to experience a variety of outdoor education activities. Prerequisite: Registration in Level III or above of one of the Kinesiology programmes. This placement may be completed in conjunction with KINESIO 4D03.

**KINESIO 4SP0 HEALTH PROMOTION AND REHABILITATION PLACEMENT**
Supplements classroom learning of the major issues affecting physical activity in the older adult, in patients undergoing cardiac rehabilitation and in those with spinal cord injury. Students serve as exercise leaders in the Centre for Health Promotion and Rehabilitation. Prerequisite: Registration in Level III or above of one of the Kinesiology programmes. This placement may be completed in conjunction with one of KINESIO 3B03, 4B03, 4F03 or 4S03.

**LABOUR STUDIES**

**WEB ADDRESS:** http://www.socsci.mcmaster.ca/labourstudies

**Kenneth Taylor Hall, Room 717 Ext. 24692**

**Faculty of January 15, 2003**

**Director**
Wayne Lewchuk

**Professors**
Wayne Lewchuk (Economics) B.A., M.A. (Toronto), Ph.D. (Cambridge)
Charlotte Yates (Political Science) B.A. (Winnipeg), M.A. (Queen's), Ph.D. (Carleton)

**Associate Professors**
Robert H. Storey (Sociology) B.A. (Toronto), M.A. (Dalhousie), Ph.D. (Toronto)
Donald M. Wells (Political Science) B.A. (Western Ontario), M.A. (British Columbia), Ph.D. (Toronto)

**Assistant Professors**
Donna Baines (Social Work) B.S.W. (Calgary), M.S.W. (Carleton), Ph.D. (Toronto)
Greg McElligott (Political Science) B.A., M.A. (Carleton), Ph.D. (York)

**Associate Members**
Patricia M. Daenzer (Social Work) B.A., B.S.W. (York), M.S.W., Ph.D. (Toronto)
A. Leslie Robb (Economics) B.A., M.A. (British Columbia), Ph.D. (Essex)
Pamela Sugimura (Sociology) B.A., M.A., Ph.D. (Toronto)

**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 is required.

**Courses**

**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**
Wayne Lewchuk (Economics/Labour Studies)
Donna Baines (Labour Studies/Social Work)
Greg McElligott (Labour Studies/Political Science)
Robert Storey (Labour Studies/Sociology)
Donald Wells (Labour Studies/Political Science)
Charlotte 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 1Z03**
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 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: GENERAL INTRODUCTION
Purpose, values underlying development of social welfare programmes; Canada's social security system 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. This course is administered by the School of Social Work.

**LABR ST 2BB3**
SOCIAL WELFARE: ANTI-OPPRESSIVE POLICIES AND PRACTICES IN SOCIAL WORK
Exploration and analysis of systematic patterns of oppression, their relationships to social policies and practice and the implications for social work through a variety of instruction including experiential exercises. Topics could include: race, gender, disability, sexual orientation. Exercises, lectures and discussion; one term. Prerequisite: Registration in a Labour Studies Programme. Corequisite: Must be taken in the same academic session as LABR ST 2B03. Cross-list: SOC WORK 2B03

Students in a Labour Studies programme must register for this course as LABR ST 2BB3. This course is administered by the School of Social Work.
LABR ST 2C03 THEORETICAL FOUNDATIONS OF THE LABOUR MOVEMENT
An examination of political, sociological and economic explanations of
labour behaviour in industrial society. The focus will be on attempts to
explain why labour has tended to organize as well as the different
strategies which labour has pursued to achieve its goals.
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

LABR ST 2G03 LABOUR AND GLOBALIZATION
An examination of key themes in the political economy of contemporary
‘globalization’ with particular emphasis on implications for worklife, work­
class politics and democracy. An introduction to major international
economic institutions and processes associated with globalization and
emerging forms of labour internationalism that contest globalization.
Lectures and discussion; six units.
Prerequisite: LABR ST 1203
Enrolment is limited. Priority is given to students registered in a Labour
Studies programme.

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 both ECON 1B03 and 1B03 and registration
in a Labour Studies programme; or permission of the instructor
Cross-list: ECON 2A03
This course is administered by the Department of Economics.

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 both ECON 1B03 and 1B03; and registration
in a Labour Studies programme
Cross-list: ECON 2B03
This course is administered by the Department of Economics.

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 2A03 or 2A06, and registration in a Labour Studies
programme; or permission of the instructor
Cross-list: COMMERCE 4B03
Antirequisite: APBUSMG 3G03
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 Health Studies or 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 pro­
gramme; 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, and registration in a Labour Studies
programme; or permission of the instructor
LABR ST 3F03 may be repeated, if on a different topic, to a total of
six units.
Generally offered in alternate years.

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, and 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 3W03 TECHNOLOGIES AT WORK: PAST, PRESENT, FUTURE
This is an inquiry based course exploring the evolution of work, how
workplaces are organized today, and possibilities for the future. It will
explore the nature of work in manufacturing, the service sector and the
public sector.
Lectures, discussion and inquiry report; one term
Prerequisite: Registration in Level III or above of a Labour Studies or
Engineering and Society programme
Offered in alternate years.
Enrolment is limited.

LABR ST 4A06 RESEARCH AND FIELD EXPERIENCE
Students will either write an honours thesis or participate in a field experi­
ence (a placement in a labour union, government agency or other
appropriate organization). Enrolment 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 employ­
ees 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,
unions and bargaining outcomes, and empirical studies of the
effectiveness of dispute resolution procedures.
Lectures and discussion; one term
Prerequisite: COMMERCE 4B03 and registration in Level III or IV of a
Labour Studies programme
Cross-list: COMMERCE 4B03
This course is administered by the School of Business.

LABR ST 4E03 COMPARATIVE LABOUR SYSTEMS
A discussion of labour policies, politics, unionization and industrial rela­
tions in several selected countries in Europe, Latin America and possibly
including Japan. Topics will include government labour market policy,
labour law, union objectives and strategies and the impact that unions
have on the respective national political-economic systems.
Lectures and seminar discussion; one term
Prerequisite: Registration in Level III or IV of a Labour Studies programme
or permission of the Instructor
Antirequisite: COMMERCE 4B03, LABR ST 4D03
MATERIALS SCIENCE AND ENGINEERING

WEB ADDRESS:  http://mse.mcmaster.ca/
John Hodgins Engineering Building, Room 357
Ext. 24295

Faculty as of January 15, 2003

Chair
Gordon A. Irons

University Professors

Professors

Dofasco Chair in Ferrous Metallurgy

Gyan P. Johari/B.Sc., M.Sc., Ph.D. (Gorakhpur), D.H.C. (Lyon), F.R.S.C.,

Adrian Kitali/B.Sc. (McMaster), Ph.D. (Cornell), P.Eng.


David S. Wilkinson/B.A.Sc. (Toronto), Ph.D. (Cambridge), F.G.I.M.,

F.A.C.S., P.Eng.

Gu Xu/M.Sc., Ph.D. (Pittsburgh), D.E.S. (Columbia)

Shiping Zhu/B.Eng. (Zhejiang), Ph.D. (McMaster)

Adjunct Professors
Yves Breche/D.E.A. (Ecole Polytechnique), Ph.D. (Grenoble)
C.H. Cheh/B.A.Sc. (Ottawa), M.A.Sc., Ph.D. (Toronto)
Zoran D. Popovic/Dipl.Eng., M.Sc. (Belgrade), Ph.D. (McMaster)

Barry A. Strathdee/B.Sc., Ph.D. (Toronto), P.Eng.

S.V. Mani Subramanian/B.Sc. (Bangalore), M.Met., Ph.D. (Sheffield)

K.T. Conlon/National Research Council, Ph.D. (McMaster)

Associate Professors
Gianluigi Bottorfi/B.Eng., Ph.D. (Ecole Polytechnique)

Geoffrey Brooks/B.Eng. (RMIT), B.A. (Swinburne), Ph.D. (Melbourne)

Ken S. Coey/B.Sc. (Strathclyde), Ph.D., D.I.C. (Imperial College, London)


Dmitri V. Maksakov/B.Sc. (Moscow), M.Sc., Ph.D. (Novosibirsk, Russia)

Nikolaos Provalas/M.Sc., Ph.D. (McGill)

Igor Zhitomirsky/M.Sc., Ph.D. (State University, Kalinin)

Assistant Professor
Marek Niewczas/M.Sc., Ph.D. (Krakow)
Courses  If no prerequisite is listed, the course is open.

MATLS 1M03  STRUCTURE AND PROPERTIES OF MATERIALS
A study of the physical properties of materials. Atomic properties, polymers, crystals. Diffusion, fracture, phase transformation, electrical and chemical properties of solids.
Three lectures, one tutorial; second term
Prerequisite: Registration in any programme in the Faculties of Engineering or Science

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 2B06

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; and MATLS 2B03
Antirequisite: MATLS 2B06

MATLS 2H03  MEASUREMENTS AND COMMUNICATION
Basic experimental skills relating to materials structure and properties. In additions, student improve their written and oral communication skills through workshops, plant visits and assignments.
Two labs (three hours); first term: one lab (three hours); second term
Prerequisite: At least 12 units of Level I Chemistry, Mathematics or Physics
Antirequisite: ENGINEER 2E03, 2003, 2004, MATLS 1A03, 1M03

MATLS 2K02  CRYSTALLINE STRUCTURE OF MATERIALS
Crystal geometry, x-ray diffraction methods for the determination of crystaline 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 PRODUCTION I
Surface science and technology related to the preparation of fine particles of minerals, metals and ceramics for industrial production. Application of electrochemistry for diverse materials processing, such as electrometallurgy, thin film production and anodizing.
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 2B03 or 2D03
Antirequisite: MATLS 3B06

MATLS 3D03  THERMODYNAMICS AND KINETICS
Three lectures, one tutorial; second term
Prerequisite: MATLS 2D03
Open to Level III and IV Science and Engineering students with permission of the department.

MATLS 3E03  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: One of ENGINEER 2C03, MATLS 1A03 or 1M03; and either MATH 2M08 or both MATH 2A03 and 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
Prerequisite: ENGINEER 2P04 and one of ENGINEER 2003, MATLS 1A03, 1M03, 2003; or permission of the department
Antirequisite: ENGINEER 3P03, MATLS 3P03

MATLS 3Q03  MATERIALS FOR ELECTRONIC APPLICATIONS
Fundamental properties of materials used in electronic applications, operation of devices and fabrication methods of electronic circuits and packaging. Includes description of dielectric, magnetic and optoelectronic properties.
Three lectures; second term
Prerequisite: ENGINEER 2E03 or 2003

MATLS 3T04  PHASE TRANSFORMATIONS
Review of thermodynamics, binary phase diagrams and solid state diffusion. Role of interfaces; solidification, and martensitic transformations; welding; oxidation. Materiallographic 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; Entrepreneurism.
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 PRODUCTION II
High temperature processes for producing both ceramics and metals. This subject utilizes fundamental thermodynamics and kinetics from previous courses to understand important industrial processes.
Three lectures, one lab or tutorial (three hours); first term
Prerequisite: MATLS 3B03, 3E04; and CHEM ENG 2A04 or MATLS 3A03

MATLS 4C03  MODERN IRON AND STEELMAKING
Three lectures; second term
Prerequisite: CHEM ENG 2A04, MATLS 3E04
Corequisite: MATLS 4B04

MATLS 4D03  MATERIALS AND THE ENVIRONMENT
The environments experienced by engineering materials in service, and economic methods for ensuring their survival. The basic science of high temperature oxidation and aqueous corrosion leads to an appreciation of methods for corrosion control.
Three lectures; first term
Prerequisite: MATLS 2D03; and MATLS 3E04 or 3T04 (which may be taken concurrently)

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

MATLS 4L02  MATERIALS MANUFACTURING LABORATORY
A sequence of experiments based on processing methods used in the metal and ceramic industries. Structure-property relationships are assessed at each step of the processing route.
One lecture, one lab (three hours); first term
Prerequisite: Registration in final year of a Materials Engineering programme

MATLS 4P03  PROPERTIES OF POLYMERIC MATERIALS
Structure of amorphous and crystalline polymeric materials; mechanical, electrical and optical properties, and their modification through processing.
Three lectures; first term
Prerequisite: CHEM 2W2W or 2W4W; and ENGINEER 2003; and MATH 2M08
Offered in alternate years.
Open to Level III and IV students registered in a programme in the Faculty of Science or Engineering with permission of the department.
MATHEMATICS AND STATISTICS

Faculty as of January 15, 2003

Chair
Matthew A. Valeriote

Associate Chairs
Hans Boden - Graduate Studies

Andrew J. Nicas - Undergraduate Studies

Professors
Stanley Alama/B.Sc. (Columbia), M.Sc., Ph.D. (Courant, N.Y.U.)
N. Balakrishnan/B.Sc., M.Sc., Ph.D. (I.I.T., Kanpur), Marcel
Dekker Professor of Statistics
Lia Bronsard/B.A. (Montreal), M.Sc., Ph.D. (Courant, NYU)
Walter Craig/A.B. (California-Berkeley), M.Sc., Ph.D. (Courant, N.Y.U.),
Senior Canada Research Chair
Thomas M.K. Davison/B.Sc. (Sir George Williams), M.A., Ph.D. (Toronto)
Pengfei Guan/B.Sc. (Zhejiang), 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. Hurd/B.Sc. (Queen's), D.Phil. (Oxford)
Manfred Kolster/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-Cop/B.Sc. (Rangoon), Dipl. Math., Dr. rer. nat., Habil. (Bonn)
Stefan Müller-Stach/Dipl., Ph.D. (Bayreuth), Habil. (Essen)
Andrew J. Nicas/B.Sc. (McGill), M.A., Ph.D. (Princeton)/Undergraduate
Advisor

Adjunct Professors
Abdel H. El-Shaarawy/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
Hans Boden/B.Sc. (New Hampshire), Ph.D. (Brandeis)/Graduate Advisor
David Earn/B.Sc., M.Sc., Ph.D. (Toronto), Ph.D. (Cambridge)
Shui Feng/B.Sc., M.Sc. (Beijing Normal), Ph.D. (Carleton)
Jean-Pierre Gabardo/B.Sc. (Université de l’etat a Mons), Ph.D. (Maryland)
Deirdre Haskell/B.A. (Oxford), M.S., Ph.D. (Stanford)
Nicholas Kevlahan/B.Sc. (British Columbia), Ph.D. (Cambridge)
Zdzislaw V. Kowarik/M.Sc. (Charles, Prague), Ph.D. (Toronto)
Miroslav Lovric/B.Sc. (Zagreb), M.S., Ph.D. (Ohio State), 3M Teaching
Fellow
Ernest R. Mead/B.A., M.A., Ph.D. (Western Ontario), A.S.A.

Adjunct Associate Professor
Kevin N. Vander Meulen/B.Sc. (Calvin College), Ph.D. (Queen's)

Assistant Professors
Angelo Canty/B.Sc. (University College, Cork), Ph.D., M.Sc. (Toronto)
Aaron Childs/B.Sc., M.Sc., Ph.D. (McMaster)
Dmitry E. Pelinovsky/M.S. (Nizhny Novgorod State, Russia), Ph.D. (Monash)

Agnes Tournin/M.Sc. (Paris), Ph.D. (Paris IX)

Hui June Zhu/B.E. (Xidian), Ph.D. (California-Berkeley)

Associate Members
William M. Farmer/(Computing and Software) B.A. (Notre Dame), M.A.,
M.S., Ph.D. (Wisconsin-Madison)
Frantisek Franek/(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)

Mahmut Parlar/(Business) B.Sc., M.Sc. (Middle East Tech. Univ.), Ph.D.
(Waterloo)

Jiming Peng/(Computing and Software) B.Sc. (Xian Tan), M.Sc. (Chinese
Acad. of Sciences)

William F. Smyth/(Computing and Software) B.A. (Toronto), M.Sc.
(Ottawa), Ph.D. (Curin), C.Eng., F.B.C.S., F.I.C.A.

Michael Soltysi/(Computing and Software) B.Sc., M.Sc., Ph.D. (Toronto)
Tamás Terézay/(Computing and Software) M.Sc., Ph.D. (Lászol Eötvös)

Lecturer
Anton M. Jopko/B.Sc., M.Sc., Ph.D. (McMaster), Dipl. Educ. (Althouse)

Department Note:
Course codes ending with * indicate that course is not necessarily
offered every session; consult the Chair of the Department or the Assist­
ent Chair of Science (Studies).

MATHEMATICS ...

Courses  If no prerequisite is listed, the course is open.

MATH 1A03  CALCULUS I
Differential calculus, the definite integral, techniques of integration, dif­
ferential equations with applications.
Three lectures, one tutorial; one term
Prerequisite: Advanced Functions and Introductory Calculus U (or OAC
Calculus) or MATH 1K03.
Antirequisite: ARTS & SCI 1D06, MATH 1N03

MATH 1A03  CALCULUS II
Power series, partial derivatives, extremal problems, multiple integrals.
Three lectures, one tutorial; one term
Prerequisite: MATH 1A03.
Antirequisite: ARTS & SCI 1D06, MATH 1N03

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 Mathematics of Data Management U (or OAC Finite
Mathematics), Geometry and Discrete U (or OAC Algebra and Geom­
etry), STATS 1L03.
Antirequisite: MATH 1H03, 1H05, 1H13
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: Advanced Functions and Introductory Calculus U (or OAC Calculus); and one of Geometry and Discrete U (or OAC Algebra and Geometry) or Mathematics of Data Management U (or OAC Finite Mathematics); and registration in Science I or Mathematics and Statistics I. Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

MATH 1H03 LINEAR ALGEBRA FOR ENGINEERING
Linear systems of equations, matrices, determinants, vectors and vector spaces, complex numbers, eigenvalues and eigenvectors.
Three lectures, one tutorial; first term
Prerequisite: Registration in Engineering I
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 calculus and its applications.
Three lectures, one tutorial; one term
Prerequisite: OSS Grade 11 Mathematics or OSIS Grade 12 Mathematics (Advanced)
Normally not open to students who have completed Advanced Functions and Introductory Calculus U (or 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 Advanced Functions and Introductory Calculus U (or OAC Calculus)
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 1 AA3

MATH 1P03 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 1AA3, 1N03, ARTS&SCI 1D06; and credit or registration in one of MATH 1B03, 1H05 or 1H13
Antirequisite: MATH 2A03

MATH 2A03 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 1AA3 and credit or registration in MATH 1B03
Antirequisite: MATH 2A03

MATH 2C03 DIFFERENTIAL EQUATIONS
Three lectures; one term
Prerequisite: One of MATH 1AA3, 1N03, ARTS&SCI 1D06; and one of MATH 1B03, 1H05, 1H13
Antirequisite: MATH 2O03, 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 1AA3, 1N03, ARTS&SCI 1D06; and credit or registration in one of MATH 1B03, 1H05, 1H13
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 2K03 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: linear 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

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 1NN3; and MATH 1H05 or 1H13

MATH 2P04 DIFFERENTIAL EQUATIONS FOR ENGINEERING
Three lectures and two tutorials; one term
Prerequisite: MATH 1NN3 and either MATH 1H05 or 1H13; or registration in Honours Neural Computation and credit or registration in MATH 1B03
Antirequisite: MATH 2C03

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: MATH 1NN3 and either MATH 1H05 or 1H13; or registration in Honours Neural Computation and credit or registration in MATH 1B03
Antirequisite: MATH 2C03

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: MATH 1NN3 and either MATH 1H05 or 1H13; or registration in Honours Neural Computation and credit or registration in MATH 1B03

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 2R03
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 1A33 or in ARTS&SCI 1D06; and permission of the instructor
Applications must be submitted to the instructor by May 1 of the academic year prior to registration, with selection for placements announced by September 9.
Enrollment is limited. 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-Stieljes integral, uniform convergence.
Three lectures; one term
Prerequisite: MATH 2AB3, 2C03, 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  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, 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: MATH 2A03 or 2Q04; and MATH 2C03 or 2P04. One of PHYSICS 2B06, 2D06 or 2K03 is recommended.
Not open to students with credit or registration in MATH 3FF3, or credit in MATH 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 2A03
Antirequisite: MATH 3K03
Not open to students with credit or registration in MATH 3X03, or credit in MATH 3J04.
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 finitely generated Abelian groups; applications of group theory.
Three lectures; one term
Prerequisite: MATH 2R03

MATH 3E03  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 3F03  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, arithmetic 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 3K03  ENGINEERING MATHEMATICS III
Complex variable theory with applications to electrical and computer engineering.
Three lectures; one term
Prerequisite: MATH 2P04, 2Q04
Antirequisite: MATH 3D03

MATH 3N03  MATHEMATICAL BIOLOGY
Three lectures; one term
Prerequisite: MATH 2E03, 3F03

MATH 3Q03  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 3S03  SET THEORY AND GENERAL TOPOLOGY
Naive set theory, Zorn's Lemma, metric spaces, point set topology.
Three lectures; one term
Prerequisite: MATH 2R03

MATH 3X03  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, 2R03

MATH 3Z03  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 either MATH 2AA3 or 2AB3

MATH 4B33  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, 2R03
MATH 4E03  ALGEBRA III
Selected topics in algebra, such as an introduction to algebraic number theory, commutative algebra or algebraic geometry.
Three lectures; one term
Prerequisite: MATH 3E03

MATH 4E3  ALGEBRA IV
Selected topics in algebra, such as: representation theory, rings and modules, homological algebra.
Three lectures; one term
Prerequisite: MATH 3E03

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 4G13  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 3F03, MATH 3A03 is recommended.

MATH 4J03*  GRAPH THEORY
Graphs, trees, bipartite graphs, connectivity, graph colouring, matrix representations, applications.
Three lectures; one term
Prerequisite: MATH 2A03, 2R03

MATH 4L03*  INTRODUCTION TO MATHEMATICAL LOGIC
First order logic, deduction systems, completeness and compactness theorems, model theory.
Three lectures; one term
Prerequisite: MATH 3E03
Antirequisite: MATH 3L03

MATH 4Q03  NUMERICAL METHODS FOR ORDINARY AND PARTIAL DIFFERENTIAL EQUATIONS
Three lectures; second term
Prerequisite: Credit or registration in MATH 3D03 or 3FF3; 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: MATH 2503 or 2T03
Antirequisite: COMP 3A03

MATH 4T03*  ALGEBRAIC TOPOLOGY
Fundamental groups and covering spaces, topics selected by the instructor.
Three lectures; one term
Prerequisite: MATH 3E03; and MATH 3A03 or 3S03

MATH 4V03  APPLIED MATHEMATICAL ANALYSIS
Laplace's equation, distribution theory, Fourier Analysis, partial differential equations, integral equations, calculus of variations; additional topics.
Three lectures; one term
Prerequisite: MATH 3D03 or 3FF3

MATH 4W03  TOPICS IN MATHEMATICS
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 ...
Three lectures; one term

Convergence, characteristic functions and central limit theorems, martingales.

Prerequisite: STATS 3D03

STATS 3D03

MATHENICAL 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 3J04

PROBABILITY AND STATISTICS FOR ENGINEERING

Introduction to probability, data analysis, statistical inference, regression, correlation and analysis of variance, applications to civil and environmental engineering.

Three lectures, one tutorial; first term

Prerequisite: MATH 2M06

Antirequisite: STATS 3J04, STATS 3N03, 3Y03

STATS 3N03

STATISTICAL METHODS FOR ENGINEERING

Introduction to probability, data analysis, statistical inference, regression, correlation and analysis of variance.

Three lectures; one term

Prerequisite: Registration In a programme in Engineering above Level I

Antirequisite: STATS 3Y03, 3J04

STATS 3S03

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, 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: MATH 2A03, STATS 2D03

STATS 3Y03

STATISTICAL ANALYSIS FOR ENGINEERING

Introduction to probability, univariate and multivariate random variables and their distributions, statistical estimation and inference, regression and correlation, decision making, applications.

Three lectures; one term

Prerequisite: Registration in a programme in Engineering above Level I

Antirequisite: STATS 3J04, 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: MATH 3A03, STATS 2D03

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 MATH 2S03 or 2T03

STATS 4N03

ORDER STATISTICS


Three lectures, second term

Prerequisite: STATS 4M03 and credit or registration in STATS 4B03

STATS 4O03

ADVANCED APPLIED STATISTICS

Statistical computing; statistical software packages; working with large data sets; exploratory data analysis; graphical methods; statistical consulting practice.

Three lectures; second term

Prerequisite: Credit or registration in STATS 3D03 (or 3D06)

STATS 4W03

TOPICS IN STATISTICS

Directed reading in areas of statistics 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.

MECHANICAL ENGINEERING

WEB ADDRESS: http://www.mech.mcmaster.ca

John Hodgins Engineering Building, Room 316

Ext. 24294

Faculty as of January 15, 2003

Chair
David S. Weaver

Professors
Mamdouh Shoukry/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.
Samir Zlata/B.Sc. (Cairo), M.Eng. (McMaster), Ph.D. (Lehigh)

Adjunct Professors
M. Helmi Attia/B.Sc., M.Sc. (Alexandria), Ph.D. (McGill)
Kamram Behdinan/B.Sc. (Toosi), M.A.Sc. (Sharif), Ph.D. (Victoria)
Albert Char/B.Sc. (Alberta), M.Eng., Ph.D. (McMaster), P.Eng.
Grzegorz Rzentkowski/B.Sc., M.A.Sc. (Gdansk), Ph.D. (Memorial)
Vincent M. Sowa/B.Sc. (Illinois), M.A. (Purdue), Ph.D. (Waterloo)

Associate Professors
Chen Y. Ching/B.Sc. (Peru), Ph.D. (Syracuse)
Robert C. Hudspith/B.Eng., M.Eng. (McMaster)
Mateusz P. Skled/M.Sc., Ph.D. (Warsaw)
Allan D. Spence/B.Math., M.A.Sc. (Waterloo), Ph.D. (British Columbia), P.Eng.

Ph.D.
MARTENING ENGINEERING

Department Notes:
1. Enrolment in Mechanical Engineering courses by students in programmes other than those administered by the Department may be restricted.
2. The Manufacturing Engineering programmes are being phased out and are being replaced by a manufacturing option within the Mechanical Engineering programmes. These changes were implemented beginning in September 2002.

MANUFACTURING ENGINEERING ...

Courses
If no prerequisite is listed, the course is open.

MANUFACT 4A03 COMPUTER AIDED MANUFACTURING
Geometric dimensioning and tolerancing, fixtureing and part setups for machining and inspection, computer-aided tool path generation for machining and inspection, sculpted surface machining and digitizing.
Two lectures, one tutorial (one hour), one lab (one hour); second term Prerequisite: Registration in Level III or Level IV of a programme administered by the Department of Mechanical Engineering.
Cross-list: MECH ENG 4A03

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 2B02 MECHANICAL ENGINEERING MEASUREMENTS
Introduction to the theory and practice of engineering measurement, theory of measurement, standards and statistical analysis. Precision shop measurements, instrumentation, signal conditioning and data acquisition. Measurements of strain and force, pressure, flow, temperature and power.
One lecture, one lab (three hours); second term Prerequisite: MATH 1H03, 1H13 (or 1H05), PHYSICS 1D03 Antirequisite: MECH ENG 2B03

MECH ENG 2C03 MECHANICAL ENGINEERING DESIGN I
Design of planar linkages, cams, power trains. Mechanical design projects involving modelling, analysis, synthesis, computing and drawing.
Two lectures, one lab (three hours); second term Prerequisite: ENGINEER 1C03 or 1C04; and ENGINEER 1D04, 2P04, MECH ENG 2Q04

MECH ENG 2Q04 ENGINEERING MECHANICS: KINETICS AND DYNAMICS
Kinematics and dynamics of particles and rigid bodies. Analysis of planar mechanisms. Displacement, velocity and acceleration analysis methods. Motion with respect to a rotating frame reference. Work, energy and momentum principles.
Three lectures, one tutorial: second term Prerequisite: Credit or registration in ENGINEER 2P04 Antirequisite: ENGINEER 2Q04

MECH ENG 2W04 THERMODYNAMICS I
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 either MATH 2M06 or both MATH 2P04 and 2Q04 Antirequisite: ENGINEER 2W03, 2W04

MECH ENG 3A03 ENGINEERING MECHANICS
Three lectures; second 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 machining, surface treatment, mechanical handling, assembly, cleaning, packaging.
Three lectures; second term Prerequisite: Registration in a programme administered by the Department of Mechanical Engineering.

MECH ENG 3D03 THERMODYNAMICS II
Re-examination of the thermodynamic laws. 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, MECH ENG 3A03; and ENGINEER 2O04 or MECH ENG 2C04

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 3004 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 2M08 or MATH 2P04 and 2Q04

MECH ENG 3P03 HEAT TRANSFER
Three lectures; second term
Prerequisite: MATH 2M06, MECH ENG 2W04

MECH ENG 4A03 COMPUTER AIDED MANUFACTURING
Geometric dimensioning and tolerancing, fixtureing and part setups for machining and inspection, computer-aided tool path generation for machining and inspection, sculptured surface machining and digitizing.
Two lectures, one tutorial (one hour), one lab (one hour); second term
Prerequisite: Registration in Level IV or V of a Mechanical Engineering programme
Cross-list: MANUFACT 4A03
First offered in 2004-2005.

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), modeling using building block and state space methods, model-based control, programming of PLCs with practical demonstrations.
Three lectures; second term
Prerequisite: One of CHEM ENG 3P03, ELEC ENG 3C2A, 3TP4 or MECH ENG 4R03

MECH ENG 4I03 NOISE ANALYSIS AND CONTROL
Acoustic quantities; noise measurements 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 FLUID MECHANICS III
Study of high Reynolds number flows occurring in engineering applications. Topics include turbulent 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 2Q04 or MECH ENG 2Q04

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; and permission of the Department

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 Mechanical Engineering; or in Level V Mechanical Engineering and Management or Mechanical Engineering and Society

MECH ENG 4M06 PROJECT
A major mechanical or manufacturing engineering design or experimental project to be completed under the supervision or co-supervision of a faculty member holding an appointment in the Department of Mechanical Engineering.
Two labs (three hours), first term; four labs (three hours), second term
Prerequisite: Registration in Level IV Mechanical Engineering; or Level V Mechanical Engineering and Management or Mechanical Engineering and Society
First offered in 2004-2005.

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.
Three lectures; first term
Prerequisite: ENGINEER 2Q04 or MECH ENG 2Q04

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; second term (Offered in both terms in 2004-2005.)
Prerequisite: Registration in Level III Mechanical Engineering; or Level IV Mechanical Engineering and Management or Mechanical Engineering and Society or a programme administered by the Department of Mechanical Engineering
Antirequisite: ELEC ENG 3CA3, 3CK4, 3TP4

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 3D04

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 THERMODYNAMICS III
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
Design, operation and application characteristics of equipment commonly used in thermal systems. Modelling performance characteristics of piping systems, pumps, compressors, fans, heat exchangers, boilers and cooling towers. System simulation and optimization. Selection criteria of thermal equipment. Design optimization and system performance evaluation.
Three lectures; second term
Prerequisite: MECH ENG 2W04, 2R04, 3R03

MECH ENG 4X03 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 (one hour); 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.science.mcmaster.ca/medphys/index.htm
Nuclear Research Building, Room 124
Ext. 27650
Faculty as of January 15, 2003

Chair
Fiona E. McNeill

Professors
David R. Chettle/B.Sc., M.Sc., Ph.D. (Birmingham)
William V. Prestwich/B.Sc., Ph.D. (McMaster)
Michael S. Patterson/B.Sc. (Queen's), M.Sc. (McMaster), Ph.D. (Toronto)

Associate Professors
Thomas J. Farrell/ B.Sc., B.Ed. (Toronto), M.Sc. (Western Ontario), Ph.D. (McMaster)
Fiona E. McNell/B.Sc. (Edinburgh), Ph.D. (Birmingham)
Douglas R. Wyman/B.Math (Waterloo), Ph.D. (McMaster)

Assistant Professors
Douglas B. Boreham/B.Sc. (McMaster), Ph.D. (Ottawa)/Chair Committee of Instruction Honours Medical and Health Physics Co-op
Gerald M. Moran/ B.Sc. (McMaster), Ph.D. (Guelph)
John F. Vailant/B.Sc., Ph.D. (McMaster)

Associate Members
Richard G. Buttorf/Pathology B.Sc., M.Sc. (Toronto), Ph.D. (A.N.U. Canberra), M.B.A. (McMaster)
Andrew J. Rainbow/Biology B.Sc. (Manchester), M.Sc. (London), Ph.D. (McMaster)
Colin E. Webber/ Radiology B.Sc. (Birmingham), M.Phil., Ph.D. (Surrey)

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 2A03 PHYSICS IN MEDICINE AND BIOLOGY
Applications of introductory physics concepts to medicine and biology. Categorification; chromatography and electrophoresis; ultrasonography; confocal microscopy; photomolecular interactions and optical diagnostic techniques. Three lectures; one term
Prerequisite: Registration in Level III of Honours Medical and Health Physics

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 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 1B03, 1B04 or permission of the instructor Antirequisite: BIOLOGY 3L03, PHYSICS 3T03

MED PHYS 4A03 MEDICAL PHYSICS COMMUNICATIONS
Formerly: Physics 301, 401
This is an inquiry course that introduces students to scientific communication in medical physics. The course will educate students in individual research and presentation skills. It will comprise both traditional and self-directed learning. One lecture (one hour); a full year course for students in the Honours programme
Prerequisite: Registration in Level IV of Honours Medical and Health Physics Antirequisite: MED PHYS 301, 4AA1, 4AB2, 4A01, PHYSICS 301, 4A03, 4AA1, 4G01

MED PHYS 4AA1 MEDICAL PHYSICS COMMUNICATIONS A
Formerly: Physics 301
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: MED PHYS 301, 4A03, PHYSICS 301, 4A03

MED PHYS 4AB2 MEDICAL PHYSICS COMMUNICATIONS B
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: MED PHYS MED PHYS 4A03, 4G01, PHYSICS 4A03, 4G01

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.
Two lectures 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: MATH 2A03 or 2M04; and MATH 2C03 or 2P04; and one of BIOLOGY 3L03, ENG PHYS 3D03, MED PHYS 3T03, PHYSICS 3T03
Antirequisite: PHYSICS 4T03

MED PHYS 4X3X HUMAN BIOLOGY FOR PHYSICAL SCIENTISTS
Formerly: Physics 4XX3
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 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: One of BIOLOGY 2B03 or 2C03, and one of BIOLOGY 3L03, MED PHYS 3T03, PHYSICS 3T03; or registration in Year 4 of Medical and Health Physics Co-op; or permission of the instructor

MIDWIFERY

WEB ADDRESS: http://www.fhs.mcmaster.ca/midwifery
St. Joseph's Healthcare, Fontbonne Building, Room 610
(905) 522-1155, ext. 5273

Faculty as of January 15, 2003

Assistant Dean
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.Sc. (Queen's), M.N.Sc. (Toronto), R.M.
Anne Malott/B.Sc. (Windsor), M.S. (Case Western Reserve)
Helen McDonald/M.H.Sc. (McMaster), R.M.
Patricia McIvor/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 orientated 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
This course examines all student will be expected to participate in.

Three one month placements

This course is an overview of basic concepts in pharmacy, MIDWIF 

knowledge base of bearing cycle. The third placement

Integrates

Prerequisite: MIDWIF 3A09 COMMUNITY CARE I-CLINICAL SKILLS

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.

One term

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, 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 birth. Physical assessment and history taking skills can be practised 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

MIDWIF 2F03 PHARMACOTHERAPY

This course is an overview of basic concepts in pharmacy, pharmacology and therapeutics relevant to the practise 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 1D06

MIDWIF 3A09 COMMUNITY PLACEMENTS

Three one month placements will be organized over the term. A placement will be organized with a hospital labour and delivery department and an obstetrician. The third placement will be chosen by the student and may take place within or outside 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

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 1D06

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 Programme

MODERN LANGUAGES AND LINGUISTICS

WEB ADDRESS:
http://www.humanities.mcmaster.ca/-modlang/mlhome.htm
Togo Salmon Hall, Room 613
Ext. 24388

Faculty as of January 15, 2003

Chair
Fiorentino Minelli

Professors
Nina Kolesnikoff/M.A. (Moscow State), Ph.D. (Alberta)

Associate Professors
Maria del C. Cerezo/B.A. (Puerto Rico), M.A. (McGill), Ph.D. (Toronto)
Inga Doolin/Hitchcock/M.A., Ph.D. (Leningrad)
Gabriele Erasm/B.A. (Yale), M.A. (Minnesota)
Fiorentino Minelli/B.A., M.A. (Western Ontario), Ph.D. (Brown)
Magda Strolinski/M.A. (Warsaw), Ph.D. (Edinburgh)
Jean Wilson/B.A. (McMaster), B.Ed., M.A., Ph.D. (Toronto)

Adjunct Associate Professor
Gerald Chapie/B.A. (McMaster), Ph.D. (Harvard)

Assistant Professors
Irje Bruce/M.A., Ph.D. (Toronto)
Vittorina Cecchetto/B.A., M.A., Ph.D. (Toronto)
Anna L. Moro/B.A., M.A., Ph.D. (Toronto)
Branka Popovic/B.A., M.A., Ph.D. (Belgrade)

Lecturers
Eko Virginia Altiga/B.A. (Doshisha), M.A. (Toronto), M.A. (Texas)
Nicla Gargano/B.A., M.A. (Toronto)
Masako Iwai/B.A., M.Ed. (Toronto)
Ping-Mei Law/B.A., M.A. (Toronto)
Shaulin Melgar-Foraster/M.A., Ph.D. (Toronto)
Ruth Renters/Staatsexamen (Bochum), M.A. (McMaster)

Department Notes:
1. The Department of Modern Languages and Linguistics administers all courses in Catalan, Chinese, European Studies, German, Hispanic Studies, Italian, Japanese, Linguistics, Polish, and Russian. For information and counselling, please contact the departmental office, Togo Salmon Hall, Room 613.
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 613.

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, 3A05
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. 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. Prerequisite: CATALAN 2A03. 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 613.

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, 1Z06; U or M equivalent (or OAC Chinese) or other equivalent. Students who either speak any Chinese dialect or read Chinese may not register in this course.

The Department reserves the right to place students in the course most appropriate to their abilities. Enrolment is limited. Not offered in 2003-2004.

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. Not offered in 2003-2004.

European Studies ...

Courses in European 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 613.

Courses  
If no prerequisite is listed, the course is open.

- EUROPE ST 2A03 CONTEMPORARY EUROPE  An interdisciplinary approach to the study of contemporary European civilization: culture, society, challenges. Topics include nationalism toward supranationalism; economic and political integration of Europe; government of the European Union; migration, ethnic and racial divisions in European society. Three lectures; one term. Prerequisite: Registration in Level II or above. Cross-list: CMST 2U03, LINGUIST 2A03. Antirequisite: ANTHROP 2A03. This course is administered by the Department of Modern Languages and Linguistics.

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 613.

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.

- GERMAN 1B03 INTERMEDIATE GERMAN I  A course designed to further proficiency in spoken and written German. It makes extensive use of original German materials for listening comprehension and reading as well as video sequences. Topics on the culture and civilization of the German-speaking peoples are studied. The sequel to this course is GERMAN 1BB3. Four hours; one term. Prerequisite: Grade 12 U or M equivalent (or OAC German) or permission of the Department. Antirequisite: GERMAN 2203, 2Z23. Not open to students with credit or registration in GERMAN 1BB3. The Department reserves the right to place students in the course most appropriate to their abilities.
GERMAN 1BB3  INTERMEDIATE GERMAN I
The course develops further proficiency in spoken and written German while supplementing 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 sequel to this course are GERMAN 3E03 and 3G03.
Four hours; one term
Prerequisite: GERMAN 1BB3 or permission of the Department
Antirequisite: GERMAN Z2Z3

GERMAN 1C03  INTRODUCTION TO THE GERMAN WORLD
A course on German Culture, taught in English. This course presents a chronological overview of developments in the history, language, literature, music and art of German-speaking peoples within the European context.
NOTE: Admission to the Combined Honours in German programme requires completion of GERMAN 1BB3, 1Z06 or 1Z23.
Three hours; one term

GERMAN 1Z06  BEGINNER'S INTENSIVE GERMAN
Formerly: GERMAN 1203 and 1Z23
This course gives students the ability to express themselves reasonably well in German and acquire the basics of German grammar and considerable reading skill. 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 22Z03.
Four hours; two terms
Antirequisite: Grade 12 U or M equivalent (or OAC German), GERMAN 1Z23
Students who have credit in GERMAN 1Z03, but not in GERMAN 1Z23, will be permitted to take GERMAN 1Z06; however, they must relinquish credit in GERMAN 1203 to do so.
The Department reserves the right to place students in the course most appropriate to their abilities.
Enrolment is limited.

GERMAN 2AA3  INTRODUCTION TO GERMAN LITERATURE
The course explores the major developments of German literature from its beginnings to the present day. It will focus on literary history against the background of German culture, and analytical interpretation of short representative texts. Lectures will alternate with interpretive discussions.
This course is supported by a course web-page.
Three hours; one term
Prerequisite: GERMAN 1BB3 or 2Z23, (or concurrent registration in GERMAN 2Z203 or 2Z2Z3)

GERMAN 2CC3  GERMANY THROUGH THE AGES: CULTURE AND SOCIETY
An interdisciplinary look at historical events, cultural phenomena, and personalities which have shaped German culture and society. Topics include: Medieval and Romantic Heritage, Bildung, Nationalism and National Socialism, Old and New Minorities, Germany's Role in the European Union.
Three hours; one term
Prerequisite: GERMAN 1BB3 or 2Z23 (or concurrent registration in GERMAN 2Z203 or 2Z2Z3)

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 2Z2Z3.
Three hours; one term
Prerequisite: One of GERMAN 1206, 1Z23 or permission of the Department
Antirequisite: GERMAN 1BB3
Not open to students with credit or registration in GERMAN 2Z2Z3.
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 emphasising more advanced grammatical structures. Material in the original language on the culture and civilization of the German-speaking peoples is used extensively for listening comprehension and reading. The sequel to this course are GERMAN 3E03 and 3G03.
Three hours; one term
Prerequisite: GERMAN 2Z203 or permission of the Department
Antirequisite: GERMAN 1BB3
The Department reserves the right to place students in the course most appropriate to their abilities.

GERMAN 3B03  THE AGE OF GOETHE AND SCHILLER
A survey of the movement from Sturm und Drang to Classicism and to Romanticism. The course will highlight structural, philosophical, and thematic features of Classicism and Romanticism in Germany's literary masterpieces of this period. Lectures will alternate with interpretive discussions.
Three lectures; one term
Prerequisite: GERMAN 2AA3 or 2CC3

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 Salomoné, Wolf, Honigmann, Fassbinder, Dörrle, Bliemmann.
Three lectures; one term
Prerequisite: GERMAN 2AA3 or 2CC3

GERMAN 3E03  GERMAN GRAMMAR
A course designed to improve proficiency in spoken and written German. A systematic review of both fundamental and complex grammatical structures through drills, dialogues, situational activities, short essays and translations. Topics on the culture and civilization of the German-speaking peoples are studied. The sequel to this course is GERMAN 4Z03.
Three hours; one term
Prerequisite: GERMAN 1BB3 or 2Z23

GERMAN 3G03  PRACTICE IN GERMAN
The course develops the skills of speaking, writing and listening comprehension. Emphasis will be on fluency and correct expression. Topics on the culture and civilization of the German-speaking peoples are studied. This course is enhanced by video sequences and supported by a course web-page. The sequel to this course is GERMAN 4Z03.
Three hours; one term
Prerequisite: GERMAN 1BB3 or 2Z23
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
This course offers practice in the translation of literary and non-literary texts. (English to German and German to English). The practical component will be complemented by an overview of different theories of translation in Western Culture. Materials from the culture and civilization of the German-speaking peoples are used.
Three hours; one term
Prerequisite: GERMAN 3Z03 or 4Z03

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. The boundaries between oral folk literature and literature, as well between children's and adult literature will also be examined.
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: 12 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
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 express their views through selected written assignments and class discussions. Topics will be introduced through selected articles from German papers, magazines and video clips.
Three hours; one term.
Prerequisite: GERMAN 3E03

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 613.

Notes:
1. Students should note that the Department has classified its Hispanic language courses under the following categories:
   - Introductory Level Language Course
   - Intermediate Level Language Courses
   - Advanced Level Language Courses
   - PRACTICE
   - HISPANIC 1Z03
   - HISPANIC 1Z06
   - HISPANIC 2A03
   - HISPANIC 2A03
   - HISPANIC 2A03
   - HISPANIC 2A03
   - HISPANIC 2A03

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.

HISPANIC 1A03 INTERMEDIATE SPANISH I
First part of an intensive review of the grammatical structures of Spanish. Emphasis will be on composition, expansion of vocabulary and oral practice. Written works in the original will be studied. The sequel to this course is HISPANIC 1A03.
Four hours; one term
Prerequisite: Grade 12 U or M equivalent (or OAC Spanish) or permission of the Department
Antirequisite: HISPANIC 2A03, 2Z03 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 on composition, expansion of vocabulary and oral practice. Written works in the original will be studied. The sequel to this course is HISPANIC 2A03 and 3X03.
Four hours; one term
Prerequisite: HISPANIC 1A03 or permission of the Department
Antirequisite: HISPANIC 2Z03
The Department reserves the right to place students in the course most appropriate to their abilities.

HISPANIC 1Z06 BEGINNER'S INTENSIVE SPANISH
Formerly: HISPANIC 1Z03 and 1Z23
This course gives students the ability to express themselves reasonably well in Spanish and acquire the basics of Spanish grammar and considerable reading skill. Small tutorial groups will ensure maximum participation by each student. This course is enhanced by a Computer Assisted Language Learning (CALL) module. The sequel to this course is HISPANIC 2Z03.
Four hours; two terms
Antirequisite: Grade 12 U or M equivalent (or OAC Spanish), HISPANIC 1Z23
Students who have credit in HISPANIC 1Z03, but not in HISPANIC 1Z23, will be permitted to take HISPANIC 1Z06; however, they must relinquish credit in HISPANIC 1Z03 to do so.
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 3X03.
Three hours; one term
Prerequisite: One of HISPANIC 1A03, 2Z03 (or concurrent registration in HISPANIC 2Z03) 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 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 to understand the development of literary genres and the cultural, political and social context in which they flourished.
Three lectures; one term
Prerequisite: HISPANIC 1A03 or 2Z03

HISPANIC 2X03 CONTEMPORARY SPAIN
Drawing on literature, film, art, popular culture and mass media, the course will explore the culture of modern and contemporary Spain, from the emancipation of the last colonies to the formation of the European Union, from avant-garde aesthetics to the Mova madrileña, Barcelona's new architecture and Gehry's Guggenheim in Bilbao.
Three lectures; one term
Prerequisite: One of HISPANIC 1A03, 2Z03 (or concurrent registration in 2Z03) or permission of the Department

HISPANIC 2XX3 SPAIN IN THE WESTERN TRADITION
Drawing on literature, history, philosophy and the visual arts, this course will explore some of Spain's unique and enduring contributions to the Western tradition.
Three lectures; one term
Prerequisite: One of HISPANIC 1A03, 2Z03 (or concurrent registration in 2Z03) or permission of the Department

HISPANIC 2Z03 INTERMEDIATE SPANISH I
First part of an intensive review of the grammatical structures of Spanish. Emphasis will be on composition, expansion of vocabulary and oral practice. Written works in the original will be studied. The sequel to this course is HISPANIC 2Z03.
Four hours; one term
Prerequisite: One of HISPANIC 1Z06; 2Z03 or permission of the Department
Antirequisite: HISPANIC 1A03, 1A3
The Department reserves the right to place students in the course most appropriate to their abilities.

HISPANIC 2Z03 INTERMEDIATE SPANISH II
Second part of an intensive review of grammatical structures of Spanish. Emphasis will be on composition, expansion of vocabulary and oral practice. Written works in the original will be studied. The sequel to this course is HISPANIC 3X03.
Four hours; one term
Prerequisite: HISPANIC 2Z03 or permission of the Department
Antirequisite: HISPANIC 1A03
The Department reserves the right to place students in the course most appropriate to their abilities.

HISPANIC 3X03 LANGUAGE PRACTICE
This course differs in style of writing and communication will be examined and practiced: literary, journalistic, business, legal, etc.
Three hours; one term
Prerequisite: HISPANIC 2A03
Antirequisite: HISPANIC 3A03, 3D03

HISPANIC 3Y03 SPANISH TRANSLATION
A course designed to introduce the student to the basic principles of translation from Spanish to English and from English to Spanish. Practice will be given in comprehension and precise writing.
Three hours; one term
Prerequisite: HISPANIC 2A03
Antirequisite: HISPANIC 4G03

HISPANIC 4U3 INDEPENDENT STUDY
The student will study, 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 1Z06 BEGINNER'S INTENSIVE
ITALIAN

Notes:
1. Students should note that the Department has classified its Italian language courses under the following categories:
   Introductory Level Language Courses
   ITALIAN 1Z06
   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.

Courses
If no prerequisite is listed, the course is open.

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 1AA3.
Four hours; one term
Prerequisite: Grade 12 U or M equivalent (or OAC Italian) or other equivalent or permission of the Department
Antirequisite: ITALIAN 2203
Not open to students with credit or registration in ITALIAN 1AA3.
The Department reserves the right to place students in the course most appropriate to their abilities.

ITALIAN 1AA3 INTERMEDIATE ITALIAN II
An intensive review of those grammatical structures not studied previously, 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 2203
The Department reserves the right to place students in the course most appropriate to their abilities.

ITALIAN 1Z06 BEGINNER'S INTENSIVE
Formerly: ITALIAN 1C03 and 1CC3
This course gives students the ability to express themselves reasonably well in Italian and acquire the basics of Italian grammar and considerable reading skill. Small tutorial groups will ensure maximum participation by each student. This course is enhanced by a CALL (Computer-Aided Language Learning) module. The sequel to this course is ITALIAN 2Z03.
Four hours; one term
Antirequisite: Grade 12 U or M equivalent (or OAC Italian), ITALIAN 1CC3, 1DD3, 1ZZ3
Students who have credit in ITALIAN 1C03, but not in ITALIAN 1CC3, will be permitted to take ITALIAN 1Z06; however, they must relinquish credit in ITALIAN 1C03 to do so.
The Department reserves the right to place students in the course most appropriate to their abilities.
Enrolment is limited.

ITALIAN 2F03 INTRODUCTION TO THE STUDY OF LITERATURE: IL NEOREALISMO
An introduction to the study of literature in Italian, focusing on the neorealist movement in literature and also in cinema. The course explores principal themes in connection to the socio-historical and political context.
Three lectures; one term
Antirequisite: ITALIAN 1AA3 or 2Z03 (or concurrent registration in ITALIAN 2Z03)

ITALIAN 2103 ITALY THROUGH THE AGES
This survey course will explore the literary thought and form of Italian literature through the ages. Topics are also related to current issues. Students develop critical thinking and analytical skills.
Three lectures; one term
Antirequisite: ITALIAN 1AA3 or 2Z03 (or concurrent registration in ITALIAN 2Z03)

ITALIAN 2203 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 2ZZ3.
Four hours; one term
Antirequisite: One of ITALIAN 1CC3, 1DD3, 1ZZ3 or permission of the Department

ITALIAN 3A03 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 1AA3, 2Z03 or permission of the Department

ITALIAN 3D03 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 1AA3, 2ZZ3 or permission of the Department

ITALIAN 3XX3 CULTURE AND MEDIA IN MODERN ITALY
An analysis of Italian popular culture in contemporary Italian media, including Internet, print and television. Cultural, linguistic and societal shifts will be studied.
Three lectures; one term
Prerequisite: ITALIAN 2F03, 2103; or permission of the Department
Alternates with ITALIAN 3XX3.

Notes: (continued)
ITALIAN 3Y03 CULTURE AND SOCIETY IN RENAISSANCE ITALY
An exploration of Italian culture in the Renaissance and its impact on the development of modern European thought. Students will be introduced to Renaissance ideas on politics, history, society, the artist and the scientist through the study of representative works.
Three lectures; one term
Prerequisite: ITALIAN 2F03, 2103; or permission of the Department
Antirequisite: ITALIAN 4R03
Offered in alternate years.
ITALIAN 4A03 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 4B03 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 contemporary literary and journalistic sources.
Three hours; one term
Prerequisite: ITALIAN 4A03 or permission of the Department
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 4X03 LOVE AND LIFE IN THE MIDDLE AGES
An exploration of Italian life and culture in the Middle Ages through the study of the dolce stil nuovo and selected works by Dante, Petrarch and Boccaccio.
Three lectures; one term
Prerequisite: ITALIAN 2F03, 2103; or permission of the Department
Alternates with ITALIAN 4XX3.
ITALIAN 4XX3 DANTE'S WORLD
An exploration of Dante's Commedia in the context of medieval culture, politics and philosophy. The course will also consider the impact of the Commedia on Western thought.
Three lectures; one term
Prerequisite: ITALIAN 2F03, 2103; or permission of the Department
Alternates with ITALIAN 4XX3.
ITALIAN 4X03 LOVE AND LIFE IN THE MIDDLE AGES
An exploration of Italian culture in the Middle Ages through the study of the dolce stil nuovo and selected works by Dante, Petrarch and Boccaccio.
Three lectures; one term
Prerequisite: ITALIAN 2F03, 2103; or permission of the Department
Alternates with ITALIAN 4XX3.
ITALIAN 4Y03 ILLUMINISMO: THE ENLIGHTENED MIND AND THE INTELLECTUAL REVOLUTION
With its renewed confidence in the power of "reason", the illuminismo offers a new vision for Italy. With the framework of the European Enlightenment, key Italian thinkers of the period will be studied.
Three lectures; one term
Prerequisite: ITALIAN 2F03, 2103; or permission of the Department
Alternates with ITALIAN 4XX3.
ITALIAN 4Y3 RISORGENIMENTO: THE ROMANTIC QUEST FOR A NATION
A study of Italian civilization and culture during the 19th century, focusing on the fundamental issues of Italian unification. Exponential artistic, cultural and literary representatives of the period will be examined.
Three lectures; one term
Prerequisite: ITALIAN 2F03, 2103; or permission of the Department
Alternates with ITALIAN 4Y03.

JAPANESE...

Japanese courses are administered within the Department of Modern Languages and Linguistics of the Faculty of Humanities. The Combined Honours 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 613.

Note:
Not all courses are offered on an annual basis. Students should consult the timetable for available courses.

Courses

ITALIAN 3Y03 CULTURE AND SOCIETY IN RENAISSANCE ITALY
An exploration of Italian culture in the Renaissance and its impact on the development of modern European thought. Students will be introduced to Renaissance ideas on politics, history, society, the artist and the scientist through the study of representative works.
Three lectures; one term
Prerequisite: ITALIAN 2F03, 2103; or permission of the Department
Antirequisite: ITALIAN 4R03
Offered in alternate years.
ITALIAN 4A03 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 4B03 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 contemporary literary and journalistic sources.
Three hours; one term
Prerequisite: ITALIAN 4A03 or permission of the Department
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 4X03 LOVE AND LIFE IN THE MIDDLE AGES
An exploration of Italian life and culture in the Middle Ages through the study of the dolce stil nuovo and selected works by Dante, Petrarch and Boccaccio.
Three lectures; one term
Prerequisite: ITALIAN 2F03, 2103; or permission of the Department
Alternates with ITALIAN 4XX3.
ITALIAN 4XX3 DANTE'S WORLD
An exploration of Dante's Commedia in the context of medieval culture, politics and philosophy. The course will also consider the impact of the Commedia on Western thought.
Three lectures; one term
Prerequisite: ITALIAN 2F03, 2103; or permission of the Department
Alternates with ITALIAN 4XX3.
ITALIAN 4X03 LOVE AND LIFE IN THE MIDDLE AGES
An exploration of Italian culture in the Middle Ages through the study of the dolce stil nuovo and selected works by Dante, Petrarch and Boccaccio.
Three lectures; one term
Prerequisite: ITALIAN 2F03, 2103; or permission of the Department
Alternates with ITALIAN 4XX3.
ITALIAN 4Y03 ILLUMINISMO: THE ENLIGHTENED MIND AND THE INTELLECTUAL REVOLUTION
With its renewed confidence in the power of "reason", the illuminismo offers a new vision for Italy. With the framework of the European Enlightenment, key Italian thinkers of the period will be studied.
Three lectures; one term
Prerequisite: ITALIAN 2F03, 2103; or permission of the Department
Alternates with ITALIAN 4XX3.
ITALIAN 4Y3 RISORGENIMENTO: THE ROMANTIC QUEST FOR A NATION
A study of Italian civilization and culture during the 19th century, focusing on the fundamental issues of Italian unification. Exponential artistic, cultural and literary representatives of the period will be examined.
Three lectures; one term
Prerequisite: ITALIAN 2F03, 2103; or permission of the Department
Alternates with ITALIAN 4Y03.

JAPANESE 1206 BEGINNER'S INTENSIVE JAPANESE
An introduction to spoken and written Japanese focusing on developing proficiency in the skills of listening, speaking, reading and writing. Kanji (Chinese characters) will be introduced. 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 2Z03.
Four hours; two terms
Prerequisite: JAPANESE 1Z03, 1ZZ3
Students who have credit in JAPANESE 1203, but not in JAPANESE 1ZZ3, will be permitted to take JAPANESE 1206; however, they must relinquish credit in JAPANESE 1Z03 to do so.
The Department reserves the right to place students in the course most appropriate to their abilities.
Enrolment is limited.

JAPANESE 2Z03 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 2ZZ3.
Four hours; one term
Prerequisite: A grade of at least B- in JAPANESE 1Z06 or 1ZZ3; or permission of the instructor
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.
Enrolment is limited to 70 students.

JAPANESE 2ZZ3 INTERMEDIATE INTENSIVE JAPANESE II
This course further develops and consolidates the students' communicative skills in Japanese through conversational exercises, creative writing and other practices. The sequel to this course is JAPANESE 3A03.
Four hours; one term
Prerequisite: JAPANESE 2Z03 or permission of the instructor
The Department reserves the right to place students in the course most appropriate to their abilities.
Enrolment is limited to 70 students.

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 3AA3.
Four hours; one term
Prerequisite: JAPANESE 2ZZ3 or permission of the instructor
The Department reserves the right to place students in the course most appropriate to their abilities.
Enrolment is limited.

JAPANESE 3AA3 ADVANCED INTENSIVE JAPANESE II
Emphasis is given to the development of situational conversational skills, advanced reading skills and essay writing skills. The sequel to this course is JAPANESE 4Z03.
Four hours; one term
Prerequisite: JAPANESE 3A03 or permission of the instructor
The Department reserves the right to place students in the course most appropriate to their abilities.
Enrolment is limited.

JAPANESE 3B03 BUSINESS JAPANESE
Three hours; one term
Prerequisite: JAPANESE 2Z03 or permission of the instructor
Offered in alternate years.
Enrolment is limited.

JAPANESE 3CC3 BUSINESS JAPANESE
A continuation of JAPANESE 3B03. This course focuses on a further study of Japanese language in a context of Japanese business practices, values and customs. Oral and aural proficiency are emphasized.
Three hours; one term
Prerequisite: JAPANESE 3B03 or permission of the instructor
Offered in alternate years.
Enrolment is limited.
Courses If no prerequisite is listed, the course is open.

JAPANESE 2A03 JAPANESE COMMUNICATION
This course looks at the Japanese language from sociolinguistic and pragmatic points of view identifying the unique characteristics of the target culture that lie behind its use. Such knowledge is invaluable in solving problems of intercultural communication.
Three lectures; one term
Prerequisite: Registration in Level II or above
Cross-list: CMST 2A03
Alternates with JAPAN ST 2F03.

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.

JAPAN ST 2F03 THE CONTEMPORARY JAPANESE FILM
This course examines the development of Japanese films since the Second World War, including contemporary feature films and animations, exploring the rich legacy of directors such as Akira Kurosawa, Ken Ichikawa, Juzo Itami and Masayuki Suo, and animation directors such as Hayao Miyazaki and Isao Takahata.
Two lectures, plus one weekly film screening; one term
Prerequisite: Registration in Level II or above
Cross-list: THTR&FLM 2H03
Alternates with JAPAN ST 2A03.

JAPAN ST 2P06 JAPANESE CIVILIZATION
Introduction to Japanese history, society, and culture through a study of religious traditions, literature, and art of Japan.
Two lectures, one tutorial; two terms
Prerequisite: Registration in Level II or above
Cross-list: RELIG ST 2P06
This course is administered by the Department of Religious Studies.

JAPAN ST 3B03 MODERN JAPAN
A survey of 19th- and 20th-century Japan, with emphasis on political developments, social change, and Japan’s relations with East Asia and the West.
Three lectures; one term
Prerequisite: Registration in Level II or above
Cross-list: HISTORY 3B03
This course is administered by the Department of History.

JAPAN ST 3E03 JAPANESE RELIGION
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II or above. One of RELIG ST 1B06, 2MM6 or JAPAN ST 2P06 is recommended.
Cross-list: RELIG ST 3E03
This course is administered by the Department of Religious Studies.

JAPAN ST 3H03 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 in them.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II or above.
Cross-list: RELIG ST 2F03
This course is administered by the Department of Religious Studies.

JAPAN ST 3S03 THE EAST ASIAN RELIGIOUS TRADITION
Readings in East Asian religious texts in translation will centre around 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 or above.
Cross-list: ART&SCI 3S03, RELIG ST 3S03.
This course is administered by the Department of Religious Studies.

JAPAN ST 3T03 MODERN JAPANESE LITERATURE IN TRANSLATION
This is a survey course of major works in 20th-century Japanese literature with an emphasis on fiction published since the Second World War. Readings include Soseki, Toson, Musuii buse, Kenzaburo Oe and Haruki Murakami.
Three lectures; one term
Prerequisite: Registration in Level II or above
Cross-list: COMP Lit 3T03
Offered in alternate year.

JAPAN ST 3U03 BUDDHISM IN EAST ASIA
An examination of myth, history, doctrine, monastic culture, and ritual practice in East Asian Buddhism.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II or above.
Cross-list: RELIG ST 3U03
This course is administered by the Department of Religious Studies.

JAPAN ST 4A06 GUIDED READING IN JAPANESE STUDIES
Independent study on an approved topic. A major essay and/or final examination will be required.
Two terms
Prerequisite: Registration in Level III or IV of the Combined Honours in Japanese Studies programme and permission of the Director.

JAPAN ST 4B03 GUIDED READING IN JAPANESE STUDIES
Independent study on an approved topic. A research essay and/or final examination will be required.
One term
Prerequisite: Registration in Level III or IV of the Combined Honours in Japanese Studies programme and permission of the Director.

JAPAN ST 4S03 JAPANESE BUSINESS
An introduction to Japan’s business system. The approach is integrative, as the course examines Japan’s economic history, culture, politics, industrial policy, management practices, advertising and doing business with Japan.
Prerequisite: Registration in a Commerce, Engineering and Management or Japanese Studies programme.
Cross-list: COMMERCE 4S03
This course is administered by the Faculty of Business.

LINGUISTICS

Linguistics courses and programmes 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 613.

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.

LINGUIST 1A03 INTRODUCTION TO LINGUISTICS
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
LINGUIST 1A03  INTRODUCTION TO LINGUISTICS II
This course is a continuation of LINGUIST 1A03, and completes the intro-
duction to linguistics. Emphasis will be placed on syntax, semantics, typology, historical linguistics and applied linguistics.
Two lectures; one tutorial; one term
Prerequisite: LINGUIST 1A03

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 or above
Cross-list: CMST 2U03, EUROPEAN STUDIES 2E03
Antirequisite: ANTHROP 2AL3
This course is administered by the Department of Modern Languages
and Linguistics.

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 the Indo-European-based languages of Europe.
Three lectures; one term
Prerequisite: LINGUIST 1A03, 1AA3; or permission of the Department
Antirequisite: ANTHROP 2AA3

LINGUIST 2E03  THE NATURE OF TEXTS: FROM SLANG TO FORMAL DISCOURSE
This course will investigate a variety of styles and registers from the
conversational to the literary and academic.
Three hours; one term
Prerequisite: Registration in Level II or above
Cross-list: CMST 2E03
This course is administered by the Department of Modern Languages
and Linguistics.

LINGUIST 2L03  PHONETICS
A study of the sounds of language and human articulatory capabilities.
Three lectures; one term
Prerequisite: LINGUIST 1AA3 or permission of the instructor
Cross-list: ANTHROP 2L03
This course is administered by the Department of Modern Languages
and Linguistics.

LINGUIST 2LL3  INTRODUCTION TO LINGUISTIC TYPOLOGY
The study of diversity in the languages of the world, language universals
and the parameters of cross-linguistic analysis of grammatical systems.
Three hours (lectures and discussion); one term
Prerequisite: LINGUIST 1A03, 1AA3; or permission of the department
Cross-list: ANTHROP 2LL3
This course is administered by the Department of Modern Languages
and Linguistics.

LINGUIST 3A03  PHONOLOGY
A study of the patterns of distinctive sounds in the world's languages.
Three lectures; one term
Prerequisite: LINGUIST 1AA3, 2L03
Cross-list: ANTHROP 3A03
Antirequisite: ANTHROP 2M03, LINGUIST 2M03
This course is administered by the Department of Modern Languages
and Linguistics.

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 3I03 or 3M03; or LINGUIST 1A03 and 1AA3 (or 1A06)
and PSYCH 2H03; or permission of the Department
Cross-list: PSYCH 3BB3
Offered in alternate years.
This course is administered by the Department of Modern Languages
and Linguistics.

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: Six units of a language other than English and one of
ANTHROP 2L3, LINGUIST 2LL3; or permission of the Department
Cross-list: ANTHROP 3I03
Offered in alternate years.
This course is administered by the Department of Modern Languages
and Linguistics.

LINGUIST 3II3  SEMANTICS
The study of patterns of meaning in language; a critical survey of theo-
ries and issues.
Three hours; one term
Prerequisite: Six units of a language other than English and one of ANTHROP
3I03, 3V03, LINGUIST 3I03, 3M03; or permission of the Department
Cross-list: ANTHROP 3II3
Offered in alternate years.
This course is administered by the Department of Modern Languages
and Linguistics.

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: Six units of a language other than English and ANTHROP
2L3 or LINGUIST 2LL3; or permission of the Department
Cross-list: ANTHROP 3M03
Antirequisite: ANTHROP 3P03
Offered in alternate years.
This course is administered by the Department of Modern Languages
and Linguistics.

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, 1AA3; or FRENCH 2H03; or permission of
the Department
Cross-list: CMST 3V03
Antirequisite: ANTHROP 3P03
Offered in alternate years.
This course is administered by the Department of Modern Languages
and Linguistics.

LINGUIST 3X03  INTRODUCTION TO SOCIOCLINGUISTICS
An introduction to sociolinguistics with particular emphasis on the social
situation of the major European languages. Topics covered include linguis-
tic variation (regional, social, situational), language and gender, lan-
guage and disadvantage/power, language choice, language change,
pidgin and creole languages.
Three lectures; one term
Prerequisite: LINGUIST 1A03, 1AA3; or permission of the Department
Cross-list: CMST 3G03
Antirequisite: ANTHROP 3X03
This course is administered by the Department of Modern Languages
and Linguistics.

LINGUIST 4B03  APPLIED LINGUISTICS
The course is designed to acquaint the student with the contributions
that the linguist, psycholinguist, sociolinguist can make to second lan-
guage learning and teaching.
Three lectures; one term
Prerequisite: Registration in Level III or IV of a programme in Linguistics or
permission of the Department
Cross-list: CMST 4G03
Antirequisite: ANTHROP 4B03
Alternates with LINGUIST 4BB3.
This course is administered by the Department of Modern Languages
and Linguistics.

LINGUIST 4BB3  TOPICS IN THE APPLICATION OF LINGUISTICS
This seminar course looks at how linguistics is applied in fields other than
language learning. Topics include: translation theory; forensic linguis-
tics; sociolinguistics. Consult the Department for the topic to be offered.
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 4BB3.
LINGUIST 4BB3 may be repeated, if on a different topic, to a total of six units.
This course is administered by the Department of Modern Languages
and Linguistics.
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 programme in Linguistics or permission of the Department
Cross-list: CMST 4I03
*Offered in alternate years.*

This course is administered by the Department of Modern Languages and Linguistics.

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: 16 units of Linguistics above Level I and permission of the Department
Cross-list: ANTHROP 4L3A3, LINGUIST 4L3A3

This course is administered by the Department of Modern Languages and Linguistics.

LINGUIST 4L3B3  
**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.
Three lectures; one term
Prerequisite: Nine units of Linguistics or Linguistic Anthropology courses above Level I
Cross-list: ANTHROP 4L3B3
Antirequisite: ANTHROP 4L3A3, LINGUIST 4L3A3

This course is administered by the Department of Modern Languages and Linguistics.

LINGUIST 4L3C3  
**STRUCTURE OF A LANGUAGE II**
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.
Three lectures; one term
Prerequisite: Nine units of Linguistics or Linguistic Anthropology courses above Level I
Cross-list: ANTHROP 4L3C3
Antirequisite: ANTHROP 4L3A3, LINGUIST 4L3A3

This course is administered by the Department of Modern Languages and Linguistics.

LINGUIST 4X03  
**TOPICS IN SOCIOLINGUISTICS**
Topics include: Languages in Contact; Standard Languages; Gender and Language. Consult the Department for the topic to be offered.
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.*

This course is administered by the Department of Modern Languages and Linguistics.

LINGUIST 4XX3  
**TOPICS IN LINGUISTIC THEORY**
Issues in different aspects of Linguistic Theory and Advanced Philology. Consult the Department for the topic to be offered.
Seminar (two hours); one term
Prerequisite: LINGUIST 3X03 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.*

This course is administered by the Department of Modern Languages and Linguistics.

LINGUIST 4Z03  
**TOPICS IN PSYCHOLINGUISTICS**
Topics include: First Language Acquisition; Brain and Language. Consult the Department for the topic to be offered.
Seminar (two hours); one term
Prerequisite: LINGUIST 3Z03 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.*

This course is administered by the Department of Modern Languages and Linguistics.

---

**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 613.

**Notes:**

1. Students should note that the Department has classified its Polish language courses under the following categories:
   - **Introductory Level Language Courses**
     - POLISH 2A03, 2A03
   - **Intermediate Level Language Courses**
     - POLISH 3A03, 3A03
   - **Advanced Level Language Courses**
     - POLISH 4A03, 4A03

2. POLISH 2A03 and 2A03 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 3A03. Students with a good command of Polish should enrol in POLISH 4A03 or 4A03.

3. Courses are offered on a three-year rotation basis. Students should consult the timetable for available courses.

**Courses**

- **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
  Antirequisite: POLISH 1Z03
  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.
  Offered on a three-year rotation basis. Offered in 2003-2004. Enrolment is limited.

- **POLISH 2A03  BEGINNER'S POLISH II**
  A course designed to further the student's command of oral and written Polish. The sequel to this course is POLISH 3A03.
  Four hours; one term
  Prerequisite: One of POLISH 1Z03, 2A03 or permission of the Department
  Antirequisite: POLISH 1Z23
  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 2003-2004. 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: One of POLISH 1Z03, 2A03 or permission of the Department
  Antirequisite: POLISH 1Z23
  The Department reserves the right to place students in the course most appropriate to their abilities.

- **POLISH 3A03  INTERMEDIATE POLISH II**
  This course concentrates on the study of grammatical structures and rules of composition. It develops written and oral skills. The sequel to this course is POLISH 4A03.
  Four hours; one term
  Prerequisite: One of POLISH 1Z03, 2A03 or permission of the Department
  Antirequisite: POLISH 2Z20
  The Department reserves the right to place students in the course most appropriate to their abilities.

- **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

---
The Department reserves the right to place students in the course most appropriate to their abilities.

**POLISH 4AA3**  
**ADVANCED POLISH II**  
This course focuses on the study of stylistic variation of different text types and translation practice to and from Polish.  
Three hours; one term  
Prerequisite: POLISH 4A03 or permission of the Department  
The Department reserves the right to place students in the course most appropriate to their abilities.  
Enrolment is limited.

---

**RUSSIAN**

Courses in Russian 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 613.

**Notes:**

1. Students should note that the Department has classified its Russian language courses under the following categories:

**Introductory Level Language Courses**

RUSSIAN 2A03, 2AA3  
**Intermediate Level Language Courses**

RUSSIAN 3A03, 3AA3  
**Advanced Level Language Courses**

RUSSIAN 4B03, 4BB3  

2. 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.

**RUSSIAN 2A03**  
**INTENSIVE BEGINNER'S RUSSIAN I**  
Formerly: RUSSIAN 1Z02  
Designed for students with no prior knowledge of Russian, the course covers basic Russian vocabulary and grammatical structures, while emphasizing spoken Russian. This course is enhanced by CALL (Computer-Assisted Language Learning) module. The sequel to this course is RUSSIAN 2AA3.  
Four hours; one term  
Antirequisite: Grade 12 U or M equivalent (or OAC Russian), RUSSIAN 1Z03  
Not open to students with credit or registration in RUSSIAN 2A03 or credit in RUSSIAN 1Z03. The Department reserves the right to place students in the course most appropriate to their abilities.  

**RUSSIAN 2AA3**  
**INTENSIVE BEGINNER'S RUSSIAN II**  
Formerly: RUSSIAN 1Z03  
This course continues an intensive study of Russian vocabulary and grammar, with further emphasis on spoken Russian and enhancement by CALL (Computer-Assisted Language Learning) module. The sequel to this course is RUSSIAN 3A03.  
Four hours; one term  
Antirequisite: Grade 12 U or M equivalent (or OAC Russian), RUSSIAN 1Z03  
The Department reserves the right to place students in the course most appropriate to their abilities.  

**RUSSIAN 3A03**  
**INTERMEDIATE RUSSIAN I**  
Formerly: RUSSIAN 2Z03  
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 3AA3.  
Four hours; one term  
Prerequisite: RUSSIAN 1ZZ3 or 2AA3  
Antirequisite: RUSSIAN 2C06, 2ZZ3  
Not open to students with credit or registration in RUSSIAN 3AA3 or credit in RUSSIAN 2ZZ3. The Department reserves the right to place students in the course most appropriate to their abilities.  

**RUSSIAN 3AA3**  
**INTERMEDIATE RUSSIAN II**  
Formerly: RUSSIAN 2ZZ3  
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 4B03 (formerly RUSSIAN 3G03).  
Four hours; one term  
Prerequisite: RUSSIAN 2ZZ3 or 3A03  
Antirequisite: RUSSIAN 2C06, 2ZZ3  
The Department reserves the right to place students in the course most appropriate to their abilities.  

**RUSSIAN 4B03**  
**ADVANCED LANGUAGE PRACTICE I**  
Formerly: RUSSIAN 3G03  
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 composition. The sequel to this course is RUSSIAN 4BB3 (formerly RUSSIAN 3H03).  
Three hours; one term  
Prerequisite: One of RUSSIAN 2C06, 2ZZ3, 3AA3 or permission of the Department  
Antirequisite: RUSSIAN 3C06, 3G03  
The Department reserves the right to place students in the course most appropriate to their abilities.  

**RUSSIAN 4BB3**  
**ADVANCED RUSSIAN GRAMMAR AND STYLISTICS**  
Formerly: RUSSIAN 3H03  
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 3G03, 4B03; or permission of the Department  
Antirequisite: 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 I 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 in Health Sciences Centre, Room 4N59.

**Courses**

If no prerequisite is listed, the course is open.

**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 BIOCHEM 3B03, 3BT3, 3D03, 3G03, BIOLOGY 3H03, 3H13 or permission of the instructor.

**MOL BIOL 4J03**  
**MOLECULAR IMMUNOLOGY**  
This advanced course applies small group based learning to immunological problems. Topics concern development of immuneassays, resistance to infection and immunity in health and disease.  
One session (two hours), one tutorial; one term  
Prerequisite: One of BIOLOGY 3G03 or HTH SCI 3J03, and one of BIOCHEM 3B03, 3BT3, 3D03, 3G03, BIOLOGY 3H03; or permission of the instructor.  
Cross-list: BIOCHEM 4J03, HTH SCI 4J03.
Courses

If no prerequisite is listed, the course is open.

**MMEDIA 1A03**
**INTRODUCTION TO COMPUTERS IN THE HUMANITIES**
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

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

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 material, e-mail discussion lists and readings to explore the effects of information technology on communication.

One lecture, one tutorial, one lab; one term

Enrolment is limited.

**MMEDIA 2A03**
**INTRODUCTION TO MULTIMEDIA**
This course presents arts students with the fundamentals of computers and 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

Prerequisite: Registration in the Combined Honours in Multimedia programme

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

Prerequisite: Registration in the Combined Honours in Multimedia Programme

Enrolment is limited.

**MMEDIA 2C03**
**COMPUTER ARCHITECTURE FOR MULTIMEDIA**
Students 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 as well as media acquisition hardware and emerging standards for connecting media devices. Critical readings cover: the history of computing.

One lecture (two hours), one tutorial; 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 MMEDIA 1A03, 1B03, 1C03, 2103

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: One of MMEDIA 1A03 or 1B03

Enrolment is limited.

**MMEDIA 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. Students will be introduced to desktop publishing.

Three lectures; one term

Prerequisite: Registration in Level II or above of a programme in Art History, Communication Studies or Multimedia. Prior completion of ART HIST 1A03 and 1AA3 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, MIDI applications; computer music notation; aesthetics of music composition. At least one original work will be produced. Prior experience with computers and/or music composition is not required. Independent studio is 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 2Z03

Enrolment is limited.

**MMEDIA 2H03**
**INTRODUCTION TO ANIMATION**
An introduction to the theory and principles of animation. Students will create significant work of computer animation displaying variety of techniques. Readings and discussions will cover theatre, film studies and narrative. Students will be expected to attend screenings.

One lecture (two hours), one tutorial/screening; one term

Prerequisite: Registration in the Combined Honours in Multimedia programme

Enrolment is limited.

**MMEDIA 2I03**
**DIGITAL RHETORIC AND COMMUNICATION**
An introduction to the history of rhetoric, text study and classical and electronic examples of oral discourse. Students will analyze the persuasive techniques of examples of oral communication collected from print and electronic media. There will be a practical where students deliver an expository speech with multimedia support.

Two lectures, one tutorial; one term

Prerequisite: Registration in Level II or above

Enrolment is limited.

**MMEDIA 3A03**
**ADVANCED MULTIMEDIA**
A study of multimedia programming, expanding 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: MMEDIA 2A03 and registration in the Combined Honours in Multimedia programme

Enrolment is limited.

**MMEDIA 3B03**
**TOPICS IN THE PHILOSOPHY AND HISTORY OF COMPUTING**

Three hours: one term

Prerequisite: Registration in Level III or IV of the Combined Honours in Multimedia programme
MMEDIA 3C03 ADVANCED MIDI AND DIGITAL AUDIO FOR MULTIMEDIA

The creation of digital music and audio. Students work individually and in teams to develop skills for multimedia audio production. Topics include: advanced MIDI, mixing, audio processing, and frequency equalization.

Two lectures, one tutorial; one term
Prerequisite: MMEDIA 2G03 or MUSIC 2Z03
Cross-list: MUSIC 32Z03
Enrolment is limited.

MMEDIA 3D03 TECHNICAL WRITING AND COMMUNICATION

Students will explore issues such as audience analysis, the role of jargon and the conventions of report writing. Students will be introduced to XML and use it to complete a project of their own devising, from proposal to final report and presentation.

One lecture (two hours), one tutorial; one term
Prerequisite: Registration in Level II or above
Enrolment is limited.

MMEDIA 3E03 INTERACTIVE DIGITAL CULTURE

A study of works, forms and theories of digitally interactive culture. Creative works covered may include hypertext fiction, computer games, persistent virtual worlds, and interactive digital art, video and music. Theoretical works covered may include theories of hypertext, interactivity, immersion, simulation, reception and participatory culture.

One lecture (two hours), one tutorial; one term
Prerequisite: Registration in Level III of the Combined Honours in Multimedia Programme
Enrolment is limited.

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 include usability and evaluation of computer interfaces; drama, narrative, and interface; interface and representation; and the politics of interface design.

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.

One lecture (two hours), one tutorial; one term
Prerequisite: Registration in the Combined Honours in Multimedia Programme
Enrolment is limited.

MMEDIA 3H03 ADVANCED COMPUTER ANIMATION

An advanced study of computer animation with a focus on 3D animation. Students will create a significant amount of 3D animation and critique current examples. Readings may cover theories and techniques of animation, performance, film and narrative. Students will attend screenings.

One lecture (two hours), one lab (one hour every week); one term
Prerequisite: MMEDIA 2H03 and registration in the Combined Honours in Multimedia programme
Enrolment is limited.

MMEDIA 3I03 ADVANCED DIGITAL VIDEO

Students will explore advanced techniques in digital video production, post-production and delivery. Topics include interactive video, streaming media technologies and integration of digital video within works of multimedia. Students create and critique works of digital video. Readings may cover theories of digital culture, visual culture and film.

One lecture (two hours), one lab (one hour every week); one term
Prerequisite: MMEDIA 2B03 and registration in the Combined Honours in Multimedia programme
Enrolment is limited.

MMEDIA 3J03 PROGRAMMING FOR THE WEB

Students build dynamic web sites driven by databases and programmed with server-side and client-side scripting languages. Students require some programming experience and will examine operational database-driven sites and work on projects to create new ones. User interface design and documentation for such sites will also be discussed.

One lecture (two hours), one lab (one hour every week); one term
Prerequisite: MMEDIA 3A03 and 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 developers. Students will study case histories, build and manage content collections and 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 Multimedia Programme (See Programme Note under the heading Multimedia in the Faculty of Humanities section of the Calendar.)

MMEDIA 4B03 SENIOR THESIS PROJECT

This course provides an opportunity to pursue individual advanced multimedia projects under the supervision of a Thesis Committee. Students will propose a multimedia project, have it approved by the Multimedia Programme Committee and present their completed project publicly.

One term
Prerequisite: MMEDIA 4A03 and registration in Level IV of the Combined Honours in Multimedia Programme (See Programme Note under the heading Multimedia in the Faculty of Humanities section of the Calendar.)

MMEDIA 4C03 COMPUTERS AND EDUCATION

A survey of the history of instructional technology and uses of computers in education. Students will review instructional materials in their field, and create, evaluate, and present an instructional application. Students will read critical 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

An introduction to the design of three-dimensional spaces and to theories of architecture as applied to virtual reality. Computer-Aided Design (CAD) software will be used 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 Multimedia Programme
Enrolment is limited.

MUSIC

WEB ADDRESS: http://www.humanities.mcmaster.ca/~sota/
Togo Salmon Hall, Room 414
Ext. 27671

Courses and programmes in Music are administered within the School of the Arts 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 any Music programme.

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 any Music programme.

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 any Music programme.
MUSIC 1CC3  HARMONY
The analysis and writing of functional harmony. Includes study of music by J.S. Bach and others.
Two lectures; two terms
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 a successful audition at a minimum level of Honours Grade 8 RCM or equivalent and permission of the School of the Arts
Lesson fees are charged to students taking MUSIC 1E06 if the course is not a specific requirement for their music degree programme.

MUSIC 1G03  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 1Y13  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 or above
Cross-list: CMST 2C03
Antirequisite: MUSIC 4X03
Offered in alternate years.

MUSIC 2AA3  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 or above
Cross-list: CMST 2R03

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 1C03

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; and registration in a Music programme or permission of the School of the Arts
Lesson fees are charged to students taking MUSIC 2E06 if the course is not a specific requirement for their music degree programme.

MUSIC 2F03  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 or above
Cross-list: CMST 2703
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
Prerequisite: MUSIC 1C03

MUSIC 2Y03  HISTORY OF WESTERN MUSIC: ROMANTIC TO THE PRESENT
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 3A03  ELEMENTARY MUSIC EDUCATION
A survey of elementary music education methods such as those of Kodaly, Orff and Suzuki.
Three lectures; one term
Prerequisite: MUSIC 1A03 and 1A3 (or 1A08); or 18 units of Music

MUSIC 3C03  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.
Three lectures; one term
Prerequisite: MUSIC 2C03 and registration in Honours Music
Antirequisite: MUSIC 2C03
Offered in alternate years.
Enrolment is limited.

MUSIC 3CT3  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 or 2CC3; and registration in Honours Music
Antirequisite: MUSIC 3C03
Offered in alternate years.
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 3E03
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, 2H03 and registration in Honours Music
Offered in alternate years.
Enrolment is limited.

MUSIC 3J03  ORCHESTRATION AND ARRANGING
A study of the orchestral/band instruments; scoring of music for various ensembles.
Two lectures; two terms
Prerequisite: MUSIC 2CC3, 2D03 and registration in a music programme

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  PERCUSSION 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 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: A grade of at least A- in MUSIC 2E06; and 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 3Y03  TOPICS IN MUSIC HISTORY: MUSIC FOR THE ORCHESTRA
A study of selected orchestral music in its historical, socio-political and artistic contexts. Possible topics include: the concerto, the symphonic poem, orchestral music from Debussy to the present.
Two lectures, one tutorial; one term
Prerequisite: MUSIC 2Z03 or all of MUSIC 1Y03, 1YY3, 2Y03, 2YY3; and registration in Level III or IV of an Honours Music programme or permission of the School of the Arts
Alternates with MUSIC 3YY3.
MUSIC 3Y03 may be repeated, if on a different topic, to a total of six units.

MUSIC 3Y03  TOPICS IN MUSIC HISTORY: OPERA AND/OR MUSICAL THEATRE
A study of selected music for the stage in its historical, socio-political and artistic contexts. Possible topics include: the operas of Mozart, Wagner’s Ring, American musical theatre.
Two lectures, one tutorial; one term
Prerequisite: One of DRAMA 2D03, MUSIC 2BB3, THTR&FLM 2C03, or all of MUSIC 1Y03, 1YY3, 2Y03, 2YY3; and registration in Level III or IV of an Honours Music programme or permission of the School of the Arts
Alternates with MUSIC 3YY3.
MUSIC 3Y03 may be repeated, if on a different topic, to a total of six units.

MUSIC 3Z03  ADVANCED MIDI AND DIGITAL AUDIO FOR MULTIMEDIA
The creation of digital music and audio. Students work individually and in teams to develop skills for multimedia audio production. Topics include: advanced MIDI, mixing, audio processing and frequency equalization.
Two lectures, one tutorial; one term
Prerequisite: MMEDIA 2G03 or MUSIC 2Z03
Cross-list: MMEDIA 3C03
Enrolment is limited.

MUSIC 4A03  TOPICS IN POPULAR MUSIC
In-depth examination of a particular artist, genre or issue in western popular music. Possible topics include: Madonna, heavy metal, popular music and corporate culture.
Seminar (two hours); one term
Prerequisite: MUSIC 2A03
MUSIC 4A03 may be repeated, if on a different topic, to a total of six units.
Enrolment is limited.

MUSIC 4C03  TOPICS IN HARMONY AND COUNTERPOINT
Advanced studies in writing an analysis. Possible topics include: sonata-form, songs, jazz arranging and scoring.
Seminar (two hours); one term
Prerequisite: MUSIC 2C03; and MUSIC 2C03 or 3CM3; and registration in Honours Music
Offered in alternate years.
MUSIC 4C03 may be repeated, if on a different topic, to a total of six units.
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 4E06, 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 3E09 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. Students requesting this course must apply in writing to the School of the Arts in March.
Fees are charged to students taking MUSIC 4E09.

### MUSIC 4G03: 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 3G03 and successful audition; or a grade of at least A- in MUSIC 2E06 and registration in the Diploma in Music Performance programme 
Those students registered in the diploma programme must, where possible, perform in this course in the same medium as they do in their other diploma courses.

### MUSIC 4H03: TOPICS IN ANALYSIS
Advanced studies in analysis. Possible topics include: Schenkerian analysis, son cycles of Schubert, advanced set theory. 
Seminar (two hours); one term
Prerequisite: MUSIC 2H03; and MUSIC 2BB3 or 2CC3; and registration in Honours Music
Offered in alternate years.
MUSIC 4H03 may be repeated, if on a different topic, to a total of six units.
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; one lab; one term
Prerequisite: Registration in Honours Music or permission of the School of the Arts
Alternates with MUSIC 3L03.
Enrolment is limited.

### MUSIC 4M03: 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 3M03. 
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 4O03: ADVANCED CONDUCTING: CHORAL
A continuation of MUSIC 3O03. Rehearsal and conducting techniques specific to choral ensembles: warm-up 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 3O03; and registration in Honours Music or permission of the School of the Arts
Antirequisite: MUSIC 4O03
Alternates with MUSIC 4O13.
Enrolment is limited.

### MUSIC 4P03: PERCUSSION METHODS
A continuation of MUSIC 3P03. 
Two lectures; one term
Prerequisite: MUSIC 3P03; and registration in Honours Music or permission of the School of the Arts
Enrolment is limited.

### 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, gender studies, literary theory, etc. 
Seminar (two hours); one term
Prerequisite: MUSIC 2BB3 or all of MUSIC 1Y03, 1YY3, 2Y03, 2YY3; and registration in Level III or IV of an Honours Music programme or permission of the School of the Arts
Antirequisite: MUSIC 3P03, 4L03
Offered in alternate years.
Enrolment is limited.

### 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.
Enrolment is limited.
MUSIC 4Y03: TOPICS IN MUSIC HISTORY

An intensive examination of an issue, period, genre, style or movement, including music of a composer or geographical area, music for certain instruments, and music and other arts of a particular time or place. Possible topics include: pianists, music and religion, jazz vocalists, music of Stravinsky.

Seminar (two hours); one term

Prerequisite: MUSIC 2B03 or all of MUSIC 1Y03, 1Y03, 2B03, 2Y03; and registration in Level III or IV of an Honours Music programme or permission of the School of the Arts.

MUSIC 4Y03 may be repeated, if on a different topic, to a total of six units. Enrolment is limited.

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 4Z23: ADVANCED COMPOSITION

The composition of various instrumental or vocal works.

Times to be arranged between the student and instructor; one term

Prerequisite: MUSIC 4Z03; and registration in an Honours Music programme; and permission of the instructor.

NEURAL COMPUTATION

WEB ADDRESS: http://www.psychology.mcmaster.ca/NeuralComp

The Neural Computation Programme 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 (Electrical and Computer Engineering) and draws on courses offered by 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.

Two lectures, one lab; one term

Prerequisite: One of COMP SCI 1MC3, 1SA3 or permission of the instructor; and one of MATH 1A03, 1N03, ARTS&SCI 1D06; and registration in an Engineering programme or an Honours programme. MATH 1A03 is strongly recommended.

Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

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 | 2E03 | Metabolism and Physiological Chemistry |
| BIOLOGY | 2B03 | Cell Biology |
| 2G03 | Genetics |
| 4T03 | Neurobiology |
| CHEM | 2E03 | Introductory Organic Chemistry |
| COMPSCI | 3QA3 | Introduction to Computer Graphics |
| 3TA3 | Automata, Computation and Languages |
| 4IB3 | Artificial Intelligence and Knowledge-Based Systems |
| MATH | 2E05 | Introduction to Modelling |
| 2P04 | Differential Equations for Engineering |
| 3N03 | Mathematical Biology |
| 4S03 | The Theory of Computability |
| PSYCH | 2D03 | Neuropsychology |
| 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 |
| 3JS3 | Visual Neuroscience |
| 3L03 | Neuroscience Laboratory |
| 3WW3 | Measuring the Mind |
| 4BN3 | Behavioural Neuroscience II: Special Topics |
| 4F03 | Special Topics in Biopsychology |
| STATS | 3D03 | Mathematical Statistics I |
| 3D3 | Mathematical Statistics II |

NURSE PRACTITIONER

(SEE NURSING, NURSE PRACTITIONER (C) STREAM)

NURSING

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

Health Sciences Centre, Room 2E20

Faculty as of January 15, 2003

Associate Dean of Health Sciences (Nursing) and Director of the School of Nursing

Andrea Baumann

Professors

Heather Arthur/B.Sc.N. (McMaster), M.Sc.N., Ph.D. (Toronto), R.N.
Andrea Baumann/B.Sc.N. (Windsor), M.Sc.N. (Western Ontario), Ph.D. (Toronto), R.N.
Donna Cilliska/B.Sc.N., M.Sc.N. (Western Ontario), Ph.D. (Toronto), R.N.
Gina Browne/Ph.B.Sc.N. (Catherine Spaulding), M.S. (Boston), M.Ed., Ph.D. (Bangor), R.N.
Alba DiCenso/B.Sc.N., M.Sc. (McMaster), Ph.D. (Waterloo), R.N.
Basant Malumdar/8.Sc.N. (Delhi), M.Ed. (Columbia), Ph.D. (Michigan), R.N.
John VickerdB.Sc. (McMaster), Ph.D. (York)

Associate Professors

Margaret Black/B.Sc.N. (McGill), Ph.D. (Case Western Reserve), Ph.D. (Michigan), R.N.
Jennifer Blyth/B.A. (Hull), M.A., Ph.D. (McMaster), M.S. (Toronto), R.N.
Barbara Brown/Ph.B.Sc.N. (Windsor), M.Sc.N. (Toronto), R.N.
Barbara Carpi/Ph.B.Sc.N. (Alberta), M.Sc.N. (Toronto), M.Sc.(T.) (McMaster), R.N.
Patricia Ellis/Ph.B.Sc.N. (Wagner), M.Sc. (Maryland), R.N.
Mabel Hunziker/B.Sc. (Goshen), M.Sc.N. (Pennsylvania), Ph.D. (Waterloo), R.N.
Ann Moehde/B.Sc.N. (Toronto), M.H.Sc., M.Sc. (McMaster), R.N.
Janet Pineill/Ph.B.Sc. (Boston), M.Sc.N. (Toronto), D.N.S. (Buffalo), R.N.
Elizabeth Rideout/Ph.B.Sc. (New Brunswick), M.H.Sc. (McMaster), M.Sc., Ph.D. (Toronto), R.N.
Jennifer Skelly/M.H.Sc., M.Sc. (McMaster), Ph.D. (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

Pamela Baker/B.Sc.N., M.Sc. (McMaster), R.N.
Gertrude Benson/B.Sc.N. (McGill), M.Sc.N. (Boston), R.N.
Sheryl Boblin/B.Sc.N. (Alberta), M.Ed. (Alberta), Ph.D. (Toronto), R.N.
Denise Bryant-Lukosius/B.Sc.N. (McMaster), M.Sc. (D'Youville), R.N.
Ruth Chen/B.A. (California-Berkeley), M.S.N. (Yale), 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 Ehrlich/B.Sc.N. (Queen's), M.H.Sc. (Toronto), R.N.
Eileen Grace/M.H.Sc. (McMaster), M.Sc. (Toronto), R.N.
Carolyn Ingram/B.Sc.N. (Pittsburgh), M.Sc.N. (Maryland) D.N.S. (SUNY), R.N.
Sharon Kaasalainen/B.Sc.N. (McMaster), M.Sc. (Toronto), Ph.D. (McMaster), R.N.
Michael Ladouceur/B.Sc.N. (Victoria), M.P.H. (Boston), R.N.
Janet Landeen/B.Sc.N. (Connecticut), M.Ed. (Victoria), Ph.D. (Toronto), R.N.

Sharon Kaasalainen/B.Sc.N. (McMaster), M.Sc. (Toronto), Ph.D. (McMaster), R.N.
Michael Ladouceur/B.Sc.N. (Victoria), M.P.H. (Boston), R.N.
Janet Landeen/B.Sc.N. (Connecticut), M.Ed. (Victoria), Ph.D. (Toronto), R.N.

Sharon Kaasalainen/B.Sc.N. (McMaster), M.Sc. (Toronto), Ph.D. (McMaster), R.N.
Michael Ladouceur/B.Sc.N. (Victoria), M.P.H. (Boston), R.N.
Janet Landeen/B.Sc.N. (Connecticut), M.Ed. (Victoria), Ph.D. (Toronto), 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 I 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. A satisfactory Police Records Check may be required for some clinical placements. All students associated with this procedure are the responsibility of the student.

4. 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 (McMaster and Mohawk) and Kitchener-Waterloo and surrounding area (Conestoga).

5. 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 (SPIS) at www.fhs.mcmaster.ca/nursing/placements features detailed information about the selection of placement settings and the deadlines for submission of Placement Preference. Students who fail to meet the published deadline will not be considered for placement. Students who do not register for the course at least two months prior to the date it is to commence will be assigned a placement setting without consideration of their preferences.

6. 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.

7. 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.

8. The Psychiatric-Mental Health courses are open to nurses working in or who have an interest in psychiatry and mental health. 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/problem-based tutorials); four hours (clinical lab); one term

Prerequisite: Registration in Level I of the B.Sc.N. (A) or (D) 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/problem-based tutorials); four hours (clinical lab); one term

Prerequisite: 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

Prerequisite: NURSING 1F04

**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/problem-based tutorials); one term

Prerequisite: NURSING 1F04

**NURSING 2N03**

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

**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

**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

**NURSING 3AA3**  **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 the instructor

Antirequisite: NURSING 3A2, 3GG5, 3L05, 3V05
NURSING 3CC3  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 3DD3  CONCEPTS AND THEORIES IN ADULT ONCOLOGY NURSING II
A continuation of NURSING 3CC3. A problem-based course where students integrate and apply theories from the biological, physical, 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-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, or registration in the Adult Oncology programme
Antirequisite: NURSING 3T03

NURSING 3EE3  CONCEPTS AND THEORIES IN PSYCHIATRIC-MENTAL HEALTH NURSING I
Biological, psychological, physical, social sciences and nursing theory are integrated and applied to selected health care situations related to psychiatric-mental health.
Three hours (problem-based tutorials, lectures, self-directed study); one term
Prerequisite: Registration in the Psychiatric-Mental Health Nursing Programme; or registration in Level III of the B.Sc.N. (B) Stream and permission of the instructor
Antirequisite: NURSING 3S03

NURSING 3FF3  CONCEPTS AND THEORIES IN PSYCHIATRIC-MENTAL HEALTH NURSING II
A continuation of NURSING 3EE3. Students integrate and apply theories from the biological, physical, psychological, social, and nursing sciences to selected psychiatric-mental health situations. Within the mental health continuum, health care situations focus on assisting clients, families and communities.
Three hours (problem-based tutorials, lectures, self-directed study); one term
Prerequisite: NURSING 3EE3; and either registration in Level III of the B.Sc.N. (B) Stream and permission of the instructor, or registration in the Psychiatric-Mental Health Nursing Programme
Antirequisite: NURSING 3T03

NURSING 3GG3  SELECTED TOPICS IN PSYCHIATRIC-MENTAL HEALTH NURSING
Psychiatric-mental health nurses will acquire advanced competencies in working with individuals, families, and communities. Topic modules include: cognitive behavioural therapy, inter-personal therapy, working with families, and group psychoeducational approaches.
Three hours (problem-based tutorials, lectures, self-directed study); one term
Prerequisite: NURSING 3EE3, 3MM3

NURSING 3HH3  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 3GG5, 3L04, 3L05, 3SL2, 3V05

NURSING 3II3  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: Registration in Level III of the B.Sc.N. (B) Stream or Oncology Programme or Psychiatric-Mental Health Nursing Programme
Antirequisite: NURSING 3GG5, 3L04, 3L05, 3V05

NURSING 3J33  GUIDED NURSING PRACTICE I - COMMUNITY-BASED CARE
An applied nursing practice experience 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 intervention plans. This course is evaluated on a Pass/Fail basis.
Three 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.

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), (B) or (D) Stream; or permission of the instructor

NURSING 4B06 INTRODUCTION TO NURSING LEADERSHIP/MANAGEMENT
Introduction to theories and methods of leadership and management integrating the nursing and management disciplines. Given in both distance education and problem-based tutorial formats. A document of recognition is granted on course completion. Enrolment in tutorial format is limited.
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
Antirequisite: HTH SCI 4E05

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.
One hour (lecture or equivalent); one term
Prerequisite: Registered Nurse 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 4E03 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: Registration in Level IV of the B.Sc.N. (A), (B) or (D) Stream
Normally taken concurrently with NURSING 4J07 or NURSING 4S06.

NURSING 4F03 ADVANCED NURSING CONCEPTS II
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 or NURSING 4T06.

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 (lecture)/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 3B03; and registration in Level III or IV of the B.Sc.N. Programme; and permission of the instructor.
Antirequisite: HTH SCI 4H03

NURSING 4I03 LEADING EFFECTIVE TEAMS IN HEALTH CARE ORGANIZATIONS
This course introduces health care providers to the concepts and dynamics of teams within health care organizations. Theories and concepts related to leadership, communication and health systems are applied in the current work environment. Distance education and tutorial formats.
Three hours (problem-based tutorial or equivalent); one term
Prerequisite: Registered Nurse and permission of the instructor
Antirequisite: HTH SCI 4I03

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 3X04, 3Y04
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 4D01
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: NURSING 3V03 and registration in Level IV of the B.Sc.N. (B) Stream
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 B.Sc.N. (B) Stream or the Oncology Programme or the Psychiatric-Mental Health Nursing Programme
Normally to be taken concurrently with NURSING 4F03 for B.Sc.N. (B) Stream.

NURSE PRACTITIONER (C) 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 4A05 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 for the adult client.
Three hours (tutorial), three hours (clinical lab); one term
Prerequisite: Credit or registration in NURSPRAC 4P03 and registration in Level IV of the B.Sc.N. Nurse Practitioner (C) Stream
Antirequisite: NURSPRAC 4A06, 4A10

NURSPRAC 4A5B ADVANCED HEALTH ASSESSMENT AND DIAGNOSIS
A continuation of NURSPRAC 4A5. This course applies frameworks, concepts and methods of health assessment and clinical decision making to specific populations across the lifespan, families and communities.
Three hours (tutorial), three hours (clinical lab); one term
Prerequisite: NURSPRAC 4A5; and credit or registration in NURSPRAC 4P03; and registration in Level IV of the B.Sc.N. Nurse Practitioner (C) Stream
Antirequisite: NURSPRAC 4A05, 4A10

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, (or NURSPRAC 4A5 and 4AB5), 4P03, 4R03, 4T10; and registration in Level IV of the B.Sc.N. N.P. (C) Stream
Antirequisite: NURSPRAC 4C10, 4S03
NURSING 261

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 1CC7, 2C07; and registration in Level IV of the B.Sc.N. N.P. (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. N.P. (C) Stream

NURSPRAC 4TA5 THERAPEUTICS IN PRIMARY HEALTH CARE I
Concepts integral to pharmacotherapy, advanced counselling and complementary therapies related to episodic conditions across the lifespan are introduced. The therapeutic care plan approach is emphasized.
Three hours (tutorial); three hours (clinical lab); one term
Prerequisite: NURSPRAC 4A25, 4P03; and registration in Level IV of the B.Sc.N. Nurse Practitioner (C) Stream
Antirequisite: NURSPRAC 4T05, 4T10, 4T15

NURSPRAC 4TB5 THERAPEUTICS IN PRIMARY HEALTH CARE II
A continuation of NURSPRAC 4TA5. This course applies the frameworks and concepts of pharmacotherapy, advanced counselling and complementary therapies to clients with chronic conditions and to specific populations.
Three hours (tutorial); three hours (clinical lab); one term
Prerequisite: NURSPRAC 4TA5; and credit or registration in NURSPRAC 4A25, 4P03; and registration in Level IV of the B.Sc.N. Nurse Practitioner (C) Stream
Antirequisite: NURSPRAC 4T05, 4T10, 4T15

NURSECON 1A03 INTRODUCTION TO PSYCHOLOGY
An introduction to the basic principles of scientific psychology related to the understanding of "normal" human behaviour.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Mohawk College site)
Antirequisite: NURSECON 1C03, PSYCH 1A03

NURSECON 1B03 DEVELOPMENTAL PSYCHOLOGY
The study of human psychological development from the pre-natal period to old age.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Mohawk College site)
Antirequisite: NURSECON 1D03, PSYCH 1A03

NURSECON 1C03 PSYCHOLOGY: BASIC PROCESSES OF BEHAVIOUR
Basic concepts of psychological research methods, learning, memory, perception, states of consciousness, motivation and emotion.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Conestoga College site)
Antirequisite: NURSECON 1A03, PSYCH 1A03

NURSECON 1D03 PSYCHOLOGY: DYNAMICS OF HUMAN BEHAVIOUR
Stress and stress management, thinking and intelligence, the biological basis of behaviour, social psychology, personality theory and measurement, abnormal behaviour and therapies.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Conestoga College site)
Antirequisite: NURSECON 1B03, PSYCH 1A03

NURSECON 1E03 ESSENTIALS OF CANADIAN HISTORY
A study of recurrent themes in public affairs within the historical context of Canada from Confederation to the present.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Conestoga College site)
Antirequisite: HISTORY 2106

NURSECON 1F03 POLITICAL STRUCTURES AND ISSUES
Introduction to the study of politics within the Canadian context.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Conestoga College site)

NURSECON 1G03 MULTICULTURALISM
An examination of the ethnic and cultural diversity of Canadian society, including an investigation of Canada's multicultural policy.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Conestoga College site)

NURSECON 1H03 INTRODUCTION TO CRITICAL THINKING IN THE SOCIAL SCIENCES
The basic principles of the social sciences disciplines, Economics, Sociology and Politics. The development of critical thinking by focusing on inequalities in contemporary Canadian society.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Conestoga College site)

NURSECON 1I03 SOCIOLOGY I
An analysis of Canadian social institutions and social processes.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Conestoga College site)

NURSECON 1J03 POPULAR CULTURE
An examination of the impact of mass communication techniques on our culture.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Conestoga College site)

NURSECON 2A03 ABNORMAL PSYCHOLOGY
Applied principles and related theories of normal and abnormal personality development.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Mohawk College site)

NURSECON 2B03 FRENCH IN A CANADIAN CONTEXT
An introduction to French culture in a Canadian context.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Mohawk College site)

NURSECON 2C03 SOCIOLOGY II
The study of various aspects of Canadian society including social class, gender, religion, education, health care and family.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Mohawk College site)

NURSECON 2D03 HUMAN SEXUALITY
An introduction to biological, behavioural and cultural aspects of human sexuality.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Mohawk College site)

NURSECON 2E03 LITERATURE: A PRACTICAL APPROACH
Various literary, cinematic and non-fiction works will be used to develop aesthetic judgment.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Mohawk College site)

NURSECON 2F03 MEDICAL INFORMATICS
A study of current topics in Medical Informatics and their practical application in the workplace.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Mohawk College site)

NURSECON 2G03 QUEST FOR MEANING
Using insights from the arts, humanities and sciences, students will explore ways in which meaning is sought.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Conestoga College site)

NURSECON 2H03 PRINCIPLES OF ETHICAL REASONING
A study of ways to apply ethical decision making models to dilemmas in their personal and professional lives.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Conestoga College site)
NURSECON 3A03 SOCIOLOGY: SOCIETY, TECHNOLOGY AND SOCIAL ISSUES
An examination of technologies that have influenced society.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Mohawk College site)

NURSECON 3B03 SOCIOLOGY: DIVERSITY AND INEQUALITY
A study of the problems of daily life and social issues.
Three hours; one term
Prerequisite: Registration in B.Sc.N. (D) Stream (Mohawk College site)

NURSING CONSORTIUM (SEE NURSING, NURSING CONSORTIUM (D) STREAM)

OJIBWE

ONCOLOGY

(SEE NURSING)

PEACE STUDIES

WEB ADDRESS: http://www.humanities.mcmaster.ca/~peace
Togo Salmon Hall, Room 726
Ext. 24265

Director

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 examining the roles of values and ideologies in the attainment of peace.
Three hours (two lectures, one tutorial); 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 earth. War prevention processes will be examined at the levels of interstate and state politics, social movements, and individual peace.
Three hours (two lectures, one tutorial); 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 or above or permission of the Director of Peace Studies
Cross-list: CMST 2V03

PEACE ST 2B03 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 or above
Cross-list: PHILOS 2G03
This course is administered by the Department of Philosophy.

PEACE ST 2C03 WAR IN THE WEST, 1789-1945
A survey of the development of warfare in the Western world from 1789 to 1945. Particular attention is paid to the French Revolutionary and Napoleonic Wars, and the two World Wars in the twentieth century.
Three hours; one term
Prerequisite: Registration in Level II or above
Cross-list: HISTORY 2G03
This course is administered by the Department of History.

PEACE ST 3A03 CRITICAL RACE STUDIES
This course examines contemporary debates in critical race theory in an attempt to critically decode the operations of race in literary and cultural texts.
Three hours; one term
Prerequisite: Registration in a programme in Comparative Literature, Cultural Studies and Critical Theory, English, Peace Studies, Women's Studies or permission of the Departmental Counsellor in the Department of English
Cross-list: COMP LIT 3R03, CSCT 3A03, ENGLISH 3A03, WOMEN ST 3H03
This course is administered by the Department of English.

PEACE ST 3B03 PEACE-BUILDING THROUGH HEALTH INITIATIVES
An examination of the multiple links between health and peace, concentrating on the strategic use of health initiatives to encourage peace in zones of potential or existing armed conflict.
Three hours (lectures and discussion); one term
Prerequisite: Registration in Level II or above

PEACE ST 3D06 POSTCOLONIAL CULTURES: THEORY AND PRACTICE
A study of contemporary texts including literature, film, art and other forms of popular culture that engage the implications of living in a postcolonial world. Close consideration will be given to issues of imperial, globalization, 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: HISTORY 3A03
This course is administered by the Department of English.

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 or above
Cross-list: HISTORY 3G03
This course is administered by the Department of History.

PEACE ST 3I03 THE INTERNATIONAL RELATIONS OF THE EUROPEAN POWERS, 1870-1945
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 or 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 or above
Cross-list: HISTORY 3J03
This course is administered by the Department of History.

PEACE ST 3KK3 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.
Prerequisite: Registration in Level II or above
Cross-list: HISTORY 3KK3
Antirequisite: GCSCHE 4H03
This course is administered by the Department of History.
PEACE ST 3L03  THE HISTORY OF SOCIAL ACTIVISM, 1500-2000
A thematic study of community activism in Europe and North America. Students will be exposed to the religious, socio-economic and political contexts of social activism, and the historical theory and practice of community-based actions.
Three hours; one term
Prerequisite: Registration in Level II or above
Cross-list: HISTORY 3L03
This course is administered by the Department of History.

PEACE ST 3M03  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 3P03
Offered in alternate years.
This course is administered by the Department of Philosophy.

PEACE ST 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: INDI 1A03, 1AA3; or six units of Level I English; or permission of the instructor
Cross-list: CSEST 3W03, ENGLISH 3W03, INDI 3D03
This course is administered by Indigenous Studies.

PEACE ST 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: INDI 1A03, 1AA3; or six units of Level I English; or permission of the instructor
Cross-list: CSEST 3X03, ENGLISH 3X03, INDI 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 with a Cumulative Average of at least 8.5, and permission of the Director of Peace Studies

PEACE ST 4C03  THEORY OF VALUE
A study of human practices of evaluation in morality, politics, art, religion, and economics.
Seminar (two hours); one term
Prerequisite: PHILOS 3G03 and registration in Level III or above
Cross-list: PHILOS 4B03
Offered in alternate years.
This course is administered by the Department of Philosophy.

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 4E03  Human Diversity and Human Nature

COURSE LIST 2
POL SCI 4D06  Human Rights and International Politics
POL SCI 4M06  Topics in International Politics

PHARMACOLOGY
WEB ADDRESS: http://www.science.mcmaster.ca/biopharm

These courses are available only to those students registered in Honours Biology and Pharmacology.

Note:
PHARM 3A06, 3B06, 4A03, 4AA3, 4C03, 4D03 and 4E03 will be based on self-directed problem based learning.

Courses

PHARMACOLOGY 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

PHARMACOLOGY 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

PHARMACOLOGY 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

PHARMACOLOGY 4AA3  ADVANCED TOPICS IN PHARMACOLOGY
The continuation of Pharmacology 4A03.
One tutorial (three hours); one term
Prerequisite: PHARMAC 4A03

PHARMACOLOGY 4C03  PRINCIPLES OF TOXICOLOGY
General principles of pharmacology, adverse effects of selected agents on man and other organisms.
One tutorial (one hour), one tutorial (two hours); one term
Prerequisite: PHARMAC 3A06

PHARMACOLOGY 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

PHARMACOLOGY 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

PHARMACOLOGY 4F09  SENIORITY THESIS
A thesis based upon a research project carried out under the direction of a member of the Faculty.
Prerequisite: PHARMAC 3A06

PHILOSOPHY
WEB ADDRESS: http://www.humanities.mcmaster.ca/~philos
University Hall, Room 209
Ext. 24275

Faculty as of January 15, 2003
Chair
Richard T.W. Arthur

Professors
Barry Allen/BA., (Lethbridge), Ph.D. (Princeton)
Nicholas Griffin/BA., (Leicester), Ph.D. (Australian National)
David L. Hitchcock/BA., (McMaster), Ph.D. (Claremont)
Wilfrid Waluchow/BA., M.A. (Western Ontario), D.Phil. (Oxford)
PHILO.S 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; one term
Prerequisite: PHILOS 1B06, 1D06

PHILOS 1B03 PHILOSOPHY, 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
Prerequisite: PHILOS 1B06, 1D06

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
Prerequisite: PHILOS 1B06, 1D06
Alternates with PHILOS 1D03.

PHILOS 1D03 PHILOSOPHY AND THE SCIENCES
An introduction to philosophical issues arising from modern science and technology. Topics to be discussed may include science versus pseudoscience, the nature of scientific explanation, the impact of science on society, and the contribution of society to the development of science.
Two lectures; one tutorial; one term
Prerequisite: PHILOS 1B06, 1D06
Not open to students with credit or registration in PHILOS 3D03.

PHILOS 1E03 PROBLEMS OF PHILOSOPHY
A critical investigation of philosophical arguments concerning such topics as God, politics, morality, human nature, knowledge, and art.
Two lectures; one tutorial; one term
Prerequisite: PHILOS 1B06, 1D06
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Credits</th>
<th>Timeslots</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHILOS 3E03</td>
<td>PHILOSOPHY OF LANGUAGE</td>
<td>A survey of philosophical problems concerning language. Topics to be considered include reference, synonymy, truth, and linguistic knowledge.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3F03</td>
<td>INTERMEDIATE LOGIC</td>
<td>Selected topics in the study of formal languages and their interpretations, metalinguistic, and the philosophy of logic.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3G03</td>
<td>ETHICS</td>
<td>An introduction to the major types of ethical theory and the problem of their justification.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3H03</td>
<td>PHILOSOPHY OF RELIGION</td>
<td>An analysis of the concept of religion in light of the philosophical claims of religious experience, practice, and belief.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3I03</td>
<td>PHILOSOPHY AND FEMINISM</td>
<td>A study of philosophical issues in feminist thought.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3J03</td>
<td>MODERN JEWISH THOUGHT</td>
<td>Introduction to different conceptions of the connection between Jewish traditions and philosophical questioning. Authors may include: Maimonides, Spinoza, Mendelssohn, Cohen, Buber, Rosenzweig, Straus, Levinas, Soloveitchik.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3K03</td>
<td>PHILOSOPHY OF EDUCATION</td>
<td>A systematic account of education through a critical analysis of the concepts of teaching, learning, and subject matter.</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3M03</td>
<td>ARGUMENTATION THEORY</td>
<td>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.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3N03</td>
<td>POLITICAL PHILOSOPHY</td>
<td>A study of major political concepts and issues, such as social contract, ideology, justice, freedom vs. equality, reform vs. revolution, state vs. individual.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3O03</td>
<td>THEORY OF KNOWLEDGE</td>
<td>A study of scepticism and certainty, knowledge and belief, perception, memory, and truth.</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Credits</th>
<th>Timeslots</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHILOS 3P03</td>
<td>PHILOSOPHIES OF WAR AND PEACE</td>
<td>A philosophical appraisal of the rationality and morality of the conduct of war and proposals for fostering peace among nations.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3Q03</td>
<td>PHILOSOPHY OF LAW</td>
<td>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.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3R03</td>
<td>READING COURSE</td>
<td>A tutorial course in which individual students meet regularly with an instructor on a list of readings outside normally available course offerings.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3S03</td>
<td>EARLY MODERN PHILOSOPHY</td>
<td>A critical study of one or more 17th or 18th-Century European or British philosophers, such as Descartes, Leibniz, Hume.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3T03</td>
<td>20TH-CENTURY ANALYTIC PHILOSOPHY</td>
<td>A study of some main currents of 20th-Century philosophy, including the work of such figures as Russell, Wittgenstein, Quine, and Davidson.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3U03</td>
<td>20TH-CENTURY PHENOMENOLOGICAL PHILOSOPHY</td>
<td>A study of selected texts of major existential and phenomenological philosophers in the 20th-century, such as Camus, Heidegger, Jaspers, Marcel.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3V03</td>
<td>RECENT EUROPEAN PHILOSOPHY</td>
<td>Contemporary trends in European Philosophy as represented by such writers as Derrida, Foucault and Habermas.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3W03</td>
<td>METAPHYSICS</td>
<td>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.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 3X03</td>
<td>MEDIEVAL PHILOSOPHY</td>
<td>A study of one or more central medieval philosophers, such as Augustine, Aquinas, or William of Ockham.</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

Cross-list: CMST 3Y03

Offered in alternate years.
PHILOS 4K03 ANCENT 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 above
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 4W03

PHILOS 4Z06 THESIS
Reading and research 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 4Z06

PHOTONICS ENGINEERING
(SEE ENGINEERING PHYSICS)

PHYSICS AND ASTRONOMY
WEB ADDRESS: http://www.physics.mcmaster.ca/

Faculty as of January 15, 2003

Chair
A.J. Berlinsky

University Professor
Jules P. Carbotte/B.Sc. (Manitoba), M.Sc., Ph.D. (McGill), D.Sc. (Water-
loo), F.R.S.C.

Associate Chair
C.D. Wilson

Professors
A. John Berlinsky/B.Sc. (Fordham), M.Sc., Ph.D. (Pennsylvania)
Bruce R. Catterall/B.Sc., M.Sc., Ph.D. (Birmingham)
Hugh M. coughman/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)
Paul G. Higgs/B.Sc., Ph.D. (Cambridge), Senior Canada Research Chair
William V. Prestwich/B.Sc., Ph.D. (McMaster)
Ralph E. Pudritz/B.Sc. (British Columbia), M.Sc. (Toronto), Ph.D. (Brit-
ish Columbia)
Peter G. Sutherland/B.Sc. (McGill), M.S., Ph.D. (Illinois)
David W. Taylor/B.A., D.Phil. (Oxford)
David E. Venus/B.Sc. (Queen's), Ph.D. (Toronto)
James C. Waddington/B.Sc. (Queen's), Ph.D. (McMaster)
Douglas L. Welch/B.Sc., Ph.D. (Toronto)
Christine D. Wilson/B.Sc. (Toronto), Ph.D. (California Institute of Technology)

Assistant Professors
Alan A. Chen/B.Sc. (Toronto), Ph.D. (Yale)
Kari Dalin-Berst/B.Sc., M.Sc., Ph.D. (Guelph)
Cécile Fraidin/B.Sc., M.Sc. (Ecole Normale Superieure), Ph.D. (Paris VI),
Canada Research Chair
Karen Hughes/B.Sc. (Lakehead), M.Sc., Ph.D. (McMaster)
Brian E. King/B.Sc. (Simon Fraser), M.Sc., Ph.D. (Colorado)
Neil McKay/B.Sc. (Queen's), M.Sc., Ph.D. (McMaster)
Reza Najafi/B.Sc. (Tehran), M.Sc., Ph.D. (Missouri-Rolla)

Associate Member
David A. Thompson (Engineering Physics) B.Sc., Ph.D. (Reading)

Lecturer
Anton M. Jopko/B.Sc., Ph.D. (McMaster), Dipl. Educ. (Althous)

Instructional Assistant
J. Everett Cairns/B.Eng., M.Sc. (McMaster)

Department Notes:
1. The Department reserves the right to withdraw a Level III or IV course
which is not specifically required in a Physics programme if the
registrables falls below four.
2. Students in Level III or IV of Physics programmes will find a number of
relevant electives among the offerings of the Department of Biology,
the Department of Engineering Physics and the School of Geography
and Geology.

ASTRONOMY ...

Courses If no prerequisite is listed, the course is open.

ASTRON 1F03 INTRODUCTION TO ASTRONOMY
AND ASTROPHYSICS
Topics include orbital motion, electromagnetic radiation, telescopes, the
solar system, stars and stellar evolution, the Milky Way Galaxy, galaxies
and quasars, the evolution of the universe.
Three lectures; one term
Prerequisite: Advanced Functions and Introductory Calculus U (or OAC
Calculus) and Physics U (or OAC Physics); or PHYSICS 1P03
Antirequisite: SCIENCE 1D03, 2D03
Intended for Science students. Non-science students interested in these
courses are directed to SCIENCE 1D03, 2D03

ASTRON 3X03 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: PHYSICS 2D03 or 2K03; and PHYSICS 2A03 or 2B03; and
either CHEM 2R03 or PHYSICS 2H04 or both CHEM 2P03 and 2P03
Alternates with ASTRON 3Y03.

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: PHYSICS 2D03 or 2K03; and PHYSICS 2A03 or 2B03; and
either CHEM 2R03 or PHYSICS 2H04 or both CHEM 2P03 and 2P03.
COMP SCI 1MC3 is strongly recommended.
Alternates with ASTRON 3X03.

PHYSICS ...

Courses If no prerequisite is listed, the course is open.

PHYSICS 1B03 MECHANICS AND WAVES
Mechanics of a point particle, emphasizing work and energy. Fluids.
Simple Harmonic Motion and Waves, including properties of sound and
light waves, interference and diffraction.
Three lectures; one lab; one term
Prerequisite: Either PHYSICS 1P03 or at least 60% in Physics U (or OAC
Physics); and credit or registration in SCIENCE 1A00 and either MATH
1A03 or 1AA3
Antirequisite: PHYSICS 1C03
A course for students intending to proceed in the physical sciences. Linear and angular momentum, Atomic and quantum physics. Nuclear and Particle Physics. Cosmology.

Three lectures, one lab (three hours) every other week; one term
Prerequisite: PHYSICS 1B03
Antirequisite: PHYSICS 1BB3

PHYSICS 1BB3 INTRODUCTION TO MODERN PHYSICS B

Three lectures, one lab (three hours) every other week; one term
Prerequisite: PHYSICS 1B03
Antirequisite: PHYSICS 1A03

PHYSICS 1D03 INTRODUCTORY MECHANICS
A course for engineering students. Statics, kinematics, Newtonian dynamics, energy.

Three lectures; one term; three hours) every other week; one term
Prerequisite: Registration in Engineering I

PHYSICS 1E03 WAVES, ELECTRICITY AND MAGNETIC FIELDS
A course for engineering students. Oscillations and waves, interference; electrostatics, electric potential, circuit elements; magnetic fields.

Three lectures, one lab (three hours) every other week; one term
Prerequisite: Registration in Engineering I

PHYSICS 1P03 INTRODUCTORY PHYSICS
Classical mechanics and waves for students without Physics U (or OAC Physics). Topics include kinematics, Newton's Laws, work, energy, momentum, interference and diffraction. Some topics in modern physics will be discussed.

Three lectures; one term
Prerequisite: Any Grade 12 U or M (or OAC) Mathematics credit
Not open to students with 60% or higher in Physics U (or OAC Physics).

PHYSICS 2A03 INTRODUCTORY ELECTRICITY AND MAGNETISM
Electrostatics, D.C. circuits, the magnetic field; Faraday's law of induction; Maxwell's equations.

Three lectures; one term
Prerequisite: PHYSICS 1B03; and ARTS&SCI 1D06 or MATH 1AA3
Antirequisite: PHYSICS 2B06

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
Corequisite: MATH 2A03, 2C03
Antirequisite: PHYSICS 2A03

PHYSICS 2C03 MODERN PHYSICS
Special Relativity. Introductory quantum physics.

Three lectures; first term
Prerequisite: PHYSICS 1A03 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 the Faculty of Engineering
Antirequisite: PHYSICS 2E03, 2K03

PHYSICS 2E03 MECHANICS
Dynamics of a particle, central field problem, many-particle systems, the mechanics of rigid bodies, Lagrange's equations.

Three lectures; second term
Prerequisite: Registration in a programme in Physics or Medical and Health Physics
Antirequisite: PHYSICS 2D03, 2K03

PHYSICS 2G03 SCIENTIFIC COMPUTING
A comprehensive introduction to modern, scientific structured programming using FORTRAN. The course will discuss modules, operator overloading, scripting, programme management, etc., and features a series of programming problems under Linux.

Three lectures; one term
Prerequisite: MATH 1A03

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; second term
Prerequisite: MATH 2A03, PHYSICS 1B03; and credit or registration in MATH 2C03 and PHYSICS 1B03 (or 1BB3)
Antirequisite: CHEM 2P03, 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.

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, both terms; one lab (two hours); two terms
Prerequisite: ENG PHYS 2A03, 2E04; or PHYSICS 2B06
Antirequisite: PHYSICS 3B03, 3BB3

PHYSICS 3B08 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: ENG PHYS 2A03, 2E04; or PHYSICS 2B06
Antirequisite: PHYSICS 3B06

PHYSICS 3B09 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 3B08
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.

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: MATH 2A03 or 2P04; and MATH 2C03 or 2P04. One of PHYSICS 2B06, 2D03 or 2K03 is recommended.
Not open to students with credit or registration in MATH 3FF3, or credit in MATH 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 3X03, or credit in MATH 3J04.
Not open to students registered in Honours Mathematics and Physics.

PHYSICS 3H03 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
Antirequisite: PHYSICS 3H04, 3HC1
PHYSICS 3HC1 INTERMEDIATE LABORATORY (I)
Experiments in atomic physics, neutron physics, optics, spectroscopy, mechanics.
One lecture, one lab (three hours), first term
Prerequisite: PHYSICS 2B06; and credit or registration in one of PHYSICS 2C03, 3M03, 3O03; and registration in Level III of Honours Physics Co-op or Honours Medical and Health Physics Co-op
Antirequisite: PHYSICS 3HC2, 3H04

PHYSICS 3HD2 INTERMEDIATE LABORATORY (II)
The continuation of PHYSICS 3HC1.
One lab (three hours); second term
Prerequisite: PHYSICS 3HC1

PHYSICS 3K03 THERMODYNAMICS AND CLASSICAL MECHANICS
The laws of thermodynamics, with emphasis on the mathematical structure of the theory; classical and quantum statistical mechanics.
Three lectures; one term
Prerequisite: MATH 2A03, 2C03, PHYSICS 2H04
Antirequisite: CHEM 4Y03

PHYSICS 3M03 QUANTUM MECHANICS AND ITS APPLICATIONS I
Schrödinger equation for 3D systems with applications to atomic and modern physics.
Three lectures; one term
Prerequisite: MATH 3C03; and PHYSICS 2C03 or 3M03

PHYSICS 3N03 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: MATH 2A03 or 2Q04; and MATH 2C03 or 2P04; and either PHYSICS 2B06 or both ENG PHYS 2A03 and 2E04; or registration in Honours Mathematics and Physics. MATH 3C03 or 3O03 may be taken concurrently.
Antirequisite: PHYSICS 2C03

PHYSICS 3P03 SOFT CONDENSED MATTER PHYSICS
Soft materials include polymers, liquid crystals, surfactants and colloids. The course will cover structure, dynamics, phase transitions and self-assembly, and discuss applications and links to the life sciences.
Three lectures; first term
Prerequisite: CHEM 2R03 or PHYSICS 2H04

PHYSICS 3Q03 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 regulation, radiation protection.
One lecture, one term
Prerequisite: One of PHYSICS 1B03, 1B03 or permission of the instructor
Antirequisite: BIOLOGY 3L03, PHYSICS 3T03

PHYSICS 3R03 ENVIRONMENTAL GEOPHYSICS
Introduction to principles and applications of geophysics in groundwater and environmental investigations. Practical demonstrations in magnetism, gravity, shallow seismic, radar, borehole logging, surface EM and electrical methods.
Two lectures, one lab (three hours); one term
Prerequisite: ENVIR SCI 1G03, PHYSICS 1B03

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
Antirequisite: MED PHYS 4A03, 4AA1, 4AB2, PHYSICS 4AA1

PHYSICS 4A1 INQUIRY IN PHYSICS (I)
Independent study of the scientific literature, including the preparation of seminars and reports on assigned topics.
Two lectures or seminars; first term
Prerequisite: Registration in Level IV of Honours Physics Co-op
Antirequisite: MED PHYS 4A03, PHYSICS 4A03

PHYSICS 4A2 INQUIRY IN PHYSICS (II)
The continuation of PHYSICS 4A1.
Two lectures or seminars; second term
Prerequisite: PHYSICS 4A1

PHYSICS 4B03 ELECTROMAGNETIC THEORY
Potential theory, electrostatics and magnetostatics in matter, electrodynamics, electromagnetic waves and wave guidelines.
Two lectures; one term
Prerequisite: PHYSICS 3D03 and either PHYSICS 2B06 or both ENG PHYS 2A03 and 2E04; or registration in Honours Mathematics and Physics
Antirequisite: PHYSICS 4B04

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, 3H03, PHYSICS 4D03, 4D06

PHYSICS 4D07 DIGITAL LOGIC AND COMPUTER SYSTEMS II
The continuation of PHYSICS 4D06.
Two lectures, one lab (three hours); second term
Prerequisite: PHYSICS 4D03
Antirequisite: PHYSICS 4D06

PHYSICS 4E03 NUCLEAR PHYSICS
Nuclear physics.
Three lectures; one term
Prerequisite: PHYSICS 3M03 or a grade of at least B- in PHYSICS 3C03

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: MATH 3D03, PHYSICS 3M03; or registration in Honours Mathematics and Physics

PHYSICS 4G03 COMPUTATIONAL PHYSICS
A course using computers 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
Prerequisite: (Beginning 2005-2006) PHYSICS 2G03, 3M03

PHYSICS 4J03 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 4J03 is required or is a specified option; or permission of the Chair of the Department
Antirequisite: PHYSICS 4J04

PHYSICS 4K03 SOLID STATE PHYSICS
Crystal structure and banding; lattice vibrations; electron energy bands; metals and semiconductors; magnetism.
Three lectures; one term
Prerequisite: PHYSICS 3M03; or a grade of at least B- in PHYSICS 3C03 and 3Q03; or registration in Level IV of an Honours Medical and Health Physics programme
PHYSICS 4Q03

RESEARCH PROJECT

An experimental or theoretical project to be carried out under the supervision of a faculty member. A report will be required.

First or second term

Prerequisite: Registration in Level IV of any Physics programme; and a CA of at least 9.0 or registration in Level IV of the Biophysics Specialization; and permission of the Chair of the Department. Application for permission must be received by March 31st of the academic year prior to registration.

Antirequisite: PHYSICS 4P06, 4Q04

Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PHYSICS 4P06

SENIOR RESEARCH PROJECT

An experimental or theoretical project to be carried out under the supervision of a faculty member. A report will be required.

Two terms

Prerequisite: Registration in Level IV of any Physics programme; and a CA of at least 9.0; and permission of the Chair of the Department. Application for permission must be received by March 31st of the academic year prior to registration.

Antirequisite: PHYSICS 4C03, 4Q04

Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PHYSICS 4S03

MOLECULAR BIOPHYSICS

Thermodynamics of protein folding, RNA and DNA structure. Macromolecular structures within the cell: microtubules, actin filaments, protein complexes, membranes, molecular motors. Physical techniques for studying biomolecular structure and dynamics.

Three lectures; first term

Prerequisite: CHEM 3S03 or PHYSICS 2H04. PHYSICS 3S03 is recommended.

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: MATH 2A03 or 2Q04, and MATH 2C03 or 2P04; and one of BIOLOGY 3L03, ENG PHYS 3D03, MED PHYS 3T03, PHYSICS 3T03

Antirequisite: PHYSICS 4T03

BIOCHEM 4Y03

COMPUTATIONAL BIOLOGY

Theory and computational algorithms used in bioinformatics: sequence alignment, database searches, phylogenetic methods; hidden Markov models; neural networks; computational genomics; database design; information management.

Three lectures; second term

Prerequisite: One of BIOLOGY 4K03, MATH 2G03, 2P04

POLISH

(SEE MODERN LANGUAGES AND LINGUISTICS, POLISH)

POLITICAL SCIENCE

WEB ADDRESS: http://www socsci.mcmaster.ca/~polisci

Kenneth Taylor Hall, Room 527

Ext. 24741

Faculty as of January 15, 2003

Chair

Tony Potter

Professors

Barbara A. Carroll/B.A. (Manitoba), M.A. (Carleton), Ph.D. (American)
William D. Colemans/B.A. (Carleton), A.M., Ph.D. (Chicago) Canada Research Chair in Global Governance and Public Policy
Henry J. Jackel/B.S.S. (Fairfield), M.A., Ph.D. (Georgetown)
Thomas J. Lewis/B.A. (Carleton), M.A., Ph.D. (SUNY-Buffalo)
Mark Sproule-Jones/B.Sc. (London), M.A., Ph.D. (Indiana) V.K. Copps Chair in Urban Studies
Michael B. Stein/B.A. (McGill), M.A., Ph.D. (Princeton)
Richard W. Stubbs/B.Sc. (Wales), M.A. (Lancaster), Ph.D. (Alberta)
Charlotte A. Yates/(Labour Studies) B.A. (Winnipeg), M.A. (Queen's), Ph.D. (Carleton)

Associate Professors

George B. Brockenridge/M.A. (Glasgow and Duke), Ph.D. (Duke)
Nilbaldo H. Galleguillos/B.A. (Chile), M.A., Ph.D. (Toronto)
Stefania Zalek Miller/M.A. (McMaster), Ph.D. (Toronto)
Robert J. O'Meara/B.A. (Carleton) M.Sc. (London), Ph.D. (York)
Tony Porter/B.A., M.A., Ph.D. (Carleton)
John W. Seaman/B.A. (Mount Allison), M.A. (Dalhousie), Ph.D. (Toronto)
Donald M. Wells/(Labour Studies) B.A. (Western Ontario), M.A. (British Columbia), Ph.D. (Toronto)

Assistant Professors

Karen Bird/B.A. (Witrid Laurier), Ph.D. (Minnesota)
Catherine Frost/(Communication Studies) B.A. (Lakehead), M.A., Ph.D. (Toronto)
Alina Gildiner/(Health Studies) B.Sc., M.Sc., Ph.D. (Toronto)
Greg McEIlvott/(Labour Studies) B.A., M.A. (Carleton), Ph.D. (York)

Associate Members

Rhoda E. Hassmann/(Sociology) B.A., M.A., Ph.D. (McGill)
James J. Rice/(Social Work) B.A. (Sir George Williams), B.S.W., M.S.W. (Calgary), Ph.D. (Exeter)

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 2006 (previously 2F06) and 3N06 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 4Z06, enrolment in all Level IV courses is limited. In courses cross-listed in the Graduate Calendar (POL SCI 4B06, 4E06, 4Q06), the limit is 14 undergraduate students; in all others, the limit is 18. Admission to Level IV limited enrolment courses is by preregistration preferential ballot.

Preference will be given as follows:

a) Level IV Honours and Combined Honours Political Science
b) Continuing Students
c) Level III Honours and Combined Honours Political Science
d) B.A. in Political Science
e) Others

All students seeking registration in Level IV courses for the Fall/Winter Session including part-time degree students, are urged to consult the Departmental Office (Kenneth Taylor Hall, Room 527) no later than May 1, regarding balloting for the following academic year. Permission from the Department will be required to complete registration in Level IV limited-enrolment courses.

Courses

If no prerequisite is listed, the course is open.

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 2B05  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 2D03  PARTICIPATION AND ELITIST POLITICS IN CANADA
An examination 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 (lectures and tutorials); one term
Antirequisite: POL SCI 3DD3, 3DD6

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 2006  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
(Note: See Note 4 above.)

POL SCI 2K03  POLITICS AND THE MEDIA
Theories and practices of the reciprocal relationship between the communications media and the political system.
Three hours (lectures and tutorials); one term
Prerequisite: CMST 1A03 and 1B03; or POL SCI 1G06
Cross-list: CMST 2K03

POL SCI 3A06  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 3A03  INTERNATIONAL RELATIONS 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 3B03  POLITICAL COMMUNICATION
The relationship between politics and the media is analysed in terms of issues such as political news coverage, electioneering, political marketing, policy formation and publicity, and agenda setting and public opinion.
Three hours; one term
Prerequisite: Registration in a Communication Studies or Political Science programme
Cross-list: CMST 3B03

POL SCI 3C03  GOVERNMENT AND POLITICS OF INDEigenousPEOPLEs
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 ST 3C03
Enrolment is limited.

POL SCI 3CC3  POLITICAL AUTHORITY: 20TH CENTURY POLITICAL THEORY
An examination of major themes in political theory in the twentieth century focusing on concerns about legitimate political authority and the nature of power and human relations in modern society.
Three lectures; one term

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 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 3E06  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 3G03  ETHNICITY AND MULTICULTURALISM: THEORY AND PRACTICE
An examination of ethnicity, multiculturalism and citizenship in theoretical and comparative perspectives, principally in industrially advanced societies.
Three lectures; one term
Not open to students with credit in POL SCI 3GW3 if the topic was Ethnicity and Multiculturalism: Theory and Practice.

POL SCI 3GG3  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  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
Cross-list: SOC 3KK3
Antirequisite: SOC SCI 2C03
Enrolment is limited.
POL SCI 3L03 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 3N06 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 3003 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 3503 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 dynamics 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 Czechoslovakia 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 3U03 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 Department by the instructor prior to the term in which the course is to be taken.

POL SCI 3V03 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 3W03 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 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 POLICY ANALYSIS 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 3Z23 PUBLIC ADMINISTRATION: THEORY AND DECISION-MAKING
Explanations of organizational design, bureau resources and other public management issues in Canada.
Three hours; one term
Antirequisite: POL SCI 3Z06
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; and 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: One course in American or Comparative Politics and permission of the Department
Antirequisite: POL SCI 4D06
Enrolment is limited.

POL SCI 4E06 ISSUES IN LIBERAL-DEMOCRATIC THEORY
An analysis of liberal and liberal-democratic approaches to select issues, such as justice, religion, education, political authority or community.
Three hours (seminar); two terms
Prerequisite: Registration in Level IV of any programme; and a course in Political Theory; and permission of the Department
Not open to students with credit in POL SCI 4U06 PROBLEMS OF POLITICAL PHILOSOPHY II taken in 1995-1996.
Enrolment is limited.
### POL SCI 4C06: 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 4M86: 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: POL SCI 4S06 and permission of the Department
Enrolment is limited.

### POL SCI 4S06: 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: POL SCI 1S06 or 2S06; and registration in Level IV of any programme; and permission of the Department
Enrolment is limited.

### POL SCI 4Q06: 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 4Q08: 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, G.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 4T06: TOPICS IN CANADIAN POLITICS
An examination of major issues in contemporary Canadian Politics.
Three hours (seminar); two terms.
Prerequisite: POL SCI 1S06 or 2S06; and permission of the Department
Enrolment is limited.

### POL SCI 4Z06: HONOURS ESSAY
A major research paper, supervised by a faculty member. The subject matter is to be different from that covered in 3U03, if the student is registered or has credit in that course.
Prerequisite: Registration in Level IV of an Honours Political Science programme and written permission of the faculty member supervising the student's Honour Essay.

---

### 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)
Patrick Bennett, B.Sc. (Tufts), Ph.D. (California-Berkeley), Senior Canada Research Chair
Lee R. Brooks, B.A. (Columbia), M.S., Ph.D. (Brown)
Martin Delly, B.A. (Toronto), M.A. (McGill), Ph.D. (Toronto)
Dany deCattanzaro, B.A. (Carleton), Ph.D. (British Columbia)
Bennett G. Galsid, B.A. (Princeton), M.A., Ph.D. (Pennsylvania)
Betty A. Levy, B.A. (Dalhousie), M.A., Ph.D. (Toronto)
Daphne M. Maurel, B.A. (Swarthmore), M.A. (Pennsylvania), Ph.D. (Minnesota)
Kathryn M. Murphy, B.A. (Western Ontario), M.A., Ph.D. (Dalhousie)
John R. Plat, B.A. (Kanata), Ph.D. (Texas)
Ronald J. Racine, B.Sc. (Oregon), M.Sc., Ph.D. (McGill)
Larry E. Roberts, B.A., Ph.D. (Minnesota)
Allison Seikuler, B.A. (Pomona), Ph.D. (California-Berkeley), Canada Research Chair
Margo I. Wilson, B.A. (Alberta), M.A. (California), Ph.D. (London)

### Adjunct Professors
Martice M. Ciarro, B.A. (McMaster)
Terri L. Lewis, B.A. (Toronto), Ph.D. (McMaster)
Bruce A. Linder, B.E.S. (McMaster), Ph.D. (McMaster)

### Associate Professors
Suzanna R. Becker, M.A. (Queen's), Ph.D. (Toronto)
Richard B. Day, B.A. (Massachusetts), M.A. (Iowa), Ph.D. (McMaster)
Bruce Malliken, B.A., Ph.D. (Waterloo)
Louis A. Schmidt, B.A. (Maryland), M.S. (Baltimore), Ph.D. (Maryland)
Judith M. Sheden, B.Sc. (Alberta), M.S., Ph.D. (Pittsburgh)
Laurel J. Trainer, B.Mus., M.A., Ph.D. (Toronto)

### Assistant Professors
Sigal Balshine, B.Sc. (Toronto), Ph.D. (Cambridge)
Reuven Dukas, B.Sc. (Jerusalem), Ph.D. (North Carolina State)
Mel D. Rutherford, B.A. (Yale), Ph.D. (California-Santa Barbara)
David L. Styx, B.Sc. (McMaster), M.A., Ph.D. (British Columbia)
Hong Min Sun, B.Sc., M.S. (Peking), M.A. (Western Ontario), Ph.D. (Queen's)
Tracy Vaillancourt, B.A., M.A., Ph.D. (British Columbia)

### Associate Members
Suzanne M. Artie, B.Sc., M.D. (McMaster), F.R.C.P.S.
Charles E. Cunningham, B.A. (California State), M.A. (San Diego State), Ph.D. (The American University)
John R. Davil, B.A. (George Washington), M.A., Ph.D. (Wayne State)
Jan E. Fleming, B.Sc., Ph.D. (McMaster)
Eneli Haskicul, B.A. (The American College of Greece), M.A. (New Brunswick), Ph.D. (McMaster)
Joel P. Hudson, B.Sc., M.A. (McMaster), Ph.D. (Western Ontario)
David G. Jones, B.Sc. (Computing and Software) B.Sc. (Western Ontario), Ph.D. (Stanford)
Ellen Lipman, B.Sc. (Western Ontario), M.D., M.Sc. (McMaster)
Harriet MacMillan, B.A. (Queen's), M.Sc. (McMaster), F.R.C.P.S.
William Mahoney, B.A. (Pediatrics) (McMaster)
Catherine L. Manlink, B.Sc., M.D., M.S., B.C. (Western Ontario)
Alison G. Nicolls, B.A. (York)
Eugene R. Norman, B.C. (Clinical Epidemiology and Biostatistics) B.Sc. (Ontario), M.A. (Michigan State), Ph.D. (McMaster)
Chris Shephard, B.Sc., M.S., Ph.D. (Guelph), Ph.D. (British Columbia)
Patricia I. Rosebush, B.Sc. N., M.Sc. N. (Toronto), M.D. (McMaster), F.R.C.P.S.
Mark N. Sanford, M.D. (Ohio State), Ph.D. (Otago)
Karen L. Shue, B.A. (Hood College), Ph.D. (McGill)
William Sullivan, B.Sc. (Carleton), M.D., M.A., Ph. D. (Western Ontario), F.R.C.P.C.
Henry Szuchman, B.A. (Biomedical Sciences), B.Sc., M.D. (Pittsburgh)
Larry Tuft, B.Sc., B.Ph.D. (McMaster)
Michael A. Van Ameringen, B.Sc., M.D. (McMaster)
Priyamathy Weerasekera, B.A., M.D. (McMaster), M.Ed. (Harvard)
Trevor Young, B.Sc. (Ontario), M.D. (Dalhousie), Ph.D. (Toronto)

---

### Faculty as of January 15, 2003

#### Chair
Ronald J. Racine

---

**WEB ADDRESS:** [http://www.mcmaster.ca/psychology](http://www.mcmaster.ca/psychology)

**Psychology Building, Room 102**

**Ext. 23000**
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 Honours B.A. Psychology students.
2. Registration in all courses with a course code ending *** (ie. selected topics, independent research, individual readings and honours theses) requires written permission of the Department. Registration with appropriate permission must be completed 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 deemed, by the course instructor, to have equivalent qualifications. In such cases permission to register in the course may be requested from the instructor.
4. The following courses may be applied towards degree requirements in an Honours Psychology programme:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 1A03</td>
<td>INTRODUCTION TO EXPERIMENTAL PSYCHOLOGY</td>
<td></td>
</tr>
<tr>
<td>PSYCH 1A03</td>
<td>THE PSYCHOLOGY OF INTERPERSONAL BEHAVIOUR</td>
<td>PSYCH 1A03, 1A03; registration in the Bachelor of Health Sciences (Honours) programme</td>
</tr>
<tr>
<td>PSYCH 2A03</td>
<td>SURVEY OF DEVELOPMENTAL PSYCHOLOGY</td>
<td>PSYCH 1A03, 1A03; registration in the Bachelor of Health Sciences (Honours) programme</td>
</tr>
<tr>
<td>PSYCH 2B03</td>
<td>PERSONALITY</td>
<td>PSYCH 1A03, 1A03; registration in Honours Biology and Psychology or the Bachelor of Health Sciences (Honours) programme</td>
</tr>
<tr>
<td>PSYCH 2C03</td>
<td>INTRODUCTION TO SOCIAL PSYCHOLOGY</td>
<td></td>
</tr>
<tr>
<td>PSYCH 2D03</td>
<td>NEUROPSYCHOLOGY</td>
<td></td>
</tr>
<tr>
<td>PSYCH 2E03</td>
<td>SENSORY PROCESSES</td>
<td></td>
</tr>
</tbody>
</table>

Courses: If no prerequisite is listed, the course is open.

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, 1A03, and credit or concurrent registration in BIOLOGY 1A03 or 1K03; or registration in Honours Biology and Psychology, Honours Neural Computation or the Bachelor of Health Sciences (Honours) programme

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 tutorial; one term
Prerequisite: PSYCH 1A03, 1A03; or registration in Honours Biology and Psychology or Honours Neural Computation or the Bachelor of Health Sciences (Honours) programme

PSYCH 2Q03 RESEARCH PRACTICUM
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: A grade of at least B in PSYCH 1A03; and registration 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 2R03 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: One of HTH SCI 1F03 or STATS 1CC3 and registration in an Honours Psychology programme, the Bachelor of Health Sciences (Honours) programme, Honours Neural Computation or Honours Biology and Pharmacology; or a grade of at least C+ in STATS 1CC3 and registration in a Psychology programme, B.Sc. Life Science or Honours Science (Stream B)
Antirequisite: STATS 2MB3, 2R06

PSYCH 2T03 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, 1A03; or registration in Honours Biology and Psychology, Honours Neural Computation or the Bachelor of Health Sciences (Honours) programme
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
Offered in alternate years.

PSYCH 3A03 PERCEPTION AND COGNITION OF MUSIC
The perception and neural basis of melody, harmony, rhythm and expectancies will be considered in relation to Innate and experiential factors.
Three lectures; one term
Prerequisite: PSYCH 2E03; or PSYCH 1A03 and the instructor.
PSYCH 3A03 is recommended.

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: PSYCH 3G03 or 3N03; and six units from PSYCH 2D03, 2E03, 2F03, 2H03, 2T03; and one of HTH SCI 1F03, STATS 1A03, 1CC3, 1K03
PSYCH 3B03 | 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 psycholinguistic research and to their connection with theoretical linguistics.
Three lectures (lectures and discussion); one term
Prerequisite: LINGUIST 3I03 or 3M03; or LINGUIST 1A03, 1A3, PSYCH 2H03; or permission of the Department
Cross-list: LINGUIST 3B03
Offered in alternate years.

PSYCH 3B13 | LABORATORY IN HUMAN ELECTROPHYSIOLOGY
Principles of acquisition and analysis of functional brain imaging data (EEG, ERP, MEG, other) 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 2D03, 2E03, 2F03, 2H03 and one of PSYCH 2RR3 or STATS 2MB3; or permission of the instructor
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 3B33 | 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 2D03, 2E03, 2F03, 2H03 and one of PSYCH 2RR3 or STATS 2MB3; or permission of the instructor
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.

PSYCH 3E03 | PERCEPTION LABORATORY
Students will conduct experiments in visual and auditory perception with an emphasis on research methods, data analysis and writing skills.
One tutorial (one hour); one lab (three hours); one term
Prerequisite: PSYCH 2RR3 or STATS 2MB3; and PSYCH 3E03; and registration in Level III or IV of an Honours Psychology or Neural Computation 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 theories. Topics include family relations, sex differences, mate choice, cooperation and conflict, and universality and diversity across cultures.
Three lectures; one term
Prerequisite: PSYCH 2TT3 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

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 2D03, 2E03, 2F03, 2H03, 2TT3; and one of HTH SCI 1F03, STATS 1CC3, 2D03
Antirequisite: PSYCH 2A03, 2A3, 3G03

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, 3G03
Antirequisite: PSYCH 3G03
Offered in alternate years.

PSYCH 3I03 | 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 and 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 academic year, with selection for placements announced by March 15.
Prerequisite: PSYCH 2R03 or STATS 2MB3; and 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 with the same supervisor.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 3I13 | COGNITIVE DEVELOPMENT
The development of attention, concepts, memory, reasoning and language.
Three lectures; one term
Prerequisite: PSYCH 2H03, 3GG3
Antirequisite: PSYCH 3H03
Offered in alternate years.

PSYCH 3J03 | VISUAL NEUROSCIENCE
Visual perception and attention as revealed by behavioural, brain-imaging, and physiological studies examining anatomy, circuitry, and function of visual processing systems.
Three lectures; one term
Prerequisite: PSYCH 2E03; and PSYCH 2D03 or 2H03

PSYCH 3JJ3 | 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, 3G03
Offered in alternate years.

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, 1A3, and one of HTH SCI 1F03, STATS 1CC3, 2D03; or registration in Honours Biology and Psychology; or PSYCH 1A03 and registration in the Bachelor of Health Sciences (Honours) programme

PSYCH 3L03 | NEUROSCIENCE LABORATORY
Seminars and laboratory experience in current problems in neuroscience.
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
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 3LL3 | GENERAL EXPERIMENTAL PSYCHOLOGY LABORATORY
Working in research teams, students select a topic area, design an experiment based on background readings, obtain ethical approval, collect and analyze data, make oral presentations, and prepare written reports.
One lecture, one lab (two hours); one term
Prerequisite: PSYCH 2R03 or STATS 2MB3; 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.

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, 2TT3

PSYCH 3N03 | ABNORMAL PSYCHOLOGY (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 2D03, 2E03, 2F03, 2H03, 2TT3; or nine units of Psychology and registration in Level III or IV of a Nursing or Social Work programme or the Bachelor of Health Sciences (Honours) programme
PSYCH 3N03  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

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: PSYCH 3H03 and one of HTSCI 1F03, STATS 1A03, 1C03, 2D03

PSYCH 3Q03**  INDIVIDUAL STUDY I
A laboratory project that may extend over both terms. Students intending to register must first consult a faculty member and the course coordinator. Application for permission must be received by March 31st of the academic year prior to registration.
PSYCH 3Q03**  INDIVIDUAL LAB STUDY I
A laboratory project that may extend over both terms. Students intending to register must first consult a faculty member and the course coordinator. Application for permission must be received by March 31st of the academic year prior to registration.

PSYCH 3R03  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 2T03 or 2TT3; and registration in Level III or IV of an Honours Psychology programme Not offered in 2003-2004.

PSYCH 3S03  ANIMAL BEHAVIOUR LABORATORY
Laboratory and field studies involving a wide variety of species. One lab (three hours); one term
Prerequisite: One of PSYCH 2RR3, STATS 2MA3, 2MB3 or permission of the instructor; and registration in Level III or IV of an Honours programme in Biology or Psychology; and one of PSYCH 2TT3, 3F03, or six 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, 3FF3, PSYCH 2TT3

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; and registration in Level III or IV of a Communication Studies (Language and Discourse Stream), Computer Science, Linguistics, Psychology programme, B.Sc. Life Science or Honours Science (Stream B)

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 2H03; and credit or registration in PSYCH 2RR3 or STATS 2MB3; 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 3V03  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; and registration in Level III or IV of a Psychology, Honours Neural Computation programme, B.Sc Life Science or the Honours Science (Stream B) programme

NEURCOMP 3W03  NEUROCOMPUTATION
An introduction to the use of neural network computational models for understanding the neural bases of psychological processes, and for solving real-world problems.
Two lectures, one lab; one term
Prerequisite: One of COMP SCI 1M03, 1S3 or permission of the instructor; and one of MATH 1A03, 1N03, ARTS&SCI 1D06; and registration in an Engineering programme or an Honours programme. MATH 1B03 is strongly recommended.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 3W03  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; and PSYCH 2RR3 or STATS 2MB3

PSYCH 3Y03  HORMONES, NEUROCHEMISTRY 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: Six units from PSYCH 2F03, 2TT3, 3M03; and six units of Biochemistry and/or Biology; and registration in Level III or IV of an Honours programme

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 3Z23  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

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 3BN3 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: PSYCH 3U03 and registration in Level III or IV of an Honours Psychology programme. Preference will be given to students in Level IV of an Honours Psychology programme.
Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.
An advanced seminar focusing on selected topics in animal behaviour. Topics for discussion selected in consultation with students and instructor, with focus on animal models of neurobiological processes. Seminar and discussions (three hours); one term.

Prerequisite: PSYCH 2F03 and registration in an Honours Biology or Psychology program.

Offered in alternate years.

Enrolment is limited. See the heading Limited Enrolment Courses in the Faculty of Science section of the Calendar.

PSYCH 4Q03

SPECIAL TOPICS IN BIOPSYCHOLOGY

An advanced seminar focusing on selected topics in biopsychology. Topics for discussion selected in consultation with students and instructor, with focus on animal models of neurobiological processes. Seminar and discussions (three hours); one term.

Prerequisite: PSYCH 2F03 and registration in an Honours Biology or Psychology program.

Offered in alternate years.

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.

Prerequisite: Registration in Level IV of an Honours Psychology program. 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 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 IV of an Honours Psychology program with 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.

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 program and permission of the course coordinator. 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.

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 2T73; and one of PSYCH 3F03, 3S03, 3T03; and registration in an Honours Biology or Psychology program.

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 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, 3HH3, 3UU3, PSYCH 2F03, 3FA3 are also recommended.

Cross-list: HTH SCI 4R03

Offered in alternate years.


This course is administered by the Department of Biology.
II. BIBLICAL STUDIES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Prerequisite</th>
<th>Antirequisite</th>
<th>Cross-list</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELIG ST 2BB3</td>
<td>IMAGES OF THE DIVINE FEMININE</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2BB3</td>
<td>RELIG ST 2BB3</td>
</tr>
<tr>
<td>RELIG ST 2C03</td>
<td>MORAL ISSUES</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2C03</td>
<td>RELIG ST 2C03</td>
</tr>
<tr>
<td>RELIG ST 2DD3</td>
<td>THE FIVE BOOKS OF MOSES</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2DD3</td>
<td>RELIG ST 2DD3</td>
</tr>
<tr>
<td>RELIG ST 2EE3</td>
<td>ISLAM AND MEDITERRANEAN SOCIETY, 600-1300</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2EE3</td>
<td>RELIG ST 2EE3</td>
</tr>
<tr>
<td>RELIG ST 2EB3</td>
<td>ISLAM IN THE WORLD, 1300-1800</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2EB3</td>
<td>RELIG ST 2EB3</td>
</tr>
</tbody>
</table>

III. WESTERN RELIGIOUS THOUGHT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Prerequisite</th>
<th>Antirequisite</th>
<th>Cross-list</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELIG ST 2C03</td>
<td>WOMEN IN THE BIBLICAL TRADITION</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2C03</td>
<td>RELIG ST 2C03</td>
</tr>
<tr>
<td>RELIG ST 2FG3</td>
<td>EARLIEST PORTRAITS OF JESUS</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2FG3</td>
<td>RELIG ST 2FG3</td>
</tr>
<tr>
<td>RELIG ST 2JH3</td>
<td>CHRISTIANITY IN THE PATRIARCHIC PERIOD (100-680)</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2JH3</td>
<td>RELIG ST 2JH3</td>
</tr>
<tr>
<td>RELIG ST 2KH3</td>
<td>CHRISTIANITY IN THE MEDIEVAL PERIOD (800-1500)</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2KH3</td>
<td>RELIG ST 2KH3</td>
</tr>
<tr>
<td>RELIG ST 2KK3</td>
<td>CHRISTIANITY IN THE REFORMATION PERIOD</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2KK3</td>
<td>RELIG ST 2KK3</td>
</tr>
<tr>
<td>RELIG ST 2KL3</td>
<td>LIFE, WORK AND TEACHINGS OF MAHATMA GANDHI</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2KL3</td>
<td>RELIG ST 2KL3</td>
</tr>
<tr>
<td>RELIG ST 2JJ3</td>
<td>CHRISTIANITY IN THE EARLY CHRISTIAN PERIOD</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2JJ3</td>
<td>RELIG ST 2JJ3</td>
</tr>
<tr>
<td>RELIG ST 2KJ3</td>
<td>CHRISTIANITY IN THE TIME OF THE CRUSADES</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2KJ3</td>
<td>RELIG ST 2KJ3</td>
</tr>
<tr>
<td>RELIG ST 2KK3</td>
<td>CHRISTIANITY IN THE REFORMATION PERIOD</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2KK3</td>
<td>RELIG ST 2KK3</td>
</tr>
<tr>
<td>RELIG ST 2KL3</td>
<td>LIFE, WORK AND TEACHINGS</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2KL3</td>
<td>RELIG ST 2KL3</td>
</tr>
<tr>
<td>RELIG ST 2LJ3</td>
<td>CHRISTIANITY IN THE PATRIARCHIC PERIOD (100-680)</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2LJ3</td>
<td>RELIG ST 2LJ3</td>
</tr>
<tr>
<td>RELIG ST 2MJ3</td>
<td>CHRISTIANITY IN THE MEDIEVAL PERIOD (800-1500)</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2MJ3</td>
<td>RELIG ST 2MJ3</td>
</tr>
<tr>
<td>RELIG ST 2MK3</td>
<td>CHRISTIANITY IN THE REFORMATION PERIOD</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2MK3</td>
<td>RELIG ST 2MK3</td>
</tr>
<tr>
<td>RELIG ST 2NL3</td>
<td>LIFE, WORK AND TEACHINGS</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2NL3</td>
<td>RELIG ST 2NL3</td>
</tr>
<tr>
<td>RELIG ST 2OJ3</td>
<td>CHRISTIANITY IN THE TIME OF THE CRUSADES</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2OJ3</td>
<td>RELIG ST 2OJ3</td>
</tr>
<tr>
<td>RELIG ST 2PJ3</td>
<td>CHRISTIANITY IN THE REFORMATION PERIOD</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2PJ3</td>
<td>RELIG ST 2PJ3</td>
</tr>
<tr>
<td>RELIG ST 2QJ3</td>
<td>LIFE, WORK AND TEACHINGS</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2QJ3</td>
<td>RELIG ST 2QJ3</td>
</tr>
<tr>
<td>RELIG ST 2RJ3</td>
<td>CHRISTIANITY IN THE TIME OF THE CRUSADES</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2RJ3</td>
<td>RELIG ST 2RJ3</td>
</tr>
<tr>
<td>RELIG ST 2SJ3</td>
<td>CHRISTIANITY IN THE REFORMATION PERIOD</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2SJ3</td>
<td>RELIG ST 2SJ3</td>
</tr>
<tr>
<td>RELIG ST 2TJ3</td>
<td>LIFE, WORK AND TEACHINGS</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2TJ3</td>
<td>RELIG ST 2TJ3</td>
</tr>
<tr>
<td>RELIG ST 2UJ3</td>
<td>CHRISTIANITY IN THE TIME OF THE CRUSADES</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2UJ3</td>
<td>RELIG ST 2UJ3</td>
</tr>
<tr>
<td>RELIG ST 2VJ3</td>
<td>CHRISTIANITY IN THE REFORMATION PERIOD</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2VJ3</td>
<td>RELIG ST 2VJ3</td>
</tr>
<tr>
<td>RELIG ST 2WJ3</td>
<td>LIFE, WORK AND TEACHINGS</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2WJ3</td>
<td>RELIG ST 2WJ3</td>
</tr>
<tr>
<td>RELIG ST 2XJ3</td>
<td>CHRISTIANITY IN THE TIME OF THE CRUSADES</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2XJ3</td>
<td>RELIG ST 2XJ3</td>
</tr>
<tr>
<td>RELIG ST 2YJ3</td>
<td>CHRISTIANITY IN THE REFORMATION PERIOD</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2YJ3</td>
<td>RELIG ST 2YJ3</td>
</tr>
<tr>
<td>RELIG ST 2ZJ3</td>
<td>LIFE, WORK AND TEACHINGS</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2ZJ3</td>
<td>RELIG ST 2ZJ3</td>
</tr>
</tbody>
</table>

IV. CONTEMPORARY AND COMPARATIVE RELIGIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Prerequisite</th>
<th>Antirequisite</th>
<th>Cross-list</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELIG ST 2BB3</td>
<td>IMAGES OF THE DIVINE FEMININE</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2BB3</td>
<td>RELIG ST 2BB3</td>
</tr>
<tr>
<td>RELIG ST 2C03</td>
<td>MORAL ISSUES</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2C03</td>
<td>RELIG ST 2C03</td>
</tr>
<tr>
<td>RELIG ST 2DD3</td>
<td>THE FIVE BOOKS OF MOSES</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2DD3</td>
<td>RELIG ST 2DD3</td>
</tr>
<tr>
<td>RELIG ST 2EE3</td>
<td>ISLAM AND MEDITERRANEAN SOCIETY, 600-1300</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2EE3</td>
<td>RELIG ST 2EE3</td>
</tr>
<tr>
<td>RELIG ST 2EB3</td>
<td>ISLAM IN THE WORLD, 1300-1800</td>
<td>RELIG ST 2A03</td>
<td>RELIG ST 2EB3</td>
<td>RELIG ST 2EB3</td>
</tr>
</tbody>
</table>

Courses If no prerequisite is listed, the course is open.
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, focusing on biomedical, social and cultural themes.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II or 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 2Q05 CULTS IN NORTH AMERICA
An examination of recent religious trends in North America. The Hare Krishna 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. Important 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 such as character, plot, irony and symbolism, as well as the dynamics of the reading experience.
Two lectures, one tutorial; one term
Antirequisite: RELIG ST 2U03
Cross-list: COMP LIT 2G03

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
Cross-list: COMP LIT 2G03

RELIG ST 2V03 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 2W03 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 include 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 2W03 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 or above
Cross-list: CLASSICS 2203

RELIG ST 2W3 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 MODERN JEWISH THOUGHT
An introduction to different conceptions of the connection between Jewish traditions and philosophical questioning. Authors may include: Maimonides, Spinoza, Mendelssohn, Cohen, Buber, Rosenzweig, Strauss, Levinas, Solovetsky.
Three hours (lectures and discussion); one term
Cross-list: PHILOS 3J03

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 3B03 CHRIST THROUGH THE CENTURIES
A study of the varied theological and artistic conceptions of Jesus Christ in the principal periods of Christian thought: the Biblical, Patristic, Medieval, Reformation, and Modern.
Two lectures, one tutorial; one term

RELIG ST 3D03 GOD, REASON AND EVIL
An examination of understandings of reason and evil in ancient Greek, medieval 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 2N03

RELIG ST 3E03 JAPANESE RELIGION
Two lectures, one tutorial; one term
Cross-list: JAPAN ST 3E03

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
Not open to students with credit in RELIG ST 2I03 if taken prior to September 1995.

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 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 3L03 RELIGION AND HUMAN NATURE
What is the nature of human nature and its fulfilment? 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
A study of conceptions of religious belief, knowledge and God in the history of modern thought up to the 20th century, with special attention to major challenges to the role of religious faith in human existence. Authors may include: Descartes, Hume, Kant, Schleiermacher, Nietzsche, Dostoevsky, Kierkegaard, Camus, Buber, Levinas.
Two lectures, one tutorial; one term

RELIG ST 3N03 JOHN'S PORTRAIT OF JESUS
An examination of the Gospel of John, with emphasis on its historical background, its literary character and its diatopic theology. The history of the Johannine community will also be considered.
Two lectures, one tutorial; one term
Antirequisite: RELIG ST 2003

RELIG ST 3N23 THE ENCOUNTER OF SCIENCE AND RELIGION
A study of contemporary discussions of: (a) methods of inquiry and religious practice, (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 EAST ASIAN 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

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 3U33 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 3U3

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 Agg of Reason, new Jewish denominations, assimilation, anti-Semitism, 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 4E06 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

WEB ADDRESS:
http://www.humanities.mcmaster.ca/-sota/index.html
Togo Salmon Hall, Room 414
Ext. 27671

Faculty as of January 15, 2003

Acting Director
Hayden B.J. Maginnis

Professors


Associate Professors

Donald F. Carr/B.A. (Guelph), M.F.A. (Chicago) (Art)
James A. Davie/B.M., Ph.D. (Northwestern) (Music)
Susan Fast/B.M. (Western Washington), M.A., Ph.D. (Iowa) (Music)
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. Kinder/Dipl.F.A. (Calgary), B.Mus. (Western Ontario), M.Mus. (Northwestern), Ph.D. (Colorado) (Music)
Judy N. Major-Girardin/B.Mus. (Windsor), M.F.A. (Alabama) (Art)
William Ranwick/B.Mus. (British Columbia), Ph.D. (CUNY), A.A.M.O., F.R.G.C.O. (Music)
Geoffrey Rockwell/B.A. (Haverford College), M.A., Ph.D. (Toronto (Multimedia))
Graham Todd/L.D.A.D. Dip. (Chelsea School of Art) M.F.A. (Guatemala) (Art)
Valerie Tryon/L.R.A.M., F.R.A.M., A.R.C.M., D.Litt., Artist in Residence/Music part-time

Assistant Professors

Joanne Buckley/B.A., M.A., Ph.D. (Western Ontario) (Multimedia)
Gregory Davies/B.A. (Brock), B.A. (York), M.A. (Toronto) (Art History)
Catherine Graham/B.A., M.A., Ph.D. (McGill) (Theatre & Film Studies)
Janice Hack/B.A. (York), M.A., Ph.D. (Toronto) (Theatre & Film Studies)
Andrew Macalvain/B.A. (Mount Saint Vincent), M.A. (Dalhousie), Ph.D. (Alberta) (Multimedia)
Alison McQueen/B.A. (McGill), M.A., Ph.D. (Pittsburgh)
Terry Paynter/B. Mus. (Saskatchewan), M.A. (British Columbia) (Music)
Paul Rivers/B.A. (McMaster), M.A. (Victoria) (Theatre & Film Studies)
Joseph Sokalski/B.E. (Alberta), Ph.D. (Toronto) (Theatre & Film Studies)

Adjunct Assistant Professor
Kim Neiss (Museumology) B.A. (McMaster), M.Litt. (Edinburgh), M.M. (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)

Sessional Lecturers

Greg Bush/B.F.A. (Concordia), M.Mus. (McGill) (Music)
Alex Carpenter/B.Mus. (Brock), M.A (McMaster) (Music)
Caroline Colenbrander/B.Mus. (McMaster) (Music)
Richard Cunningham/B.Mus. (Toronto) (Music)
Tara Cymbalisty/B.A. (McMaster) (Theatre & Film Studies)
Mary Cyr/B.A., M.A., Ph.D. (California-Berkeley) (Music)
Ron Gabor/B.A. (McMaster) (Multimedia)
David Gerry/A.R.C.T., B.Mus. (Toronto) (Music)
Paul Grimwood/B.Mus. (Western Ontario) (Music)
William Holinati/Dipl. (Humber College), B.Mus. (McMaster), B.Ed. (Toronto) (Music)
Rosanne Kydd/B.A. (Manitoba), M.Mus. (McGill), M.A. (McMaster), Ph.D. (York) (Music)
Alexander Lukas/B.F.A. (Belgrade), M.F.A. (York), M.A. (Toronto) (Theatre & Film Studies)
Allison MacDuff/B.A., M.A. (Queens) (Art History)
Rudy Neufeld/B.A. (Saskatchewan), M.A. (Toronto) (Music)
Rocco Piro (Multimedia)
Mark Tharme/Dipl. (Sheridan College) (Multimedia)
Sandy Thorburn/B.Mus. (McGill), M.A. (Toronto) (Music)
Simon Wood/B.A., M.A. (McMaster) (Music and Multimedia)

Music Studio Instructors

Elise Bédard/B.Mus., L.Mus., M.Mus. (McGill)/voice
John Brownell/B.F.A., M.A., Ph.D. (York) (Music)/percussion
Greg Bush/B.F.A. (Concordia), M.Mus. (McGill) (Trumpet)
Lita Clessen/B.Mus. (Ottawa), M.Mus. (Vincent de'Mondial) Dipl. Perf. (Vienna)/voice
Richard Cunningham/B.Mus. (Toronto)/voice
Kathleen Dempsey/percussion
Mark Eisenman/jazz piano
Lance Elbeck/B.Mus. (Curtis Inst. of Music, Philadelphia) (Violin)
Paula Elliott/B.Mus. (Oberlin), M.M. (New England Conservatory) (Flute)
DonEnglet/jazz saxophone
David Gerry/A.R.C.T., B.Mus., B.A. (Toronto) (Theatre & Film Studies)
Paul Grimwood/B.Mus. (Western Ontario) (Harpischord and Organ)
Willy Jarvis/electric bass
Zoltan Kalman/Dipl. (Franz Liszt Academy of Music, Budapest) (Clarinet)
Leokadia Kanovich/B.Mus. (Vilnius), M.A. (Moscow)/piano
Leon Kahan/B. Mus. (Music College, USSR), M.F.A. (Ural'skaya Univ. of Music)/piano
Zdenek Konicek/Music Diploma (Academy of Music, Prague, MLA. (Univ. of Prague) (cello)
Jeffrey McFadden/B.Mus. (Western Ontario), M.M. (Toronto) (Classical guitar)
Troy Miler/M/M. Perf. (Indiana Univ.) (Double bass)
Willem Moolenbeek/A.R.C.T., B.Mus. (Guelph) (Saxophone)
Jon Peterson/oboe
Philip Sanabara/A.R.C.T., B.Mus. (Western Ontario) (Choir)
Bob Shields/jazz guitar
Suzanne Shulman/A.R.C.T., Dipl. Perf. (Toronto) (Flute)

Alia Zacarello/Dipl. Perf. (Odesa, St. Petersburg)/piano
School Note:
Art, Multimedia, Music and Theatre & Film Studies courses can be found listed alphabetically within the Course Listings section of this Calendar.

In order to foster interdisciplinarity in the Arts, the School of the Arts offers the following SOTA courses for students who wish to combine various disciplines within the School.

Courses

SOTA 2A03 INQUIRY IN THE ARTS
An introduction to interdisciplinary, problem-based approaches to issues in the arts. Students learn how to formulate questions, gather evidence, and reach well-considered conclusions about topics central to current scholarship in the arts. Topics will vary.
Three hours; one term
Prerequisite: Registration in any honours programme in the School of the Arts, or permission of the School
Enrolment is limited

SOTA 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 or above
Cross-list CMST 2G03

SOTA 3B03 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 or above
Cross-list CMST 3B03

SOTA 3C03 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 or above
Cross-list CMST 3C03

SCIENCE

With the exception of SCIENCE 1A00 and SCIENCE 1B00, the Science courses are designed primarily for students in the Humanities and Social Sciences to give an appreciation of important areas of modern science and do not assume any specific background in science.

SCIENCE 1B00 UNIVERSITY SURVIVAL
Web-based (through WebCT) introduction to university life and expectations. University services and resources available to students will be covered. Weekly modules, consisting of quizzes and assignments, will include such topics as basic orientation, library usage, time management, academic dishonesty and career options. Online surveys for students to give their views on the course are to be completed in both December and April (follow-up).
One term
Prerequisite: Registration in Science I or Mathematics and Statistics I

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: OSS Grade 11 or OSS Grade 12 Mathematics required.
Antirequisite: ASTRON 1F03, SCIENCE 2D03

SCIENCE 2B03 THE BIG QUESTIONS
Ultimate questions in modern science: origin of the universe, nature of space and time, origin and evolution of life, creation of the elements, search for other worlds, and more.
Three lectures, one tutorial; first term
Prerequisite: Registration in Level II or above

SCIENCE 2J03 PHYSICS OF MUSICAL SOUNDS
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 or above of a non-science programme
Antirequisite: PHYSICS 2J03

Note
Knowledge of OSS Grade 11 Mathematics or OSS 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 or above
Antirequisite: BIOLOGY 1A03, 1A06, 1A13

Offered in alternate years.

SOCIAL SCIENCES

Notes:
1. All students are strongly recommended to complete SOC SCI 2E00. Completion of SOC SCI 2E00 is required for students who participate in an internship.
2. Students who previously completed SOC SCI 2E03 and 2F03 may substitute these units as Level II Sociology.
3. SOC SCI 2P03, 2F03, 2Q03 and 2P03 may be substituted as units of Level II Sociology.

Courses

If no prerequisite is listed, the course is open.

INQUIRY 1S03 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 session to session.
Three hours; one term
Prerequisite: Registration in Social Sciences I or Kinesiology I
Enrolment is limited

SOC SCI 2E00 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 3E00
(See Note 1 above.)
SOC SCI 2J03 INTRODUCTION TO STATISTICS
An introduction to basic statistical concepts and their application to the analysis of data from the social sciences. The use of spreadsheets is emphasized.

Three hours; one term
Prerequisite: Registration in Level II and above

Not open to students with credit or registration in: COMMERCE 2043, ECON 2B03, 3U06, 3U05, GEOG 2G03, GEOG 2LL3, 2N03, HTH SCI 1F03, KINESIOL 1A03, 1B08, 3C03, POL SCI 2F06, 3N06, PSYCH 2G03, 2R03, 2R05, SOCIOLO 2Y03, 3H05, STATS 1A03, 1CC3, 2MA3, 2MBS, 2R06

SOC SCI 2L03 TEACHING AND LEARNING FOR TUTORS
Provides an opportunity to explore teaching and learning using a variety of methods from the traditional lecture to more experiential methods (e.g., simulation). Self-directed learning will include experience in the classroom, reading and reflection, and discussion.

Three hours; one term
Prerequisite: Registration in Level II or above of an Honours Social Sciences or Kinesiology programme
Antirequisite: HTHSCI 4X03, INQUIRY 3S03, 4S03
Enrolment is limited

SOC SCI 2P03 CANADIAN ADOLESCENTS
This course deals with a spectrum of issues related to Canadian adolescents such as identity formation, moral development, abuse and strategies for a better future.

Three hours (lectures and discussion); one term
Not open to students with credit in SOC SCI 2E03 SELECTED TOPICS IN INTERDISCIPLINARY STUDIES II if the topic was Canadian Children.
(See Note 3 above.)

SOC SCI 2P03 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
Not open to students with credit in SOC SCI 2E03 SELECTED TOPICS IN INTERDISCIPLINARY STUDIES II if the topic was Canadian Children.
(See Note 3 above.)

SOC SCI 2P03 WOMEN AND FAMILY IN CANADA
A discussion of contrasting approaches to the study of the family from a Symbolic Interactionist perspective. Topics include mother-daughter, father-daughter, mother-son relationships and motherless, fatherless daughters.

Three hours (lectures and discussion); one term
Not open to students with credit in SOC SCI 2E03 SELECTED TOPICS IN INTERDISCIPLINARY STUDIES II if the topic was The Structure of the Family and the Role of Women in Historical and Contemporary Society.
(See Note 3 above.)

SOC SCI 2P03 WOMEN AND WORK IN CANADA
The life cycle of contemporary women, the increased integration into the labour force and the impact this has had upon their traditional role as wife and mother will be discussed. The experiences of women will be interfaced with those of men.

Three hours (lectures and discussion); one term
Not open to students with credit in SOC SCI 2F03 SELECTED TOPICS IN INTERDISCIPLINARY STUDIES II if the topic was Women and Work in Canada.
(See Note 3 above.)

SOCIAL WORK
WEB ADDRESS: http://www.socsci.mcmaster.ca/~socwork
Kenneth Taylor Hall, Room 319
Ext. 23795

Faculty as of January 15, 2003

Director
Ralph A. Brown

Professors
Jane Aronson/B.Sc. (New University of Ulster), B.S.W., M.S.W. (McGill), Ph.D. (Toronto)
Ralph A. Brown/B.A., M.S.W. (Waterloo Lutheran), D.S.W. (UCLA)
Roy Cairn/B.S.W., M.S.W., Ph.D. (McGill)
James J. Rice/B.A. (Sir George Williams), B.S.W., M.S.W. (Calgary), Ph.D. (Exeter)

Associate Professors
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)
Sheila Sammon/B.A. (Nazareth College, New York), M.S.W. (Toronto)

Assistant Professors
Donna Baines/(Labour Studies) B.S.W. (Calgary), M.S.W. (Ottawa), Ph.D. (Toronto)
Gary C. Dumbrell/B.Sc. (South Bank, London), M.S.W. (York), Ph.D. (Toronto)

Instructor
N.C. Agarwal/(Business) B.A., M.A. (Delhi), Ph.D. (Mississippi)
M. Dooley/(Economics) B.A. (Indiana), M.S., Ph.D. (Wisconsin-Madison)

Practice Instructors
Michael Balkwill/B.A., B.S.W., M.A. (McMaster)
Suzanne Brown/B.A., Wilfrid Laurier, B.S.W., M.S.W. (McMaster)
Donna Burns/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 Clottr/B.S.W. (Western Ontario), M.S.W. (Toronto), C.C.C.W. (Fanshaw)
Andrew Debick/B.A., B.S.W., M.S.W. (McMaster)
Margaret Doma/B.A., B.S.W. (Wilfrid Laurier)
Melissa Fraser/B.A. (Acadia), B.S.W., M.S.W. (Toronto)
M. Heather Gardner/B.A., B.S.W. (McMaster), M.S.W. (Toronto)
Rocco Giazzelle/B.A., B.S.W., M.S.W. (McMaster), M.S.W. (York)
Niki Gomez-Perales/B.A. (Winnipeg), B.S.W. (McMaster), M.S.W. (Toronto)
Gordon Greenway/B.A., M.S.W. (Carleton)
Rosemary Hibbert/B.A., B.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 Lazere-Vaion/B.A., B.S.W. (McMaster), M.S.W. (Toronto)
Linda Lear/B.S.W., M.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. (Dalhousie)
Shelley M. Rempel/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-Mouton/B.A., B.S.W. (McMaster), M.S.W. (Wilfrid Laurier)
Helen Tobias/B.A., B.S.W. (McMaster), M.S.W. (Wilfrid Laurier)
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)

School 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 3J03 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 4L03 Social Work and Indigenous Peoples
SOC WORK 4M03 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
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 2A06  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 2C03, 2C06, 2D03
Enrolment is limited.

SOC WORK 2B03  SOCIAL WELFARE: 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 programme must register for this course as SOC WORK 2B03.

SOC WORK 2B03  SOCIAL WELFARE: ANTI-OFFENSIVE POLICIES AND PRACTICES IN SOCIAL WORK
Exploration and analysis of systematic patterns of oppression, their relationships to social policies and practices and the implications for social work through a variety of instruction including experimental exercises. Topics could include: race, gender, disability, sexual orientation. Exercises, lectures, discussion; one term
Cross-list: LABR ST 2B03
Antirequisite: SOC WORK 2B06
Students in a Social Work programme 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

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. Lectures, discussion and selective use of community resources; one term
Prerequisite: Registration in a Social Work programme; or SOC WORK 1A06 and registration in Level III or above of any programme
This course may be taken as elective credit by undergraduates in Level III or above of a non-Social Work programme who complete 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, groups 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 both SOC WORK 2B03 and 2BB3; and SOC WORK 2A06 or both SOC WORK 2C03 and 2D03; and PSYCH 2A03 or SOC WORK 2E03
Corequisite: 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: SOC WORK 2B06 or both SOC WORK 2B03 and 2BB3; and SOC WORK 2A06 or both SOC WORK 2C03 and 2D03; and PSYCH 2A03 or SOC WORK 2E03
Corequisite: 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: Registration in a Social Work programme; or SOC WORK 1A06 and registration in Level III or above of any 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 3N03  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: Registration in a Social Work programme; or SOC WORK 1A06 and registration in Level III or above of any 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 4B03  ADULT FAMILY VIOLENCE
To assist students in acquiring knowledge and perspective concerning social policy issues pertaining to adult violence with emphasis on violence against women. Seminars; one term
Prerequisite: Registration in a Social Work programme; or SOC WORK 1A06 and registration in Level III or above of any programme
Not open to students with credit or registration in SOC WORK 4Z03
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 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 ascertainment and interpretation process. Seminars; one term
Prerequisite: Registration in a Social Work programme; or SOC WORK 1A06 and registration in Level III or above of any programme
Not open to students with credit or registration in SOC WORK 4Z03
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 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
SOCIOWORK 4F03 CHILD ABUSE
Societal and familial context; types of child abuse; child welfare policies; prevention, protection and treatment.
Seminar; one term
Prerequisite: Registration in a Social Work programme; or SOC WORK 1A06 and registration in Level III or above of any programme
Not open to students with credit in SOC WORK 4G03 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.

SOCIOWORK 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.
Seminar; one term
Prerequisite: Registration in a Social Work programme; or SOC WORK 1A06 and registration in Level III or above of any 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.

SOCIOWORK 4J03 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.
Seminar; one term
Prerequisite: Registration in a Social Work programme; or SOC WORK 1A06 and registration in Level III or above of any programme
SOC WORK 4J03 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.

SOCIOWORK 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.
Seminar; one term
Prerequisite: Registration in a Social Work programme; or SOC WORK 1A06 and registration in Level III or above of any 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.

SOCIOWORK 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.
Seminar; one term
Prerequisite: Registration in a Social Work programme; or SOC WORK 1A06 and registration in Level III or above of any programme
Antirequisite: 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.

SOCIOWORK 4M03 INTERNATIONAL AND COMPARATIVE SOCIAL WELFARE
Comparative perspective on problems of social structures in shaping social welfare institutions. Scope and limits of international collaboration.
Seminar; one term
Prerequisite: Registration in a Social Work programme; or SOC WORK 1A06 and registration in Level III or above of any 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.

SOCIOWORK 4P03 SOCIAL WORK WITH COMMUNITIES
Analysis of major community work strategies, historical antecedents, current developments and future potential in Canada. Student participation in analysis of a community project is expected.
Seminar; one term
Prerequisite: Credit or registration in SOC WORK 3006 and 3306; or permission of the instructor
SOCIOWORK 4P03 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.
Seminar; one term
Prerequisite: Registration in a Social Work programme; or SOC WORK 1A06 and registration in Level III or above of any programme
Antirequisite: 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.

SOCIOWORK 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: Registration in a Social Work programme; or SOC WORK 1A06 and registration in Level III or above of any 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.

SOCIOWORK 4X03 SOCIAL WORK WITH FAMILIES
Examination of relevant aspects of family theory for social work practice; models of family intervention.
Seminar; one term
Prerequisite: Credit or registration in SOC WORK 3006 and 3306; or permission of the instructor
Antirequisite: SOC WORK 3M03

SOCIOLOGY
WEB ADDRESS: http://socserv2.mcmaster.ca/sociology/
Kenneth Taylor Hall, Room 627 Ext. 24481

Faculty as of January 15, 2003
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)
Margaret Denton/Gerontological Studies) B.A., M.A., Ph.D. (McMaster)
John Fox/B.A., M.A., Ph.D. (Michigan)
Rhoda E. Hassmann/B.A., M.A., Ph.D. (McGill), F.R.S.C.
Department Notes:

1. Students should consult the Department's Handbook for Undergraduates, 2003-2004, which will be available prior to registration, for fuller course descriptions and any changes in the list of courses offered in 2003-2004. Students should check the Handbook in order to find the term in which 'one term' courses are offered. Please note that some courses in Sociology may require familiarity with the computer, including the Internet.

2. SOCIOl 1A06 and several other courses are divided into independent sections. For more information, see the Sociology Department's Handbook for Undergraduates, 2003-2004. This booklet gives course descriptions for the various SOCIOl 1A06 sections.

3. Prerequisite: Academically exceptional students wishing to take a course for which they do not have the prerequisite may seek permission of the instructor to register. However, priority is given in all Level III limited-enrolment courses to Sociology students, and in all Level IV courses to Honours Sociology students.

4. Limited enrolment courses: Level III courses identified as Enrolment limited have a limit of 65 students with the exception of those courses designated as Enrolment limited. Priority will be given to Sociology students.

5. Limited enrolment courses: Level IV courses are limited to 40 students. Admission to Level IV courses is by pre-registration ballot. All Level IV courses are normally only open to students registered in Level IV of an Honours Sociology programme. All students requiring registration in Level IV courses for the 2003-2004 Fall/Winter Session including part-time degree students, must obtain a ballot sheet from the Departmental Office (Kenneth Taylor Hall, Room 662). Students must return their ballot no later than May 6, 2003. Permission from the Department will be required to complete registration in Level IV limited enrolment courses.

Courses

SOCIOl 1A06 AN INTRODUCTION TO SOCIOLOGY
A survey of the areas of research which interest the sociologist. Interpretation of human action from the standpoint of the group.
Two lectures, one tutorial, two terms

SOCIOl 2C06 DEVIANT BEHAVIOUR
An analysis of deviant behaviour and conformity in relation to social structure and processes, and a discussion of problems of control within the social system.
Three hours (lectures and discussion); two terms
Prerequisite: SOCIOl 1A06
Enrolment is limited. Priority will be given to students registered in a Sociology programme.

SOCIOl 2D06 THE HUMAN GROUP
An examination of the individual in social interaction, with emphasis upon the relationships among individuals, social interaction and social structure.
Three hours (lectures and discussion); two terms
Prerequisite: SOCIOl 1A06
Enrolment is limited.

SOCIOl 2E06 RACIAL AND ETHNIC GROUP RELATIONS
The course deals with the study of racial and ethnic group relations in Canada and the United States.
Three hours (lectures and discussion); two terms
Prerequisite: SOCIOl 1A06

SOCIOl 2F06 POLITICAL SOCIOLOGY
A survey of state and civil institutions, focusing on current debates in the field.
Three hours (lectures and discussion); two terms
Prerequisite: SOCIOl 1A06
Antirequisite: SOCIOl 3F06
Enrolment is limited.

SOCIOl 2G06 SOCIOLOGY OF ORGANIZATIONS
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
Antirequisite: LABR 2T03, 3S03, SOCIOl 2903

SOCIOl 2L03 MEDIA INSTITUTIONS
An examination of the institutional structure and production processes of the press, television, and radio. Topics include news gathering, television and radio programme production and the relationship between media production and management.
Three hours (lectures); one term
Prerequisite: SOCIOl 1A06 or SOCIOl 1B03
Cross-list: CMST 2L03

SOCIOl 2F06 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. Priority will be given to students registered in a Sociology programme.

SOCIOl 2G06 SOCIOLOGY OF GENDER
A theoretical and empirical examination of gender differences and gender inequalities with a focus on women's experiences.
Three hours (lectures and discussion); two terms
Prerequisite: SOCIOl 1A06
Enrolment is limited.

SOCIOl 2K03 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 (lectures and discussion); one term
Prerequisite: SOCIOl 1A06
Antirequisite: SOCIOl 2K03

SOCIOl 2R03 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 elite, income, education, region, age, gender and race/ethnicity.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOl 1A06 or SOCIOl 2R03
Antirequisite: SOCIOl 2R03

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 a Sociology programme
Antirequisite: SOCIOl 2S03, 3A06

SOCIOl 2T06 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 1A06
Enrolment is limited. Priority will be given to students registered in a Sociology programme.
SOCIOLOGY

SOCIOLOGY 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

SOCIOLOGY 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 a Sociology or Social Work programme

Cross-list: ANTHROP 2Z03

Antirequisite: CMST 2A03, GEO 2H3, GERONTOL 2C03, HEALTHST 2B03

SOCIOLOGY 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 Level III and IV Honours Sociology students will have access to either this course, SOCIOL 3P03 or 3PP3.

SOCIOLOGY 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.

SOCIOLOGY 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 hours (lectures); one term

Prerequisite: Registration in a Communication Studies or Sociology programme

Cross-list: CMST 3C03

SOCIOLOGY 3CC3

**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

Antirequisite: GERONTOL 3M03

Enrolment is limited.

SOCIOLOGY 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

Enrolment is limited.

SOCIOLOGY 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, 2E06

Enrolment is limited.

SOCIOLOGY 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. Priority will be given to students registered in a Sociology programme.

SOCIOLOGY 3GG3

**SPECIAL TOPICS IN THE SOCIOLOGY OF DEVIANCEx**

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 2C06

SOCIOL 3GG3 may be repeated, if on a different topic, to a total of six units.

Enrolment is limited. Priority will be given to students registered in a Sociology programme.

SOCIOLOGY 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 Sciences programmes; SOCIOL 2Y03; all Statistics courses except STATS 1A03, 1L03, 2D03, 3D03, 3U03, 4H03

Enrolment is limited.

SOCIOLOGY 3H13

**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. Priority will be given to students registered in a Sociology programme.

SOCIOLOGY 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 2Z03; and registration in or completion of SOCIOL 3H06 (or the equivalent for students enrolled in a Combined Honours Programme); and registration in Honours Sociology

Antirequisite: GERONTOL 3R03

Enrolment is limited. However, the Department of Sociology guarantees that all Level III and IV Honours Sociology students will have access to either this course, SOCIOL 3U03 or 3W03.

SOCIOLOGY 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

Antirequisite: KINESIOL 3P03, 3Q03

SOCIOL 3J03 may be repeated, if on a different topic, to a total of six units.

Enrolment is limited.

SOCIOLOGY 3K03

**SPECIAL TOPICS IN SOCIOLOGICAL ANALYSIS II**

Same as SOCIOL 3J03.

Three hours (lectures and discussion); one term

Prerequisite: SOCIOL 1A06

SOCIOL 3K03 may be repeated, if on a different topic, to a total of six units.

Enrolment is limited.

SOCIOLOGY 3KK3

**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 3KK3

Antirequisite: SOC SCI 2C03

Enrolment is limited.

SOCIOLOGY 3LL3

**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.

SOCIOLOGY 3M03

**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

Antirequisite: GERONTOL 3R03

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 3M03 or 3W03.
SOCIOl 3P03  AMERICAN SOCIOLOGICAL THEORY
An advanced examination of classical and contemporary American sociological theory.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOl 2506 and registration in Level III or IV of an Honours Sociology programme
Antirequisite: SOCIOl 3A06
Alternates with SOCIOl 3P03.
Enrolment is limited. However, the Department of Sociology guarantees that all Level III and IV Honours Sociology students will have access to either this course, SOCIOl 3A03 or 3P03.
SOCIOl 3P03  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 progeny and critics.
Three hours (lectures and discussion); one term
Prerequisite: SOCIOl 2506 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 Level III and IV 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 discussion); one term
Prerequisite: Registration in Honours Sociology
Enrolment is limited. However, the Department of Sociology guarantees that all Level III and IV Honours Sociology students will have access to either this course, SOCIOl 3103 or 3003.
SOCIOl 3X03  SOCIOLOGY 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. Priority will be given to students registered in a Sociology programme.
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. Priority will be given to students registered in a Sociology programme.
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 4G3 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.
Enrolment is limited.
SOCIOl 4B33  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 4J03 or 4K03 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: 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 4G03  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
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 4G3  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 4G3 may be repeated, if on a different topic, 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: SOCIOl 2103 or 2106; 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 4I03  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 4I03 may be repeated, if on a different topic.
Enrolment is limited.
SOCIOL 4J3  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 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 4MM6  DIRECTED RESEARCH 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 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 II 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: GERONTOL 1A03 or SOCIOL 3X03; 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 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. Enrolment is limited.

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. Enrolment is limited.

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. Enrolment is limited.

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)
THEATRE & FILM

WEB ADDRESS:
http://www.humanities.mcmaster.ca/-sota/index.html
Togo Salmon Hall, Room 414
Ext. 27671

Courses and programmes in Theatre & Film are administered within the School of the Arts of the Faculty of Humanities.

Note:
Students are advised to note carefully the prerequisites for all courses, and take note which courses are offered in alternate years.

Courses  If no prerequisite is listed, the course is open.
THTR&FLM 1A03  INTRODUCTION TO THEATRICAL PERFORMANCE
An exploration of the ways theatre artists bring different production elements and performance techniques together to get audiences thinking about important social issues. Two lectures, one tutorial; one term
Antirequisite: DRAMA 1A03, 1A06, 1A6

THTR&FLM 1B03  INTRODUCTION TO FILM ANALYSIS
An introduction to an interrelated set of approaches to film study, all of which are defined by their attention to the filmic text and which provide students with a grasp of the fundamentals of film analysis. Two lectures, one tutorial, plus one weekly film screening; one term
Antirequisite: DRAMA 2X06
THTR&FLM 2A06 \ THE ART OF ACTING

Formerly: DRAMA 2A06
A practical exploration of the methods that inform the actor's art, designed to expose students to the range and complexity of performance styles. The class will be organized around a variety of approaches to the preparation of dramatic performances.
Two studios; two terms
Prerequisite: THTR&FLM 1A03, 1B03 (or DRAMA 1A03, 1AA3) with an average of at least 7.0, or DRAMA 1A06 with a grade of at least 85; and registration in a programme in Theatre & Film Studies. Students wishing to register in this course must submit an application form to the School of the Arts before March 31 to guarantee consideration for the following year.
Antirequisite: DRAMA 2A06
Enrolment is limited to 24 students. Departmental permission required.

THTR&FLM 2B03 \ INTRODUCTION TO PRODUCTION PRACTICES

Formerly: DRAMA 3D03
An introduction to the practical demands of teamwork in technical production. Students will participate in directed work with theatre artists on the Fall Major Production and the Winter Director's Series.
One hour class. Term One: 60 practicum hours. Term Two: 30 practicum hours.
Prerequisite: Registration in a programme in Theatre & Film Studies. Students wishing to register in this course must submit an application form to the School of the Arts before March 31 to guarantee consideration for the following year.
Antirequisite: DRAMA 3D03
Enrolment is limited to 24 students. Departmental permission required.

THTR&FLM 2C03 \ DRAMATIC FORMS

Formerly: DRAMA 2D03
Different performance techniques and conventions demand particular forms of dramatic narrative. By comparing the way similar stories are told in different media and genres, students identify the structuring elements of dramatic texts written for live performance, film television and music theatre.
Three hours (lectures and group presentations); one term
Prerequisite: DRAMA 1A03, 1AA3 (or 1A06); or THTR&FLM 1A03, 1B03
Cross-list: CMST 2P03, COMP LIT 2D03
Antirequisite: DRAMA 2D03, 2D06

THTR&FLM 2D03 \ HISTORY OF WESTERN THEATRE PERFORMANCE TO THE EIGHTEENTH CENTURY

Formerly: DRAMA 2L03
A survey of the traditions of Western theatre production from Classical Greece to the Eighteenth Century including architecture, design, stage machinery, the utilization of production, the training and preparation of the actor, and audience reception.
Three lectures; one term
Prerequisite: Registration in a programme in Theatre & Film Studies
Antirequisite: DRAMA 2L03, 2M03, 3G03

THTR&FLM 2E03 \ NEW MEDIA AND PERFORMANCE

Formerly: DRAMA 2B03
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 or above of a programme in Theatre and Film Studies or Communication Studies (Performance Studies Stream)
Antirequisite: DRAMA 2B03
Cross-list: CMST 2S03
Enrolment is limited to 50 students.

THTR&FLM 2F03 \ FILM HISTORY TO THE SECOND WORLD WAR

An introduction to the history of narrative film from its beginnings to the Second World War. It focuses on narrative cinema's development from aesthetic, social, technological and economic perspectives while also touching on a selected number of issues in film theory.
Two lectures, plus one weekly film screening; one term
Prerequisite: Registration in Level II or above of a programme in Theatre and Film Studies or Communication Studies (Cultural Studies Stream)
Cross-list: CMST 2X03 (formerly CMST 2X06)
Antirequisite: DRAMA 2X06
Enrolment is limited to 150 students.

THTR&FLM 2G03 \ 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 or above
Cross-list: CLASSICS 2E03, CMST 2Y03
This course is administered by the Department of Classics.

THTR&FLM 2H03 \ THE CONTEMPORARY JAPANESE FILM

This course examines the development of Japanese films since the Second World War, including contemporary feature films and animations, exploring the rich legacy of directors such as Akira Kurosawa, Kon Ichikawa, Juzo Itami and Masayuki Suo, and animation directors such as Hayao Miyazaki and Isao Takahata.
Two lectures, plus one weekly film screening; one term
Prerequisite: Registration in Level II or above
Cross-list: JAPAN 2F03
Offered in alternate years.
This course is administered by the Department of Modern Languages and Linguistics.

THTR&FLM 3A03 \ ACTING SHAKESPEARE

Formerly: DRAMA 3A03
The study and performance of scenes from the works of William Shakespeare. Extension of acting skills through specific voice, body and language techniques.
Two studios; one term
Prerequisite: DRAMA 2A06 or THTR&FLM 2A06; and registration in a programme in Theatre & Film Studies. Students wishing to register in this course must submit an application form to the School of the Arts before March 31 to guarantee consideration for the following year.
Antirequisite: DRAMA 3A03
Enrolment is limited to 18 students. Departmental permission required.

THTR&FLM 3B03 \ TOPICS IN ACTING

Formerly: DRAMA 3A03
An practical exploration of the 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 studios; one term
Prerequisite: DRAMA 2A06 or THTR&FLM 2A06; and registration in a programme in Theatre & Film Studies. Students wishing to register in this course must submit an application form to the School of the Arts before March 31 to guarantee consideration for the following year.
Antirequisite: DRAMA 3A03
THTR&FLM 3B03 may be repeated, if on a different topic, to a total of six units.
Enrolment is limited to 18 students. Departmental permission required.

THTR&FLM 3C03 \ STAGE AND PRODUCTION MANAGEMENT

A survey of the skills and practices of production management and stage management of theatrical performances. Students will undertake managing Theatre & Film Studies Productions as part of their course of study.
Term one: two hours; Term two: one hour (workshop and practical exercises)
Prerequisite: DRAMA 3D03 or THTR&FLM 2E03; and registration in a programme in Theatre & Film Studies. Students wishing to register in this course must submit an application form to the School of the Arts before March 31 to guarantee consideration for the following year.
Enrolment is limited to 12 students. Departmental permission required.

THTR&FLM 3D03 \ WESTERN THEATRE HISTORY: 1700-1885

A study of the major movements shaping Western theatre from the Restoration to the rise of Naturalism.
Two hours, plus play readings; one term
Prerequisite: Six units of Level II Drama or Theatre & Film
Offered in alternate years.

THTR&FLM 3E03 \ TWENTIETH-CENTURY THEATRE

An exploration of important formal and social experiments that marked twentieth-century theatre and paved the way for contemporary theatre forms.
Three hour lecture and discussion; one term
Prerequisite: Six units of Level II Drama or Theatre & Film; or registration in Level III or IV of a Comparative Literature programme and three units of Drama or Theatre & Film
Cross-list: COMP LIT 3C03
Offered in alternate years.
THTR&FLM 3F03 DEVELOPMENT OF CANadian THEATRE
Formerly: DRAMA 3E03
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 or Theatre & Film
Antirequisite: DRAMA 3E03
Offered in alternate years.

THTR&FLM 3G03 THEATRE AND COMMUNITY DEVELOPMENT
Formerly: DRAMA 3M03
Students will explore the different approaches to community-based theatre generated in a range of social and cultural milieux 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 or above
Cross-list: CMST 3M03
Antirequisite: DRAMA 3M03
Offered in alternate years.

THTR&FLM 3H03 COMPARATIVE THEATRE
Formerly: DRAMA 3G3
A comparison of two or more theatrical traditions.
Three lectures; one term
Prerequisite: Six units of Level II Drama or Theatre & Film; or registration in Level III or IV of a Comparative Literature programme and three units of Drama or Theatre & Film
Cross-list: COMP LIT 3G3
Antirequisite: DRAMA 3G3
Offered in alternate years.

THTR&FLM 3I03 STRATEGIES IN PERFORMANCE COMPOSITION
This course introduces students to artists' strategies in performance composition and practice. Students will critically analyze performative explorations and innovations regarding texts, spaces, bodies, audiences, including performance modes which challenge artistic, social and political norms.
Three hours; one term
Prerequisite: Six units of Level II Drama or Theatre & Film (including one of DRAMA 2B03, 2D03, 2L03, THTR&FLM 2C03, 2D03, 2E03); or ART HIST 3AAS
Not open to students with credit in DRAMA 2B03, NEW MEDIA AND PERFORMANCE, if taken in 2001-2002, or credit in THTR&FLM 2E03 if taken in 2002-2003.
Offered in alternate years.

THTR&FLM 3J03 CRITICAL STUDY OF PLAYS IN PERFORMANCE
An exploration of the critical study of live theatre performances. Students will be required to attend evening performances of professional theatre companies (i.e., Stratford Festival, Shaw Festival, Hamilton or Toronto theatres).
Two hours, plus weekly play attendance; one term
Prerequisite: Registration in Level II or above
Antirequisite: DRAMA 3P06
THTR&FLM 3J03 may be repeated, if on a different topic, to a total of six units.
Offered in alternate years.
Enrolment is limited to 45 students.

THTR&FLM 3K03 TOPICS IN DRAMATIC PERFORMANCE
An exploration of contemporary dramatic performance trends since 1960. Topics will vary and may cover dramatic performance in theatre, film, television or other media.
Three hours lecture and discussion; one term
Prerequisite: One of DRAMA 2B03, 2L03, THTR&FLM 2C03 or 2D03
THTR&FLM 3K03 may be repeated, if on a different topic, to a total of six units.
Offered in alternate years.

THTR&FLM 3L03 FILM HISTORY: 1941 TO the PRESENT
An exploration of narrative film from 1941 to the present day, incorporating a study of a variety of narrative cinema styles. Theoretical issues will include questions of cinema's relationship to other art forms, narrative, genre and authorship.
Two lectures, plus one weekly film screening; one term
Prerequisite: THTR&FLM 2F03
Cross-list: CMST 3X3
Antirequisite: DRAMA 2X06
Offered in alternate years.

THTR&FLM 3M03 FILM, VIDEO AND ENTERTAINMENT CULTURE
Critical approaches to forms of entertainment culture which permeate our everyday lives (e.g., popular films, video culture, television). Topics may include: the social and cultural meaning of popular imagery, viewing practices, star-making and star-gazing, commercial fiction.
Two hour lecture and discussion, plus one weekly film screening; one term
Prerequisite: DRAMA 2X06 or THTR&FLM 2F03
Cross-list: CMST 3SS3
Offered in alternate years.

THTR&FLM 3N03 INDEPENDENT FILM AND VIDEO
An introduction to artists' film and video produced outside of dominant institutions. Works and practices analyzed may include: forms of documentary, community-based projects, experimental films, short films, video art, low-budget features.
Two hour lecture and discussion, plus one weekly film screening; one term
Prerequisite: One of DRAMA 2B03, 2X06, THTR&FLM 2E03 or 2F03
Cross-list: CMST 3U15
Not open to students with credit in DRAMA 2B03, TOPICS IN NATIONAL CINEMAS II, if taken in 2001-02.
Offered in alternate years.

THTR&FLM 3P03 WOMEN AND VISUAL CULTURE
Students will explore ideas about representation, spectatorship and production in relation to issues of social difference, such as gender, race and class. Emphasis is on visual modalities such as film, video, television, advertising, etc.
Two hour lecture and discussion, plus one weekly film screening; one term
Prerequisite: Registration in Level III or above and one of ART HIST 2A03, CMST 2F03, 2I03, DRAMA 2X06, THTR&FLM 1B03 or WOMEN ST 1A06
Cross-list: CMST 3B03, WOMEN ST 3B03
Not open to students with credit or registration in WOMEN ST 3B03 if taken in 2001-2002.
This course is administered by Women's Studies.

THTR&FLM 3Q03 TOPICS IN NATIONAL CINEMAS
Formerly: DRAMA 3T03
This course examines cinematic forms in relation to national contexts and to perspectives about nation. Areas of investigation may include: filmic production of a particular country, national belonging, global/local characteristics, transnational identities.
Two hour lecture and discussion, plus one weekly film screening; one term
Prerequisite: One of DRAMA 2B03, 2X06, THTR&FLM 1B03, 2E03, 2F03
Cross-list: CMST 3T03, COMP LIT 3V03
Antirequisite: DRAMA 3T03
THTR&FLM 3Q03 may be repeated, if on a different topic, to a total of six units.
Offered in alternate years.

THTR&FLM 3R03 READING FILM
Formerly: DRAMA 3H03
A critical examination of selected films and film genres as cultural texts, using methods drawn from film theory and cultural studies.
Three lectures, plus one weekly film screening; one term
Prerequisite: Registration in Level II or above of a programme in Art History, Communication Studies, Comparative Literature, Cultural Studies and Critical Theory, English or Theatre & Film Studies. It is recommended that students should already have taken DRAMA 2X06 or THTR&FLM 2F03.
Cross-list: CMST 3C3, COMP LIT 3L03, CSCT 3CC3, ENGLISH 3CC3
Antirequisite: DRAMA 3H03
Offered in alternate years.
This course is administered by the Department of English.

THTR&FLM 3S03 INDEPENDENT STUDY IN PRACTICAL THEATRE
Formerly: DRAMA 3D03
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 Theatre & Film Studies no later than the first day of classes.
Prerequisite: Registration in an Honours programme in Theatre & Film Studies with a Cumulative Average of at least 8.0 and permission of the School of the Arts
Antirequisite: DRAMA 3D03

THTR&FLM 4F03 INDEPENDENT STUDY IN THEATRE & FILM II
Formerly: DRAMA 4F03
This course is reserved for Honours Theatre & Film Studies students with the demonstrated ability to work independently. Students must submit a written proposal to the Academic Counsellor for Theatre & Film Studies no later than the first day of classes.
Prerequisite: Registration in an Honours programme in Theatre & Film Studies with a Cumulative Average of at least 9.0 and permission of the School of the Arts.
Antirequisite: DRAMA 4903

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.

Acting Director
Vera Chouinard/(Geography and Geology)

Assistant Professor
Melinda Gough (English and Women’s Studies) B.A. (McGill), M.A., Ph.D. (Yale)

Academic Advisory Committee
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)
Karen Balcom/(History) B.A. (Carleton), M.A. (Dalhousie)
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 and Geography) B.A. (Carleton), M.A., Ph.D. (Toronto), M.A. (McMaster)
Patricia M. Deanezer/(Social Work) B.A., B.S.W. (York), M.S.W., Ph.D. (Toronto)
Susan Fast/(School of the Arts) B.M. (Washington State), M.A., Ph.D. (Iowa)
Ruth Frager/(History) B.A. (Rochester), M.A., Ph.D. (Toronto)
Kathy Gairay/(Archives) B.A. (East Anglia), M.A. (McMaster), Ph.D. (Toronto)
Melinda Gough/(English and Women’s Studies) B.A. (McGill), M.A., Ph.D. (Yale)
Janice Hladki/B.A. (York), M.A., Ph.D. (Toronto)
Mary O’Connor/(English) B.A. (McGill), M.A., Ph.D. (Toronto)
Bigitte Sassen/(Philosophy) B.A. (Toronto), M.A., Ph.D. (Pennsylvania State)
Mark Vorobej/B.A. (Carleton), M.A., Ph.D. (Toronto)
Jean Wilson/(Modern Languages and Linguistics and Comparative Literature) B.A. (McMaster), B.Ed., M.A., Ph.D. (Toronto)
Courses

If no prerequisite is listed, the course is open.

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; one term
Prerequisite: WOMEN ST 1A06 or permission of the Director of Women's Studies
Antirequisite: WOMEN ST 2A06

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; one term
Prerequisite: WOMEN ST 1A06 or permission of the Director of Women's Studies
Antirequisite: WOMEN ST 2A06

WOMEN ST 2A23 FEMINIST THEORIES
An introduction to the range of feminist theories and their epistemological foundations.
Three hours; one term
Prerequisite: WOMEN ST 1A06 or permission of the Director of Women's Studies
Antirequisite: WOMEN ST 3A06

WOMEN ST 2C03 PERSPECTIVES ON GENDER
An interdisciplinary overview of debates and research on the shaping of gender identity.
Three hours; one term
Prerequisite: Registration in Level II or 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; one term
Prerequisite: Registration in Level II or above
Cross-list: HISTORY 2F03
Antirequisite: HISTORY 2B66, WOMEN ST 2B06
This course is administered by the Department of History.

WOMEN ST 2F03 HISTORY OF WOMEN IN EUROPE TO 1650
An exploration of the history of European women and gender during the medieval and early modern periods, focusing on the political, social, spiritual, intellectual and economic realms.
Three hours; one term
Prerequisite: Registration in Level II or above
Cross-list: HISTORY 2F03
Antirequisite: HISTORY 2B66, WOMEN ST 2B06
This course is administered by the Department of History.

WOMEN ST 2F03 HISTORY OF WOMEN IN EUROPE FROM 1650
An exploration of the history of European women and gender in the modern era, focusing on women's changing roles in the economic and political spheres and the development of new visions of the family and sexuality.
Three hours, one term
Prerequisite: Registration in Level II or above
Cross-list: HISTORY 2F03
Antirequisite: HISTORY 2B66, WOMEN ST 2B06
This course is administered by the Department of History.

WOMEN ST 2H03 SOCIAL ASPECTS OF REPRODUCTION
An interdiscip-linear course exploring birth and reproduction. Topics may include: social determinants of reproductive health, fertility and birthing rituals, reproductive ethics, and policy and technologies.
Two lectures, one tutorial; one term
Prerequisite: Registration in Level II or above
Cross-list: HEALTHST 2H03, HTH SCI 2103

WOMEN ST 2H03 WOMEN'S HEALTH: A SOCIOCULTURAL 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; one term
Prerequisite: Registration in Level II or above.
WOMEN ST 1A06 is recommended.
Antirequisite: SOCIOL 4U03

WOMEN ST 2K03 STUDIES IN WOMEN WRITERS
A closely focused course on women's writing in English. The topic for this 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: CSCT 2K03, 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 or above, WOMEN ST 1A06 is recommended.
Cross-list: ENGLISH 2N03
Antirequisite: WOMEN ST 2A06

WOMEN ST 3A03 FEMINIST METHODOLOGIES
This course critically examines a range of feminist methodologies, focusing on issues of power/knowledge/research.
Three hours; one term
Prerequisite: WOMEN ST 2AA3 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; one term
Prerequisite: WOMEN ST 2AA3 or permission of the Director of Women's Studies
Antirequisite: WOMEN ST 3A06

WOMEN ST 3B03 TOPICS ON 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; one term
Prerequisite: Registration in Level II or above, WOMEN ST 1A06 is recommended.
WOMEN ST 3B03 may be repeated, if on a different topic, to a total of six units.

WOMEN ST 3B03 WOMEN AND VISUAL CULTURE
Students will explore ideas about representation, spectatorship and production in relation to issues of social difference, such as gender, race and class. Emphasis is on visuality in forms such as film, video, television, advertising, etc.
Two hour lecture and discussion, plus one weekly film screening; one term
Prerequisite: Registration in Level III or above and one of ART HIST 2A03, CMST 2F03, 2103, DRAMA 2X08, THTR&FLM 1903 or WOMEN ST 1A06
Cross-list: CMST 3B03, THTR&FLM 3P03
Not open to students with credit or registration in WOMEN ST 3B03, if the topic was Images of Women: Reading Art, Media and Popular Culture.
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 inquiry: environmental ethics, anti-militarism, earth-goddess religions and the nature/culture debate.
Three hours; one term
Prerequisite: Registration in Level II or above. WOMEN ST 1A06 is recommended.

WOMEN ST 3CC3  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; one term
Prerequisite: Registration in Level II or 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; one term
Prerequisite: Registration in Level II or above. WOMEN ST 1A06 is recommended.
Cross-list: CMST 3W03
Antirequisite: WOMEN ST 3D06

WOMEN ST 3D06  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; one term
Prerequisite: Registration in Level II or above. WOMEN ST 1A06 is recommended.
Cross-list: CMST 3WW3
Antirequisite: WOMEN ST 3D06

WOMEN ST 3E03  SPECIAL TOPICS IN WOMEN'S ISSUES
Recent topics have included: Ethical Issues in Women's Health, Feminist Issues in Reproduction and Motherhood, Women and Spirituality, Women in Islam. Consult the Office of Interdisciplinary Studies concerning topic to be offered.
Three hours; one term
Prerequisite: Registration in Level II or 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; one term
Prerequisite: Registration in Level II or 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 or above
Cross-list: HISTORY 3WW3
Antirequisite: WOMEN ST 3X03
This course is administered by the Department of History

WOMEN ST 3H03  CRITICAL RACE STUDIES
This course examines contemporary debates in critical race theory in an attempt to critically decode the operations of race in literary and cultural texts.
Three hours; one term
Prerequisite: Registration in a programme in Comparative Literature, Cultural Studies and Critical Theory, English, Peace Studies, Women's Studies or permission of the Departmental Counsellor in the Department of English.
Cross-list: COMP LIT 3RR3, CSECT 3A03, ENGLISH 3A03, PEACE ST 3A03
This course is administered by the Department of English.

WOMEN ST 3H13  THEORIES OF GENDER AND SEXUALITY
This course explores a range of theories of gender and sexuality by working through readings from the intersecting fields of feminist, queer and masculinity studies.
Three hours; one term
Prerequisite: Registration in a programme in Comparative Literature, Cultural Studies and Critical Theory, English, Women's Studies or permission of the Departmental Counsellor in the Department of English.
Cross-list: COMP LIT 3AA3, CSECT 3AA3, ENGLISH 3AA3
This course is administered by the Department of English.

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 3J03  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 or above
Cross-list: COMP LIT 3J03
This course is administered by Comparative Literature.

WOMEN ST 4A06  INDEPENDENT RESEARCH
Students develop their own research projects, in regular consultation 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 goods, 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 Women'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 4B33  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 4B33
Enrolment is limited.

WOMEN ST 4C03  TOPICS IN FEMINIST SCHOLARSHIP:
WOMEN IN CANADA
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.
WOMEN'S STUDIES

WOMEN ST 4CC3  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.

WOMEN ST 4D03  INDEPENDENT STUDY
In consultation with a faculty member, students will research an approved topic, on the basis of materials outside normally available course offerings. A major paper will be required.
Prerequisite: Registration in Level IV of the Combined Honours in Women's Studies programme and permission of the Director

Note:
The following courses, offered by other departments, may be used to help fulfill Women's Studies programme requirements, provided that the prerequisite requirements of the home department are fulfilled.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHROP 2R03</td>
<td>Religion, Magic, and Witchcraft</td>
</tr>
<tr>
<td>ANTHROP 3R03</td>
<td>The Anthropology of Gender</td>
</tr>
<tr>
<td>COMP LIT 4E03</td>
<td>Topics in Comparative Literature (when the topic is Twentieth-Century Women Writers)</td>
</tr>
<tr>
<td>HISTORY 4H06</td>
<td>Canadian Women's History</td>
</tr>
<tr>
<td>HUMAN 2F03</td>
<td>Selected Interdisciplinary Topics in Medieval Life and Culture</td>
</tr>
<tr>
<td>KINESIOL 4T03</td>
<td>Gender, Sport and Leisure</td>
</tr>
<tr>
<td>LABR ST 2D03</td>
<td>Different Labours, Different Voices</td>
</tr>
<tr>
<td>LABR ST 3E03</td>
<td>Women, Work and Trade Unionism</td>
</tr>
<tr>
<td>RELIG ST 2B03</td>
<td>Women in the Biblical Tradition</td>
</tr>
<tr>
<td>RELIG ST 2B83</td>
<td>Images of the Divine Feminine</td>
</tr>
<tr>
<td>RELIG ST 2S53</td>
<td>Women and Religion</td>
</tr>
<tr>
<td>SOC WORK 4R03</td>
<td>Social Work with Women</td>
</tr>
<tr>
<td>SOCIOL 2Q06</td>
<td>Sociology of Gender</td>
</tr>
<tr>
<td>SOCIOL 2U06</td>
<td>Sociology of the Family</td>
</tr>
<tr>
<td>SOCIOL 3D03</td>
<td>Special Topics in the Sociology of the Family</td>
</tr>
<tr>
<td>SOCIOL 3E03</td>
<td>Selected Topics in the Sociology of Women</td>
</tr>
<tr>
<td>SOCIOL 3X03</td>
<td>Sociology of Aging</td>
</tr>
<tr>
<td>SOCIOL 4U03</td>
<td>Special Topics in the Sociology of Women</td>
</tr>
</tbody>
</table>
ACADEMIC FACILITIES, STUDENT SERVICES AND ORGANIZATIONS

THE UNIVERSITY LIBRARY

Web Address
http://library.mcmaster.ca/

E-mail Address
libinfo@mcmaster.ca (Business, Humanities, Social Sciences, Science and Engineering)
hslib@mcmaster.ca (Health Sciences)

University Librarian
Graham R. Hill, B.A., M.A., M.L.S.

Health Sciences Library
Dorothy Fitzgerald, B.A., M.L.S./Director

Reader Services
Shelia 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./Director Bibliographic Services

Administrative Services
Mary Ruth Linkert/Administrator

Systems Development
Paul Otto, B.A., B.Ed., M.L.S./Assistant University Librarian

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 2001 contained more than 1,875,000 volumes, over 3,800 electronic journals and 11,386 linear feet of archival material. Current periodical titles number about 10,800.

The McMaster University Libraries Gateway (http://library.mcmaster.ca) contains information on collections, hours and services in all the campus libraries; and is the access point to thousands of electronic resources provided by the libraries. An on-line tutorial, http://dot@mac is also available through the Gateway. Service is maintained at key Reference points in the various libraries and in-library instructional sessions are available.

Mills Library has several collections - Reference, Periodicals, Government Publications, Music, Maps, 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 F阜dor, 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/CUCND papers and other related collections. There are holdings of the records of a number of labour unions, including USWA Local 1005, USWA, District 6, 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, Administration
Lillian Schme, B.A., M.B.A., C.M.A.

Director, CIS
Pat O'Day, B.A.

Networking Services
Robin Griffin, B.Sc., Ph.D./Senior Manager

Infrastructure Systems and Support
Brian McEntegart, B.Sc./Associate Director

Information Services
Heather Grigg/Associate Director

Administration
Barb Campbell, B.A./Senior Manager, Departmental

CIS provides computing services in support of both administrative and networking activities. 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. MUGSI provides students access to their academic and personal data via the web. 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 106, Kenneth Taylor Hall, Rooms 8110, 8111, B122 and B123 and the Health Sciences Library. All labs provide access to the worldwide 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 152.

Every undergraduate and graduate student can register for an email 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 with full access to the WWW and email provided. All of the McMaster residences have network wiring allowing students access to 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 programs.
GENERAL SCIENCE BUILDING, Room 217, ext. 24540

Web Address
http://www.mcmaster.ca/cll

E-mail Address
cll@mcmaster.ca

Academic Director
Appointment Pending

Executive Director
Dale Roy, B.A., M.A.

Educational Consultants
Erika Kustra, Ph.D.

Administrative Assistant
Sylvia Riselay

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 build 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 apply and evaluate a variety of 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 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 and organizes T.A. Day, a campus-wide welcome and orientation programme for teaching assistants. It also offers a series of minicourses 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, and group discussion. Simulations and the use of technology in education.

Peer Consultation: The University has a group of faculty members who are trained to help other instructors collect information on how a course is going. The process is designed to give instructors feedback on a course, not to give advice on how to teach it. The ultimate goal is to improve the quality of student learning. All communications are confidential, and every peer consultant has experienced the process as a client as well as a consultant.

Refining a Course: This model of course consultation takes approximately 2.5 hours. The course instructor, the students in a particular course, and a third party come together early in the term with the intention of modifying one particular course. Since the instructor has final responsibility, he or she initiates the process and sets the boundaries for what can be modified.

Library Resources: The CLL Library is a collection of over 5,700 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.

CLL Home Page: A selection of teaching tips and other information about the CLL are available at the following website: http://www.mcmaster.ca/cll.

MCMASTER MEDIA PRODUCTION SERVICES

Web Address
http://www.media.mcmaster.ca

E-mail Address
moorcr@mcmaster.ca

Media Production Services (MPS) provides complete media service to faculty, staff and students whether the project is for education, research or personal use.

PRINTING SERVICES DIVISION

Michael G. DeGroote School of Business, Room B111, ext. 24447 or Health Sciences Centre, Room 1T5, ext. 22348

Printing Services is equipped to provide all printing needs. The State-of-the-art facility allows for submission of both electronic files and traditional hard copy. The services include pre-press and file manipulation services, electronic printing in black and white and full colour plus traditional offset and full bindery services.

CREATIVE DESIGN AND IMAGING DIVISION

Health Sciences Centre, Room 1G1, ext. 22301

MPS Creative Design team provides a full range of communication pieces from concept to completion. Custom brochures, logos, newsletters, annual reports, poster presentations can be enhanced with digital images and traditional prints photographed by our team of photographers. We also provide lab services for negatives, slides and negatives, small and large prints photographed by digital enhancement and photo editing can be achieved from slides, prints, negatives and electronic files. Output can be provided in either high or low resolution to produce large format posters, high quality prints as well as archival and web page content.

VIDEOCONFERRING

Health Sciences Centre, Room 1G1, ext. 22301

Videoconferencing is available in our in-house facility. Our completely interactive system is available for departmental, teaching or personal use. We provide archiving and streaming of conferences upon request.
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 Margaret Denton in Kenneth Taylor Hall, Room 226, ext. 24449.)

MCMASTER CENTRE FOR GERONTOLOGICAL STUDIES

- Kenneth Taylor Hall, Room 226, ext. 24449

Director
Margaret A. Denton, 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 collaboration on education, research, 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 funding, while specific projects are funded by public agencies, private foundations, or user fees. The Undergraduate Degree Studies in Gerontology programme is administered by this Centre. The various degree options are described in this Calendar in the Faculty of Social Sciences section, Gerontological Studies.

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.
6. to actively support research, education policy and practice for the benefit of older persons.

OFFICE OF INTERNATIONAL AFFAIRS

- Gilmour Hall, Room 307, ext. 24700, 24211, 22916

Web Address
http://www.mcmaster.ca/olia

International Admissions Inquiries E-mail Address
inadim@mcmaster.ca

Executive Director
Luke Chan

Senior Project Manager/International Liaison Officer
Ni Jadon

Project Officer
Theresa Bae

May Zhal

Administrative Coordinator
Laurine 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 key areas including international student recruitment, development of international projects, international programmes and international fund-raising and development.

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
Appointment Pending

Collections and Operations Manager
G. Loveys, B.A.
E-mail: loveys@mcmaster.ca

Installations/Preservation Officer
J. Petteplace, B.A.
E-mail: jpette@mcmaster.ca

Director's Assistant
Z. McLachlan, B.A., B.Ed.
E-mail: mclachz@mcmaster.ca

Assistant Curator/Exhibitions Manager
C. Butterfield, B.Des.
E-mail: butferc@mcmaster.ca

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

Q. Rennick, B.A.
Appointment Pending

Located at the west end of Mills Library on University Avenue, the 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.
ACADEMIC FACILITIES, STUDENT SERVICES AND ORGANIZATIONS

STUDENT SERVICES

Student Affairs Web Address
http://www.access.mcmaster.ca

ASSOCIATE VICE-PRESIDENT (STUDENT AFFAIRS)

➢ Gilmour Hall, Room 207, ext. 27455
The Associate Vice-President (Student Affairs) leads a variety of specialized student services 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

➢ McMaster University Student Centre, Room B107, ext. 24711
Web Address
http://csd.mcmaster.ca/
Director
Appointment Pending
Learning Disabilities Coordinator, Disability Specialist
Caroline Cayuga
Programme Coordinators, Disability Specialists
Karri Anne Fitzgerald
Tim Nolan
Learning Strategist
Nancy McQuigge
Assistive Technologist
Kim Shaw
Academic Skills Counsellor/Coordinator
David Palmer
Patrick Burek
Counsellors
Marge Marriott (Leadership Coordinator)
Igor Sukonnik
Patrick Burek
Psychologists
Debbie Nifakis
Two Appointments Pending
Administrative Assistant
Rachel Dinunzio
Noreen Myers
Accommodations Assistant/Receptionist
Julia Shelly
Systems Administrator
Mike Dinunzio
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) and a programme that develops leadership skills.

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.
• Interest in developing leadership skills.
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 or accommodations 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.

Dr. Mary E. Keyes Certificate of Leadership
The Centre has developed a Leadership Certificate Programme for current student leaders and for students who want to take a leadership role on campus, in their community or in their current or future workplace. The goal of the Leadership Certificate is to assist students in learning some of the skills necessary to take on leadership roles and to work with others collaboratively, responsibly and effectively.
The Certificate is comprised of a total of eight required and elective workshops, 40 hours of community service and a short written component. The workshops include:
• Leadership 101
• Effective Communication Skills
• Conflict Resolution
• Goal Setting
• Assertiveness Skills
• Leadership Diversity
• Leadership Styles
• Being a Team Player/Leader
• Decision Making
Please note that this certificate programme does not currently qualify for credit towards an undergraduate degree.

SEXUAL HARASSMENT/ANTI-DISCRIMINATION OFFICE (S.H.A.D.O.)

➢ Kenneth Taylor Hall, Room 118, ext. 23641
Web Address
http://www.mcmaster.ca/shado
E-mail Address
shado@mcmaster.ca
Officer
Cindy Player
ext. 23641
E-mail: playerc@mcmaster.ca
Human Rights Educator
Jane Mulkewich
ext. 24067
E-mail: mulkew@mcmaster.ca
Administrative Assistant
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. Cindy Player (Sexual Harassment/Anti-Discrimination Officer) is available to any member of the university community with questions or concerns regarding situations that may involve sexual harassment or human rights. Jane Zulkiewicz is the Human Rights Educator at McMaster. In that role, she 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) 527-0271, ext. 46114) and Dr. Anne Niec ((905) 521-2100, ext. 73166). 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 p.m. to 9:00 a.m. 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) 525-9140, ext. 23641). The fax number for the office is (905) 522-7102 and TTY is (905) 521-8709. Wheelchair accessible.

ATHLETICS AND RECREATION

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 2464 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 27 teams competing at the provincial (OUA) and national (CIS) level. There are also four 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 urges all members of the Community to take advantage of its facilities and programmes.

BOOKSTORE

Web Address
http://www.titles.mcmaster.ca

E-mail Address
bookstr@mcmaster.ca

Titles, McMaster 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

Gilmour Hall, Room 110, ext. 24254

Web Address
http://careers.mcmaster.ca/

E-mail Address
cpec@mcmaster.ca

Manager
Lisa Boniface

Career Counsellors
Laurie Barlow-Cash
David Lawson

Employment Counsellor
Rebecca Markey

Career Information Staff
Alex Alvarez
Sergio Barlow

Employment Services Staff
Angela Fortino
Mary Murphy
Gislene Oliveira

Events and Marketing Coordinator
Heather Hiness

Office Coordinator
Amanda McFarland

Technical Support Staff
Alex Hines
Sergio Venier

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 website (http://careers.mcmaster.ca). There you will find a full introduction to our services, our staff and our many available resources. Our on-line job posting system, eRecruiting links graduates and current students with exciting employment opportunities.
OFFICE OF THE INTERNATIONAL STUDENTS' ADVISOR/STUDENT EXCHANGES/WORK AND STUDY ABROAD

Web Address
http://www.oisa.mcmaster.ca

Office of the International Students' Advisor
➢ Gilmour Hall, Room 104, ext. 24748

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
• liaison with sponsoring agencies, foreign governments, consulates and embassies
• general advising and counselling regarding personal, financial and academic problems

The Office produces an International Students' Handbook which provides 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 Plan (UHIP) which is mandatory for all international students.

Student Exchanges/Work and Study Abroad
➢ Gilmour Hall, Room 104, ext. 24748

The Office provides information on a range of options from independent study and externally sponsored programmes, to summer session and McMaster's formal student exchanges. As well, information concerning opportunities for working and volunteering abroad is provided.

McMaster University has formal student exchanges with universities in 26 countries abroad and participates in the Canada Scholar Exchange Programme (CANEK), which includes the following ten Canadian universities:

• University of Alberta
• University of British Columbia
• University of Toronto
• University of Waterloo
• University of Western Ontario

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, through eRecruiting;
• 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 and Work Search.

The office is open 8:30 a.m. to 4:30 p.m. Monday to Friday. The phone number is (905) 525-9140, ext. 24254 and the fax number is (905) 529-8972.

STUDENT FINANCIAL AID AND SCHOLARSHIPS

➢ Gilmour Hall, Room 120, ext. 24319

Web Address
http://sfas.mcmaster.ca

E-mail Address
awards@mcmaster.ca or osap@mcmaster.ca

Director
E. Seymour

The office administers a variety of programmes which are accessed by more than half of all full-time students as well as a large number of part-time students attending McMaster. These programmes include the Ontario Student Loan Programme, Canada Student Loan Programmes, Part-Time Canada Student Loan Plan, Ontario Work Study Programme, Ontario Special Bursary Programme, University Bursary and Emergency Loan Programme, and Undergraduate Scholarships. 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.

CAMPUS HEALTH CENTRE

➢ McMaster University Student Centre, Room B101, ext. 27700
➢ Health Education Services, McMaster University Student Centre, Room B106, ext. 27619

Web Address
http://www.mcmaster.ca/shs

Medical Director
Jan Young

Clinic Director
Julie Fais

Service

Health care is available to all university students year-round at the Campus Health Centre (CHC). Appointments can be made by calling (905) 525-9140 ext. 27700.

Staffed by family physicians, registered nurses, health educators and administrative staff, the Campus Health Centre provides medical care similar to your family physician at home. Services include medical assessment and treatment; annual health examinations (physicals); birth-control counselling; assessment and treatment of depression, eating disorders, anxiety and other mental or emotional health problems; allergy injections; immunization; on-site laboratory; pregnancy tests; and information or counselling for personal health concerns. A specialist in sports medicine is available for sports related injuries. Physiotherapy, massage and chiropractic services are now available at the Campus Health Centre through a new partnership with the Sports Injury Clinic. A registered dietitian is available on a fee-for-service basis. For students living in residence, a nurse is located in residence in the evenings on a part-time basis.

The CHC Health Educators can be reached at (905) 525-9140, ext. 27619. The Health Educators are 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 or both the fall and winter terms. Contraceptive supplies (birth control pills and condoms) are dispensed at a reduced cost to patients of CHC. Further information and an update on services offered can be obtained by calling the Campus Health Centre office at (905) 525-9140, ext. 27700 or check our web site at http://www.mcmaster.ca/shs.


HOSPITALITY SERVICES

- Commons Building, Room 116, ext. 24422

Web Address
http://hospitality.mcmaster.ca

Director, Hospitality Services
Albert Y. Ng

McMaster Hospitality Services is a self-supporting department that strives to ensure that dining experiences on campus are positive. Our goal is to provide high quality food services, convenience and value.

Students living in residence are required to purchase a meal plan. The MAC Express Meal Plan works on a debit or credit system and offers a variety of meal plan options for residence and off campus students. Depending on the meal plan chosen, this allows students to use one card at all Hospitality Services locations and at our off-campus vendors. For 2002-2003 the off-campus vendors included East Side Mario's, Kelsey's, Pita Pit, Player's, 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 128.

Hospitality Services has five full-service dining locations located conveniently across campus. During the regular academic school year from Monday to Friday meals can be obtained anytime from 7:00 a.m. - 12:00 midnight, weekends from 10:00 a.m. - 12:00 midnight or can be delivered as late as 3:00 a.m. by one of our off-campus vendors.

- The Commons Marketplace provides students with a varied dining experience and is home to Your Healthy Choice, Pacific Rim, Chef's Table, Pierer's Deli and Pizza+++
- Our newest location, East Meets West Bistro is located in the Mary Keyes Residence Building. This new restaurant serves the west quad of campus and is set in a two story glass atrium. Featuring International and Continental cuisine, East Meets West Bistro offers brick oven pizza, rotisserie grill, stir fry station and Tim Horton's.
- La Piazza, an open 'marche style' marketplace is located in the McMaster University Student Centre and features Pizza, Tim Horton's, Pierer's Deli, Creation X International Grille, Williams' Coffee Pub and Made in Japan.
- The Wokery, located in Kenneth Taylor Hall, is a popular lunch destination for Chinese food prepared fresh to order.
- The 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 and the Tech Wave Café located in the Information Technology Building, feature Starbucks' coffee in addition to a variety of delicious desserts.
- Visit our website (http://hospitality.mcmaster.ca) 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 11 on-campus residence buildings, accommodating a total of 3,083 students. The nine traditional-style residences consist of two women's residences and seven co-educational residences. A variety of themes and lifestyle options are available: International House and La Maison Francaise for those interested in learning about other cultures; Health Education House, and West Residence for students wishing to balance healthy living with academic studies. Housing and Conference Services will expand the opportunity for lifestyle options based on interest and demand.

In addition, an apartment-style residence (Bates Residence) accommodates approximately 500 male and female students. All apartments are furnished (except for a television). A new residence building (Mary E. Keyes Residence) housing 20 students in furnished suite-style accommodation will open in Fall 2003. Bates and Mary E. Keyes students can purchase a meal plan directly from the Mac Express Centre, Commons Bldg., Room 116, ext. 27448.

Eighty percent of the spaces in residence are reserved for incoming first-year students. Admission offers to residence are based on the student's academic programme. All students with an 80% 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 academic average for applications received in the Residence Admissions Office by the 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 the 2003-2004 Campus Living available through Housing and Conference Services, Commons Building, Room 101, (905) 526-9140 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 or extra-large. Residents use their student ID cards as a debit card for food service locations. Our off-campus locations include Mascot Plaza, East Side Mario's, La Piazza, and more. Residents may also use the meal plan at several local off-campus restaurants. (Note: Residence fees and meal plans do not include the December holiday break.)

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 Conferences. 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) 526-9140 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.

Residence students and staff are supported by six full-time Residence Managers, all of whom live in residence. The staff members are available to answer questions, ensure community standards are followed and coordinate programmes and activities.

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, renovations, student damages, safety and security needs, furnishings, cleaning, residence recreational facilities, and the 24 hour Housing and Conference Service Centres located in Mary E. Keyes Residence (west campus, ext. 24899) 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 McKay Residence, Room 124, (905) 525-9140, ext. 24781. All reservations can be made by email to confs@mcmaster.ca.

OFF-CAMPUS HOUSING

Web Address
http://www.macacho.com

E-mail Address
occho@mcmaster.ca

The Off-Campus Housing Office (OCHO) maintains up-to-date lists of available rental accommodation in Hamilton and the surrounding area. It also provides free bus route maps, city 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 the McMaster University Student Centre, Room B112, (905) 525-9140 ext. 24086. Visit our website to see all the listings of available rental units by zone and category.

PARKING

➤ E.T. Clarke Centre, ext. 24232 or 27416

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 midnight of the last business day of July. It is 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, 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, (905) 525-9140 ext. 24232 or 27416 and is open Monday to Friday from 9:00 a.m. to 4:00 p.m.

UNIVERSITY CHAPLAINS

➤ McMaster University Student Centre, Room 231, ext. 24207

Web Address
http://www.mcmaster.ca/chaplain

E-mail Address
chaplain@mcmaster.ca

The McMaster Chaplaincy Centre is open to all students and the campus community. 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 counseling for a wide range of concerns; groups to deal with topics such as bereavement support; and an experience of community through cost suppers, Christian 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.

STUDENT GOVERNMENT AND ORGANIZATIONS

MCMASTER STUDENTS UNION

➤ McMaster University Student Centre, Room 201, ext. 22003

Web Address
http://www.msu.mcmaster.ca

Purpose: The McMaster Students Union is a student-operated corporation with a cash flow exceeding 3.5 million dollars and extensive operations spanning over 30 unique departments. More than 15,000 full-time undergraduate students (enrolled in 18 units or more) belong to the MSU by virtue of their supplementary fees paid at registration.

Services of the MSU: Considered one of the most extensive student unions in Canada, the MSU offers an array of services as well as employment and volunteer opportunities for students at McMaster. These services include the campus restaurant/hot club (Quarters), a convenience store (The Union Market), a games room (House of Games), the Design and Copy Centre, an advertising department (CAB), an information centre (Compass), a child care centre, the Gay, Lesbian, Bisexual and Transgendered Centre, a yearbook (The Marmot), the Student Health Insurance Plan, a campus events department (which organizes Welcome Week, Homecoming and other special events), and a jointly funded Ombuds Office. The MSU offers volunteer opportunities through the Emergency First Response Team (EFRT), a radio station (95.3 CFMU FM), a newspaper (The Silhouette), a Student Walk Home Attendant Team (SWHAT), a Student Health Education Centre (SHEC), the Maroons, and more than 120 clubs, including academic, political, religious, cultural and general interest.

Student Government: The Student Representative Assembly (SRA) consists of 35 elected individuals who represent student needs in crucial matters and is the governing body of the MSU. It meets bi-weekly to discuss issues varying from the fate of the campus radio station to the amount of study space on campus. The President is elected by the entire student body while the Vice- Presidents Administrations, Education and Finance are elected by the SRA.

Committees: Hundreds of energetic and ambitious volunteers form committees which are the powerhouse of the Students Union. Standing committees of the SRA include Alcohol Awareness, Community Relations, Elections, Environment, Events, Finance, Gender Equity, Human Rights, Public Relations, Teaching Awards, and Constitution, Bylaws and Policies.

Student Centre: The MSU is the major stakeholder in the new McMaster University Student Centre. Most of the mentioned services are located here, including the President and student representatives. For further information, visit the Compass Information Centre, or call (905) 525-9140, ext. 22003.
Fraternities and Sororities are not recognized by McMaster University and are not permitted to associate with the University in any way. The University is not responsible for any acts by these groups.

OMBUDS OFFICE

➢ McMaster University Student Centre, Room 210, ext. 24151

E-mail Address
ombuds@mcmaster.ca

E-mail Address
http://www.mcmaster.ca/ombuds

E-mail Address
Ombudsperson
Shelley Lancaster

The Ombuds Office provides information and advice to the McMaster community to assist in the resolution of University related complaints and concerns. The Ombuds Office handles academic and non-academic matters as well as issues arising out of the provision of services such as parking, accommodation, security and financial aid.

The Ombuds Office provides a confidential service provided by the McMaster Students Union in conjunction with the University.

MCMASTER ASSOCIATION OF PART-TIME STUDENTS (MAPS)

➢ McMaster University Student Centre, Room 234, ext. 22021

Web Address
http://www.mcmaster.ca/maps/

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.

When classes are in session MAPS office hours are:
  - Monday to Thursday: 10:00 a.m. to 8:55 p.m.
  - Friday: 10:00 a.m. to 2:00 p.m.

All other time, MAPS office hours are:
  - Monday to Thursday: 10:00 a.m. to 7:00 p.m.
  - Friday: 10 a.m. to 2:00 p.m.

The MAPS Office is also 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 or one cannot be dropped 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: the Centennial Award for degree students, the Centennial Award for certificate/diploma students, 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 e-mail, WordPerfect, Word or Excel.

If you are a part-time student, MAPS is for you. MAPS provides a bridge between you and the University, helping you to 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

➢ President’s Residence, ext 23900

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 125 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 such as Brantford, Vancouver, Ottawa, Toronto and Hong Kong. Branches also connect alumni to their faculty or department through groups like the Nursing Alumni Branch and Michael G. DeGroote School of Business Alumni Association. Still other branches create connections among Mac grads who share a common interest or affinity, like the MSU Alumni Branch or Athletics Alumni Association.

The MAA also offers programs in the greater Hamilton community. The McMaster Alumni Connection (MAC) Luncheon Series brings high profile speakers to downtown Hamilton to talk with McMaster alumni and friends, and the Albert Lager Event 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, order CDs and DVDs on-line, 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, comprise the MAA Board of Directors, and along with hundreds of other alumni volunteers, provide alumni programming in conjunction with the Office of Alumni Advancement. Both the Office and the Association can be contacted in the President’s Residence, 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 President’s Advisory Committee on Campus Names, in accordance with the policy of the Board of Governors.

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.

(Johns, December 9, 1993) Information concerning the nomination can be obtained via the Vice-President (Administration), Chair, President’s Advisory Committee on Campus Names, Gilmour Hall, Room 202.
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 post-secondary training to improve their job prospects. Bursaries are available to eligible part-time students enrolled in approved programs at recognized post-secondary institutions in Ontario only.

Ontario Work-Study

The Work-Study Programme provides part-time jobs during the school year to students who demonstrate financial need to help them meet their education-related costs. It also helps students who lack the resources expected under OSAP criteria or who have an assessed need under OSAP which is not met because of loan maximums or who do not wish to borrow further due to high debt levels. Costs of this plan are shared by the provincial government and McMaster University.

Child Care Bursary

This plan is intended to assist students who demonstrate financial need, who have three or more children 11 years of age and under, and are studying on a full-time basis.

Bursaries for Students with Disabilities

This plan is intended to assist students with disabilities, who demonstrate financial need, to meet disability-related costs related to their participation in post-secondary education. For more information, contact the Centre for Student Development at http://csd.mcmaster.ca/

McMaster Work-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, these 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 high debt levels.

To apply for the McMaster Work-Study Programmes identified below, students should obtain a Work-Study Application from the Office of Student Financial Aid & 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 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 & Scholarships. (90763-725)

THE HAMLIN FAMILY FOUNDATION WORK-STUDY PROGRAMME

Established in 1996 by the Hamlin Family Foundation. A variable number of employment opportunities made available to students in any programme who demonstrate financial need. Preference will be given to students in disciplines related to the fields of Health Sciences and Engineering. To be eligible for consideration, students must be approved for Work-Study through the Office of Student Financial Aid & Scholarships. (90656)

THE SALLY HORSFALL WORK-STUDY PROGRAMME

Established in 1986, the Centre for Studies of Children at Risk, McMaster University has a variable number of employment opportunities 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 & 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 to students demonstrating financial need. These positions will provide an opportunity for students to pursue research in the fields of computing and human communication. To be eligible for consideration, students must be approved for Work-Study through the Office of Student Financial Aid & Scholarships. (90658)

THE McMaster "McWORK" PROGRAMME

Established in 1995 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 graduate 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 student's study period. Students requesting a short-term loan must meet with a representative from the Office of Student Financial Aid & Scholarships to complete an application. A number of funds exist to provide assistance to students in financial need.

EDITH M. GRIFFEN LOAN FUND
Established in 1987 by Paardeburg Chapter, IODE, in honour of Mrs. H.S. Griffen.

MARGARET B. SUTTERBY MEMORIAL FUND
Established in 1955 by the 67th University Battery Chapter, IODE.

THE McIlROY LOAN FUND
Established in 1966 by the University Women's Club of Hamilton. To assist female students in the final level of any programme.

THE IVOR WYNNE 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 & Scholarships, Gilmour Hall, Room 125 or on our website at http://sfas.mcmaster.ca/macbur.html. Any government-sponsored student loan applicant who is registered and in good standing (not on academic probation twice) 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 4WINDS 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 1986. To be granted to undergraduate students in any programme who demonstrate financial need. Preference to be given to female students. (90678 402)

THE PHYLIS 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 620)

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 622)

THE JOY BABY BURSARY
Established in 1987 by Joy Baby under the McMaster Student Opportunity Fund initiative. To be granted to a student enrolled in any programme who demonstrates financial need. (90809 627)

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 332)

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. (90560 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. (90960)

THE BOWES FAMILY BURSARIES
Established in 1986 by Eleanor and Terrence Aurni 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 1989. A variable number of bursaries to be granted to visa students in any programme who demonstrate financial need. (90933)

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. (90684 439)

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. (90631 803)

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. (90617 638)

THE BETTY TAYLOR CAMPBELL BURSARIES
Established in 1998 by William F. Campbell of Ottawa, Ontario in memory of his wife Betty Taylor Campbell, a 1937 McMaster graduate, an Olympic medallist in 1936 and a 1980 inductee to the Athletes' 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 Anne 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. (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 1986 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 180)

THE CLASS OF ’46 GOLDEN ANNIVERSARY BURSARIES
Established by the Class of ’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. (90584 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 ’49 GOLDEN ANNIVERSARY BURSARIES
Established by the Class of ’49 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 446)

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 463)

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 DAILY 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. (90598 422)

THE EVANS, PHILIP BURSARIES
Established in 1997 by the partners of Evans, Philip in support of McMaster students. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (9071 468)

THE ELEANOR EWING 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 grateful memory of Mr. D.E. Thompson who established the D.E. Thompson Scholarship of 1909. To be granted to students in any programme who demonstrate financial need. (90883 805)

THE EDITH E. FERRIE 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 BURSARIES
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. (90767 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. (90800 424)

THE EMMA FOX BURSARIES
Established in 1961 by the Wallington 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. (9071 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 in any programme who demonstrate financial need. (90674 471)

THE HALCYON HOUSE BURSARY
Established in 1999 by past residents of Halcyon House under the McMaster Student Opportunity Fund initiative. To be granted to a student enrolled in any programme who demonstrates financial need. (90519 691)

THE HAMILTON PORCELAINS BURSARIES
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. (90727 689)

THE HAMILTON SPECTATOR BURSARY
Established in 1987 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 McMaster student enrolled in any programme who demonstrates financial need. (90850 855)

THE HAMILTON SPECTATOR BURSARIES
Established in 1997 by 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. (90728 690)

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. (90719 691)

THE GUARDIAN CAPITAL INC. BURSARIES
Established in 1996 by Guardian Capital 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. (90764 471)

THE HAMILTON SPECTATOR BURSARY
Established in 1987 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 McMaster student enrolled in any programme who demonstrates financial need. (90728 690)

THE LEONARD HAYDEN BURSARIES
Established in 1996 by Muriel Hayden in memory of her husband, D.M. (Mike) Hayden, former Vice-President (Administration), who faithfully served McMaster for over 25 years. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90663 423)

THE RUDY HEINZL BURSARY
Established in 1996 by family, friends and colleagues upon his retirement as Dean of Student Affairs in recognition of 32 years of dedicated service to students and to the McMaster University Community. To be granted to students in any programme who demonstrate financial need. (90577 395)

THE EDWIN W. HILBORN BURSARY
Established in 1986 by bequest of Edwin W. Hilborn. To be granted to a student in any programme. (90652 851)

THE LLOYD ANDREW HILGARTNER BURSARIES
Established in 1997 by bequest of Lloyd Andrew Hilgarter. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90694 806)

THE INTER-RESIDENCE COUNCIL BURSARY
Established in 1998 by the Inter-Residence Council in support of McMaster students. To be granted to a student in any programme who demonstrates financial need. (90680 480)
THE JADDCO ANDERSON BURSARY
Established in 1997 by Jaddoco 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. (90736 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 706)

THE MARY KEYES MEMORIAL BURSARIES
Established in 2002 by family and friends as a tribute to Dr. Mary E. Keyes, long-time teacher, coach, administrator and mentor at McMaster University. To be granted to a student who demonstrates financial need with a minimum 8.0 Cumulative Average in any programme. Preference to be given to students who show leadership and participation in McMaster student life. (90764 706)

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 LAI DAW INC. BURSARIES
Established in 1996 by Lidaw 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. (90655 501)

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 713)

THE LANDMARK CONSULTING GROUP BURSARIES
Established in 1996 by The 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 Norman Lang (Class of '49) in memory of his father, a prominent Hamilton, Ontario lawyer and Credit Union Limited member in support of the McMaster Student Opportunity Fund. (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 McMaster Silhouette (1948-60), remembered as a journalist with wit and insight. A variable number of bursaries to be granted to students in any programme who demonstrate financial need. 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. (90756 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. (90767 719)

THE MAKSTEEL BURSARY
Established in 1997 by Maksteel 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. Preference to be given to female students. (90564 461)

THE ANDREW McFARLANE BURSARIES
Established in 1988 by bequest of Andrew McFarlane of Hamilton. Silver to be granted to a student or students who are in good standing and have demonstrated financial need. (90526 832)

THE McMaster BURSARIES
Established in 1980 by the University to assist undergraduate students in any programme. (90533 307)

THE McMaster GENERAL BURSARIES
Established in 1996 by the University to assist undergraduate students in any programme who demonstrate financial need. (90624)

THE McMaster ALUMNae CENTENNIAL BURSARY
Established in 1998 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. (90528 214)

THE McMaster ALUMNIAE ASSOCIATION BURSARY
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 1994 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 enroll 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, on 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 BURSARY
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 University bursary programme and matching funding provided through the Ontario Student Opportunity Trust Fund initiative. A variable number of bursaries to be granted to students enrolled in any programme who demonstrate financial need. (90527 451)

THE McMaster STUDENTS' UNION BURSARIES
Established in 1992 by the McMaster Students' Union. To assist those undergraduate MSU members who demonstrate financial need. (90530 292)

THE McMaster UNIVERSITY FACULTY ASSOCIATION BURSARY
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 730)

THE A.J. MELLONI MEMORIAL FUND
To be granted to a student in any programme. (90532 833)
THE MELOCHONONEX INC. BURSARY
Established in 1997 by Melocho Monnex Inc. under the McMaster Student Opportunity Fund Initiative in the belief that students should have the opportunity to pursue their educational goals. To be granted to a student enrolled in any programme who demonstrates financial need. (90778 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. (90594 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 largest Canadian-owned oil and gas company and one of the country's 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. (90934 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. (90935 484)

THE KATHERINE PULFORD BURSARY
Established in 1999 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. (90541 809)

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. (90795 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 in any programme who demonstrate financial need. (90951 809)

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 McMaster students 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 1996 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. (90941 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 295)

THE ROSA MAUDE SHEARDOWN BURSARIES
Established in 1997 by Gordon A. Baker, Q.C. in honour of his foster mother, Rosa Maudie Sheardown, and her belief in the importance of education and providing a helping hand to others. To be granted to students in any Faculty who demonstrate financial need. Preference to be given to students from single-parent families, foster or group homes, disadvantaged backgrounds or King Township. (90867 806)

THE ALBERT EDWARD SMITH AND JEAN MCTAVISH 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 806)

THE SAM SMURLLIC BURSARY
Established in 1978 by the Smurflk family in memory of Sam Smurllic (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 TARBUCK 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. (90732 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. (90543 806)

THE RAY AND JOYCE TRULL BURSARY
Established in 1998 by Roger and Janet Trull in honour of Ray and Joyce Trull. To be granted to a student in any programme who demonstrates financial need. (90937 809)

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 Tynowski Scholarship. (90533)

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. General Contractors, 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. (90568 413)

THE ROSS FAWCETTWEBB BURSARY FUND
Established in 1963 by the Hamilton Community Foundation in memory of Ross Fawcett Webb. To be granted in the second term of study (any level) to a student who demonstrates financial need and enrolled in any programme at McMaster. Applicants must be Canadian citizens or hold permanent resident status in Canada. (9097 1)

THE LLOYD WERDEN 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. (90551 500)

THE YATES BURSARIES
Established in 1963 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. (90509)

The James R. (Jamie) Greilich Memorial Bursary
Established in 1991 in memory of Jamie Greilich (Class of '85) 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 257)

The Richard Konrad Bursaries for Students
Established in 1991 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 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. (90643 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 Men's and Women's Varsity Cross Country running teams 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. (90665 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 interuniversity team at McMaster. (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 interuniversity football. (90827 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 who are involved in either McMaster Interuniversity football or interuniversity women's tennis. (90615 439)

The John McCall Memorial Bursary
Established in 2001 in loving memory of John (Jack) Woodhouse McCallum by his family and friends. To be granted to a student who demonstrates financial need and who demonstrates outstanding athletic achievement in men's basketball, golf, football, hockey or tennis. (90698)

The 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)

The 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 792)

The McMaster Squash and Golf Bursary
Established by past and present student-athletes and friends of McMaster Squash and Golf 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)

The McMaster Women'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)

The McMaster Women'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. (90777 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 interuniversity sport. (90899 974)

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 athletic participation in the sport of football. (90777 739)

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 studentathletes 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 480)

Community Service Bursaries

The Eric John Bretzler Bursary
Established in 1997 by family and friends in memory of Eric John Bretzler (Class of '92). To be granted to a student enrolled in any programme who demonstrates financial need. Preference will be given to students associated with the McMaster Students Union. (90614 634)

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. (90565 338)

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 undergraduate 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. (90113 767)

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 or general community affairs. Students should describe their qualifications for this bursary in the covering letter. (90524 212)

The Lynden Lions Club Bursary
Established in 1987 by the Lynden Lions Club under the McMaster Student Opportunity Fund initiative to support 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 displayed commendable service to the community-at-large. Preference to be given to students who currently reside in the Lynden or Troy area. (90758 720)
THE JAMES N. ALLAN FOUNDATION BURSARY
Established in 1996 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. (90520 621)

THE ANCASTER LIONS CLUB BURSARY
Established in 1997 by the Ancaster Lions Club under the McMaster Student Opportunity Fund initiative and 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 623)

THE CANADIAN FEDERATION OF UNIVERSITY WOMEN'S (BURLINGTON) BURSARY
Established in 1988, a bursary to be granted to a mature female student who demonstrates financial need and who is a resident of Hamilton-Wentworth or Halton Region, preferably from the Burlington area. (90545 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. (90586 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)

THEWILLIAM 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 CYRUS 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 given to students from Nova Scotia. (90544)

FIRSTONTARIO CREDIT UNION 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 and who demonstrate financial need. Value: $700 each (90504 199)

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 687)

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 Genevieve Chaney and Cordelia Ensing, 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. (90521 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 full-time students enrolled in any Level I programme who demonstrate financial need. Preference to be given to students from Muskoka Lakes Secondary School. (90839 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. (90818 442)

THE McMASTERSAVINGS AND CREDIT UNION LTD. BURSARIES
Established in 1993 by the McMaster Credit Union Limited. To assist students in any programme. Preference to be given 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 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 ROSA MAUDE SHEARDOWN BURSARY
Established in 1997 by Gordon R. Baker, Q.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. To be granted to students in any Faculty who demonstrate financial need. Preference to be given to students from single-parent families, foster or group homes, disadvantaged backgrounds or King Township. (90867)

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 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 is given to students who are studying Environmental Studies or Environmental Science. (90810629)

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. (90839811)

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. (90810629)

THE GORDON H. DEAN BURSARIES
Established in 1996 by Gordon H. Dean of Stoney Creek. To be granted to a student who demonstrates financial need. Preference will be given to a student enrolled in Level III of a programme in Arts and Science or Level III of a programme in the Faculty of Humanities. (90954148)

THE GEORGE P. GILMOUR MEMORIAL BURSARY
Established in 1997 by the Class of '62 in support of McMaster students. To be granted to a student enrolled in the Arts and Science Programme who has demonstrated financial need. Preference will be given to the student who wins the George P. Gilmour Memorial Scholarship. (90714676)

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 programme who demonstrate financial need. (90568432)

THE KATHLEEN AND DENNIS MCCALLA BURSARIES
Established in 2002 by Kathleen and Dennis McCalla, former Dean, Faculty of Science and later Vice-President, Faculty of Health Sciences at McMaster University. To be granted to students who demonstrate financial need and are enrolled in Level I of a programme in Science, Humanities, or Arts and Science. Preference will be given to students with a minimum admission average of 80% and who are from Grey or Bruce Counties.
Value: Minimum $1,000 (90970)

THETRADEPORT INTERNATIONAL CORPORATION BURSARY
Established in 1997 by TradePort International Corporation, operator and developer of the John C. Munro 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 is to be given to a student who elects to undertake a fourth year thesis on a topic related to the study of transportation. (90646495)

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 (90840612)

FACULTY OF BUSINESS

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. (90501234)

THE MATT CASEY BURSARY
Established in 1997 by Dr. 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 Commerce Faculty stream. Preference will be given to students enrolled in the Commerce Faculty stream. (90681643)

THE DAVID CLARK BURSARIES
Established in 1996 by David J. 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 is given to students demonstrating interest in Asian Studies. (90568412)

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. (90870866)

THE AUBREY DALGLEISH BURSARY
Established in 1985. 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. (90659)

THE DAUGHTERS OF THE EMPIRE CLUB, HAMILTON LTD. BURSARIES
Established in 1997 in support of The Daughters of the Empire Club, Hamilton Ltd. (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. (90593417)

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. (90699661)

THE GEORGE AND MARGARET EDRUPT BURSARY
Established in 1999 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. (90701663)

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. To be granted to students enrolled in the Faculty of Business who demonstrate financial need. (90705667)

THE FINANCIAL EXECUTIVES INSTITUTE BURSARY
Established in 1999 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 4.0 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 4.0 in the Commerce programme. (90699875)

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 to 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. (90957653)

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. (90716676)

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. (90717679)
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 two or more of the Human Resource and Management Area courses who demonstrates financial need.

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 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. (90518297)

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. (90739701)

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. (90841813)

THE JAN KELLEY MARKETING 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. (90745707)

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. (90607431)

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. (90525220)

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. (90762724)

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. (90626450)

THE MINICH FAMILY BURSARIES
Established in 1996 by F. 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 extracurricular activities. (90628452)

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. (90784747)

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. (90631465)

THE PROCTOR BURSARIES
Established in 1997 by Proctor 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. (90669466)

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. (90639488)

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. (90640489)

THE CARMEN AND DOROTHY RYDER BURSARY
Established in 1997 by Marvin 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 who demonstrates financial need. Preference to be given to female students. (90840815)

THE REBEKAH SCHNURR BURSARY
Established in 1996 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. (90543531)

THE SCOTTIA-MCLEOD 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. (90602850)

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. (90643492)

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. (90644493)

THE TRADEPORT INTERNATIONAL CORPORATION BURSARY
Established in 1997 by TradePort International Corporation, operator and developer of the John C. Munro 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. (90646495)

MOSSAIDIQ AND YASMIN UMEDALY BURSARIES
Established in 1999 by Mossaidiq (MBA '74) and Yasmin Umedaly under the McMaster Student Opportunity Fund initiative. To be granted to students enrolled in Business I or first year of the MBA programme who demonstrate financial need. (90668864)

THE SAM AND IRENEWATSON BURSARY FUND
Established in 1996 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 (90540812)

THE WESTINGHOUSE CANADA INC. BURSARIES
Established in 1986 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 Science and the Faculty of Engineering who demonstrate financial need. (90652501)

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. (90655097)
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. (90606 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 282)

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 to 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 484)

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. (90619 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 to students who demonstrate financial need and are enrolled in the Environmental Science Programme, the Environmental Studies Programme or the 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 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 1989 by Geraldine Loretta Cosford (Class of '85 and '89). 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. (90666 658)

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. (90666 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. (90716 680)

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 BURSARY FUND
Established in 1998 by Don and Betty Ivison in support of McMaster students enrolled in 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 School of Medicine and Rehabilitation Science in the Faculty of Health Sciences who demonstrate financial need. (90841 813)

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 716)

THE RONALD E. MATERICK BURSARY
Established in 1998 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. (90666 462)

THE NEIL D. McARTHUR BURSARIES
Established in 1997 by the Anne 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. (90765 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 861)

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 1997 by family, friends and colleagues of Robert John Morris. To be granted to a student enrolled in Engineering Management. Preference will be given to the recipient of The Dr. F.A. Mirza Scholarship. (90865 430)

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 716)

THE RONALD E. MATERICK BURSARY
Established in 1998 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. (90666 462)

THE NEIL D. McARTHUR BURSARIES
Established in 1997 by the Anne 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. (90765 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 861)

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 1997 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 students enrolled in the Faculty of Engineering who demonstrate financial need. (90630 454)

THE ARCHIE MOUGHALIAN 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. (90662 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 an Engineering and Management programme who demonstrate financial need. (90785 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. (90382 841)

THE PATRIOT FORGE INC. BURSARY
Established in 1987 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 Choral, varsity wrestling, karate club and issues related to the environment and social justice. (90576 822)

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. (90685 465)

THE RICH CANADA INC. BURSARIES
Established in 1996 by Rich 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 488)

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 programme. (90663 460)

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 TRADEPORT INTERNATIONAL CORPORATION BURSARY
Established in 1997 by TradePort International Corporation, operator and developer of the John C. Munro 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 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. (90647 496)

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. (90652 501)

THE ZONTA CLUB OF HAMILTON I BURSARIES
Established in 1997 by the Zonta Club of Hamilton 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 997)

FACULTY OF HEALTH SCIENCES

THE DOUGLAS IAN BROWN BURSARY
Established in 1997 by Douglas A. and Lois Aileen 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 635)

THE ED BURBIDGE BURSARY
Established in 1997 under the McMaster Student Opportunity Fund initiative. To be granted to students enrolled in a programme in Health Sciences who demonstrate financial need. Preference will be given to students who have demonstrated leadership in their school and community. (90816 636)

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 Level II in the School of Nursing in the Faculty of Health Sciences who demonstrate financial need. Preference will be given to students who demonstrate volunteer service in the area of health care. (90943)

THE JEAN, MARTHA AND LAURIE DOUCET MEMORIAL BURSARIES
Established in 1998 by the family in memory of Jean, Martha and Laurie Doucet for their years of service and commitment to the nursing profession. A variable number of bursaries to be granted to students enrolled in the School of Nursing at both the undergraduate and graduate level and 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 THELMA HEATH MEMORIAL BURSARIES
Established in 1985 by Norton Canada Inc. in memory of Jack and Thelma 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). (90518 636)

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. (90841 813)
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 Sciences. (90747709)

THE PHILIP 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. (90678475)

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. (90762724)

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. (906623447)

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. (90774736)

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. (90531929)

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. (90775737)

THE O’SHAUGHNESSY BURSARY
Established in 1996 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. (90535216)

THE PASSI FAMILY BURSARY
Established in 1997 by Chitra and Narendra Pessi 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 Child Life Studies Full-Time Diploma Programme. (90777750)

THE DR. SUSAN BEVERLEY PLANK 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. (907971754)

THE SALENA FAMILY BURSARY
Established in 1997 under the McMaster Student Opportunity Fund initiative by Dr. Bruno Salema (Class of ‘51), 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. (90801764)

THE REBECAH SCHNURR BURSARY
Established in 1998 by Rebekah 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. (90683815)

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. (90650499)

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. (90786759)

FACULTY OF HUMANITIES

THE JENNIFER AND THEODORE ARCAND ENGLISH BURSARY
Established in 1997 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. (90807826)

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. (90811631)

THE MARIE IRELAND BUSH MEMORIAL BURSARIES
Established in 1996 by Helen Ireland Caldwel in memory of Marie Ireland Bush, Class of ’46 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. (90583407)

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 II or IV of the Women’s Studies Programme who demonstrates financial need. (90940)

THE NORMAN NATHANIEL CASKEY BURSARIES
Established in 1996 by Jane 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. (90585409)

THE GERALDINE LORETTA COSFORD BURSARIES
Established in 1997 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. (90692654)

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 Science Programmes, the Faculties of Business, Engineering, Humanities, Science and Social Sciences who demonstrate financial need and have attained a minimum CA of 7.0. (90870866)

THE SUZANNE E. 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. (90694656)

THE EARL FRANKLIN DAMUDE BURSARY
Established in 1996 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. (90570546)

THE GORDON H. DEAN BURSARIES
Established in 1997 by Gordon H. Dean of Stoney Creek. To be granted to a student who demonstrates financial need. Preference will be given to a student enrolled in Level III of a programme in Arts and Science or Level III of a programme in the Faculty of Humanities. (90594418)

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. (90685982)

THE ENERSYSTEM INSULATION LTD. BURSARY
Established in 1998 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. (90702664)

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. (90706668)

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. (90857853)
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, Theatre & Film Studies (formerly Drama) and Music, who has shown service to the community-at-large and who demonstrates financial need. Preference will be given to students who are currently on the Dean's Honour list. (90724 666)

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 Willsie Ruth Laurie (Class of '50). A variable number of bursaries to be granted to students studying Music who demonstrate financial need. Value: Not to exceed $1,000 (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 HURTIG BURSARY
Established by family and friends of the late Julia Hurtig in 1985. This bursary will be granted to a student entering Level I 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 with a minimum admission average of 80% and who are from Grey or Bruce Counties. Value: Minimum $1,000 (90670).

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. (90872)

THE STUART AND MARJORIE IVISON BURSARIES
Established in 1997 by Donald Ivison (Class of '53) and Betty Ivison (Class of '52) in honour of his parents Stuart and Marjorie Ivison (Class of '28). 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 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 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, Theatre & Film Studies (formerly Drama) or Music who demonstrate financial need. (90812 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 KATHLEEN AND DENNIS MCCALLA BURSARIES
Established in 2002 by Kathleen and Dennis McCalla, former Dean, Faculty of Science and later Vice-President, Faculty of Health Sciences at McMaster University. To be granted to students who demonstrate financial need and are enrolled in Level I of a programme in Science, Humanities, or Arts and Science. Preference will be given to students with a minimum admission average of 80% and who are from Grey or Bruce Counties. Value: Minimum $1,000 (90670).

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. (9064 860)

THE JAMES C. MOORE MEMORIAL BURSARY
Established in 1986 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. (90666 339)

THE DR. HOLLAND AND MRS. ELYVIRA PETERSON BURSARY
Established in 1997 by Dr. Holland and Mrs. Elyvira 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 ELYVIRA AND HOLLAND PETERSON BURSARY
Established in 2000 by Mrs. Elyvira Peterson (Class of '89) 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. (90883 842)

THE MARY ROMEO BURSARY IN ART HISTORY
Established in 1997 by Mary Romeo, 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 SYMYNW BURSARY
Established in 1996 by Dr. and Mrs. W. Smyniw. 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 468)

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. (90648 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, a making or promise to make, a useful contribution to the field of applied ethics. (90765 472)

THE GRAHAM RONALDTOO 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. (90883)

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 Health Sciences who demonstrates financial need. Preference to be given to a female undergraduate student enrolled in a History programme. (90735 697)

THE TRESSLATRUBY MEMORIAL BURSARY
Established in 1992 from the bequest of Tressa 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. (90647 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 (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 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 (90640 812)

THE CLIFFORD JOHNSTONWEBSTER 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. (90659 336)

THE MARY DRYDEN-WILLIS BURSARY
Established in 1997, in memory of Mary Willis (Class of ’26), by her daughter, Mary Lou Dingle 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 II or higher in the Faculty of Humanities who have attained a minimum CGA of 7.0 and who demonstrate financial need. (90669 865)

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 Banri Blair Sports Celebrity Dinner, to be awarded to a student with financial need enrolled in a programme in Theatre & Film Studies (formerly Drama) at McMaster University. (90784 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 629)

THE CANADATRUST 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. - DIRECT SALES 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 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 CGA of 7.0. (90870 886)

THE GEORGE AND MARGARET EDRUP BURSARY
Established in 1997 by Sandra Edrup in honour of her parents George and Margaret Edrup. 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 665)

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 683)

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 Humanities who is enrolled in 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 geometer 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 454)

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 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 448)

THE NEIL D. McARTHUR BURSARIES
Established by the Anne and Neil McArthur Foundation in memory of Mrs. McArthur's parents, Joseph and Josephine Hryniuk. Preference to be given 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. (90765 727)

THE KATHLEEN AND DENNIS MCCALLA BURSARIES
Established in 2002 by Kathleen and Dennis McCalla, former Dean, Faculty of Science and later Vice-President, Faculty of Health Sciences at McMaster University. To be granted to students who demonstrate financial need and are enrolled in Level I of a programme in Science, Humanities, or Arts and Science. Preference will be given to students with a minimum admission average of 60% and who are from Grey or Bruce Counties.

Value: Minimum $1,000 (90970)

THE ERIC SCHLICHTING 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. Applications are available to 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 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: $2,500. (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 816)

THE 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 Bert, 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 1985 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 Bachelors of Arts/Social Work programme or Level II of the Bachelor of Social Work programme. (90506 286)

THE DR. RICHARD A. BRYNER MEMORIAL BURSARY
Established in 1986, under the McMaster Student Opportunity Fund Initiative, by Mrs. Beryl Bryner in memory of her husband, Dr. Richard Bryner, 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. (90845 817)

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. (90679 470)

THE CANADA TRUST BURSARIES
Established in 1998 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. - DIRECT SALES 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. (90620 642)

THE ELEANOR TURNER CARMENT BURSARY
Established in 1997 by Eleanor Turner Carment under the McMaster Student Opportunity Fund initiative. To be granted to a student who demonstrates financial need. Preference will be given to a student enrolled in a programme in Women’s Studies. (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 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 CGA 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 1969 and selected McMaster University President for Stelco and Stoney Creek from 1969 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 DICICCO 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. (90610 204)

THE MARGARET E. DUNCAN BURSARY
Established in 1998 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)

THEWAYNE 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 any programme who demonstrate financial need. Preference to be given to students enrolled in a Labour Studies programme. (90601 425)

THE REG GISBORN BURSARIES
Established in 1997 as a tribute to Reg Gisborn, valued Stelco employee, President of a local union 1005 from 1959 to 1976 and New Democratic Party Hamilton East M.P.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 which demonstrates financial need. (90725 668)

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 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. (90739 695)
THE JOHN B. ISSIBSTER Bursary
Established in 1986 under the McMaster Student Opportunity Fund initiative, by John B. Issister 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 704)

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 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. (90847 819)

THE LISSON BROTHERS Bursary
Established in 1997 under the McMaster Student Opportunity Fund as a tribute to Brian, Bill and John Lissone, valued 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 1998 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. (90616 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 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 Vice President and Local 837 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 attending a Sessional Average of at least 7.0 at the most recent review. (90619 443)

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 Honour's programme in Economics who demonstrate financial need. Preference to be given to students in Level II. (90622 446)

THE GARY JAMES MINNETT Bursary
Established in 1999 in memory of Gary James Minnett (BA/BPE '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. (90666 339)

THE JAMES C. MOORE MEMORIAL Bursary
Established in 1988 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. (90548 820)

THE CAROLE AND ALEXANDER NAKEFF Bursaries
Established in 2000 by Carole Anna 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 McMaster students enrolled in the Gerontology programme who demonstrate financial need. Preference to be given to students who have participated in a conference or workshop on Gerontology. (90763 746)

THE MARION PEARCE Bursaries
Established in 1999 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 228)

THE PEVENSING Bursaries
Established in 1996 by David Hannaford (Class of '64). 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 485)

THE ROYAL CANADIAN LEGION BRANCH 163 Bursary
Established in 1997 by the Royal Canadian Legion Branch 163 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. (90789 761)

THE WILLIAM F. SCANDLAR Bursaries
Established in the 50th anniversary year of the historical Stelco steel strike of 1946 by William F. Scandlar, valued member of the United Steelworkers of America for 44 years including terms as International Representative (1965) and Area Supervisor (1976 to 1986), Alderman to the City of Hamilton (1964-1976) and Regional Councillor (1973-1976). To be granted to students enrolled in any programme who demonstrate financial need. Preference to be given to students enrolled in a Labour Studies programme. (90642 491)

THE GERALD AND Verna 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 1980 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 T.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 T.H.B. Symons Scholarship in Canadian Studies. (90882)

THE TRADEPORT INTERNATIONAL CORPORATION BURSARY
Established in 1997 by TradePort International Corporation, operator and developer of the John C. Munro Hamilton International Airport. To be granted to a student who has demonstrated financial need and is enrolled in a program 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 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 LYNN R. WILLIAMS BURSARY
Established in 1987 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 program in Labour Studies. The value of this bursary shall be no less than $300. (90793 756)

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 program 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. (90650 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 1996-97 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 the requirements of the specific McMaster Bursary Programme:

• The Betty Taylor Campbell Scholarship
• The George P. Gilmour Memorial Scholarship
• The Gary Lautens Memorial Scholarship (90686)
• The Dr. F.A. Mirza Scholarship
• The Somerville Scholarships (90881)
• Thq T.H.B. Symons Scholarship in Canadian Studies (90882)
• 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 Gilmour Hall, Room 120, or on our website at: http://sfas.mcmaster.ca/macour.html. 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 & 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 a bursary application to Donna Funston, at the Office of Student Financial Aid & Scholarships, Gilmour Hall, Room 120, six weeks prior to departure.

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 1998 by Arnold A. Bell in memory of his parents, F. Arnold Beale and Margaret S. Beale and, Mr. and Mrs. Walter Gould Lincoln and Commander Harley R. 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 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 CHANYIN CHAK BURSARY
Established in 1997 by Tak Chan in honour of his great grandfather, Mr. Chan Yin Chek. 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 Selection Committee, to graduate and undergraduate students who demonstrate financial need and have enrolled in session(s) of 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. (90619 640)
Value: Up to a maximum of $15,000 for graduate, $10,000 for undergraduate, and $3,000 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 will be granted to students enrolled in a programme in Humanities who demonstrate financial need and who are participating in a McMaster Exchange Programme. (90685 633)

THE LVIV POLYTECHNIC STATE UNIVERSITY EXCHANGE PROGRAMME BURSARY
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 Lviv Polytechnic State University Exchange Programme. (90954)

THE MCLAY BURSARY
Established in 1997 by David and Jean McIay 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. (90848 821)

THE RANDOLPH E. ROSS MEMORIAL BURSARY
Established in 1996 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 a student enrolled in the 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. (S0779 742)

INDEX OF BURSARIES

Legend

| AS | Arts & Science | EX | Exchange |
| AT | Athletic | HS | Health Sciences |
| B | Business | R | Regional |
| CS | Community Service | S | Science |
| D | Disabilities | SS | Social Sciences |
| E | Engineering | T | Travel |
| U | University-wide |

Index

4 Winds Bursaries (U) ........................................ 305
Ainsworth Bursaries (U) ........................... 305
Phyllis May Atkinson Bursary Fund (U) .......... 305
Gary Allen Memorial Bursary (B) .................. 311
James N. Allan Foundation Bursary (R) .......... 310
Amex Canada Bursary (U) ............................ 305
Ancaster Lions Club Bursary (R) ................. 310
Andrew Foundation Bursaries (E) ............... 313
Anthropology Bursary (SS) .......................... 318
Jennifer and Theodore Arcand English Bursary (H) ........................................................................... 315
A. H. Atkinson Bursaries (E) ....................... 313
Joy Babb Bursary (U) ................................. 305
Charles Murray Ball Bursaries (U) .............. 305
Bartek Bursaries (E) ..................................... 313
Birgit and Robert Bateman Bursary (AS, S, SS) ......................................................... 311, 317, 318
Beale-Lincoln Hall Exchange Programmes Bursaries (EX) .................................................. 320
Marjorie E. (Watson) Beattie Bursary (H) ..... 315
Dr. Howard Bentall and Dr. Shirley Bentall Bursaries (U) ................................................................. 305
Norma Bert Bursary (SS) .............................. 316
Bettnar Family Memorial Bursaries (U) .......... 305
The Birks Family Foundation Fund (U) ........ 305
Sidney L. Blum Bursary (SS) ........................ 318
Bowes Family Bursaries (U) ......................... 305
Louisa Brayford Memorial Bursary (AS) ........ 311
Eric John Bratzler Bursary (CS) ................... 305
Douglas Ian Brown Bursary (HS) ................. 314
Dr. Richard A. Brymer Memorial Bursary (SS) ............................................................................. 316
Ed Buffet Bursary (HS) ............................... 314
Jodie Ann Bull Memorial Bursary (SS) .......... 316
Bursaries for In-course Visa Students (U) ...... 305
Marie Ireland Bush Memorial Bursary (H) ...... 315
Business Management Services Bursaries (U) .................................................. 305
Helen Caldwell Bursary (H) ........................ 315
James Calvin Bursaries (U) ........................ 305
Camco Inc. Bursaries (U) ............................ 305
Betty Taylor Campbell Bursaries (U) ............ 305
Canada Trust Bursaries (E, S, SS) ................. 313, 317, 318
Canadian Federation of University Women (Hamilton) (R) .................................................. 310

Canadian Federation of University Women’s (Burlington) Bursary (R) .......................... 310
Canadian Society for Mechanical Engineering Bursary (E) ........................................ 313
Canon Canada Inc.-Direct Sales Division
Bursary (E, S, SS) ........................................ 313, 317, 318
Eleanor Turner Cancer Bursary (SS) ............. 316
Matt C. Cherry Bursary (B) .......................... 311
Norman Nathaniel Caskey Bursaries (H) ....... 315
Chan Yin Chak Bursary (EX) ....................... 320
Anne and Harold Chalk Memorial Bursary (U) ......................................................... 305
Chaukawa Foundation Bursaries (U) ............... 305
CIBC Bursaries (U) ....................................... 305
Sam Mr. Cinto Bursary (U) .......................... 305
City of Hamilton Bursaries (R) ..................... 310
David C. Clark Bursaries (B) ..................... 311
Hugh Clark Bursaries (U) .......................... 306
Class of ’35 Bursaries (U) .......................... 306
Class of ’46 Bursaries (SS) ........................ 318
Class of ’46 Golden Anniversary Bursaries (U) .................................................. 306
Class of ’47 Golden Anniversary Bursaries (U) .................................................. 306
Class of ’49 Golden Anniversary Bursaries (U) .................................................. 306
Class of ’51 Golden Anniversary Bursaries (U) .................................................. 306
Class of ’57 Bursaries (U) .......................... 306
Class of ’59 Golden Anniversary Bursaries (U) .................................................. 306
Doris Partridge Cole Bursary (U) .................. 306
Community Nursing Registry-Hamilton Bursaries (HS) ........................................... 314
Compusmart Bursaries Fund (E, S) .............. 313, 317
Connor, Clark & Lunn Bursary (U) ................ 306
Geraldine Loretta Coford Bursaries (SS) ......... 311
Geraldine Loretta Coford General
Bursary (AS, B, E, HS, SS) ......................... 311, 313, 315, 317, 318
Ian and Jill Cowan Bursary (U) .................... 306
Suzanne E. Crenan Bursary (AS, H) ............ 315
Cross Country Bursary (AT) ........................ 309
Archibald R. Crozier Bursaries (CS) ............. 309
CRS Robotics Corporation Bursaries (E) ......... 313
Aubrey Daleleigh Bursary (AA, B) ............... 309, 311
Thomas Daly Bursaries (U) ........................ 306
Earl Franklin Damude Bursary (H) .............. 315
Sam Dannah General Athletic Bursary (AT) .... 309
Sam Dannah Memorial Bursary (AT) .......... 309
Daughters of the Empire Club, Hamilton Ltd. Bursaries (B) ........................................... 311
Gordon H. Dean Bursaries (AS, H) ................ 311, 315
John Deere Bursaries (U) .......................... 306
Michael G. DeGroote School of Business Advisory Council Bursary (B) ......................... 311
Ben F. DesRoches Bursaries (SS) ............... 310
William A. Detemps Bursaries (H) ............. 310
Patricia Anne DiCicco Memorial Bursary (SS) ........................................ 318
Dofasco Inc. Bursaries (U) ......................... 306
Jean, Martha and Laurie Doucet Memorial Bursaries (HS) ........................................... 314
Margaret E. Duncan Bursary (SS) ................ 306
Dundas Bursaries (R) ............................ 310
Ailsa and Claire Eatock Bursaries (H) ........... 315
Cyrus Eaton Foundation Bursary (U, R) ........ 310
George and Margaret Eustace Bursaries (B, S) .................................................. 311, 317
Enerisysm Inspulsion Ltd. Bursary (H) .......... 315
Engineering and Society Travel Bursary (T) .................................................. 320
Engineering Class of ’97 Legacy Bursary (E) .................................................. 313
Evans, Philip Bursaries (U) ........................ 306
Eleanor Ewing Bursary (U) ........................ 306
Faculty of Business Bursaries (B) ............... 311
Eileen Gray Farley Bursary (U) .................... 306
George and Margaret Eustace Bursaries (H, S) .................................................. 311, 314
Edith E. Ferrie Bursaries (U) ........................ 306
Festitalia Corporation Bursary (H) ................. 315
Financial Executives Institute Bursary (B) .... 311
FirstOntario Credit Union (R) ...................... 310
Forrester/Gregory Bursary (U) ..................... 306
John C. Forster Bursaries (U) ........................ 306
Emma Fox Bursaries (U) ............................ 306
Nort C. Fox Bursaries (HS) ........................ 311, 315, 318
Freeman Family Foundation Bursary for Study at the Hebrew University of Jerusalem (EX) .......................... 320
Bill Fuller Bursary (SS) .................................................. 318
General Contractors Association of Hamilton Bursary (E) .......... 313
General Electric Canada Inc. Bursary (U) ................................ 306
Gemmum Corporation Bursaries (E) .................................... 313
Gwen George Undergraduate Bursaries (CS) .......................... 309
George P. Gilmore Memorial Bursary (AS) ............................ 311
Reg Glabonick Bursaries (SS) ........................................... 313
Allan and Neva Gladstone Memorial Bursaries (S) ................... 317
James Edward Grader Memorial Bursary (S) ........................... 317
Gary Graham Bursary (U) ................................................ 306
Grand and Toy Bursaries (U) ......................................... 306
Gray Family Bursary (E) .................................................. 306
Leland Gregory Bursaries (U) ......................................... 306
James R. (Jaime) Gretlich Memorial Bursary (D) ...................... 309
Guardian Capital Inc. Bursaries (U) .................................... 306
Asmahan Heliez Memorial Bursary (S) ................................ 317
Halcyon House Bursary (U) ............................................. 306
Hamilton Alumni Branch Bursaries (R) ............................... 310
Hamilton Chapter of the Human Resources Professionals
Association Bursary (B) .................................................. 312
Hamilton Citizens’ Memorial Bursaries (R) ........................... 310
Hamilton Community Foundation Bursaries (R) ...................... 310
Hamilton and District Labour Council Bursary (SS) ................. 318
Hamilton Killiam Trusts Inc. Memorial Bursaries (CS) .............. 313
Hamilton Performing Arts Bursary (H) ................................ 316
Hamilton Porcelains Bursaries ......................................... 306
Hamilton Spectator Bursary (U) ....................................... 306
Margaret Hargreaves Bursary (H, SS) ................................ 318
Harwood Bursaries (H) ................................................... 316
M.A. (Jack) Hassal Bursary (B) ........................................ 312
Hatch Associates Bursary (E) ........................................... 313
Jack and Thelma Heath Memorial Bursaries (HS) ...................... 313
Mike and Muriel Hedden Memorial Bursaries (U) ................... 308
Rudi Heinzel Bursary (U) ................................................ 308
Edwin W. Hibborn Bursary (U) ....................................... 306
Mary A. Hill Bursary (R) ............................................... 310
Lloyd Andrew Hillgarter Bursaries (U) ............................... 306
Hazel May Hinks Bursaries (E) ......................................... 314
Gordon Holsey Bursary (SS) .......................................... 318
General Humanities Bursary Fund (H) ................................. 316
Julia Hurtig Bursary (H) .................................................. 316
Inglis Bursaries (E) ...................................................... 313
Inter-Residence Council Bursary (U) ................................ 306
John B. Isbister Bursary (SS) ........................................ 319
Ivey Bursary (H) .......................................................... 315
Ivyson Family Bursary Fund (B, E, HS) ................................ 312, 313, 314
Stuart and Marjorie Ivyson Bursaries (H) ............................ 316
Clifford and Alphonse Ivyson Bursaries (E) .......................... 316
Jaddco Anderson Bursary (U) ........................................ 307
Harish Jain Human Rights in Employment Bursaries (B) ........... 312
Jensen Bursary (S) ....................................................... 317
Johns Family Bursaries (AS) .......................................... 311
James A. Johnson Class of ’97 Bursaries (SS) ........................ 319
Jones-Turner Bursary (U) .............................................. 307
Muriel McBean Kaufman Bursaries (U) ............................... 307
Jan Kellner Marketing Bursary (E) .................................... 312
Robert A. Kennedy Bursaries (U) .................................... 307
Kents Family Bursary (HS) .......................................... 315
Phillip Gordon Kettle Bursary (HS) .................................. 315
Mary Keyes Memorial Bursary (U) .................................. 307
Khaki University and Young Men’s Christian Association
Memorial Bursaries (U) .................................................. 307
David Kinley Memorial Bursary (H, SS) .............................. 316, 319
Kiwanis Club of Hamilton East Bursary (R) .......................... 310
Richard Konrad Bursaries (D) ......................................... 309
KPMG Bursaries (B) ...................................................... 312
Harold J. Krugel Bursary (H) ........................................ 316
Raymond C. Labarge Memorial Bursaries (CS) ....................... 309
Laidlaw Inc. Bursaries (U) ............................................ 307
Betty May Lamb Memorial Bursary (U) ................................ 307
Lancaster Sheet Metal Limited Bursary (U) .......................... 307
Landmarks Sculpture Company Bursaries (U) ......................... 307
Norman D. Lane Bursaries (S) ........................................ 317
Lang Family Bursaries (U) ............................................. 307
James R.A. Langs Bursaries in the Arts (H) .......................... 316
James R.A. Langs Student Exchange Programme
Bursaries (EX) ................................................................ 310
Kelly Dawn Lapp Memorial Bursary (SS) ............................. 319
Gary Lautens Memorial Bursaries (U) ................................ 307
Sze-Wai Lee Memorial Bursary (E) .................................. 310
Lefler Foundation Bursary (R) ........................................ 310
Berridge Dental and Dental Hygiene Bursaries ....................... 311
Liburd Engineering Limited Bursary (E) .............................. 313
Lindan Management Bursaries (U) ................................... 307
Lisson Brokers Bursary (SS) ........................................... 319
Ltvf Polytechnic Safe University Exchange
Programme Bursary (EX) ................................................ 320
London Guarantee Bursaries (U) ...................................... 307
Sadie Ludlow Bursaries (AT) ......................................... 309
Liburan U. F.R. Club Bursary (CS) .................................. 312
3M Canada Inc. Bursaries (B, SS) ................................... 312, 317
John A. (Jack) MacDonald Bursaries (SS) ........................... 319
Ewan Mcintyre Bursaries (SS) ........................................ 319
Bob MacKenzie Bursary (SS) ........................................ 319
Paul F. MacPherson Bursary (R) ...................................... 310
Makstee Bursary (U) .................................................... 307
Malloch Foundation Bursaries (R) .................................... 310
Entoco Henry Mancinelli Bursaries (SS) ............................. 311
Manulife Financial Bursary (AT, HS) ................................ 312
Dr. Albert Martin Bursary (H) ........................................ 316
Ronald E. Materick Bursaries (E) .................................... 313
Linda Matthews Bursaries (U) ....................................... 307
John and Helen Maxwell Bursaries (S) .............................. 317
Neil D. McArthur Bursaries (E, S) ................................... 313, 317
John McCahill Memorial Bursary (AT) .............................. 309
Kathleen and Dennis McCalla Bursaries (AS, H, S) ............... 311, 318, 317
Andrew McFarlane Bursaries (U) .................................... 307
P. Craig McIvor Bursaries (SS) ....................................... 313
Janet McKnight Memorial Bursaries (HS) ........................... 315
Mclay Bursary (EX) ..................................................... 320
McLean Family Exchange Bursaries (EX) ........................... 320
McMaster Bursaries (U) ................................................ 307
McMaster General Bursaries (U) ..................................... 307
McMaster Alumnae Centennial Bursary (U) ......................... 307
McMaster Alumni Association Bursary (U) ......................... 307
McMaster Association of Past-Time Students Association
Anniversary Bursary (U) .............................................. 307
McMaster Engineering Society Bursary (E) .......................... 313
McMaster Hispanic Society Bursary (H) ............................. 316
McMaster MBA Alumni Association Bursaries (B) ............... 312
McMaster Men’s Athletics Bursary (AT) ............................ 309
McMaster Men’s Basketball Bursary (AT) .......................... 309
McMaster Savings and Credit Union Limited
Savings Bursary (U) .................................................. 307, 310
McMaster Squash and Golf Bursary (AT) ............................ 309
McMaster Student Opportunity Fund Bursaries (U) .............. 307
McMaster Students’ Union Bursaries (U) ............................ 307
McMaster University Faculty Association Bursary (U) ........... 307
McMaster Women’s Basketball Bursary (AT) ....................... 309
McMaster Women’s Club Bursary (HS) ............................. 315
McMaster Women’s Volleyball Bursary (AT) ....................... 309
Katherine M. Collyer McNaught Bursary (HS) ..................... 316
MDS Information Bursaries (HS) .................................... 315
A.J. Mellow Memorial Fund (U) ..................................... 307
Melchope Monnex Inc. Bursary (U) .................................. 308
Meritor Automotive Inc. Bursary (E) ................................ 313
Edna C. and Frank Charles Miller Bursary (U) ..................... 308
Minich Family Bursaries (B) .......................................... 312
Gary James Minnott Bursary (SS) .................................... 319
Dr. F.A. Mirza Bursary (U) ........................................... 313
James C. Moore Memorial Bursary (H, SS) .......................... 319
Robert John Morris Bursaries (E) .................................... 313
Wallace R. Morris Bursary Fund (U) ................................ 308
Archie Moughalian Bursaries ........................................... 313
John Douglas Moyer Bursary (U) .................................... 308
Honourable John C. Munro Bursaries (SS) ......................... 319
COMMUNITY CONTRIBUTION AWARDS

The Community Contribution Awards represent recognition for contribution to the University or the community-at-large. To be eligible for consideration for the Community Contribution Awards, full-time and part-time students must be registered in Level II, III, IV or V of a first baccalaureate programme. Eligible candidates must be registered and in good standing as a student of McMaster University.

A student may receive only one Community Contribution Award per year, but may be considered for the same or other awards the following year. These awards have a corresponding bursary for which 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 & Scholarships, Gilmour Hall, Room 120.

THE ATKINSON CHARITABLE FOUNDATION AWARD
Established in 1996 by The Atkinson Charitable Foundation. To be awarded to a student enrolled in any programme who participates in activities displaying superior leadership or innovative skills and demonstrates service to the community-at-large. Preference to be given to a student 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 programme 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 to be granted to students enrolled in any programmes who demonstrate leadership and innovative skills through participation in either university or community activities. Preference will be given to students from the Brant County area high schools. (80052)

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 programme who demonstrate one or all of the following: service to McMaster University or the community-at-large; superior leadership or innovative skills; outstanding athletic or artistic participation. (80036 555)

THE ELVA CARROL AWARD
Established in 1996 by Elva Carrol. To be awarded to a student enrolled in any programme who demonstrates outstanding athletic participation. Preference to be given to an athlete who participates on an inter-university women's team and has demonstrated leadership and fair play. (80028 547)

THE EDWARD FRANK DAVIS MEMORIAL AWARD
Established in 1996 by bequest in memory of Edward Frank Davis. A variable number of awards to be granted to students entering any programme who have shown commitment and contribution to their community through volunteer work. (80060 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 programme who demonstrate one or more of the following: service to McMaster University or the community-at-large; outstanding athletic or artistic participation or display superior leadership or innovative skills. (80050 576)

THE RUDY HEINZL AWARD
Established in 1996 by family, friends and colleagues upon the retirement of Rudy Heinzl as Dean of Student Affairs, in recognition of 32 years of dedicated service to McMaster University community. To be awarded to a student enrolled in any programme who, in the judgment of a selection committee, has made a significant contribution to the University life of his/her fellow students. (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 programme involving Anthropology, Economics, Geography, Gerontology, 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 whose service has been undertaken within the Faculty of Social Sciences at McMaster University. (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 a student in any programme who has demonstrated service to the community-at-large. (80032 561)

THE McMaster ATHLETIC COUNCIL AWARD
Established in 1997 by the McMaster 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 programme who demonstrates outstanding athletic participation. Preference will be given to students in Level II or higher who exhibit leadership and dedication to sport and prove to be an overall asset to their team(s). (80033 563)

THE ALEC JOHN ROYSTON MacMILLAN MEMORIAL AWARDS
Established in 1996 by his family in memory of Alec John Royston MacMillan. Three awards to be granted on completion of Level I: a) one to a student in any programme; b) one to a student enrolled in the Faculty of Business, Humanities or Social Sciences; and, c) one to a student enrolled in the Faculty of Engineering, Health Sciences or Science who, in the judgment of a selection committee, demonstrate qualities of innovation, leadership and service to the community through participation in campus and community programmes including athletics. (80012 531)

THE ROBERT JOHN MORRIS AWARDS
Established in 1996 by family, friends and colleagues of Robert John Morris. Six awards: three to be granted to students upon completion of Level I or higher of a programme in Engineering, and three to be granted to students upon completion of Level II or higher of a programme in Engineering Physics who, in the judgment of the appropriate selection committee in the Faculty of Engineering, have demonstrated leadership or innovative skills in the field of Engineering or, through their participation in campus and community activities, have had a significant influence on the lives of Engineering students at McMaster University. (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 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. (80069 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 community contributions 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 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 in the Arts and Science programme 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. (80046 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 students who, in the judgment of a selection committee, demonstrates enthusiasm for life-long learning and/or had an influence on the lives of part-time students. (80011 530)
THE ROYAL 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 granted 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 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 535)

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 Printmaking Program at McMaster who, in the judgment of the School of the Arts, 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 560)

THE STEPHEN F.H.TRELKELD 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)

THEKK 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 TRULL AWARD
Established in 1997 by friends and colleagues in recognition of Roger Trull’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. (80052 546)

THE WESCAST 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 '87), 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 538)

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)
UNDERGRADUATE ACADEMIC AWARDS

WEB ADDRESS: http://sfas.mcmaster.ca
E-MAIL ADDRESS: awards@mcmaster.ca

Director, Student Financial Aid & Scholarships
Elizabeth Seymour
For information, please contact:
Office of Student Financial Aid & Scholarships
Gilmour Hall, Room 120
McMaster University
Hamilton, Ontario, L8S 4L8
Telephone: (905) 525-9140, ext. 24319

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 general conditions, in addition to meeting the particular terms attached to individual academic awards. The general conditions and terms have been established to ensure equity in competition and a high academic standard. Any interpretation of the conditions attaching to academic awards is solely the prerogative of the Undergraduate Council.

TELENOLOGY

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 Continuation Students, Cumulative Average (CA), Level, 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-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 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. Electrical Engineering, Level II: 37 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 graduand awards.

Graduand 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 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 over and 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 ($600 in 2001-2002) and one award of less than the value of a Senate Scholarship, or two awards of less than the value of a Senate Scholarship.

3. 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.

4. 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.

5. 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.).

6. Amounts in excess of the student's monetary obligation to the University will be disbursed directly to the student in November or December.

7. Awards credited to the student's academic fees account are not refundable in cases under any circumstances.

8. 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 & Scholarships. Approval of applications is not automatic, and deferments are not normally granted for more than one calendar year.

9. Students holding four-year, full-fees scholarships who choose to accelerate their programme and to complete their degree earlier than normal may apply to the Office of Student Financial Aid & Scholarships to defer the benefits of their award to defray academic fees for such courses. Approval of applications is not automatic.

10. The University reserves the right not to grant an award in the absence of too few suitable candidates. The University also reserves the right to restrict the number of awards that a student may receive. An eligible student may be granted:

11. The particular terms for University Academic Awards are listed in TERMS OF AWARDS.

CATEGORIES OF AWARDS

1. Awards for Entering Students (page 328)
   a) McMaster President's Awards
   b) McMaster Honour Awards
   c) Music Awards
   d) Other Awards
   e) Awards Open to International Students

2. In-Course, Graduand and Second Degree Awards (page 329)

3. In-Course, Graduand and Second Degree Scholarships and Prizes by Faculty (page 347)

INDEX OF AWARDS (page 355)

To find a specific award, use the Index of Awards.
TERMS OF AWARDS

Awards for Entering Students (A)

1. These awards are provided exclusively for those qualifying for admission to Level I of a first baccalaureate degree in the Fall/Winter session as full-time students.
2. Students who have registered at any post-secondary institution at any time after graduation from high school will not be considered for an entrance award.
3. 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.
4. International students studying outside Canada are not eligible for any entrance awards administered by the Office of Student Financial Aid & Scholarships.
5. Final admission average for entrance awards is calculated using the prerequisite courses taken after June 30, 2003.
6. Students who withdraw or drop below 24 units on or before December 31, 2003 will lose their entrance scholarship.
7. Students who withdraw or drop below 24 units on or before December 31, 2003 will lose their entrance scholarship.
8. Recipients of entrance awards that are renewable must have been named to the Deans’ Honour List in the Fall/Winter session in Level I and register in the next Fall/Winter session in order to receive the second installment of the award.
9. Recipients may retain an entrance award which provides for awards beyond Level I if they have been awarded a baccalaureate degree in the Fall/Winter academic year.
10. 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. Deferral of awards is on an individual basis.
11. Appeals on the basis of exceptional circumstances must be submitted in writing to the Office of Student Financial Aid & Scholarships on or before November 30, 2003. No appeal will be accepted after that date.

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 qualifying on the basis of work included at the May review (or deferred examinations resulting therefrom) in other than their graduation session. Students choosing to graduate at the subsequent Fall convocation session will not be eligible for these awards.
2. In addition to meeting the General Conditions, a student must complete, during the Fall/Winter session immediately prior to the May review, a full load of work 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 at least 8.0 and no failures.
3. For students who complete a full load of work in the Fall/Winter session as described above, a Full-load Average will be computed, which is the weighted average of the grades of full load courses taken during the Fall/Winter session. The Full-load Average will be used to determine academic standing for the awards listed below, unless otherwise stated in the terms of a particular award.
4. The Full-load Average will be used to break any tie in the competition for awards which are based on another criterion.
5. Co-op/Internship students are eligible for full-load course load awards provided they meet the minimum course load requirement for their programme of study as defined in the Calendar.

Awards for Part-Time In-Course Students (Part-Time Studies) (C)

The following awards are based on competition across the University or within a Faculty or programme.
1. These awards, which are granted in 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 graduation 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.

Specific Achievement Awards for Full-Time and Part-Time Students (D)

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 part-time first 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). 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 these awards.
4. An award name ending with an * indicates that the award is open to both full-time and part-time second baccalaureate degree students.

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 at:  
      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 based on competition across the University or within a Faculty or programme.
1. These awards, which are granted in June or November, 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). 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 these awards.
AWARDS FOR ENTERING STUDENTS

The McMaster President's Awards
McMaster University will reward students with the highest academic standing in the first year of secondary school. Students must obtain a final admission average of 95% or higher to their programme of study. No application is required and awards are renewable in the second year.

Value: $6,000 ($3,000 in each of two years)
The McMaster President's Awards are supported by the following:

THE ASHAUGH SCHOLARSHIPS
Established in 1989 by bequest of Frederick K. Ashbaugh of St. Petersburg, Florida, in memory of Mary Eliza Kingston. (20026)

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. (20101 802)
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 GEORGE AND NORA ELWIN SCHOLARSHIPS
Established in 1979 by bequest of George and Nora Elwin of Hamilton. (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 her brother. A variable number of scholarships to be awarded to female students entering a full-time programme of study. (20019)

THE MOUTON COLLEGE ENTRANCE SCHOLARSHIP
Established in 1980 from funds originally subscribed by the Alumnae of Mouton College during the years 1946 to 1948. To be awarded to a woman student entering a full-time programme of study. (20013 117)

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. (20040)

The McMaster Honour Awards
McMaster University will reward students with high academic standing in their final year of secondary school. Honour Awards are based on the final admission average to the programme of study. No application is required and awards are renewable in the second year.

- 80 - 84.99% $1,500 ($750 in each of two years)
- 85 - 89.99% $2,000 ($1,000 in each of two years)
- 90 - 94.99% $4,000 ($2,000 in each of two years)
The McMaster Honour Awards are supported by the following:

THE A.H. ATKINSON EDUCATION FUND SCHOLARSHIP
Established in 2001 by the A.H. Atkinson Education Fund. To be awarded to a student entering the Faculty of Engineering. (20124)

THE CHARLES MURRAY BALL ENTRANCE SCHOLARSHIPS
Established in 1993 by bequest of May Alexander Ball in memory of her brother. A variable number of scholarships to be awarded to students entering a full-time programme of study. (20044)

THE CHANCELLOR'S SCHOLARSHIPS (FACTORY OR PROGRAMME-SPECIFIC)
A variable number to be awarded to students entering a Level I Programme in the Faculties of Business, Health Sciences, Humanities and Social Sciences. (20041)

THE CLASS OF 1952 GOLDEN ANNIVERSARY ENTRANCE AWARDS
Established in 2001 by the Class of 1952 in honour of its 50th reunion. A maximum number of four entrance scholarships to be awarded each year to students entering any Level I programme. (20116)

THE COCA-COLA MERIT AWARDS
Established in 1998 by Coca-Cola Bottling Ltd. Two awards to be granted to students entering any programme. (20101 802)

THE COCA-COLA SCHOLARSHIP
Established in 1998 by Coca-Cola Bottling Ltd. To be awarded to a student entering a full-time programme of study. (20100 801)

THE HELEN M. CURRY SCHOLARSHIP
Established in 1941 by bequest of Helen Maud Curry of Drumbo, Ontario. To be awarded every four years; the 15th award was made in 2000. (20009)

THE DEVILLERS - MAHAPPY MERIT AWARDS
Established in 1991 in memory of Nina De Villiers and Leslie Mahappy of Burlington, by contributions from the local community and the employees of several area companies including Searie Canada, Boehringer Ingelheim, Smithkline Beecham, Monsanto and the Royal Bank. Two scholarships to be awarded to outstanding students graduating from a secondary school in the Halton Region; (a) one to a student entering a full-time programme of study; and (b) one to a student entering full-time study in Science or Music 1. Preference will be given to women students. (20130 251)

THE FORTINOS SCHOLARSHIP
Established in 1980 by John Fortino. To be awarded to an outstanding full-time student entering the School of Business. (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. (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. (20108 677)

THE GOVERNORS' SCHOLARSHIPS
A variable number to be awarded to students entering a full-time programme of study. (20007)

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 and for the work he served with distinction as the first Dean. To be awarded to an outstanding student entering the Faculty of Engineering. (20123 078)

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. (20014)

THE DR. HARRY LYMAN HOOKER ENTRANCE SCHOLARSHIPS
Established in 1981, and resulting from the bequest of Dr. H.L. Hooker. (20001)

THE CATHRYN E. KAAKE MERIT AWARD
Established in 1988 in memory of Cathryn E. Kaake (Class of ’78) by family and friends. (20123 010)

THE RAYMOND C. LABARGE MERIT AWARDS
Established in 1990 in memory of Raymond C. Labarge (Class of ’36) of Ottawa. (20127 285)

THE MARION LAING-KNOX ENTRANCE SCHOLARSHIP
Established in 2000 by bequest of Marion Laing-Knox. To be awarded to a student entering the Faculty of Humanities in a full-time programme of study who presents an outstanding final admission average. (20126)

THE LLOYD MEMORIAL SCHOLARSHIP
Established in 1956 in memory of Henry Hoynes and Lizzie Lloyd by their children. U or M (or OAC) subjects to be included are: Physics, Chemistry, two credits of Mathematics, and either Biology or a third credit of Mathematics. (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. (20012)

THE ALBERT MATTHEWS SCHOLARSHIP
Established in 1920. U or M (or OAC) subjects to be included are Latin and a language other than English. (2004)

THE HAROLD MATHEWS MEMORIAL SCHOLARSHIP
Established in 1917. U or M (or OAC) subjects to be included are French and either German or Spanish. (20088)

THE ISABELLA CAMPBELL MCNEE SCHOLARSHIP
Established in 1915 and augmented in 1926. U or M (or OAC) subjects to be included are three credits of Mathematics and Physics. (20010)

THE ALVIN I. OGLIVIE SCHOLARSHIPS
Established in 1984 by bequest of Alvin I. Oglivie of Hamilton. Five scholarships to be awarded to students entering a full-time programme of study. (20017)

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. (20030)
UNDERGRADUATE AWARDS — IN-COURSE, GRADUAND AND SECOND DEGREE

THE LESLIE A. PRINCE MERIT AWARDS
Established in 1979 in honour 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. (20128 136)

THE D.E. THOMSON SCHOLARSHIP
Established in 1909 and augmented in 1915. U or M (or OAC) subjects to be included are English and either Latin or French. (20006)

THE TYNOWSKI SCHOLARSHIP
Established in 1989 by the University, friends and colleagues of Olga Tynowski, for her outstanding contributions to McMaster University during 46 years of service. To be awarded to an outstanding student entering a full-time programme of study. (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 WALLINGFORD HALL ENTRANCE SCHOLARSHIP
Established in 1993. To be awarded to a student entering a full-time programme of study. (20043)

THE WHEELER SCHOLARSHIP
Established in 1916. U or M (or OAC) subjects to be included are: History, English and a language other than English. (20016)

◆ Music Awards
THE JOAN FRANCES BOWLING ENTRANCE SCHOLARSHIPS
Established in 1997 from the estate of Marle Bowling in memory of her daughter, Joan Frances Bowling. Two scholarships to be awarded to students entering Music I, who in the judgment of the School of the Arts, have demonstrated excellence in classical music.
Value: $1,800 each (20059 559)

THE MERRILL FRANCIS GAGE ENTRANCE SCHOLARSHIP
Established in 1982 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 the Arts, 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 to be awarded to students entering Music I who, in the judgment of the School of the Arts, have attained high scholastic achievement and musical proficiency.
Value: $1,100 each (20028)

◆ Other Awards
THE ASSOCIATION OF PROFESSIONAL ENGINEERS SCHOLARSHIP
Established in 1961 by the Ontario Professional Engineers Foundation for Education. Two scholarships to be awarded to students entering the Faculty of Engineering.
Value: $1,120 each (20027 232)

THE NORTEL NETWORKS ENTRANCE SCHOLARSHIPS
Established in 1999 by Nortel Networks. A variable number of scholarships to be awarded to students entering the Faculty of Engineering.
Value: $5,000 each ($3,000/yr) (20109 976)

THE DOMINIC ROSART SCHOLARSHIP
Established in 2002 by Mrs. Paisiy Rosart in loving memory of her husband Dominic Rosart. To be awarded to the student entering Level I of a full-time programme of study in the Faculty of Health Sciences who has the highest final admission average and is eligible for OSAP or an equivalent provincial student assistance programme. Award is tenable for up to four years provided the recipient maintains a Sessional Average of 9.5.
Value: $20,000 ($5,000 per year) (20132)

◆ 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. These awards are administered by the Office of International Affairs (Gilmore Hall, Room 307).
Value: $2,000 each

The following support the International Awards, as outlined above:

THE MCMASTEr CHINESE ALUMNI (TORONTO CHAPTER) INTERNATIONAL ENTRANCE SCHOLARSHIPS
Established in 1999 by Chinese Alumni (Toronto Chapter) of McMaster University.

THE NG MAN-CHUNG MEMORIAL SCHOLARSHIPS
FOR INTERNATIONAL STUDENTS
Established in 2000 by Joe Ng Engineering Limited in memory of Joe Ng's father Ng Man-Chung.

THE WOO FAMILY INTERNATIONAL ENTRANCE SCHOLARSHIPS
Established in 1999 by Mr. Chung How Woo in honour of his late wife, Mrs. Ching Yung Chiu-Woo, mother and mother-in-law of four McMaster graduates.

IN-COURSE, GRADUAND AND SECOND DEGREE AWARDS

NOTE
An award name ending with an * indicates that the award is open to both full-time and part-time second baccalaureate degree students.

THE ACCENTURE INC. SCHOLARSHIP
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)

THE ACHIEVEMENT AWARDS OF EXCELLENCE
Established in 1998. A variable number of scholarships to 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 & Scholarships for information and an application.
Value: $500 (40085 794)

THE ACI (ONTARIO CHAPTER) SCHOLARSHIP
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.
Value: $300 (30215 319)

THE AIR LIQUIDE CANADA INC. SCHOLARSHIPS
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 retain a minimum Sessional Average of 9.5 at the most recent Fall/Winter session.
Value: $1,250 each (30258)

THE HENRIETTA ALDERSON SCHOLARSHIP
Established in 2002 in memory of Henrietta Jane Alderson. Two scholarships to be awarded to students in the B.Sc.N. programme who are entering Level II (A Stream) or Level IV (B and C Streams) and, in the judgment of the School of Nursing, have demonstrated exceptional achievement in required science courses.
Value: $3,750 each (30280)

THE A.G. ALEXANDER SCHOLARSHIPS
Established in 1938 and augmented in 1946 by Sir Douglas Alexander, and members of his family, in memory of Archbishop Greg Alexander. A variable number of scholarships to be awarded to students who have completed Level I and 30 to 75 units on the basis of excellence in an Honours programme in the Faculty of Humanities. The purpose of the scholarships is to enable the recipients to study outside Canada during the twelve months prior to the final Fall/Winter session.
Value: $5,550 each (30174)

THE W.K. ALLAN MEMORIAL SCHOLARSHIP
Established in 1994 in memory of William Kellock Allan (Class of 1911) by his wife Yvonne and augmented in 2002 by his family. To be awarded to a student entering the final level of a programme in Mathematics or Physics who attains the highest Full-load Average.
Value: $1,500 (30221 355)
THE CAMERON D. ALLEN BOOK PRIZE
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.
Value: $150 for books (50009 267)

THE ALUMNI ASSOCIATION SCHOLARSHIP
Established in 1974 by the McMaster University Alumni Association and later augmented by bequest of Harold E. Amy. One scholarship is to be awarded to a part-time student who has attained the highest Cumulative Average at the most recent review.
Value: $400 (60000)

THE ALUMNI CANADIAN GEOGRAPHY PRIZE
Established in 1986 by the Geography Branch of the McMaster University Alumni Association in recognition of Dr. Lloyd G. Feels 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 2HC3 (Canada).
Value: $175 (40001 004)

THE ALUMNI SOCIAL WORK PRIZE
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 2S33.
Value: $75 for books (40056 275)

THE AMBASSADOR OF SPAIN BOOK PRIZE
Established in 1982. 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 achieved notable proficiency in Spanish. (50002 005)

THE E.H. AMBROSE GOLD MEDAL
Established in 1971 by Clarkson Gordon in memory of his 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. (50014 006)

THE AMERICAN-STANDARD PRIZE
Established in 1978. To be awarded to the student in a Ceramics course in the Materials Engineering programme who attains the highest grade in MATLS 4R03.
Value: $100 (40002 007)

THE ANATOMY PRIZE
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. Value: $400 and a medal (40088 847)

THE ANTHROPOLOGY PRIZE
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.
Value: $50 (50004)

THE HERBERT S. ARMSTRONG MEMORIAL FUND
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.
Value: $75 for books (30234 558)

THE ARTS & SCIENCE PROGRAMME BOOK AWARD
Established in 1995. To be awarded from time to time to an Arts & Science student who, in the judgment of the Arts & Science Programme Awards Committee, has demonstrated outstanding academic achievement in both arts and science.
Value: $75 (40078 390)

THE EDGAR R. ASHALL SCHOLARSHIP
Established in 1965 by bequest of his wife, Edith M. Ashall.
Value: $500 (50162)

THE ASM INTERNATIONAL (ONTARIO CHAPTER) SCHOLARSHIP
Established in 1971 by the local Chapter of the American Society for Metals. Three scholarships are to be awarded to students who have completed Level I and 30-85 units of the Honours Materials Science or Materials Engineering programme and who attain the highest Full-load Average (at least 9.5).
Value: $1,000 each (30003 003)

THE ASSOCIATION OF PROFESSIONAL ENGINEERS GOLD MEDAL
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 Full-load Average after completion of Engineering I and Engineering II.
Value: $1000 each (30259)

THE ASSOCIATION OF PROFESSIONAL ENGINEERS UNDERGRADUATE SCHOLARSHIPS
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 programmes after completion of Engineering I and 95-90 units.
Value: $600 each (30006)

THE A.H. ATKINSON PRIZE
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.
Value: $200 (30001 942)

THE ATOMIC ENERGY OF CANADA LIMITED SCHOLARSHIPS
Established in 2001 by Atomic Energy of Canada Limited (AECL). Four scholarships are to be awarded to students who have completed Level I in the Faculty of Engineering and who, in the judgment of the Faculty of Engineering, have demonstrated outstanding academic achievement and qualities of leadership at McMaster or in the community.
Value: $2,500 each (30267 1544)

THE MAHBOOL AZIZ MEMORIAL SCHOLARSHIP
Established in 2001 by family, friends and colleagues in memory of Mahtool Aziz, Professor of English from 1969 to 2000. To be awarded to a student in an English programme who attains the highest grade in ENGL 2106 (Modern British Literature).
Value: $500 (40105 1513)

THE MURRAY BALL SCHOLARSHIPS IN GEOLOGY
Established in 1991 by May A. Ball in memory of her brother Murray Ball. Four scholarships are to be awarded to students entering Level II, III, IV or V of the 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.
Value: $1,500 each (30182)

THE BANK OF MONTREAL HUMANITIES MULTIMEDIA SCHOLARSHIPS
Established in 1999 by the Bank of Montreal. Ten scholarships are to be awarded to students entering Level II, III, IV or V of the Humanities Multimedia programme who, in the judgment of the Faculty of Arts, demonstrate outstanding academic achievement in the Humanities Multimedia programme or great promise in the area of Humanities multimedia.
Value: $1000 each (30259)

THE M. BANKER BATES SCHOLARSHIP
Established in 1975 by Dr. M. Banker Bates and augmented in 1978 in his memory by his family, friends and colleagues. To be awarded to the student who has completed Level I and 60-75 units of a programme in Commerce and who attains the highest Full-load Average.
Value: $350 (30102 257)

THE J. DOUGLAS BANKIER MEMORIAL SCHOLARSHIP
Established in 1977 in memory of Professor J. Douglas Bankier by his friends, colleagues, and former students. In the judgment of the Faculty of Arts, to be awarded to the student who has completed Level I and 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 3D03 and 3D33.
Value: $300 (30076)

THE WILLIAM AND LIDA BARNES MEMORIAL PRIZE IN HISTORY
Established in 1969 by their son, William D. Barns, of Morgantown, West Virginia. To be awarded to the student who, in the judgment of the Department of History, has attained notable standing in an Honours History programme.
Value: $200 (50050)

THE SCOTT BARLETT MEMORIAL PRIZE
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 COMMERCSE 3F3A and 3F3B, taken in one session.
Value: $100 (30134 012)
THE BASU MEDAL
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 COMMERCCE 4AA3, 4AC3, 4AD3, 4AE3, 4AF3.
Value: Medals (50006 013)

THE MARION BATES BOOK PRIZE
Established in 1967, Centennial Year, by the Alumnae members of the McMaster Alumni Association in honor of Meron Bates, Dean of Women from 1947 to 1965. 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 (50034)

THE BATES RESIDENCE SCHOLARSHIP
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 (30165)

THE BARBARA AND RONALD BAYNE GERONTOLOGY INTERNSHIP AWARD
Established in 2000 by Barbara and Ronald Bayne to provide practical learning experience for Gerontology students. To be awarded to a student who has completed at least Level II in a programme in Gerontology and who, in the judgment of the Gerontology Committee of Instruction, has demonstrated notable academic achievement and qualities of leadership at McMaster or in the community.
Value: $500 (40106 1571)
Note: Application required (500 word essay outlining internship plans). To be submitted to the McMaster Centre for Gerontological Studies by October 15th of each year.

THE BEAUNE-LINCOLN-HALL TRAVEL SCHOLARSHIPS
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. Two scholarships to be awarded to students who demonstrate high academic standing and are participating in one of McMaster’s formal exchange programmes. Preference will be given to students enrolled in a programme in Biochemistry, Biology, Chemistry, Commerce, Engineering Physics, English, French, Geography and Geology, History, Materials Science, Mathematics, Modern Languages, Physics or Religious Studies and who demonstrate a lively interest in the humanities and the human and social implications of scientific developments.
Value: $2,500 (30236 561)

THE BEAUTY COUNSELORS OF CANADA SCHOLARSHIP
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 or Honours Chemistry programme.
Value: $300 (30088 114)

THE BENTALL SCHOLARSHIPS
Established in 2001 by Dr. C. Howard Bentall (Class of ’37) and Dr. Shirley F. Bentall (Class of ’46). To be awarded to students in any Faculty who demonstrate outstanding academic achievement.
Value: Value: $1,500 each (30281 1547)

THE LOUISE E. BETTERG SCHOLARSHIPS IN MUSIC
Established in 1982 in memory of Louise E. Betterg 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, are outstanding: (a) one in the area of choral or vocal music to a student who has completed Music I and an additional 50-75 units; (b) one to a student who has completed Level I and 30-75 units; and (c) one to a student who has completed Music I and has demonstrated overall musical excellence.
Value: $400 each (30097 015)

THE BINKLEY MEDAL
Established in 2000 by the University, friends and colleagues of Margaret Belac (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 has attained the highest Cumulative Average.
Value: $350 and a medal (50085 389)

THE ABE BLACK MEMORIAL PRIZE
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 1978. 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 581)

THE ABE BLACK MEMORIAL PRIZE
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 1978. Three prizes to be awarded: (a) one to the student who attains the highest Cumulative Average in an Honours B.A. programme in Psychology; (b) one to the student who attains the highest Cumulative Average in the Honours B.Sc. programme in Psychology; (c) one to the student who attains the highest Cumulative Average in the Honours Biology and Psychology (Life Sciences) programmes.
Value: (a) $75; (b) $75; (c) $75 (50000 017)

THE LEO BETTY BLACKWELL MEMORIAL BOOK PRIZE
Established in 1992 by Mr. and Mrs. Arthur Beale and Margaret B. Bayne in memory of their daughter Betty Blackwell. To be awarded to a graduating student who has completed at least Level II in an Honours programme in History who, in the judgment of the School of the Arts, has attained high academic standing.
Value: $1,250 (30245 795)

THE JOAN FRANCES BOWLING SCHOLARSHIPS
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 scholars registered in Level II and above of a Music programme and who, in the judgment of the School of the Arts, have demonstrated excellence in Music.
Value: $1800 each (30235 559)

THE BRIEN SCHOLARSHIP IN PHILOSOPHY
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)

THE JOSEPHINE STAPLES BRIEN SCHOLARSHIP
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)

THE DR. AND MRS. F.R. BRITTON SCHOLARSHIP IN MATHEMATICS
Established in 1952 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 the Mathematical Sciences who attains the highest full-load average. Tenable in Level 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)

THE TETEN BROEKE-BENSEN MEMORIAL SCHOLARSHIP
Established in 1990 in memory of Dr. James Ten Broeke and Dr. Roy C. Benson, 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)

THE BURKE MEMORIAL RING
Presented by science 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)
THE CAE SCHOLARSHIPS IN COMPUTING AND SOFTWARE ENGINEERING
Established in 2001 by CAE Inc. To be awarded to a student who has completed Level II of a Software Engineering programme who, in the judgment of the Department of Computing and Software, has achieved notable academic standing and demonstrated qualities of leadership at McMaster or in the community.
Value: $2,500 (30228 1577)

THE CRISPIN CALVO SCHOLARSHIPS
Established in 1992 by Dr. J.S. Kirkaldy and Dr. W.W. Smetzer. Two scholarships to be awarded, one to a student with the highest combined average in CHEM 2P3 and 2P3, the other to a student with the highest combined average in MATLS 2B03 and 2D03.
Value: $1,500 each (30211)

THE BETTY TAYLOR CAMPBELL SCHOLARSHIP
Established in 1996 by garnet F. Carmel of Ottawa, Ontario in memory of his wife Betty Taylor Campbell, a 1937 McMaster graduate, an Olympic medallist in 1936 and 1990 inductee into the Athletics Hall of Fame. To be awarded to a student who has completed Level I in a programme in Kinesiology and who, in the judgment of the Department of Kinesiology, demonstrates academic excellence and outstanding athletic ability. The award is renewable for up to three years provided the recipient maintains a Cumulative Average of 8.0.
Value: $6,000 ($1,650 each year) (30246 796)

THE ELLA HALSTEAD CAMPBELL PRIZE
Established in 1970 by Mrs. Verna Caskey and Miss June Caskey in memory of Elia Halstead Campbell and augmented by Mrs. Edna M. Miller in 1987. To be awarded to a keyboard student, registered in any level of a solo performance course, who is outstanding in the judgment of the School of the Arts.
Value: $200 (30048 C23)

THE CANADIAN INSTITUTE OF INTERNATIONAL AFFAIRS PRIZE
Established in 1994 by the Canadian Institute of International Affairs (Hamilton Branch). To be awarded to a student who has completed Level I and at least 30 units of a programme in Political Science who, in the judgment of the Department of Political Science, has achieved notable standing in at least six units of International Politics courses including an outstanding essay detailing with a topic related to the field of International Politics.
Value: $300 (40071 349)

THE CANADIAN SOCIETY FOR CHEMICAL ENGINEERING PRIZE
Established in 1947 by the Chemical Institute of Canada. To be awarded to the student who has completed Level I and 70 to 85 units of a programme in Chemical Engineering and who attains the highest Full-load Average.
Value: $50, medal and certificate (30016 C27)

THE CANADIAN SOCIETY FOR CHEMISTRY PRIZES
Established in 1947 by the Chemical Institute of Canada. Two awards to be made to students who have completed Level I and 60 to 80 units: (a) one to a student in an Honours programme in Chemistry or Honours Applied Chemistry who attains high standing in Chemistry; (b) one to a student in the Honours Biochemistry or Honours Biochemistry and Chemistry programmes who attains high standing in biochemistry and organic chemistry.
Value: Medal and certificate (30017 C29)

THE CANADIAN SOCIETY OF CIVIL ENGINEERS (HAMILTON SECTION) PRIZE
Established in 1987. To be awarded to a student entering the final level of a programme in Civil Engineering who, in the judgment of the Department of Civil Engineering and Engineering Mechanics, has demonstrated participation in extracurricular activities and has attained high academic standing.
Value: Plaque (30018 C29)

THE EZIO CAPPADOCIA MEDAL
Established in 1986 by Professor Ezio Cappadocia on the occasion of his retirement from the Department of History. 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 and has contributed to the Department's activities.
Value: Medal (50018 C03)

THE NANCY CAR MEMORIAL SCHOLARSHIP IN KINESIOLOGY
Established in 2001 in loving memory of Kinesiology student Nancy Car. To be awarded to a student entering Level IV of Kinesiology who, in the judgment of the Faculty of Social Sciences, has attained notable academic standing and demonstrated leadership at McMaster University or in the community.
Value: $500 (30277 1544)

THE GRACE DOROTHY AND WILLIAM P. CARPENTER AWARD
Established in 2001 by the Hamilton Community Foundation. To be awarded to a student entering Level II in Mechanical Engineering who, in the judgment of the Department of Mechanical Engineering, demonstrates outstanding academic achievement. Preference will be given to a student who has graduated from a publicly funded secondary school in the Hamilton or Burlington area.
Value: $1,500 (30284 1580)

THE JAMES ROBERTSON CARRUTHERS MEMORIAL PRIZE
Established in 1984 in memory of James Robertson Carruthers (Class of '74) by his family and friends. To be awarded to the student who, in the judgment of the Department of History, attains notable standing in HISTORY 2F03 and 2P3 (United States History).
Value: $500 (40025 C32)

THE NORMAN N. CASKEY MEMORIAL PRIZE
Established in 1963 by Mrs. Verna Caskey and Miss June Caskey in memory of husband and father. To be awarded to a student who has completed Music I or Level I and 30 to 75 units of an Honours programme in Music and who, in the judgment of the School of the Arts, has demonstrated musical excellence.
Value: $100 (30115)

THE CFUW (HAMILTON) MEMORIAL PRIZE IN WOMEN'S STUDIES
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 Instruction for Women's Studies, has demonstrated outstanding academic achievement in the Women's Studies component of the programme.
Value: $175 and book ends (50062 132)

THE CFUW (HAMILTON) PAST PRESIDENT'S PRIZE
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 95 units of a programme in Engineering with the highest Cumulative Average.
Value: $200 (30149 020)

THE CFUW (HAMILTON) RUBY BROWN BOOK PRIZE IN ENGLISH
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)

THE CFUW (HAMILTON) SCHOLARSHIP
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 cumulative Average in the penultimate level of any programme.
Value: $800 (30150 373)

THE CDA ONT. AWARD FOR EXCELLENCE
Established in 1982 by the Certified General Accountants Association of Ontario. 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 7.0 in COMMERC 2A83, 3A83, 3C43 and 4AAS.
Value: $150 (50012 033)

THE MARIA CHAN SCHOLARSHIPS FOR INTERNATIONAL STUDIES IN BUSINESS
Established in 1999 by Professor Luke Chan and his family in support of students in the School of Business who wish to pursue academic studies abroad. Four scholarships to be awarded to students participating in one of McMaster's formal exchange programmes who, in the judgment of the Faculty of Business, demonstrate notable academic achievement.
Value: $1,000 each (30283 1679)

THE CHANCELLOR'S GOLD MEDAL
Established in 1938. To be awarded to the student who has completed the penultimate year of any four or five-level programme at the most recent spring review, and who ranks highest in scholarship, leadership and influence.
Value: Medal (30022)

THE CHEMICAL INSTITUTE OF CANADA (HAMILTON SECTION) PRIZES
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)
THE CITIZEN ACTION GROUP PRIZE
Established in 1984 by the Citizen Action Group, Hamilton, to honour Professor L.G. 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)

THE HUGH CLARK SCHOLARSHIP
Established in 1989 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 60 to 75 units of an Honours programme in Social Sciences and attains the highest Full-load Average.
Value: $1,200 (30066 239)

THE CLASS OF '37 TRAVEL SCHOLARSHIP IN ARTS AND SCIENCE
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: $1,250 (30175 037)

THE CLASS OF '43 GOLDEN ANNIVERSARY SCHOLARSHIP
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 Theatre & Film Studies who, in the judgment of the Department of the Arts, has achieved notable standing in and has made a significant contribution to theatre on campus.
Value: $500 (30214 329)

THE CLASS OF '44 SCHOLARSHIP
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)

THE CLASS OF '50 SCHOLARSHIP IN HONOURS ECONOMICS
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: $500 (30027 068)

THE CLASS OF 1953 50TH ANNIVERSARY SCHOLARSHIP
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 high community involvement.
Value: $500 each (30264 482)

THE CLASS OF '92 SCIENCE LEGACY AWARD
Established by the 1992 graduating class of the Faculty of Science. To be awarded to a graduating full-time student who, in the judgment of the Faculty of Science, has demonstrated notable academic achievement; contributed to the programme, and participated in extra-curricular activities during his/her time at McMaster.
Value: $1,000 (50091 157)

THE CLASSICS PRIZE
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)

THE DENTON COATES MEMORIAL SCHOLARSHIP
Established in 1982 in memory of Denton E. Coates (Class of '70) by his friends. To be awarded to the graduating student 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 MATLS 4K04.
Value: $225 (50010)

THE MARIO COLITI MEMORIAL SCHOLARSHIP
Established in 2000 by family members in loving memory of Mario Colitti. 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)

THE COMPARATIVE LITERATURE PRIZE
Established in 1988. 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.
Value: $225 (40008)

THE CONSULTING ENGINEERS OF ONTARIO (CEO) SCHOLARSHIP
Established in 1990 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: $1,000 (30183 252)

THE BEATRICE CORRIGAN MEMORIAL BOOK PRIZE
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)

THE CRANSTON PRIZES
Established in 1958 by William H. Cranston of Midland in honour of his parents, J. Herbert Cranston (Class of '05) 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 2906, and (b) one for the highest grade in ENGLISH 2903.
Value: (a) $150; (b) $150 (40011)

THE CSEP/SCPE UNDERGRADUATE STUDENT AWARD
Established in 1993 by the Canadian Society for Exercise Physiology. To be awarded to the student from the Kinesiology programme who, in the judgment of the Department of Kinesiology, shows high standing in KINESIOL 2C06 (Physiology of Exercise) and either KINESIOL 4C03 or 4C33.
Value: Medal and Certificate (50068)

THE EDWIN MARWIN DALLEY MEMORIAL SCHOLARSHIPS
Established in 1965 by bequest of Edwin Marwin Dalley of Hamilton.
Value: $800 each (30164)

THE D.M. DAVIES PRIZE
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 60 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 (40098 047)

THE DEAN'S MEDAL FOR EXCELLENCE IN THE HUMANITIES
Established in 2000 by Donald T. Betzner (Class of '52). Three prizes to be awarded to the graduating students who, in the judgment of the Faculty of Humanities, have demonstrated outstanding academic achievement.
Value: $5,000 (1st) and medal (50083)
$3,000 (2nd) and medal (50093)
$2,000 (3rd) and medal (50094)

THE DR. RUDOLF DE BUDA SCHOLARSHIP
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)

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
Established in 1992 by John Deere 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 Resource/Labour Relations Area and has displayed leadership and self-motivation in extracurricular activities.
Value: $2,000 (30207 305)
THE DELOITTE & TOUCHE SCHOLARSHIP
Established in 2000 by Deloitte & Touche. To be awarded to the student who has completed Level I and 30 to 75 units of the Honours Commerce programme who, in the judgment of the Faculty of Business, has achieved notable academic standing in COMMERCE 3A3 and 3A3 (taken in one session), and has demonstrated qualities of leadership at McMaster University or in the community.
Value: $1,250 (30268537)

THE AUDREY DIEMERT MEMORIAL BOOK PRIZE
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: $126 for books (60050 256)

THE LAURA DODSON PRIZE
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 (50031 049)

THE ROSEMARY DOUGLAS-MERCER MEMORIAL PRIZE
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 2B03 and one of 2J03, 2J3J or 2W03.
Value: $225 (30162 132)

THE HORACE A. DULMAGE PRIZE IN PHILOSOPHY
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 (30066)

THE JOAN JACKSON DUNBAR TRAVEL SCHOLARSHIP
Established in 1960 by Meyer Lloyd D. Jackson (Class of ‘36), LL.D. (Class of ‘56) 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 winner 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: $1,500 (30177 053)

THE EDWARDS HALL RESIDENCE SCHOLARSHIP
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 (30165)

THE CLARA I. ELMAN SCHOLARSHIPS
Established in 2002 by Clara I. (Graham) Elman (Class of ’46), faculty member of the School of Nursing from 1949 to 1953. A variable number of scholarships to be awarded to students who have completed Level II in a programme in Nursing who, in the judgment of the School of Nursing, demonstrate academic excellence and a commitment to the patient-nurse relationship.
Value: $1,000 each (30269)

THE HELEN EMMAY SCHOLARSHIPS IN ENVIRONMENTAL SCIENCE
Established in 1990 by Miss Helen Emmay 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)

THE ENVIRONMENTAL ISSUES PRIZE
Established in 1983 by the Regional Municipality of Hamilton-Wentworth in recognition of Metal Recovery Industries and Philip Environmental, Industrial Filter Fabrics Ltd., and Ladlaw Waste Systems. To be awarded to the student who attains the highest grade in GEO 4R06.
Value: $100 (40097 341)

THE ERNST & YOUNG SCHOLARSHIP
Established in 1952 by Clarkson Gordon. Renamed in 1989. To be awarded to the student who has completed Level I and 30 to 45 units of a programme in Commerce and who attains the Highest Full-load Average and in the session attains a grade of at least A- IN COMMERCE 2A3.
Value: $350 (30050 241)

THE L.F. EULL PRIZE
Established in 1980 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)

THE EUROPEAN HISTORY PRIZE
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, has displayed outstanding achievement in European history courses consistently throughout the degree programme.
Value: $100 (50017 368)

THE JOHN P. EVANTRAVEL SCHOLARSHIP
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 contributions 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: $2,000 (30183 273)

THE FACULTY OF SOCIAL SCIENCES INQUIRY 1SS3 PRIZE
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 (40091 270)

THE FEDERATION OF CHINESE CANADIAN PROFESSIONALS EDUCATION FOUNDATION SCHOLARSHIPS
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: $1,000 each (30163 056)

THE BARBARA M. FERRIER SCHOLARSHIP IN ARTS AND SCIENCE
Established in 2000 by students in the Arts and Science Programme, on the occasion of Dr. B.M. Ferrier’s retirement. One scholarship to be awarded to a graduating student in a B.Arts Sc. (Honours) programme who, in the judgment of the Arts and Science Programme, has demonstrated outstanding achievement in both the Arts and Sciences as well as exceptional leadership and service to the University community.
Value: $500 (60089 186)

THE NEIL FORSYTH PRIZE
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 steelcastings Industry. To be awarded to the student who attains the highest grade in MATLS 3D03.
Value: $100 (40067 121)

THE BARBARA FRANCIS SCHOLARSHIP
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 Sciences programme and who has demonstrated outstanding achievement in both arts and science.
Value: $350 (30007 372)

THE HAROLD A. AND GERTRUDE FREEMAN SCHOLARSHIP IN FRENCH
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)

THE FRENCH GOVERNMENT BOOK PRIZES
To be awarded from time to time to in-course students for proficiency in Level I French.
Value: Book (40017)
THE KLAUS FRITZE MEMORIAL PRIZE
Established in 1980 by friends of Professor K. Fritz. 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 (30096 067)

THE MERRILL FRANCIS GAGE SCHOLARSHIP
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 30 to 75 units of an Honours programme in Music and who, in the judgment of the School of the Arts, has demonstrated excellence in performance on a keyboard or orchestral instrument.
Value: $500 each (90110)

THE SAMUEL GELLER MEMORIAL BOOK PRIZE
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)

THE R. LOUIS GENTILCORE PRIZE
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)

THE GWEN GEORGE AWARD
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) (90240 773)

THE GWEN GEORGE MEDAL
Established in 2001 in loving memory of Gwen George by her family. To be awarded to a part-time student who has completed at least Level I of any programme and who, in the judgment of the MAPS Association, 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.
Value: $400 and medal (60011)

THE GERMAN EMBASSY BOOK PRIZE
To be awarded from time to time for in-course students for proficiency in Level II or III German.
Value: Book (40018)

THE J.W. GILL PRIZES
Established in 1944 by bequest of J.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 II 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)

THE GILMOUR MEMORIAL PRIZE*
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 2G30 or 2H13.
Value: $100 (40019)

THE GEORGE P. GILMOUR MEMORIAL SCHOLARSHIP
Established in 1987 by the Graduating Class of 1962 in honour of Dr. George P. 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 academic achievement and has made notable contribution to the campus or community by participation in extracurricular activities.
Value: $300 (30056 067)

Recipients of this award are eligible to receive additional aid through the Combined Supplementary Bursary Aid Fund if they demonstrate 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
Given by Her 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)

THE DAPHNE ETHERINGTON GRAHAM MEMORIAL SCHOLARSHIP IN ENGLISH
Established in 1989, 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 18 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)

THE DAPHNE ETHERINGTON GRAHAM MEMORIAL SCHOLARSHIP IN HISTORY
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 15 units of History, all taken in the same session, with an average of at least A-.
Value: $1,000 (30231 556)

THE J.E.L. GRAHAM MEDAL
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 graduands, and who has completed the programme primarily on a part-time basis. (50029)

THE GREEK COMMUNITY OF BURLINGTON AND DISTRICT SCHOLARSHIP
Established in 1983. To be awarded to the student who obtains the highest standing in Greek 1Z03 and 1Z23.
Value: $250 (40020 065)

THE H.B. GREENING BOOK PRIZE
Established in 1969 by bequest of Gladys Powis Greening in memory of her husband, Herald 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, has demonstrated excellence in music.
Value: $100 for books (30062 069)

THE BILL AND HELEN HAIGHT AWARD
Established in 1959 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, 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)

THE ROBERT S. HAINES MEMORIAL SCHOLARSHIP
Established in 2002 by Margaret E. Haines in memory of her twin brother Robert Samuel Haines (Class of '44). To be awarded to a student graduating from an Honours programme in Chemistry who attains the highest Cumulative Average.
Value: $1,000 (50057)

THE AMELIA HALL GOLD MEDAL
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, screen, radio and television for 35 years. To be awarded to a graduating student who, in the judgment of the School of the Arts, has made a significant contribution to drama during the student's University career. (50063 070)

THE RUTH AND JACK HALL PRIZE
Established in 1980 by Jack and Ruth Hall in memory of their 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)

THE RONALD K. HAM MEMORIAL PRIZE
Established in 1971 in memory of Professor R.K. Hart by his friends and former colleagues. Awarded to the student who has completed Level I and at least 60 units of an Honours or Level I course, 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)
THE BRUCE M. HAMILTON MEDAL  
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 (50091 972)

THE HAMILTON CHEMICAL ASSOCIATION PRIZE  
Established in 1953 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 30 to 45 units of an Honours programme in Chemistry and who attains the highest Cumulative Average.  
Value: $200 (30063)

THE HAMILTON ECONOMIC DEVELOPMENT COMMISSION SCHOLARSHIPS  
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: $800 each (six awards) (30064 072)

THE HAMILTON INDUSTRIAL SCHOLARSHIPS  
Established in 1986.  
Value: $900 each (30165)

THE HAMILTON PORT AUTHORITY SCHOLARSHIP  
Established in 1994 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: $1,500 (30227 399)

THE DONALD HART SCHOLARSHIP  
Established in 1985 by Mrs. Pamela Hart and Joel Jordan in memory 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: $350 (30037 075)

THE HAWKRIGG FAMILY SCHOLARSHIPS IN BUSINESS  
Established in 1999 by the Hawkrrigg 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) (30256 869)

THE HAWKRIGG FAMILY SCHOLARSHIPS IN KINESIOLOGY  
Established in 1999 by the Hawkrrigg 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) (30255 866)

THE HEDDEN HALL RESIDENCE SCHOLARSHIP  
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 (30198)

THE HELLENIC PRIZE  
Established in 1995 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 (30229 586)

THE ANNA MARIE HIBBARD SCHOLARSHIP  
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 (30208 300)

THE ROSE HILL SCHOLARSHIP  
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 60 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 (30130 077)

THE DR. THOMAS HOBLEY PRIZE  
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)

THE DR. HARRY LYMAN HOOKER SCHOLARSHIPS  
Established in 1981, and resulting from the bequest of Dr. H. L. Hooker. 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 (30143)

THE BERTRAM OSMER HOOPER SCHOLARSHIP  
Established in 1957 by bequest of Isobel F. Hooper. To be awarded in Arts.  
Value: $800 (30161)

THE NINA LOUISE HOOPER SCHOLARSHIP  
Established in 1959 by bequest of Bertram O. Hooper.  
Value: $800 (30200)

THE HUGHES SCHOLARSHIP  
Established in 1993 by Heidi Dickenson-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, has displayed outstanding achievement in Music Education.  
Value: $225 (40069 330)

THE HUMAN RIGHTS AWARD  
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 (40067 828)

THE HUMANITIES MEDALS FOR SPECIAL ACHIEVEMENT  
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)

THE WILLIAM D.G. HUNTER PRIZE  
Established in 1995 by family, friends and colleagues in memory of Professor William D.G. Hunter, member of the Department of Economics from 1961 to 1984. To be awarded to the student who achieved the highest standing in ECON 3LL3.  
Value: $200 (40060 394)

THE HURD MEDAL  
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 who is in an Honours programme in which economics is a major field of study.  
Value: Medal (50027 079)

THE PAUL HYPER MEDAL  
Established in 1986 in memory of Paul F. Hyper 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 (40039 060)

THE INCO SCHOLARSHIP IN ENVIRONMENTAL SCIENCE  
Established in 2000 by Inco Limited. To be awarded to a student entering Level III, IV (or ’Year V 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 Geology, has achieved notable academic standing and demonstrated qualities of leadership at McMaster or in the community.  
Value: $2,500 (30275 165)

THE INCO SCHOLARSHIP IN MATERIALS ENGINEERING  
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 judg-
ment 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)

**THE INTERMETCO LIMITED SCHOLARSHIP**

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)

**THE INTER NATIONES (BONN) BOOK PRIZE**

To be awarded from time to time to in-course students for proficiency in German studies.

**Value:** Book (40024)

**THE INTER-RESIDENCE COUNCIL SCHOLARSHIP**

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 from time to time to in-course students for proficiency in German studies.

**Value:** Book (40024)

**THE IODE MEMORIAL SCHOLARSHIP**

Established in 2000 with funds from the Paardebourg Chapter and 67th University Battery Chapters of the IODE. To be awarded to a student enrolled in the Bachelor of Health Science programme who has completed at least Level I and who, in the judgment of the Faculty of Health Sciences, has attained notable academic standing. Preference will be given to a student from a secondary school in Hamilton.

**Value:** $500 (30228 592)

**THE MUNICIPAL CHAPTER OF HAMILTON, IODE, PRIZE**

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)

**THE IROQUOISTROPHY**

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.

**Value:** $2,500 (50008)

**THE ITCA COMMUNITY INVOLVEMENT PRIZE**

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 066)

**THE IVEY SCHOLARSHIP**

Established in 1971 by Professor and Mrs. G.S. French 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, has attained notable standing.

**Value:** $125 (30074 087)

**THE JDS UNIPHASE SCHOLARSHIPS IN OPTICS AND PHOTONICS**

Established in 2002 by the Department of Engineering Physics. Four 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 scholarship is tenable for up to three years provided the recipient maintains a minimum Sessional Average of 6.0 in an Engineering Physics programme. Preference will be given to students with an expressed interest in photonics.

**Value:** $9,000 each ($3,000 per year) (30286)

**THE JENSSEN MEDAL**

Established in 1985 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. (50075 367)

**THE LAWRENCE AND KATHLEEN MARY JOHNSTON MEMORIAL PRIZE**

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 (50094 060)

**THE JURY PRIZE**

Established in 1941 by bequest of J.H. Jury of Bowmanville. To be awarded to the student who has completed Level I and 30-45 units of the Honours History programme who attains the highest Full-load Average.

**Value:** $150 (30093)

**THE FRANK (E.) JONES PRIZE**

Established in 1982 in honour 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)

**THE JEAN JONES PRIZE**

Established in 1989 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 SOCWORK 2003.

**Value:** $50 (40026 098)

**THE L. E. JAMES MEMORIAL PRIZE**

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)
THE ERNEST ROBERT MacKENZIE KAY SCHOLARSHIPS
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: $500 each (30254 846)

THE GERALD L. KEECH MEDAL
Established in 1994 by his friends and colleagues as a tribute to Gerald L. Keech in recognition of his outstanding contributions to McMaster University during his 39 years of service in Computer Science and computing services. To be awarded to the graduating student from a programme in Computer Science who attains the highest Cumulative Average. (50069 344)

THE ROBERT A. KENNEDY SCHOLARSHIP
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 (30243 788)

THE GEORGE P. AND LEATHA M. KEYS SCHOLARSHIPS
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 (30037 091)

THE KARL KINANEN ALUMNI PRIZE IN GERONTOLOGY
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 317)

THE KINESIOLOGY PRIZE
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)

THE KINESIOLOGY PRIZES
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 a student who, in the judgment of the Department of Kinesiology, has demonstrated outstanding improvement in academic standing throughout the programme.
Value: $50 each (20041)

THE KIT MEMORIAL SCHOLARSHIP
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 I and 60 to 75 units of an Honours programme in English on the basis of Full-load Average.
Value: $75 (30030 059)

THE KPGM SCHOLARSHIP
Established in 1956 by Pettit, 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 60 to 75 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)

THE RUTH LANDES PRIZE
Established in 1992 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)

THE LATIN PRIZE
Established in 1987 by Dr. John B. Clinard. To be awarded to a student who, in the judgment of the Department of Classics, has demonstrated notable achievement in LATIN 1203 and 1223
Value: $200 (40031 096)

THE GARY LAUTENS MEMORIAL SCHOLARSHIP
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 McMaster Spectator (1950-82) 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 achieved 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 & Scholarships.
Value: $3,600 ($1,200 each year) (30212 321)

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 E. DORIS LAWRENCE SCHOLARSHIP
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: $2,000 (30253 845)

THE MEGAN LAWRENCE SCHOLARSHIP
Established in 1988 by the Zonta Club of Hamilton II in memory of Megan Lawrence, Zontian and educator in the City of Hamilton. To be awarded to a student who has completed 90 units of the Kinésiology programme and who, in the judgment of the Department of Kinésiology, demonstrates excellence in scholarship, leadership and participation in sport, dance and illness.
Value: $700 (30109 736)

THE SAM LAWRENCE PRIZE
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)

THE JAMES B. LAWSON SCHOLARSHIP
Established in 1998 by a grateful student and friend of Professor Lawson. To be awarded to a student who has completed either GERMAN 1206 or 1283 in Level I or to a student who has completed GERMAN 2272 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 (40050 820)

THE RAY LAWSON SCHOLARSHIPS
Established in 1975 by the Honourable Ray Lawson, O.B.E., D.C.L., D.C.L., L.D., K.G.S.U., Lieutenant-Governor of Ontario from 1946 to 1982. 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 100 units beyond Level I.
Value: $400 each (30126 099)

THE SARKARKHANU K. LILA MEMORIAL SCHOLARSHIP
Established in 2000 by the children and grandchildren of the late Sakarkhanu K.Lila, mother of ten. To be awarded to a full-time student who has completed either GERMAN 1206 or 1283 in Level I or to a student who has completed GERMAN 2272 in Level II and who, in the judgment 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 209)

THE LINGUISTICS PRIZE
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 (40032)
THE CLAUDE G. LISTER SCHOLARSHIP
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.
Value: $500 (40018254)

THE FELIKS LITKOWSKI MEMORIAL PRIZE IN POLITICAL SCIENCE
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: $450 (50032 100)

THE MacGIBBON SCHOLARSHIP*
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)

THE BERT MacKINNON MEMORIAL SCHOLARSHIP
Established in 1996 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. The student selected will have demonstrated 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 & Scholarships by the first Friday in April.
Value: $700 (50061 298)

THEWILLIAM MacKENZIE MEMORIAL PRIZE*
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 3P05 (Globalization and Economic Development) or, in exceptional circumstances, for work in a related area.
Value: $200 (40053 312)

THE BETTY MacMILLAN PRIZE
Established in 1969 by her classmate 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 (90010)

THE AGNES AND JOHN MacNEILL MEMORIAL PRIZE
Established in 1946 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)

THE CATHERINE MacNEILL PRIZE
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)

THE MAPS CENTENNIAL AWARD
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 (6001 1593)

THE MAPS GOLD MEDAL
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 who attains the highest Cumulative Average. (50076 397)

THE LIANNE Marks SCHOLARSHIP
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)

THE Lillian M. MacdaoN MEDEAL
Established in 1997 in memory of Professor Lillian McDoan.
Value: $1,000 each (30127 196)

THE ELEANOR Dornbush Marples PRIZE IN ART HISTORY*
Established in 1985 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, has demonstrated outstanding achievement.
Value: $100 (40016 104)

THE ELEANOR DORNbUSH MAPLES PRIZE IN THEATRE & FILM STUDIES*
Established in 1987 by Vaughan W. Marples in memory of his wife. To be awarded to the student who attains the highest grade in THTR&FLM 2C03.
Value: $100 (40016 104)

THE RONALD E. MATERICK SCHOLARSHIPS
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 196)

THE MATTHEWS HALL RESIDENCE SCHOLARSHIP
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 (30157)

THE JOHN MAYBERRY SCHOLARSHIPS
Established in 1998 by John Mayberry. Two scholarships to be awarded to students who have completed Level II or III of a 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)

THE WILLIAM J. McCALLION SCHOLARSHIPS
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 at the most recent review.
Value: $250 each (60004)

THE ESTHER McCANDLESS MEMORIAL PRIZE
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 1964 to 1983. To be awarded to a student who achieves an outstanding Cumulative Average in an Honours programme in Biology.
Value: $225 (50010)

THE JOHN R. McCARTHY SCHOLARSHIP
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.
Value: $700 (50030 107)

THE H.W. McCreA Dy PRIZE IN BRITISH HISTORY*
Established in 1985 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 2M03 or 2M13.
Value: $100 (40022)

THE McGRGOR-SMITH-BURR MEMORIAL SCHOLARSHIP
Established in 1910 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 1944 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 (30110)

THE R.C. McIVOR MEDAL
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)

**THE McKay HALL RESIDENCE SCHOLARSHIP**
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 (30201)

**THE A.G. McKay PRIZE IN CLASSICAL STUDIES**
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.

Value: $100 (50054269)

**THE ALEXANDER GORDON McKay SCHOLARSHIP**
Established in 1990 by friends and colleagues of Professor A.G. McKay, first Dean of the Faculty of Humanities from 1968 to 1973, to mark his retirement after 33 years of service at McMaster University. To be awarded to a student who has completed Level I and 60 to 75 units of an Honours Classics programme and who, in the judgment of the Department of Classics, has attained high academic standing. Preference will be given to students from the Regional Municipality of Hamilton-Wentworth.

Value: $350 (30180260)

**THE JANET McKNIGHT AWARD**
Established in 1994 by faculty, friends and students in memory of Janet McKnight, beloved colleague and teacher, a recognized expert in educational methodology and small group, problem-based learning. To be awarded to a student entering Level IV of a programme in Nursing who, in the judgment of the School of Nursing, has demonstrated notable academic achievement and leadership in clinical and educational aspects of gerontology or, problem-based, self-directed learning in nursing education.

Value: $400 (40077385)

**THE A.B. McLAY SCHOLARSHIP IN PHYSICS**
Established in 1991 by C. Lucy McLaY in memory of her late husband, A. Boyd McLaY (Ph.D., F.R.S.C.), a member of the Department of Physics from 1930 to 1967. To be awarded to a student who has completed Level I and 30 to 45 units of an Honours programme in Physics and who, in the judgment of the Department of Physics and Astronomy, has attained notable standing.

Value: $450 (30186254)

**THE BOYD McLAY SCHOLARSHIP IN PHYSICS**
Established in 1977 to commemorate the contributions of Dr. A. Boyd McLaY (Class of '22) to teaching and research in optics and spectroscopy at McMaster University from 1930 to 1967. To be awarded to a student who has completed Level I and 60 to 75 units of an Honours programme in Physics with a high Full-load Average.

Value: $350 (3001109)

**THE WALTER SCOTT McLaY PRIZE**
Established in 1938 in honor of Dean McLaY, by his daughter, Mrs. R.R. McLaughlin (Victoria McLaY Class of '25) and further enlarged in 1950 by A.H. Wilson of Woodstock. To be awarded to the student who attains the highest Cumulative Average in an Honours programme in English.

Value: $250 (50057279)

**THE McMASTER HUMANITIES SOCIETY SCHOLARSHIPS**
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.

Value: $250 each for books (30244798)

**THE McMASTER NURSING ALUMNI MEMORIAL PRIZE**
Established in 1994 and augmented in 2001 by the McMaster Nursing Alumni Branch to recognize graduates from the McMaster University School of Nursing. To be awarded to a student who in the judgment of the School of Nursing, has demonstrated leadership while participating in undergraduate activities.

Value: $300 (50092111)

**THE McMASTER UNIVERSITY FUTURES FUND AWARD**
Established in 2000. To be awarded to the child of a member of McMaster University's salaried pension plan who has demonstrated outstanding academic achievement. Recipient must obtain an average of 8.5 or greater. Students should apply to the Office of Student Financial Aid & Scholarships by April 15th.

Value: $500 (500841458)

**THE McMASTER UNIVERSITY FUTURES FUND IN-COURSE AWARDS**
Established in 2000. Three scholarships to be awarded to the children of members of the McMaster University salaried pension plan who have demonstrated outstanding academic achievement. Recipient must obtain a Full-load Average of 8.5 or greater. Students should apply to the Office of Student Financial Aid & Scholarships by April 15th.

Value: $1,500 each (30270)

**THE McMASTER UNIVERSITY RETIREES’ ASSOCIATION PRIZE**
Established in 1992 by the McMaster University Retirees’ Association. To be awarded to the part-time student enrolled in a programme in Gerontology who attains the highest Full-load Average. The student must enrol in a programme in Gerontology in the subsequent Fall/Winter session.

Value: $400 (30187271)

**THE DONALD G. McNABB SCHOLARSHIP**
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 who, 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.

Value: $1,000 (30108243)

**THE SIMON MCNALLY SCHOLARSHIP**
Established in 1972 by S. McNally and Sons Limited, in honour of Simon McNally. One or two scholarships to be awarded to Canadian citizens who have completed Level I and 35 to 50 units of a programme in Civil Engineering. Awards are based on scholarship and evidence of practical engineering experience and background.

Value: $650 each (30139112)

**THE JOHN D. McNIE ACHIEVEMENT AWARD OF EXCELLENCE**
Established in 2001 by David C. Davis in honour of John D. McNie. To be awarded to a student with a visual impairment who, in the judgment of the Centre for Student Development, demonstrates notable academic achievement.

Value: $500 (40107576)

**THE PETER McPHATER MEMORIAL SCHOLARSHIP**
Established in 1998 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, is outstanding.

Value: $500 (30119114)

**THE MEDICAL-SURGICAL EXCELLENCE IN CLINICAL NURSING AWARD**
Established in 1998 by Professor Gerry Benson. To be awarded every two years to a student who has completed at least Level II of the Nursing Programme 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.

Value: $250 (40086579)

**THE AUDREY EVELYN MEPHIR AWARD IN GERONTOLOGY**
Established in 2001 by Gordon W. Mephir in loving memory of his wife Audrey Evelyn Mephir. To be awarded to a student graduating from any programme in Gerontology who, in the judgment of the Gerontology Committee of Instruction, has demonstrated notable academic achievement. Preference will be given to a student who has completed a thesis or course paper on issues related to Alzheimer’s disease.

Value: $750 (500901558)

**THE J.J. MILLER PRIZE**
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 (30077115)
THE DR. F.A. MIRZA SCHOLARSHIP
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 ENG MEE 2P04 taken in one session.
Value: $400 (40100 178)

THE MODERN LANGUAGES TRAVEL SCHOLARSHIP
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 Abroad Programme.
Value: $1,000 (30198 274)

THE MOFFAT KINOSHITA ARCHITECTS INC. PRIZES
Established in 1990 by Moffat Kinoshita Associates Inc. Two prizes to be awarded to: (a) the student who attains the highest grade in GEO 4H3; and (b) the student who attains the highest grade in GEO 4HZ3.
Value: $175 each (40060 250)

THE MOLSON SCHOLARSHIP IN ENVIRONMENTAL STUDIES
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)

THE E.S. MOORE PRIZE
Established in 1956 by Elwood S. Moore, LL.D. (Class of ‘55). To be awarded to the student graduating in an Honours programme in Geography who, in the judgment of the School of Geography and Geology, has attained the most notable standing in Geo.
Value: $150 (30008 515)

THE JOHN F. MOORE PRIZE
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 284)

THE MICHAEL J. MORTON MEMORIAL BOOK PRIZE
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 who, in the judgment of the Department of Chemistry, is outstanding in the field of inorganic chemistry.
Value: $150 for books (30111)

THE ELIZABETH MOSGROVE SCHOLARSHIP
Established in 1959 by bequest of John W. Mosgrove in memory of his mother. To be awarded to descendants of members of Her Majesty’s Canadian Armed Forces on the basis of Full-load Average.
Value: $800 (30047)

THE MOTOROLA SOFTWARE ENGINEERING SCHOLARSHIPS
Established in 1998 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 844)

THE MOULTON COLLEGE SCHOLARSHIPS
Established in 1957 from funds originally subscribed by the Alumni of Moulton College. A prize of $400 for the expansion of Moulton College. Two scholarships to be awarded to the women students of Moulton 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)

THE MOULTON HALL RESIDENCE SCHOLARSHIP
Awarded to the student who resides in the residence with the highest Full-load Average at the completion of Level I and 31 to 55 units of the Nursing programme.
Value: $600 (30114 244)

THE ANNE MURRAY SCHOLARSHIP
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 who, in the judgment of the Department, has attained notable standing in at least 9 units of German courses above Level I.
Value: $300 (50005 119)

THE ELAINE NARDOCCHIO MEMORIAL SCHOLARSHIP FUND
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 1984 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 science as applied to the Humanities.
Value: $250 (40101 827)

THE NATIONAL ASSOCIATION OF CORROSION ENGINEERS PRIZE
Established in 1989 by the Toronto Section of the National Association of Corrosion Engineers. To be awarded to the graduate 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)

THE NEOSID CERAMIC ENGINEERING PRIZE
Established in 1978 by Neosid (Canada) Limited. To be awarded to the student who has completed Level I and at least 75 units of the Ceramic Engineering Stream of the Materials Engineering programme and who attains the highest standing in MATLS 3B03.
Value: $100 (40037 122)

THE P.L. NEWBIGGING PRIZES
Established in 1982 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 280)

THE P.L. NEWBIGGING SCHOLARSHIP
Established in 1994 by family, friends 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 1AA3.
Value: $300 (40072 363)

THE ALAN G. NEWCOMBE PRIZE IN PEACE STUDIES
Established in 1991 in memory of Dr. Alan G. Newcombe (1923-1991), 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 306)

THE NIEMEIER SCHOLARSHIP
Established in 1938 and augmented in 1952 by Dr. O.W. Niemeier. 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)

THE ROBERT NIXON SCHOLARSHIP
Established in 1961 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)

THE NORTEL NETWORKS SCHOLARSHIPS IN INFORMATION TECHNOLOGY
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 970)

THE DERRY NOVAK SCHOLARSHIP
Established in 1984 by the Political Science alumni and colleagues in honour of Professor Derry Novak. To be awarded to the 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)
THE FREDRIC P. OLSEN BOOK PRIZE
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)

THE ONTARIO ASSOCIATION OF SOCIAL WORKERS PRIZE
Established in 1986 by the Hamilton Branch. To be awarded to the graduating student who successfully completes SOC WORK 4D06 and attains the highest grade in SOC WORK 4D06 in the same session.
Value: $125 (50037 126)

THE ONTARIO ASSOCIATION OF SOCIAL WORKERS PRIZE
Established in 1992 by the Hamilton Branch. To be awarded to the graduating student who successfully completes SOC WORK 4D06 and attains the highest grade in SOC WORK 4D06 in the same session.
Value: $125 (50062)

THE CONNIE O'SHAUGHNESSY MEMORIAL PRIZE
Established in 1988 by family, friends and associates of Connie O'Shaughnessy (Class of '88), 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 30 to 60 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)

THE GLADYS BALLANTYNE PARKER PRIZE
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)

THE F.W. PAULIN SCHOLARSHIP
Established in 1981 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. The award is based on scholarship: full-load average of at least 9.5 and evidence of leadership, self-motivation, and practical aptitude appropriate for a future in the construction industry.
Value: $1,100 (30052 134)

THE IRENE PEARCE SCHOLARSHIP
Established in 1984 by Centenary United Church of Hamilton in honour of Irene Pearce, organist and choir director for forty-four years. To be awarded to a student who has completed Music 1 or 30-78 units of an Honours Music Programme who, in the judgment of the School of the Arts, has attained notable academic standing and demonstrated excellence in keyboard performance.
Value: $300 (30222 356)

THE HARRY L. PENNY PRIZE
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)

THE PEVENSING SCHOLARSHIP
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 339)

THETONY PICKARD MEMORIAL SCHOLARSHIP
Value: $800 (30172)

THE PIONEER GROUP INC. GERONTOLOGY PRIZES
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 (30021 060)

THE PIONEER GROUP INC. PRIZE
Established in 1980. 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 (40058 270)

THE PIONEER GROUP INC. PRIZES IN NURSING
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 health care of the elderly.
Value: $150 (50056 370)

THE PIONEER GROUP INC. SCHOLARSHIP
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 12 units of Gerontology courses (excluding GERONTOL 1A03) and who, demonstrates leadership in the field of Gerontology.
Value: $350 (30121 371)

THE PITCHER-RATFORD AWARDS
Established in 2000 by Bruce Ratford (Class of '71) and Edna Ratford (Pictcher)(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)

THE POLITICAL SCIENCE HONOURS ESSAY PRIZE
Established in 1982. To be awarded to the student who in the judgment of the Department of Political Science, has demonstrated outstanding academic achievement in POL SCI 4Z06.
Value: $30 (50059)

THE POLITICAL SCIENCE PRIZE
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)

THE PRICEWATERHOUSECOOPERS SCHOLARSHIPS
Established in 2000 by PricewaterhouseCoopers. To be awarded to students entering Level III of the Honours Commerce programme enrolled in Commerce 3A3 and 3AC3 who, in the judgment of the School of Business, have achieved notable academic standing in Commerce 2AA3 and 2AB3, and demonstrated qualities of leadership at McMaster or in the community.
Value: $2,000 (30271 074)

THE PSYCHOLOGY SOCIETY PRIZES
Established in 1985 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)

THE DR. JOHN A. PYLypiuk SCHOLARSHIP
Established in 1967 in memory of Dr. John A. Pylypiuk 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: one in the Honours History B.A. Programme; one in the Honours History B.Sc. Programme; and one in the combined Honours Programme in History.
Value: $500 (30039 142)

THE RAND MEMORIAL PRIZE OF CLASS '98
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)
THE LLOYD REEDS PRIZES
Established in 1983 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 (50033)

THE SHARON REEVES SCHOLARSHIP
Established in 1987 by Kevin W. Reeves (Class of ’80) 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, has attained notable standing.
Value: $350 (30135 145)

THE RELIGIOUS STUDIES PRIZES
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)

THE RELIGIOUS STUDIES HONOURS ESSAY PRIZE
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 4JO6.
Value: $50 (50044)

THE EL LA JULIA REYNOLDS SCHOLARSHIPS
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 programmes with a Full-load Average of at least 9.5. The recipients must not be holders of another scholarship.
Value: $900 each (30044)

THE GLADYS RICHARDS SCHOLARSHIP
Established in 2002 by bequest of Gladys Richards. To be awarded to a student who has completed at least Level II of a single Honours programme in English or a Combined Honours English and History programme who, in the judgment of the Departments, has demonstrated outstanding academic achievement. Students may not hold another scholarship of equal or greater value.
Value: $1,500 (30288)

THE JACK RICHARDSON MEMORIAL SCHOLARSHIP
Established in 2002 in memory of Jack Richardson by family, friends and colleagues. To be awarded to a part-time student who has completed at least Level II in an Honours Sociology programme and who attains the highest Cumulative Average at the most recent review.
Value: $500 (60043)

THE HERBERT A. RICKER SCHOLARSHIPS
Established in 1982 by bequest of Mrs. Edna Elizabeth Ross Reeves of Hamilton in memory of her husband, Herbert A. Ricker. Four scholarships to be awarded on the basis of scholarship (Full-load Average of at least 9.5) and character to students who have completed Engineering I, or Level I and 35 to 90 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: $1,500 each (30065 145)

THE ROSART PROPERTIES INC. SCHOLARSHIP
Established in 1988 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 148)

THE ABRAHAM ROSENBERG MEMORIAL PRIZE
Established in 1980 by bequest of Abraham J. Rosenberg (Class of ’34) of Hamilton and Kitchener. To be awarded to the graduating student who attains the highest Cumulative Average in the Honours Philosophy programme.
Value: $250 (50095)

THE MORRIS AND SARAH ROSENHEAD MEMORIAL PRIZE
Established in 1988 by bequest of Sarah Rosenhead of Hamilton. To be awarded to the student who attains the highest standing in ENGLISH 1A03 and 1AA3.
Value: $150 (40033 152)

THE ROTARY CLUB OF HAMILTON SCHOLARSHIP
Established in 1989.
Value: $500 (30188 263)

THE R TOG PRIZE IN GERONTOLy
Established in 1987 by the Superannuated Teachers of Ontario, District 13. To be awarded to the student who attains the highest standing in GERONTOL 1A03.
Value: $100 (40047 163)

THE ELEN BOUCHARD RYAN SCHOLARSHIP
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 (40092 1130)

THE E.T. SALMON SCHOLARSHIP
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: $2,500 (30204 304)

THE E. TOGO SALMON PRIZE IN HISTORY
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 academic standing in at least nine units of History courses. Value: $150 for books. (40076 399)

THE HELDA SAVAGE MEMORIAL SCHOLARSHIP
Established in 1960 by bequest of Bertha Savage.
Value: $500 (30166)

THE LARRY SAYERS PRIZE IN EAST ASIAN HISTORY
Established in 1985 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 East Asian history.
Value: $250 (40030 149)

THE DR. SINA SAGGAR MEMORIAL SCHOLARSHIP
Established in 1999 in memory of Dr. Sina Sagar (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: $1,000 (30263 876)

THE REBEKAH SCHNURR AWARD
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)

THE SCHOOL OF THE ARTS SCHOLARSHIP IN MUSIC
Established in 1989 by the Department of Music which later became part of the School of the Arts. 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)
THE SCIENCE ALUMNI SCHOLARSHIPS
Established in 2001 by the Faculty of Science through the generosity of its alumni and friends. A variable number of scholarships to be awarded to students entering a Level III programme in Science who, in the judgment of the Faculty of Science, have demonstrated outstanding academic achievement and leadership.
Value: $500 each (30278 1533)

THE SHEILA SCOTT SCHOLARSHIP FOR BRANDON HALL
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)

THE SHEILA SCOTT SCHOLARSHIP IN ENGLISH
Established in 1993 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 60 to 75 units of the Honours English programme, and who attains the highest Full-load Average.
Value: $400 (30136 150)

THE SHEILA SCOTT SCHOLARSHIP FOR WALLINGFORD HALL
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 (30156)

THE LARRY SEFTON SCHOLARSHIPS*
Established in 1985 by the Hamilton Steelworkers Area Council in memory of Larry Sefton, area supervisor (1946-53) and director of District 6 (1953-73) of the United Steelworkers of America, to recognize his commitment to education, to working people, 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 (40097 151)

THE CHARLOTTE E. SEIDEL SCHOLARSHIP
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, has attained high academic standing and has made significant contributions to the campus or community.
Value: $500 (30223 357)

THE GRACE SENRA-FONTES MEMORIAL PRIZE*
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 Senra-Fontes (Class of ’88) of Toronto, to recognize her outstanding contribution to the University community during 25 years of service. 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 (40103 246)

THE MARGARET A. SERVICE BOOK PRIZE
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)

THE ALBERT SHALOM TRAVEL SCHOLARSHIP
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. Preference will be given to a student travelling and studying abroad during the summer before the final Fall/Winter session, but the scholarship could also be used to fund the final year of study at McMaster.
Value: $900 (30223 365)

THE LOUIS J. SHEIN SCHOLARSHIP
Established in 1990 by family and friends in memory of Dr. L.J. Shein, founder 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 a Russian language course.
Value: $400 (30199 255)

THE SHELL CANADA PRIZES IN ENGINEERING AND MANAGEMENT
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 and of creativity shown in written communication.
Value: $225 each (50049 154)

THE SHELL CANADA SCHOLARSHIPS IN ENGINEERING AND MANAGEMENT
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 and of creativity shown in written and oral reports.
Value: $800 each (30137 384)

THE SHENSTONE PRIZE
Established in 1903 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 of the Level I courses in Chemistry, Physics and Biology.
Value: $125 (30138)

THE GEORGE AND VILMA SIMPSON MEMORIAL SCHOLARSHIP
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)

THE PATRICIA L. SMYRE MEMORIAL PRIZES
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)

THE SOCIAL WORK PRIZE
Established in 1982. To be awarded to the student who attains the highest grade in SOC WORK 2A06.
Value: $50 (40050)

THE SOCIETY OF CHEMICAL INDUSTRY MERIT AWARDS
Established in 1961. Three plaques to be awarded: (a) one to a Chemical Engineering graduand, (b) one to an Honours Biochemistry or Honours Biochemistry and Chemistry graduand, and (c) one to a Honours Chemistry, Co-op, Honours Chemistry or Honours Chemistry and Physics graduand, who have attained the highest Cumulative Average (at least 9.5) and have completed the programme in the normal number of years. (50060 369)

THE SOCIETY OF MANAGEMENT ACCOUNTANTS OF ONTARIO SCHOLARSHIP
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 3A83.
Value: $500 (30140 158)

THE SOCIOLOGY PRIZES
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)

THE SOMERVILLE SCHOLARSHIPS
Established in 1966 by bequest of William L. Somerville, architect of the McMaster University buildings of 1930.
Value: $800 (30169 159)

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
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)
UNDERGRADUATE AWARDS — IN-COURSE, GRADUAND AND SECOND DEGREE

THE SOUTH ONTARIO ECONOMIC DEVELOPMENT COUNCIL SCHOLARSHIP
Established in 1973 by the South Ontario (formerly Niagara) Economic Development Council. Two scholarships to be awarded, normally one in each of the B.A. and B.Sc. programmes, to the students who have completed Level I and 60 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)

THE ROBERT SOWERBY MEMORIAL SCHOLARSHIP
Established in 2002 by family, friends and colleagues, in memory of Dr. R. Sowerby, a professor of Mechanical Engineering. To be awarded to a student enrolled in the Bachelor of Technology programme who, in the judgment of the Department of Mechanical Engineering, has demonstrated notable academic achievement.
Value: $500 (40106)

THE MARNIE SPEARS SCHOLARSHIP
Established in 1993 by many friends, colleagues and alumni of McMaster University as a tribute to Marnie Spears (Class of ’69), Executive Director, Development and Public Relations from 1986-93 and dedicated alumna who served as President of the McMaster Alumni Council in 1990, in recognition of her outstanding contribution to the University. To be awarded to the student who has completed Level I and at least 30 units of an Honours programme with notable academic standing.
Value: $250 (30144 170)

THE KENNETH W. TAYLOR BOOK PRIZE
Established in 1976 by his children in memory of Kenneth W. Taylor (Class of ’21), LL.D. (Class of ’50). To be awarded to the student who, in the judgment of the Department of Economics, has demonstrated outstanding academic achievement in courses within the areas of management and financial institutions, and of public finance.
Value: $100 (40029 171)

THE MARK JOHN STOJCIC SCHOLARSHIP
Established in 1997 by bequest of Mark John Stojcic. Two scholarships to be awarded to students who have completed Level III of a Materials Science and Engineering programme who, in the judgment of the Department of Materials Science and Engineering, demonstrate outstanding academic achievement.
Value: $1,000 each (30242 780)

THE SWISS MINISTER TO CANADA BOOK PRIZES
Established in 1950. To be awarded from time to time to in-course students for proficiency in French, German, or Italian.
Value: Book (40051)

THE JUANITA LEBARRE SYMINGTON SCHOLARSHIP
Established in 1991 by The Women’s Art Association of Hamilton in memory of Juanita LeBarre Symington. To be awarded to the student entering the graduating session of the Honours Art programme with the highest Full-load Average. The recipient must be from the Hamilton-Wentworth Region.
Value: $300 (30092 169)

THE H.B. SYMONS PRIZE IN CANADIAN STUDIES
Established in 1978. To be awarded to the student who has completed Level I and 60 to 75 units of a programme in Political Science who, in the judgment of the Department of Political Science, has achieved notable standing in at least nine units of Canadian Politics courses.
Value: $250 (30144 170)

THE DR. ANDREW SZENDROVITS MEMORIAL SCHOLARSHIP
Established in 1999 by family, friends and colleagues in memory of Dr. Andrew Szendrovis, a former professor of Production and Management Science since 1982 and Dean of the Faculty of Business from 1979 to 1984 at McMaster University. To be awarded to the student enrolled in a Commerce programme who achieves the highest average in the operations/management science courses.
Value: $500 (40025 1221)

THE LEONA ALBERTON RYAN AND GORDON HENRY STEVENS MEMORIAL SCHOLARSHIP
Established in 1995 by Elaine Keillor in memory of Leona and Gordon Stevens. To be awarded to a student who has completed Level I and 30 to 75 units of an Honours programme in Music or Art who, in the judgment of the School of the Arts, has demonstrated outstanding academic achievement.
Value: $500 (30255 993)

THE MABEL STOOKLEY SCHOLARSHIP
Established in 1958 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.
Value: $425 for books (30103)

THE STOOBO SCHOLARSHIP
Established in 1957 by bequest of William O. Stobo.
Value: $800 (30170)

THE MARIE L. STOCK SCHOLARSHIP
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 1986. 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 165)

THE SWISS MINISTER TO CANADA BOOK PRIZES
Established in 1950. To be awarded from time to time to in-course students for proficiency in French, German, or Italian.
Value: Book (40051)

THE JUANITA LEBARRE SYMINGTON SCHOLARSHIP
Established in 1991 by The Women’s Art Association of Hamilton in memory of Juanita LeBarre Symington. To be awarded to the student entering the graduating session of the Honours Art programme with the highest Full-load Average. The recipient must be from the Hamilton-Wentworth Region.
Value: $300 (30092 169)

THE H.B. SYMONS PRIZE IN CANADIAN STUDIES
Established in 1978. To be awarded to the student who has completed Level I and 60 to 75 units of a programme in Political Science who, in the judgment of the Department of Political Science, has achieved notable standing in at least nine units of Canadian Politics courses.
Value: $250 (30144 170)

THE DR. ANDREW SZENDROVITS MEMORIAL SCHOLARSHIP
Established in 1999 by family, friends and colleagues in memory of Dr. Andrew Szendrovis, a former professor of Production and Management Science since 1982 and Dean of the Faculty of Business from 1979 to 1984 at McMaster University. To be awarded to the student enrolled in a Commerce programme who achieves the highest average in the operations/management science courses.
Value: $500 (40025 1221)

THE LEONA ALBERTON RYAN AND GORDON HENRY STEVENS MEMORIAL SCHOLARSHIP
Established in 1995 by Elaine Keillor in memory of Leona and Gordon Stevens. To be awarded to a student who has completed Level I and 30 to 75 units of an Honours programme in Music or Art who, in the judgment of the School of the Arts, has demonstrated outstanding academic achievement.
Value: $500 (30255 993)

THE MABEL STOOKLEY SCHOLARSHIP
Established in 1958 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.
Value: $425 for books (30103)

THE STOOBO SCHOLARSHIP
Established in 1957 by bequest of William O. Stobo.
Value: $800 (30170)

THE MARIE L. STOCK SCHOLARSHIP
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 1986. 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 165)
THE GRAHAM RONALDTOOP SCHOLARSHIP
Established in 1989 in memory of Graham Toop (Class of '89) by family and friends. To be awarded to the student entering Level IV of an Honours Philosophy 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)

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 Supplementary Bursary Aid Fund section of this Calendar.

THE CORELENE HELLSTOSTEVEIN SCHOLARSHIPS
Established in 1996 by bequest of Corelene Tostevin. Five 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 (40065 791)

THE JOHN H. TRUEMAN PRIZE
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 (50067 367)

THE JOHN H. TRUEMAN SCHOLARSHIP*
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 (40104 179)

THERMOMATRUMAN MEMORIAL PRIZE
Established in 1992 by friends and colleagues in memory of Professor Thomas Trueman, a member of the Department of Political Science from 1966 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)

THE UNIVERSITY PRIZES FOR SPECIAL ACHIEVEMENT*
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, scripture, mathematical or scientific problem, engineering design) or a related series of such projects.
Value: $150 each (40052)

THE UNIVERSITY (SENATE) SCHOLARSHIPS
Made available from by authorization of the Board of Governors of the University.
Value: $800 each (30173)

THE UNIVERSITY SCHOLARSHIPS
Established in 1935. 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)

THE VALLEY CITY MANUFACTURING CO. LTD. SCHOLARSHIPS
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: $1,500 each (30205 227)

THE VAREY SCHOLARSHIP
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)

THE HARRY WAGGLASS BOOK PRIZE
Established in 1989 in honour of Harry Waigglass, 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: $50 (50024)

THE MELINDA WAPSHAW ACHIEVEMENT AWARD*
Established in 1993 by the Labour Studies Student Association and the Labour Studies Programme. To be awarded to a student who has completed Level I 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)

THE F.W.WATERS SCHOLARSHIP IN PHILOSOPHY
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)

THE F.W.WATERS SCHOLARSHIP IN PHILOSOPHY FOR PART-TIME STUDENTS
Established in 1996 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 (60006 782)

THE MARKWATSON MEMORIAL PRIZE IN HISTORY
Established in 1987 by friends in the Department of History in memory of Mark A. Watson (Class of '88). 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)

THE RALPH WEEKES SCHOLARSHIP*
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)

THE WEIZS FAMILY FOUNDATION SCHOLARSHIP
Established in 1982. To be awarded to the student who has completed Level I 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)

THE HOWARD P.WHIDDEN SCHOLARSHIP
Established in 1941 by the Honourable Jacob Nicol (Class of '30) of Sherbrooke, Quebec, in honour of Chancellor Howard P. Whidden, with a view to fostering relationships of friendship and understanding between French-speaking and English-speaking Canadians. To be awarded to a student who has completed six units of French and who shows ability and promise 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: $300 (30176)

THE WHIDDEN HALL RESIDENCE SCHOLARSHIP
Awarded to the student who resides in the residence with the highest Full-load Average (at least 8.5) in an undergraduate programme, with the exception of those in their graduating session.
Value: $300 (30159)

THE R.M.WILES MEMORIAL BOOK PRIZE*
Established in 1975 in memory of Professor Roy McKean 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)

THE T. RUSSELL WILKINS MEMORIAL SCHOLARSHIPS
Established in 1963 by bequest of Mrs. T. Russell Wilkins (B.A. '13 Brandon, M.A. '32), daughter of former Chancellor Howard P. Whidden, in memory of her husband, Dr. T. Russell Wilkins (Class of '11). Two scholarships to be awarded to students entering the penultimate level of an Honours programme in Arts & Science, Health Sciences or Science who have demonstrated outstanding academic achievement. In addition, the students should demonstrate 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 winners to spend the summer before the final Fall/Winter session in travel and study outside Canada.
Value: $5,000 (30178)
THE MARJORIE AND CHARLES WILKINSON SCHOLARSHIP
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)

THE THOMAS E. WILLEY SCHOLARSHIP
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 (40082 772)

THE EMANUEL WILLIAMS SCHOLARSHIP IN PHYSICS
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 (30167)

THE WILSON FOUNDATION LEADERSHIP AWARDS
Established in 2001 by The Wilson Foundation. Two scholarships to be awarded to students entering Level III of any programme (Level IV for Engineering students registered in a five-year programme) who, in the judgment of a Selection Committee, rank highest in scholarship, leadership and influence. These scholarships are tenable for up to two years provided the recipients maintain a Sessional Average of 9.5.
Value: $15,000 each ($7,500 per year for two years) (30280 1546)

THE WOMEN'S ART ASSOCIATION SCHOLARSHIPS
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 30 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: $250 each (30153 185)

THE WOODSTOCK HALL RESIDENCE SCHOLARSHIP
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)

THE IVOR WYNNE MEMORIAL PRIZE
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)

THE MARGUERITE Z. YATES SCHOLARSHIP
Established in 1960 by bequest of Mrs. W.H. Yates of Hamilton.
Value: $900 (30167)

THEYATES SCHOLARSHIPS
Value: $800 each (30171)

THE GLADYS A. YOUNG ZACK SCHOLARSHIP
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 (30206 303)

THE LILLIAN AND MANUEL ZACK SCHOLARSHIP
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)

IN-COURSE, GRADUAND AND SECOND DEGREE SCHOLARSHIPS AND PRIZES BY FACULTY

Legend

<table>
<thead>
<tr>
<th>Award Category</th>
<th>Award Type</th>
<th>Application Required</th>
<th>Award Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$75</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$150</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>B</td>
<td>$1000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>B</td>
<td>$350</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>E</td>
<td>$700</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$175</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>B</td>
<td>$75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$1000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>B</td>
<td>$300</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>B</td>
<td>$1,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>B</td>
<td>$500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>B</td>
<td>$350</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$175</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$700</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$1000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>B</td>
<td>$300</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$700</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$1000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>B</td>
<td>$350</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$175</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>B</td>
<td>$700</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$700</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>B</td>
<td>$700</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$175</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$1000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>B</td>
<td>$300</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$700</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>E</td>
<td>$500</td>
</tr>
</tbody>
</table>

Please look at the listings in relevant Faculties if you are in a combined programme.

<table>
<thead>
<tr>
<th>Faculty/Programme</th>
<th>Award Type</th>
<th>Application Required</th>
<th>Award Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS AND SCIENCE</td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$75</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$500</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$150</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1000</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$50</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$350</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$300</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$175</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>E</td>
<td>$700</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$350</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$150</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$500</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$1000</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$1,000</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$350</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$150</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$500</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$1000</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$1,000</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$350</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$150</td>
</tr>
</tbody>
</table>

BUSINESS

<table>
<thead>
<tr>
<th>Programme</th>
<th>Award Type</th>
<th>Application Required</th>
<th>Award Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commerce</td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$1,000</td>
</tr>
<tr>
<td>Commerce</td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$1000</td>
</tr>
<tr>
<td>Commerce</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$100</td>
</tr>
<tr>
<td>Commerce</td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$500</td>
</tr>
<tr>
<td>Commerce</td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$150</td>
</tr>
</tbody>
</table>

Please look at the sections in relevant Faculties if you are in a combined programme.
<table>
<thead>
<tr>
<th>Faculty/Programme</th>
<th>Award Type</th>
<th>Application Required</th>
<th>Award Category</th>
<th>Value</th>
<th>Name of Scholarship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commerce</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$2,000</td>
<td>The John Deere Limited Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Deloitte &amp; Touche Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$350</td>
<td>The Ernst &amp; Young Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$150 and Medal</td>
<td>The Bruce M. Hamilton Medal</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Hamilton Economic Development Commission Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,500</td>
<td>The Hamilton Port Authority Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$350</td>
<td>The Donald Hart Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$2,500</td>
<td>The Hawkrigg Family Scholarship in Business</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$150</td>
<td>The Burton R. James Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$250</td>
<td>The Robert A. Kennedy Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$350</td>
<td>The KPMG Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$800</td>
<td>The Claude C. Lister Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$2,000</td>
<td>The Pricewaterhouse Coopers Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$500</td>
<td>The Rebeckah Schnurr Award</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Society of Management Accountants of Ontario Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Dr. Andrew Szendrovits Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,500</td>
<td>The Weiss Family Foundation Scholarship</td>
</tr>
<tr>
<td>Engineering</td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$1,000</td>
<td>The Accenture Inc. Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>Gold Medal</td>
<td>The Association of Professional Engineers Gold Medal</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Association of Professional Engineers Undergraduate Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$2,500</td>
<td>The Atomic Energy of Canada Limited Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,500</td>
<td>The Grace Dorothy and William F. Carpenter Award</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$200</td>
<td>The CFWJ (Hamilton) Past President's Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Consulting Engineers of Ontario (CEO) Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$100</td>
<td>The Neil Forsyth Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$100</td>
<td>The John F. Moore Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,500</td>
<td>The Herbert A. Ricker Scholarship</td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,250</td>
<td>The Air Liquide Canada Inc. Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Canadian Society for Chemical Engineering Prize and Certificate</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$50</td>
<td>The Chemical Institute of Canada (Hamilton Section) Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The John Mayberry Scholarships</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>Plaque</td>
<td>The Society of Chemical Industry Merit Awards</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The ACI (Ontario Chapter) Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$200</td>
<td>The A.H. Atkinson Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$200</td>
<td>The Canadian Society of Civil Engineers (Hamilton Section) Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Ronald E. Materick Scholarships</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$400</td>
<td>The Simon McNally Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,100</td>
<td>The F.W. Paulin Scholarship</td>
</tr>
<tr>
<td>Civil Engineering and Management</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,100</td>
<td>The F.W. Paulin Scholarship</td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Dr. Rudolf de Buda Scholarship</td>
</tr>
<tr>
<td>Engineering</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$200</td>
<td>The Ruth and Jack Hail Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Nortel Networks Scholarships in Information Technology</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$200</td>
<td>The Dr. Rudolf de Buda Scholarship</td>
</tr>
<tr>
<td>Engineering</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The L.F. Eull Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Nortel Networks Scholarships in Information Technology</td>
</tr>
<tr>
<td>Engineering and Management</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$600 and Certificate</td>
<td>The A. I. Johnson Scholarship</td>
</tr>
<tr>
<td>Engineering and Society</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$400</td>
<td>The Ray Lawson Scholarships</td>
</tr>
<tr>
<td>Engineering Physics</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$9,000</td>
<td>The JDG Uniphase Scholarships in Optics and Photonics</td>
</tr>
<tr>
<td>Materials Engineering</td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$100</td>
<td>The ASM International (Ontario Chapter) Scholarship</td>
</tr>
<tr>
<td>Engineering</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Crispin Calvo Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,500</td>
<td>The Inco Scholarship in Materials Engineering</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$100</td>
<td>The National Association of Corrosion Engineers Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$50</td>
<td>The Neosid Ceramic Engineering Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Mark John Stojic Scholarships</td>
</tr>
<tr>
<td>Faculty/Programme</td>
<td>Award Type</td>
<td>Application Required</td>
<td>Award Category</td>
<td>Value</td>
<td>Name of Scholarship</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------</td>
<td>----------------------</td>
<td>----------------</td>
<td>---------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Materials Science and Engineering</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,250</td>
<td>The Air Liquide Canada Inc. Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The ASM International (Ontario Chapter) Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$225</td>
<td>The Denton Coates Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$100</td>
<td>The Ronald K. Ham Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$2,500</td>
<td>The Inco Scholarship in Materials Engineering</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The John Mayberry Scholarships</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,250</td>
<td>The Air Liquide Canada Inc. Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Federation of Chinese Canadian Professionals Education Foundation Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Intermetco Limited Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>Trophy</td>
<td>The Iroquois Trophy</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The John Mayberry Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$500</td>
<td>The Robert Soreby Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$3,750</td>
<td>The Tinnerman Paint Engineered Products Scholarship In Mechanical Engineering</td>
</tr>
<tr>
<td>Software Engineering</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$2,500</td>
<td>The CAE Scholarships in Computing and Software Engineering</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Motorola Software Engineering Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Nortel Networks Scholarships in Information Technology</td>
</tr>
<tr>
<td>HEALTH SCIENCES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Wide</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The IODE Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$8,000</td>
<td>The T. Russell Wilkins Memorial Scholarships</td>
</tr>
<tr>
<td>Anatomy</td>
<td>J</td>
<td>No</td>
<td>C</td>
<td>$400 and Medal</td>
<td>The Anatomy Prize</td>
</tr>
<tr>
<td>Midwifery</td>
<td>J</td>
<td>No</td>
<td>F</td>
<td>$1,000</td>
<td>The Sakarkarhanu, K. Lila Memorial Scholarship</td>
</tr>
<tr>
<td>Nursing</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$3,750</td>
<td>The Henrietta Alderson Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Ciara L. Elman Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$400</td>
<td>The Janet McKnight Award</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$300</td>
<td>The McMaster Nursing Alumni Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$250</td>
<td>The Medical-Surgical Excellence in Clinical Nursing Award</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Niemeier Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$150</td>
<td>The Pioneer Group Inc. Prizes in Nursing</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$250</td>
<td>The Grace Senra-Fontes Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$150</td>
<td>The Clarence L. Starr Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$250</td>
<td>The Corene Helen Tostevin Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$900</td>
<td>The Lillian and Manuel Zack Scholarship</td>
</tr>
<tr>
<td>HUMANITIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Wide</td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$5,000 and Medal</td>
<td>The Dean's Medal for Excellence in the Humanities</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>E</td>
<td>$3,000 and Medal</td>
<td>The Dean's Medal for Excellence in the Humanities</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>E</td>
<td>$2,000 and Medal</td>
<td>The Dean's Medal for Excellence in the Humanities</td>
</tr>
<tr>
<td>Art</td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$700</td>
<td>The Humanities Medals for Special Achievement</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$250</td>
<td>The McMaster Humanities Society Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Peter McPhater Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$800</td>
<td>The Leona Albertson Ryan and Gordon Henry Stevens Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The Juanita LeBarre Symington Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$250</td>
<td>The Women's Art Association Scholarships</td>
</tr>
<tr>
<td>Art History</td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$100</td>
<td>The Eleanor Dornbush Marples Prize in Art History</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Peter McPhater Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$250</td>
<td>The Women's Art Association Scholarships</td>
</tr>
<tr>
<td>Classics</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$800</td>
<td>The Brian Blakey Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$100</td>
<td>The Classics Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$250</td>
<td>The Greek Community of Burlington and District Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Hellenic Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$200</td>
<td>The Latin Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$400</td>
<td>The A.G. McKay Prize in Classical Studies</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$350</td>
<td>The Alexander Gordon McKay Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$50</td>
<td>The Gladys Ballantine Parker Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$50</td>
<td>The John Toth Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$200</td>
<td>The Varey Scholarship</td>
</tr>
<tr>
<td>Comparative Literature</td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$225</td>
<td>The Comparative Literature Prize</td>
</tr>
<tr>
<td>English</td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$500</td>
<td>The Maqbool Aziz Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$800</td>
<td>The Brian Blakey Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$100</td>
<td>The CFUW (Hamilton) Ruby Brown Book Prize in English</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$150</td>
<td>The Cranston Prizes</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>C</td>
<td>$125 for Books</td>
<td>The Audrey Diemert Memorial Book Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Daphne Etherington Graham Memorial Scholarship in English</td>
</tr>
</tbody>
</table>

*Note: The values and names of scholarships are hypothetical and may not correspond to actual awards.*
<table>
<thead>
<tr>
<th>Faculty/Programme</th>
<th>Award Type</th>
<th>Application Required</th>
<th>Award Category</th>
<th>Value</th>
<th>Name of Scholarship</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$175</td>
<td>The Kit Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$150</td>
<td>The Agnes and John MacNeill Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$250</td>
<td>The Walter Scott McCay Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$200</td>
<td>The Rand Memorial Prize of Class '98</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$900</td>
<td>The Ella Julia Reynolds Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,500</td>
<td>The Gladys Richards Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>C</td>
<td>$150</td>
<td>The Morris and Sarah Rosenhead Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$400</td>
<td>The Sheila Scott Scholarship in English</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$250</td>
<td>The Patricia L. Smye Memorial Prizes</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$200</td>
<td>The R.M. Willes Memorial Book Prize</td>
</tr>
<tr>
<td>English and History</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$425</td>
<td>The McGregor-Smith-Burr Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$900</td>
<td>The Ella Julia Reynolds Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,500</td>
<td>The Gladys Richards Scholarship</td>
</tr>
<tr>
<td>French</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Brian Blakey Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$225</td>
<td>The Rosemary Douglas-McCarter Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,200</td>
<td>The Harold and Gertrude Freeman Scholarship in French</td>
</tr>
<tr>
<td>French</td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>Book Prize</td>
<td>The French Government Book Prizes</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$400</td>
<td>The Norman Jeeses Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$2,000</td>
<td>The E. Doris Lawrence Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$250</td>
<td>The Elaine Nardocchio Memorial Scholarship Fund</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$400</td>
<td>The Marie L. Stock Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>Book Prize</td>
<td>The Swiss Minister in Canada Book Prize</td>
</tr>
<tr>
<td>History</td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$200</td>
<td>The William and Lida Barnes Memorial Prize in History</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$50 for Books</td>
<td>The Marion Bates Book Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>Medal</td>
<td>$500</td>
<td>The James Robertson Carruthers Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$100</td>
<td>The European History Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$500</td>
<td>The Samuel Geller Memorial Book Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Daphne Etherton-Scott Memorial Scholarship in History</td>
</tr>
<tr>
<td>Modern Languages and Linguistics</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$150</td>
<td>The Jury Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$100</td>
<td>The H.W. McCready Prize in British History</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$150</td>
<td>The Municipal Chapter of Hamilton, IODE Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$650</td>
<td>The Robert Nixson Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$600</td>
<td>The Dr. John A. Pylypiuk Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$100 for Books</td>
<td>The E. Togo Salmon Prize in History</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$150 for Books</td>
<td>The Noel Sandusky Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$250</td>
<td>The Larry Sayers Prize in East Asian History</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$300</td>
<td>The John H. Trueman Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$300</td>
<td>The John H. Trueman Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$100</td>
<td>The Mark Watson Memorial Prize in History</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$250</td>
<td>The Thomas E. Willey Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>Book Prize</td>
<td>The Ambassador of Spain Book Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$600</td>
<td>The Brian Blakey Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$75</td>
<td>The Beatrice Corrigan Memorial Book Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>Book Prize</td>
<td>The German Embassy Book Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>Book Prize</td>
<td>The Inter Nations (Bonn) Book Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$150</td>
<td>The ITCA Community Involvement Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$500</td>
<td>The James B. Lawson Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$225</td>
<td>The Linguistics Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$900</td>
<td>The Anne Murray Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$400</td>
<td>The Louis J. Sheln Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Sons of Italy of Ontario Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>C</td>
<td>Book Prize</td>
<td>The Swiss Minister to Canada Book Prizes</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>C</td>
<td>$50 for Books</td>
<td>The Michael Thomson Memorial Book Prizes</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$250</td>
<td>The Thomas E. Willey Scholarship</td>
</tr>
<tr>
<td>Multimedia Music</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Bank of Montreal Humanities Multimedia Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$400</td>
<td>The Louise E. Bettger Scholarships in Music</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,250</td>
<td>The Hilda Dorothy Borrin Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,800</td>
<td>The Joan Francis Bowling Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$200</td>
<td>The Ella Halsed Campbell Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$100</td>
<td>The Norman N. Caskey Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Marco Colli Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Merrill Francis Gage Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$100 for Books</td>
<td>The H.B. Greening Book Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Bill and Helen Haight Award</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$225</td>
<td>The Hughes Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$125</td>
<td>The Ivey Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The Irene Pearce Scholarship</td>
</tr>
<tr>
<td>Faculty/Programme</td>
<td>Award Type</td>
<td>Application Required</td>
<td>Award Category</td>
<td>Value</td>
<td>Name of Scholarship</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------</td>
<td>-----------------------</td>
<td>----------------</td>
<td>-------</td>
<td>---------------------</td>
</tr>
<tr>
<td>THEATRE</td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$350</td>
<td>The Sharon Reeves Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$600</td>
<td>The Leona Albertson Ryan and Gordon Henry Stevens Memorial Scholarship</td>
</tr>
<tr>
<td>Peace Studies</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The School of the Arts Scholarship in Music</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Charlotte E. Seidel Scholarship</td>
</tr>
<tr>
<td>Philosophy</td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$200</td>
<td>The Alan G. Newcombe Prize in Peace Studies</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$450</td>
<td>The Brien Scholarship in Philosophy</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,100</td>
<td>The Ten Brooke-Bensen Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$250</td>
<td>The Abraham Rosenberg Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The Graham Ronald Tocq Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$750</td>
<td>The F.W. Waters Scholarship in Philosophy</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>C</td>
<td>$250</td>
<td>The F.W. Waters Scholarship in Philosophy for Part-Time Students</td>
</tr>
<tr>
<td>Theatre &amp; Film Studies</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$600</td>
<td>The Brian Blake Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>Gold Medal</td>
<td>The Class of '43 Golden Anniversary Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$100</td>
<td>The Eleanor Dombush Margles Prize in Theatre &amp; Film Studies</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$100</td>
<td>The Theatre &amp; Film Studies Book Prize</td>
</tr>
<tr>
<td>Women's Studies</td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$175 and Medal</td>
<td>The CFUW (Hamilton) Memorial Prize in Women's Studies Bookends</td>
</tr>
<tr>
<td>SCIENCE</td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$1,000</td>
<td>The Accenture Inc. Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>Ring</td>
<td>The Burke Memorial Ring</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$1,000</td>
<td>The Class of '92 Science Legacy Award</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The J.L.W. Gill Prizes</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$500</td>
<td>The James B. Lawson Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$700</td>
<td>The John R. McCarthy Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,500</td>
<td>The Herbert A. Ricker Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Dr. Siya Szagor Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Science Alumni Scholarships</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,500</td>
<td>The Valley City Manufacturing Co. Ltd. Scholarships</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The Beauty Counselors of Canada Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>Medal and Certificate</td>
<td>The Canadian Society for Chemistry Prizes</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$600</td>
<td>The Ernest Robert MacKenzie Kay Scholarships</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>Plaque</td>
<td>The Society of Chemical Industry Merit Awards</td>
</tr>
<tr>
<td>Biochemistry and Chemistry</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The Beauty Counselors of Canada Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>Medal and Plaque</td>
<td>The Canadian Society for Chemistry Prizes</td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$300</td>
<td>The D.M. Davies Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Ernest Robert MacKenzie Kay Scholarships</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$250</td>
<td>The Esther McCandless Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$350</td>
<td>The J.J. Miller Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$125</td>
<td>The Shenstone Prize</td>
</tr>
<tr>
<td>Biology and Pharmacology Co-op</td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>Medal</td>
<td>The Jensen Medal</td>
</tr>
<tr>
<td>Chemistry</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The Beauty Counselors of Canada Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,500</td>
<td>The Crispin Calvo Scholarships</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>Medal and Certificate</td>
<td>The Canadian Society for Chemistry Prizes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$50</td>
<td>The Chemical Institute of Canada (Hamilton Section) Prize-</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Federation of Chinese Canadian Professionals Education Foundation Scholarships</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$150</td>
<td>The Klaus Fritz Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$1,000</td>
<td>The Robert S. Heines Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$200</td>
<td>The Hamilton Chemical Association Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$600</td>
<td>The Ernest Robert MacKenzie Kay Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Donald G. McNabb Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$150 for Books</td>
<td>The Michael J. Morton Memorial Book Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$100 for Books</td>
<td>The Fredric P. Olsen Book Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$125</td>
<td>The Shenstone Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The Gerald and Verna Simpson Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>Plaque</td>
<td>The Society of Chemical Industry Merit Awards</td>
</tr>
<tr>
<td>Chemistry and Physics</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$125</td>
<td>The Shenstone Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The Gerald and Verna Simpson Memorial Scholarship</td>
</tr>
<tr>
<td>Computer Science</td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$350 and Medal</td>
<td>The Binkley Medal</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$200</td>
<td>The Ruth and Jack Hall Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>Medal</td>
<td>The Gerald L. Keck Medal</td>
</tr>
<tr>
<td>Faculty/Programme</td>
<td>Award Type</td>
<td>Application Required</td>
<td>Award Category</td>
<td>Value</td>
<td>Name of Scholarship</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>------------</td>
<td>----------------------</td>
<td>----------------</td>
<td>--------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>Computer Science</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$350</td>
<td>The George P. and Leatha M. Keys Scholarships</td>
</tr>
<tr>
<td>Computer Science</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Nortel Networks Scholarships in Information Technology</td>
</tr>
<tr>
<td>Computer Science and Mathematics</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$225</td>
<td>The Dr. R.A. Thompson Prize in Mathematics</td>
</tr>
<tr>
<td>Computer Science and Statistics</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$225</td>
<td>The Dr. R.A. Thompson Prize in Mathematics</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,500</td>
<td>The Murray Ball Scholarships in Geology</td>
</tr>
<tr>
<td>Geography and Geology</td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$150</td>
<td>The Cameron D. Allen Book Prize</td>
</tr>
<tr>
<td>Geography and Geology</td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$175</td>
<td>The Alumni Canadian Geography Prize</td>
</tr>
<tr>
<td>Geography and Geology</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$75</td>
<td>The Herbert S. Armstrong Memorial Fund</td>
</tr>
<tr>
<td>Geography and Geology</td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$100</td>
<td>The Leanne Betty Blackwell Memorial Book Prize</td>
</tr>
<tr>
<td>Geography and Geology</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,400</td>
<td>The Helen Emery Scholarships in Environmental Science</td>
</tr>
<tr>
<td>Geography and Geology</td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$100</td>
<td>The Environmental Issues Prize</td>
</tr>
<tr>
<td>Geography and Geology</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$50</td>
<td>The Stanford N. Kataomba Geology Prize</td>
</tr>
<tr>
<td>Geography and Geology</td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$175</td>
<td>The Moffat Kinoshita Architects Inc. Prizes</td>
</tr>
<tr>
<td>Geography and Geology</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$700</td>
<td>The Molson Scholarship in Environmental Studies</td>
</tr>
<tr>
<td>Geography and Geology</td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The Lloyd Reeds Prizes</td>
</tr>
<tr>
<td>Geography and Geology</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$225</td>
<td>The Rosart Properties Inc. Scholarship</td>
</tr>
<tr>
<td>Geography and Geology</td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$1,200</td>
<td>The South Ontario Development Council Scholarship</td>
</tr>
<tr>
<td>Geography and Geology</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$200</td>
<td>The Hugh R. Thompson Memorial Prize</td>
</tr>
<tr>
<td>Geography and Environmental Science</td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$100</td>
<td>The Leanne Betty Blackwell Memorial Book Prize</td>
</tr>
<tr>
<td>Geography and Environmental Science</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,400</td>
<td>The Helen Emery Scholarships in Environmental Science</td>
</tr>
<tr>
<td>Geography and Environmental Science</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$2,500</td>
<td>The Inco Scholarship in Environmental Science</td>
</tr>
<tr>
<td>Geography and Environmental Science</td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$700</td>
<td>The Molson Scholarship in Environmental Studies</td>
</tr>
<tr>
<td>Geography and Environmental Science</td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The Pitcher-Retford Awards</td>
</tr>
<tr>
<td>Geoscience</td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The Lloyd Reeds Prizes</td>
</tr>
<tr>
<td>Life Science</td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$75</td>
<td>The Abe Black Memorial Prizes</td>
</tr>
<tr>
<td>Life Science</td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$50</td>
<td>The ASM International (Ontario Chapter) Scholarship</td>
</tr>
<tr>
<td>Materials Science</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Nick Forsyth Prize</td>
</tr>
<tr>
<td>Mathematical Science</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$750/year</td>
<td>The Dr. and Mrs. F.R. Britton Scholarship in Mathematics</td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$900</td>
<td>The W.K. Allan Memorial Scholarship</td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$400</td>
<td>The J. Douglas Bankier Memorial Scholarship</td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$350</td>
<td>The H.L. Jackson Memorial Scholarship</td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The George P. and Leatha M. Keys Scholarships</td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$225</td>
<td>The S.L. Squire Scholarships</td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,600</td>
<td>The Dr. R.A. Thompson Prize in Mathematics</td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$900</td>
<td>The W.K. Allan Memorial Scholarship</td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Federation of Chinese Canadian Professionals Education Foundation Scholarships</td>
</tr>
<tr>
<td>Physics</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$900</td>
<td>The A.B. McLaury Scholarship in Physics</td>
</tr>
<tr>
<td>Physics</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$450</td>
<td>The Boyd McLaury Scholarship in Physics</td>
</tr>
<tr>
<td>Physics</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$350</td>
<td>The Boyd McLaury Scholarship in Physics</td>
</tr>
<tr>
<td>Physics</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$400</td>
<td>The Shenstone Prize</td>
</tr>
<tr>
<td>Physics</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$125</td>
<td>The Gerald and Verna Simpson Memorial Scholarship</td>
</tr>
<tr>
<td>Physics</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The Society of Chemical Industry Merit Award</td>
</tr>
<tr>
<td>Physics</td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$800</td>
<td>The Emanuel Williams Scholarship in Physics</td>
</tr>
<tr>
<td>Physics</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,600</td>
<td>The Gladys A. Young Scholarship</td>
</tr>
<tr>
<td>Psychology</td>
<td>J</td>
<td>No</td>
<td>C</td>
<td>$100</td>
<td>The Abe Black Memorial Prize</td>
</tr>
<tr>
<td>Psychology</td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$350</td>
<td>The George P. and Leatha M. Keys Scholarships</td>
</tr>
<tr>
<td>Psychology</td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The P.L. Newbigging Prizes</td>
</tr>
<tr>
<td>Psychology</td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$300</td>
<td>The P.L. Newbigging Scholarship</td>
</tr>
<tr>
<td>Psychology</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$50</td>
<td>The Psychology Society Prizes</td>
</tr>
<tr>
<td>Psychology</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$250</td>
<td>The Patricia L. Smye Memorial Prizes</td>
</tr>
<tr>
<td>SOCIAL SCIENCES</td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,200</td>
<td>The Hugh Clark Scholarship</td>
</tr>
<tr>
<td>Faculty Wide</td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>Medal</td>
<td>The J.E.L. Graham Medal</td>
</tr>
<tr>
<td>Faculty Wide</td>
<td>M</td>
<td>No</td>
<td>C</td>
<td>$500</td>
<td>The Faculty of Social Sciences Inquiry Award</td>
</tr>
<tr>
<td>Faculty Wide</td>
<td>J</td>
<td>Yes</td>
<td>E</td>
<td>$700</td>
<td>The John R. McCarthy Scholarship</td>
</tr>
<tr>
<td>Faculty Wide</td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>Medal</td>
<td>The R.C. Molvor Medal</td>
</tr>
<tr>
<td>Faculty/Programme</td>
<td>Award Type</td>
<td>Application Required</td>
<td>Award Category</td>
<td>Award Value</td>
<td>Name of Scholarship</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------</td>
<td>----------------------</td>
<td>----------------</td>
<td>-------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Anthropology</td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The Anthropology Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The Ruth Landes Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The Richard Slobodin Prize</td>
</tr>
<tr>
<td>Economics</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$600</td>
<td>The class of '50 Scholarship in Honours Economics</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$200</td>
<td>The Dr. Thomas Hobley Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$200</td>
<td>The William D.G. Hunter Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>Medal</td>
<td>The Hur Medal</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$150</td>
<td>The Sam Lawrence Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$350</td>
<td>The MacGibbon Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$200</td>
<td>The William Mackenzie Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$500</td>
<td>The Pevings Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$100</td>
<td>The Kenneth W. Taylor Book Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$300</td>
<td>The Ralph Weckes Scholarship</td>
</tr>
<tr>
<td>Environmental Studies</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,500</td>
<td>The Murray Bell Scholarships in Geology</td>
</tr>
<tr>
<td>Geography and Geology</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,400</td>
<td>The Helen Emery Scholarships in Environmental Science</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$100</td>
<td>The Environmental Issues Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$700</td>
<td>The Molson Scholarship in Environmental Studies</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$150</td>
<td>The Cameron D. Allen Book Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$175</td>
<td>The Alumni Canadian Geography Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,500</td>
<td>The Herbert S. Armstrong Memorial Fund</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$100</td>
<td>The Environmental Issues Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$400</td>
<td>The R. Louis Gentilcore Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$50</td>
<td>The Stanford N. Katamba Geology Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$175</td>
<td>The Moffat Kinoshita Architects Inc. Prizes</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$700</td>
<td>The Molson Scholarship in Environmental Studies</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$150</td>
<td>The E.S. Moore Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The Lloyd Reeds Prizes</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$325</td>
<td>The Rosart Properties Inc. Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,200</td>
<td>The Southern Ontario Development Council Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$200</td>
<td>The Hugh R. Thompson Memorial Prize</td>
</tr>
<tr>
<td>Gerontology</td>
<td>J</td>
<td>Yes</td>
<td>D</td>
<td>$500</td>
<td>The Barbara and Ronald Bayne Gerontology Internship Award</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$100</td>
<td>The Gerontology Prizes</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>F</td>
<td>$100</td>
<td>The Karl Kinenen Alumni Prize in Gerontology</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>C</td>
<td>$200</td>
<td>The McMaster University Retirees' Association Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$400</td>
<td>The McMaster University Retirees' Association Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$500</td>
<td>The Audrey Evelyn Mepham Award in Gerontology</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$100</td>
<td>The Pioneer Group Inc. Gerontology Prizes</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$400</td>
<td>The Pioneer Group Inc. Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$350</td>
<td>The Pioneer Group Inc. Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>C</td>
<td>$100</td>
<td>The STEM Prize in Gerontology</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D,F</td>
<td>$500</td>
<td>The Ellen Bouchard Ryan Scholarship</td>
</tr>
<tr>
<td>Kinesiology</td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,650/year</td>
<td>The Betty Taylor Campbell Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$500</td>
<td>The Nancy Car Memorial Scholarship in Kinesiology</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>Certificate</td>
<td>The CSEP/SCPE Undergraduate Student Award</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$2,500</td>
<td>The Hawkligg Family Scholarships in Kinesiology</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$1,200</td>
<td>The Rose Hill Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The Kinesiology Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$50</td>
<td>The Kinesiology Prizes</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$700</td>
<td>The Megan Lawrence Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$200</td>
<td>The Ivor Wynne Memorial Prize</td>
</tr>
<tr>
<td>Labour Studies</td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$500</td>
<td>The Larry Sefton Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The Harry Waiglass Book Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$100</td>
<td>The Melfinda Wapshaw Achievement Award</td>
</tr>
<tr>
<td>Political Science</td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$300</td>
<td>The Canadian Institute of International Affairs Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The Dr. Thomas Hobley Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$250</td>
<td>The Human Rights Award</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$450</td>
<td>The Felix Lilowski Memorial Prize in Political Science</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$350</td>
<td>The Derry Novak Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$200</td>
<td>The Political Science Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The Political Science Honors Essay Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$250</td>
<td>The Thomas Symons Prize in Canadian Studies</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$75</td>
<td>The Thomas Truman Memorial Prize</td>
</tr>
<tr>
<td>Psychology</td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$75</td>
<td>The Abe Black Memorial Prizes</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The P.L. Newbigging Prizes</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$300</td>
<td>The P.L. Newbigging Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$50</td>
<td>The Psychology Society Prizes</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$250</td>
<td>The Patricia L. Smye Memorial Prizes</td>
</tr>
<tr>
<td>Faculty/Programme</td>
<td>Award Type</td>
<td>Application Required</td>
<td>Award Category</td>
<td>Value</td>
<td>Name of Scholarship</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------</td>
<td>----------------------</td>
<td>----------------</td>
<td>------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Religious Studies</td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$100</td>
<td>The Gilmour Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$125</td>
<td>The Lawrence and Kathleen Mary Johnston Memorial Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The Religious Studies Prizes</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The Religious Studies Honours Essay Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$425</td>
<td>The Marjorie and Charles Wilkinson Scholarship</td>
</tr>
<tr>
<td>Social Work</td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$75 for Books</td>
<td>The Alumni Social/Work Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>D</td>
<td>$250</td>
<td>The Citizen Action Group Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$50</td>
<td>The Jean Jones Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$125</td>
<td>The Ontario Association of Social Workers Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$125</td>
<td>The Ontario Association of Social Workers Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>D</td>
<td>$50</td>
<td>The Social Work Prize</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>C, D</td>
<td>$100</td>
<td>The Anne Stein Memorial Prize</td>
</tr>
<tr>
<td>Sociology</td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The Frank E. Jones Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$100</td>
<td>The Betty MacMillan Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$700</td>
<td>The Lianne Marks Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>C</td>
<td>$550</td>
<td>The Jack Richardson Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>$50</td>
<td>The Sociology Prizes</td>
</tr>
<tr>
<td>Travel Scholarships</td>
<td>University Wide</td>
<td>Yes</td>
<td>B</td>
<td>$2,500</td>
<td>The Beale-Lincoln-Hall Travel Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$1,000</td>
<td>The Maria Chan Scholarships for International Studies in Business</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$2,000</td>
<td>The John P. Evans Travel Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$900</td>
<td>The Howard P. Whidden Scholarship</td>
</tr>
<tr>
<td>Arts and Science</td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$1,250</td>
<td>The Class of '37 Travel Scholarship in Arts and Science</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$6,000</td>
<td>The T. Russell Wilkins Memorial Scholarship</td>
</tr>
<tr>
<td>Humanities</td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$5,500</td>
<td>The A.G. Alexander Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$4,500</td>
<td>The Joan Jackson Dunbar Travel Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$1,000</td>
<td>The Modern Languages Travel Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$2,500</td>
<td>The E. T. Salmon Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$800</td>
<td>The Albert Shalom Travel Scholarship</td>
</tr>
<tr>
<td>Science</td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$6,000</td>
<td>The T. Russell Wilkins Memorial Scholarship</td>
</tr>
<tr>
<td>University Wide</td>
<td>J</td>
<td>Yes</td>
<td>D</td>
<td>$800</td>
<td>The Achievement Awards of Excellence</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>C</td>
<td>$400</td>
<td>The Alumni Association Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$800</td>
<td>The Edgar R. Ashall Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The Bates Residence Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,500</td>
<td>The Bentall Scholarships</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,800</td>
<td>The Joan Francis Bowling Scholarships</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$300</td>
<td>The Josephine Staples Brian Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$800</td>
<td>The CFUW (Hamilton) Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>No</td>
<td>B</td>
<td>$800</td>
<td>The Chancellor's Gold Medal</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$700</td>
<td>The Class of '44 Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$850</td>
<td>The Edwin Manwin Daily Memorial Scholarships</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The Edwards Hall Residence Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$1,500</td>
<td>The Governor General's Academic Medal</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>C</td>
<td>$400 and Medal</td>
<td>The Gwen George Medal</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$800</td>
<td>The Hamilton Industrial Scholarships</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The Hodden Hall Residence Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,500</td>
<td>The Dr. Harry Lyman Hooker Scholarships</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,600</td>
<td>The Anna Marie Hibbard Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$800</td>
<td>The Bertram Osmer Hooper Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$800</td>
<td>The Nina Louise Hooper Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$500</td>
<td>The Inter-Residence Council Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$1,200</td>
<td>The Gary Lautens Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>D</td>
<td>$500 and Medal</td>
<td>The MAPS Centennial Award</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>E</td>
<td>Medal</td>
<td>The MAPS Gold Medal</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>E</td>
<td>$700</td>
<td>The Bert MacKinnon Memorial Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>E</td>
<td>$150</td>
<td>The Catherine MacNeill Prize</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$300</td>
<td>The Matthews Hall Residence Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>C</td>
<td>$250</td>
<td>The William J. McCallion Scholarships</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The McKay Hall Residence Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$500</td>
<td>The McMaster University Futures Fund Award</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$1,500</td>
<td>The McMaster University Futures Fund in-Course Awards</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>D</td>
<td>$500</td>
<td>The John D. McNie Achievement Award of Excellence</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td>$800</td>
<td>The Elizabeth Mosgrove Scholarship</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$1,000</td>
<td>The Moulton College Scholarships</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>No</td>
<td>B</td>
<td>$300</td>
<td>The Moulton Hall Residence Scholarship</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>Yes</td>
<td>C</td>
<td>$375</td>
<td>The Connie O'Shaughnessy Memorial Prize</td>
</tr>
<tr>
<td>Faculty/Programme</td>
<td>Award Type</td>
<td>Application Required</td>
<td>Award Category</td>
<td>Value</td>
<td>Name of Scholarship</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------</td>
<td>----------------------</td>
<td>----------------</td>
<td>--------</td>
<td>---------------------</td>
</tr>
<tr>
<td>M</td>
<td>No</td>
<td>B</td>
<td></td>
<td>$800</td>
<td>The Tony Pickard Memorial Scholarship</td>
</tr>
<tr>
<td>M</td>
<td>No</td>
<td>C</td>
<td></td>
<td>$150</td>
<td>The Morris and Sarah Rosenhead Memorial Prize</td>
</tr>
<tr>
<td>M</td>
<td>No</td>
<td>B</td>
<td></td>
<td>$800</td>
<td>The Rotary Club of Hamilton Scholarship</td>
</tr>
<tr>
<td>M</td>
<td>No</td>
<td>B</td>
<td></td>
<td>$800</td>
<td>The Hilda Savage Memorial Scholarship</td>
</tr>
<tr>
<td>M</td>
<td>No</td>
<td>B</td>
<td></td>
<td>$800</td>
<td>The Sheila Scott Scholarship for Brandon Hall</td>
</tr>
<tr>
<td>J</td>
<td>No</td>
<td>D</td>
<td></td>
<td>$125</td>
<td>The Margaret A. Service Book Prize</td>
</tr>
<tr>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td></td>
<td>$425 for Books</td>
<td>The Mabel Sloakley Scholarships</td>
</tr>
<tr>
<td>M</td>
<td>No</td>
<td>B</td>
<td></td>
<td>$800</td>
<td>The Stofo Scholarship</td>
</tr>
<tr>
<td>M</td>
<td>No</td>
<td>D</td>
<td></td>
<td>$150</td>
<td>The University Prizes for Special Achievement</td>
</tr>
<tr>
<td>M</td>
<td>No</td>
<td>C</td>
<td></td>
<td>$250</td>
<td>The University Scholarships</td>
</tr>
<tr>
<td>M</td>
<td>No</td>
<td>B</td>
<td></td>
<td>$800</td>
<td>The University (Senate) Scholarships</td>
</tr>
<tr>
<td>J</td>
<td>Yes</td>
<td>B</td>
<td></td>
<td>$7,500/yr</td>
<td>The Wilson Foundation Leadership Awards</td>
</tr>
<tr>
<td>M</td>
<td>No</td>
<td>B</td>
<td></td>
<td>$300</td>
<td>The Woodstock Hall Residence Scholarship</td>
</tr>
<tr>
<td>M</td>
<td>No</td>
<td>B</td>
<td></td>
<td>$800</td>
<td>The Marguerite Z. Yates Scholarship</td>
</tr>
<tr>
<td>M</td>
<td>No</td>
<td>B</td>
<td></td>
<td>$1,800</td>
<td>The Gladys A. Young Scholarship</td>
</tr>
</tbody>
</table>

**INDEX OF AWARDS**

**Index**

- Accenture Inc. Scholarship ........................................ 329
- Achievement Award of Excellence ............................... 329
- ACI Canada Inc. Scholarship ..................................... 329
- Alcoa Scholarship .................................................. 329
- Alumni Association Scholarships (Part-Time) ................. 330
- Alumni Canadian Geology Prize .................................. 330
- Alumni Social Work Prize ......................................... 330
- Ambassador of Spain Book Prizes ............................... 330
- A.E. Ambrose Gold Medal ......................................... 330
- American - Standard Prize ........................................ 330
- Anatomy Prize ..................................................... 330
- Anthropology Prize ............................................... 330
- Herbert S. Armstrong Memorial Fund ......................... 330
- Arts & Science Programme Book Award ......................... 330
- Edgar A. Ashby Scholarship ..................................... 330
- Ashby Scholarship ................................................ 330
- ASInternational (Ontario Chapter) Scholarships .......... 330
- Association of Professional Geologists Gold Medal ...... 330
- Association of Professional Engineers Scholarship ....... 330
- Association of Professional Engineers Undergraduate Scholarship ........................................ 330
- A.H. Atkinson Education Fund Scholarship .................. 330
- A.H. Atkinson Prize .............................................. 330
- Atomic Energy of Canada Limited Scholarship .......... 330
- Baedeker Medal .................................................... 330
- Charles Murray Ball Entrance Scholarship .................. 330
- Murray Ball Scholarships in Geology ......................... 330
- Bank of Montreal Multimedia Scholarships .................. 330
- M. Banker Bates Scholarship .................................... 330
- J. Douglass Bankiier Memorial Scholarship ................. 330
- William and Lida Barlow Memorial Prize in History ...... 330
- Scott Bartlett Memorial Prize .................................. 330
- Baskin Medal ..................................................... 330
- Marion Bates Book Prize ........................................ 330
- Bates Residence Scholarship ................................... 330
- Barbara and Ronald Bayne Gerontology Internship Award . 331
- Beef - Lincoln - Hall Travel Scholarships .................. 331
- Beauty Counselors of Canada Scholarship .................... 331
- Bentall Scholarships ........................................... 331
- Louise E. Bettger Scholarships in Music ..................... 331
- Binkley Medal ...................................................... 331
- Abe Black Memorial Prize (Essay) ............................. 331
- Abe Black Memorial Prize ........................................ 331
- Leona Betty Blackwell Memorial Book Prize ................. 331
- Brian Blakey Memorial Scholarship ............................ 331
- Hilda Boman Memorial Scholarships ........................... 331
- Joan Frances Bowling Entrance Scholarships ............... 332
- Joan Frances Bowling Scholarships ............................ 332
- Brian Scholarships in Philosophy ............................. 331
- Josephine Staples Brian Scholarship .......................... 331
- Dr. and Mrs. F.R. Britton Scholarship in Mathematics ..... 331
- Ten Brooke-Benton Memorial Scholarship .................... 331
- Burke Memorial Ring .............................................. 331
- C.A. Belaye Scholarship in Computing and Software Engineering 332
- Crispin Calvo Memorial Scholarships ......................... 332
- Betty Taylor Campbell Scholarship ............................ 332
- Ella Hasted Campbell Prize ..................................... 332
- Canadian Institute of International Affairs Prize ...... 332
- Canadian Society For Chemical Engineering Prize ....... 332
- Canadian Society For Chemistry Prizes ...................... 332
- Canadian Society of Civil Engineers (Hamilton Section) Prize 332
- Ezio Cappadocia Medal ........................................... 332
- Nancy Car Memorial Scholarship in Kinesiology ............ 332
- Grace Dorothy and William P. Carpenter Award ............ 332
- James Robertson Carruthers Memorial Prize ................ 332
- Norman N. Caskey Memorial Prize ............................. 332
- CFUW (Hamilton) Memorial Prize in Women's Studies ..... 332
- CFUW (Hamilton) Past President's Prize ..................... 332
- CFUW (Hamilton) Ruby Brown Book Prize in English ...... 332
- CFUW (Hamilton) Scholarship .................................. 332
- CQA Ont. Award for Excellence ................................ 332
- Maria Chan Scholarships for International Studies in Business 332
- Chancellor's Gold Medal ........................................ 332
- Chancellor's Scholarships ...................................... 332
- Chemical Institute of Canada (Hamilton Section) Prizes 332
- Citizen Action Group Prize ..................................... 333
- Hugh Clark Scholarship .......................................... 333
- Class of '37 Travel Scholarship in Arts and Science .... 333
- Class of '43 Golden Anniversary Scholarship .............. 333
- Class of '44 Scholarship ........................................ 333
- Class of '50 Scholarship in Honours Economics .......... 333
- Class of '53 Golden Anniversary Entrance Awards ....... 333
- Class of '55 50th Anniversary Scholarship ................. 333
- Class of '57 Science Legacy Award ............................ 333
- Classics Prize .................................................... 333
- Denton Coates Memorial Scholarship ........................ 333
- Coca-Cola Merit Awards ........................................ 328
- Coca-Cola Scholarship ........................................... 328
- Mario Collitti Memorial Scholarship ........................ 333
## UNDERGRADUATE AWARDS — INDEX

<table>
<thead>
<tr>
<th>Award</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anna Marie Hibbard Scholarship</td>
<td>336</td>
</tr>
<tr>
<td>Rose Hill Scholarship</td>
<td>336</td>
</tr>
<tr>
<td>Dr. Thomas Hobley Prize</td>
<td>336</td>
</tr>
<tr>
<td>John Hodgins Memorial Scholarship</td>
<td>336</td>
</tr>
<tr>
<td>Nellie P. Hogg Scholarships</td>
<td>328</td>
</tr>
<tr>
<td>Dr. Harry Lyman Hooker Scholarships</td>
<td>336</td>
</tr>
<tr>
<td>Bertram Osmer Hooper Scholarship</td>
<td>336</td>
</tr>
<tr>
<td>Nina Louise Hooper Scholarship</td>
<td>336</td>
</tr>
<tr>
<td>Hughes Scholarship</td>
<td>336</td>
</tr>
<tr>
<td>Human Rights Award</td>
<td>336</td>
</tr>
<tr>
<td>Humanities Media for Special Achievement</td>
<td>336</td>
</tr>
<tr>
<td>William D.G. Hunter Prize</td>
<td>336</td>
</tr>
<tr>
<td>Hurd Medal</td>
<td>336</td>
</tr>
<tr>
<td>Paul Hyphen Prize</td>
<td>336</td>
</tr>
<tr>
<td>Inco Scholarships in Environmental Science</td>
<td>336</td>
</tr>
<tr>
<td>Inco Scholarships in Materials Engineering</td>
<td>336</td>
</tr>
<tr>
<td>Intermetco Limited Scholarship</td>
<td>337</td>
</tr>
<tr>
<td>Inter Nations (Bonn) Book Prize</td>
<td>337</td>
</tr>
<tr>
<td>Inter-Residence Council Scholarship</td>
<td>337</td>
</tr>
<tr>
<td>IODE Memorial Scholarship</td>
<td>337</td>
</tr>
<tr>
<td>Municipal Chapter of Hamilton, IODE, Prize</td>
<td>337</td>
</tr>
<tr>
<td>Inco Prizes</td>
<td>337</td>
</tr>
<tr>
<td>W. Norman Jeeves Scholarship</td>
<td>337</td>
</tr>
<tr>
<td>Herbert M. Jenkins Prize</td>
<td>337</td>
</tr>
<tr>
<td>Jensen Medal</td>
<td>337</td>
</tr>
<tr>
<td>A. J. Johnson Scholarship</td>
<td>337</td>
</tr>
<tr>
<td>Kathleen Mary Johnston Memorial Prize</td>
<td>337</td>
</tr>
<tr>
<td>Frank E. Jones Prize</td>
<td>337</td>
</tr>
<tr>
<td>Jean Jones Prize</td>
<td>337</td>
</tr>
<tr>
<td>Jury Prize</td>
<td>337</td>
</tr>
<tr>
<td>Cathryn E. Kase Merit Award</td>
<td>328</td>
</tr>
<tr>
<td>Stanford N. Katambaia Geology Prize</td>
<td>337</td>
</tr>
<tr>
<td>Ernest Robert MacKenzie Kay Scholarships</td>
<td>338</td>
</tr>
<tr>
<td>Gerald L. Keach Medal</td>
<td>338</td>
</tr>
<tr>
<td>Robert A. Kennedy Scholarship</td>
<td>338</td>
</tr>
<tr>
<td>George P. and Leatha M. Keys Scholarships</td>
<td>338</td>
</tr>
<tr>
<td>Karl Kinanen Alumni Prize in Gerontology</td>
<td>338</td>
</tr>
<tr>
<td>Kinesiology Prizes</td>
<td>338</td>
</tr>
<tr>
<td>Kinesiology Prize</td>
<td>338</td>
</tr>
<tr>
<td>Kitt Memorial Scholarship</td>
<td>338</td>
</tr>
<tr>
<td>KPMG Scholarship</td>
<td>338</td>
</tr>
<tr>
<td>Raymond C. Labarge Merit Awards</td>
<td>329</td>
</tr>
<tr>
<td>Marion Longworth Prize</td>
<td>338</td>
</tr>
<tr>
<td>Ruth and Jack Hall Prize</td>
<td>338</td>
</tr>
<tr>
<td>Gary Lautens Memorial Scholarship</td>
<td>338</td>
</tr>
<tr>
<td>E. Doris Lawrence Scholarship</td>
<td>336</td>
</tr>
<tr>
<td>Megan Lawrence Scholarship</td>
<td>336</td>
</tr>
<tr>
<td>Sam Lawrence Prize</td>
<td>336</td>
</tr>
<tr>
<td>James B. Lawson Scholarship</td>
<td>336</td>
</tr>
<tr>
<td>Ray Lawson Scholarships</td>
<td>336</td>
</tr>
<tr>
<td>Shamsher Singh, Lila Memorial Scholarship</td>
<td>336</td>
</tr>
<tr>
<td>Lingoistics Prize</td>
<td>336</td>
</tr>
<tr>
<td>Claude C. Lister Scholarship</td>
<td>339</td>
</tr>
<tr>
<td>Feliks Litkowski Memorial Prize in Political Science</td>
<td>339</td>
</tr>
<tr>
<td>Lloyd Memorial Scholarship</td>
<td>338</td>
</tr>
<tr>
<td>MacGibbon Scholarship</td>
<td>339</td>
</tr>
<tr>
<td>Bertram McKinnon Memorial Scholarship</td>
<td>338</td>
</tr>
<tr>
<td>William Mackenzie Memorial Prize</td>
<td>339</td>
</tr>
<tr>
<td>Betty MacMillan Prize</td>
<td>339</td>
</tr>
<tr>
<td>Agnes and John MacNeil Memorial Prize</td>
<td>339</td>
</tr>
<tr>
<td>Catherine MacNeil Memorial Prize</td>
<td>339</td>
</tr>
<tr>
<td>Josephine Magee Scholarship</td>
<td>328</td>
</tr>
<tr>
<td>Ng Man Chong Memorial Scholarships</td>
<td>329</td>
</tr>
<tr>
<td>MAPS Centennial Medal</td>
<td>339</td>
</tr>
<tr>
<td>MAPS Gold Medal</td>
<td>339</td>
</tr>
<tr>
<td>Lianne Marks Scholarship</td>
<td>339</td>
</tr>
</tbody>
</table>
INDEX

Eleanor Dombush Merples Prize in Art History .......................... 339
Eleanor Dombush Merples Prize in Theatre & Film Studies ........ 339
Ronald C. Materlock Scholarships ......................................... 339
Matthew Residences Scholarship ......................................... 329
Albert Matthews Scholarship .............................................. 328
Harold Matthews Memorial Scholarship ................................. 328
John Mayberry Scholarship .................................................. 339
William J. McCollion Scholarships (Part-time) ......................... 339
Esther McDaniel Memorial Prize ........................................... 339
John R. McCarthy Scholarship .............................................. 339
H.W. McCreedy Prize in British History .................................. 339
McGregor-Smith-Burr Memorial Scholarship ............................ 339
R.C. McNeil Medal ............................................................... 339
McKay Hall Residence Scholarship ....................................... 328
A.G. McKay Prize in Classical Studies ................................... 340
Alexander Gordon McKay Scholarship ..................................... 340
Janet McPhail Award ............................................................ 340
A.B. McPhail Scholarship in Physics ....................................... 340
Boyd McPhail Scholarship in Physics ....................................... 340
Walter Scott McPhail Scholarship .......................................... 340
McMaster Chinese University (Toronto Chapter) International Entrance Scholarships .................................................. 329
McMaster Humanities Society Scholarships .............................. 340
McMaster Nursing Alumni Memorial Prize .............................. 340
McMaster University Futures Fund Award ............................... 340
McMaster University Futures Fund In-Course Award ................ 340
McMaster University Retirees' Association Scholarship ........... 340
McMaster University Retirees' Association Part-Time Prize ....... 340
Donald G. McNab Scholarship .............................................. 340
Simon McNaughton Scholarships ........................................... 340
Isaiah Carothers Scholarship .............................................. 328
John D. McNeice Achievement Award of Excellence ................ 340
Peter McPhail Memorial Scholarship ...................................... 340
Medical-Surgical Excellence in Clinical Nursing Award .......... 340
Aurora Evelyn Mepham Award in Gerontology ......................... 340
J. J. Miller Prize ................................................................. 340
Dr. F. A. Mirza Scholarship .................................................. 341
Modern Languages Travel Scholarship .................................... 341
Moffat Kinschta Architects Inc. Prizes .................................... 341
Molson Scholarship in Environmental Studies ......................... 341
E. S. Moore Prize in Geology .............................................. 341
John F. Moore Prize ............................................................ 341
Michael J. Morton Memorial Book Prize ................................. 341
Elizabeth Mosgrove Scholarship ........................................... 341
Motorola Software Engineering Scholarships ......................... 341
Moulton College Entrance Scholarship .................................. 328
Moulton College Scholarships ............................................. 341
Moulton Hall Residence Scholarships .................................... 341
Anne Murray Scholarship .................................................... 341
Eliot Musical Scholarship ................................................... 341
National Association of Corrosion Engineers ......................... 341
Neosid Ceramic Engineering Prize ....................................... 341
P.L. Newbigging Prizes ....................................................... 342
P.L. Newbigging Scholarship ................................................. 342
Alan G. Newcombe Prize in Peace Studies .............................. 342
Niemi Memorial Scholarship ............................................... 341
Robert Nixon Scholarship .................................................... 341
Nortel Networks Entrance Scholarships .................................. 328
Nortel Networks Scholarships in Information Technology ....... 341
Darry Novak Prize .............................................................. 341
Alvin I. Ogilvie Scholarships .............................................. 328
Fredric P. Olsen Book Prize .................................................. 342
Ontario Association of Social Workers Prizes ......................... 342
Connie O'Shaughnessy Memorial Prize .................................... 342
Lillian and Leroy Page Scholarship ....................................... 328
Gladdys Ballantine Parker Prize ........................................... 342
F.W. Paulin Scholarship ...................................................... 342
Irving Peters Scholarship .................................................... 342
Harry L. Penny Prize .......................................................... 342
P.E. Pirie Medal ................................................................. 328
Tony Pickard Memorial Scholarship ....................................... 342
Pioneer Group Inc. Gerontology Prizes .................................. 342
Pioneer Group Inc. Prize in Nursing ................................. 342
Pioneer Group Inc. Scholarship (SS) ..................................... 342
Pitcher - Ratford Awards ..................................................... 342
Political Science Prize ....................................................... 342
Political Science Honours Essay Prize .................................... 342
PricewaterhouseCoopers Scholarship ................................... 342
Leslie A. Prince Merit Awards .............................................. 329
Psychology Society Prizes .................................................. 342
Dr. John A. Pylypiuk Scholarship ........................................ 342
Rand Memorial Prize of Class '98 ......................................... 342
Lloyd Reeds Prizes ............................................................ 343
Sharon Reeves Scholarship .................................................. 343
A.G. Reilly Scholarship ...................................................... 329
Religious Studies Prizes ..................................................... 343
Religious Studies Honors Essay Prize .................................... 343
Ella Julie Reynolds Scholarships .......................................... 343
Gladys Richards Scholarship .............................................. 343
Jack Richardson Memorial Scholarship ................................ 343
Herbert A. Rickard Scholarships ......................................... 343
Rosart Properties Inc. Scholarship ........................................ 343
Dominic Rosart Scholarship ................................................ 329
Abraham Rosenberg Memorial Prize ..................................... 343
Morris and Sarah Rosenhead Memorial Prize ......................... 343
Robert Clive Hamilton Scholarship .................................... 343
RTO Prize in Gerontology ................................................... 343
Ellen Bouchard Ryan Scholarship ........................................ 343
E.T. Salmon Scholarship .................................................... 343
E. Togo Salmon Prize in History .......................................... 343
Noel Sendusky Memorial Book Prize .................................... 344
Hilda Savage Memorial Scholarship ...................................... 343
Larry Sayers Prize in East Asian History ............................... 343
Dr. Sina Safar Memorial Scholarship .................................... 344
Rebeckah Schnurr Award .................................................... 344
School of the Arts Scholarship in Music ................................ 344
Science Alumni Scholarships .............................................. 344
Sheila Scott Scholarships in Brandon Hall ............................ 344
Sheila Scott Scholarship in English ....................................... 344
Sheila Scott Scholarship for Wallingford Hall ......................... 344
Larry Setton Scholarships .................................................... 344
Charlotte E. Seidell Scholarship .......................................... 344
Grace Senra-Fontes Memorial Prize ..................................... 344
Margaret A. Service Book Prize .......................................... 344
Albert Shalom Travel Scholarship ....................................... 344
Loulou J. Shelnis Scholarship .............................................. 344
Sino Canada Prizes in Engineering ....................................... 344
Shell Canada Scholarships in Engineering and Management .... 344
Shenstone Prize ................................................................. 344
Gerald and Verna Simpson Memorial Scholarship ................... 344
Richard Slobodin Prize ...................................................... 344
Patricia L. Smythe Memorial Scholarships ............................. 344
Social Work Prize .............................................................. 344
Society of Chemical Industry Merit Awards .......................... 344
Society of Management Accountants of Ontario Scholarship .... 344
Sociology Prizes ............................................................... 344
Somerville Scholarships ..................................................... 344
Sons of Italy of Ontario Scholarship ..................................... 344
South Ontario Economic Development Council Scholarships .... 345
Robert Sowerby Memorial Scholarship .................................. 345
Marnie Spearman Scholarship ............................................ 345
S.L. Squire Scholarships ..................................................... 345
Clarence L. Starr Prize ....................................................... 345
Anne Stein Memorial Prize .................................................. 345
Anne Stein Memorial Prize (Part-time) .................................. 345
Laurie Albertson Fylan and Gordon Henry Stevens Memorial Scholarship .................................................. 345
Mabel Stokely Scholarship .................................................. 345
Stobo Scholarship ............................................................. 345
Marie L. Stokely Scholarship .............................................. 345
Mark John Stojcic Scholarship ............................................. 345
Swiss Minister to Canada Book Prizes ................................... 345
Juanita LeBarre Symington Scholarship ................................ 345
T.H.B. Symons Scholarship in Canadian Studies ................. 345
<table>
<thead>
<tr>
<th>Scholarship/Memo</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Andrew Szendrovits Memorial Scholarship</td>
<td>345</td>
</tr>
<tr>
<td>Kenneth W. Taylor Book Prize</td>
<td>345</td>
</tr>
<tr>
<td>Theatre &amp; Film Studies Book Prize</td>
<td>345</td>
</tr>
<tr>
<td>Hugh R. Thompson Memorial Prize</td>
<td>345</td>
</tr>
<tr>
<td>Dr. R.A. Thompson Prize in Mathematics</td>
<td>345</td>
</tr>
<tr>
<td>D.E. Thomson Scholarship</td>
<td>329</td>
</tr>
<tr>
<td>Michael Thomson Memorial Book Prizes</td>
<td>345</td>
</tr>
<tr>
<td>Frank Thorolison Memorial Scholarship</td>
<td>329</td>
</tr>
<tr>
<td>Tinnerman Painel Engineered Products Scholarships in Mechanical Engineering</td>
<td>345</td>
</tr>
<tr>
<td>Graham Ronald Toop Scholarship</td>
<td>346</td>
</tr>
<tr>
<td>Corelene Helen Tostevin Scholarships</td>
<td>346</td>
</tr>
<tr>
<td>John Toth Memorial Prize</td>
<td>346</td>
</tr>
<tr>
<td>John H. Trueman Prize (H)</td>
<td>346</td>
</tr>
<tr>
<td>John H. Trueman Scholarship</td>
<td>346</td>
</tr>
<tr>
<td>Thomas Truman Memorial Prize</td>
<td>346</td>
</tr>
<tr>
<td>Tynowski Scholarship</td>
<td>329</td>
</tr>
<tr>
<td>University Prizes for Special Achievement</td>
<td>346</td>
</tr>
<tr>
<td>University (Senate) Scholarships</td>
<td>346</td>
</tr>
<tr>
<td>University Scholarships (Part-time)</td>
<td>346</td>
</tr>
<tr>
<td>Valley City Manufacturing Co. Ltd. Scholarships</td>
<td>346</td>
</tr>
<tr>
<td>Verey Scholarship</td>
<td>346</td>
</tr>
<tr>
<td>Harry Waisglass Book Prize</td>
<td>346</td>
</tr>
<tr>
<td>Wallingford Hall Entrance Scholarship</td>
<td>329</td>
</tr>
<tr>
<td>Melinda Wapshew Achievement Award</td>
<td>346</td>
</tr>
<tr>
<td>F.W. Waters Scholarship in Philosophy</td>
<td>346</td>
</tr>
<tr>
<td>F.W. Waters Scholarship in Philosophy for Part-time Students</td>
<td>346</td>
</tr>
<tr>
<td>Mark Watson Memorial Prize in History</td>
<td>346</td>
</tr>
<tr>
<td>Ralph Weekes Scholarship</td>
<td>346</td>
</tr>
<tr>
<td>Weiss Family Foundation Scholarship</td>
<td>346</td>
</tr>
<tr>
<td>Wheeler Scholarship</td>
<td>329</td>
</tr>
<tr>
<td>Howard P. Whidden Scholarship</td>
<td>346</td>
</tr>
<tr>
<td>Whidden Hall Residence Scholarship</td>
<td>346</td>
</tr>
<tr>
<td>R.M. Wiles Memorial Book Prize</td>
<td>346</td>
</tr>
<tr>
<td>T. Russell Wilkins Memorial Scholarships</td>
<td>346</td>
</tr>
<tr>
<td>Marjorie and Charles Wilkinson Scholarship</td>
<td>347</td>
</tr>
<tr>
<td>Thomas E. Willey Scholarship</td>
<td>347</td>
</tr>
<tr>
<td>Emanuel Williams Scholarship in Physics</td>
<td>347</td>
</tr>
<tr>
<td>Wilson Foundation Leadership Awards</td>
<td>347</td>
</tr>
<tr>
<td>Women's Art Association Scholarships</td>
<td>347</td>
</tr>
<tr>
<td>Woo Family International Entrance Scholarships</td>
<td>329</td>
</tr>
<tr>
<td>Woodstock Hall Residenes Scholarships</td>
<td>347</td>
</tr>
<tr>
<td>Ivor Wynne Memorial Prize</td>
<td>347</td>
</tr>
<tr>
<td>Marguerite Z. Yates Scholarship</td>
<td>347</td>
</tr>
<tr>
<td>Yates Scholarships</td>
<td>347</td>
</tr>
<tr>
<td>Gladys A. Young Scholarship</td>
<td>347</td>
</tr>
<tr>
<td>Lillian and Manuel Zack Scholarship</td>
<td>347</td>
</tr>
</tbody>
</table>
### BOARD OF GOVERNORS (2002-2003)

**EX OFFICIO**

**CHANCELLOR**
M.M. Hawkrigg, B.A. (’52), C.A., F.C.A., LL.D.(Hon. ’97)

**PRESIDENT AND VICE-CHANCELLOR**
R.J. George, C.M., B.A., M.A., Ph.D., D.U.(Hon.), D. Hon. C., D.Litt.(Hon.)

**PROVOST AND VICE-PRESIDENT (ACADEMIC) AND CHAIR, UNIVERSITY PLANNING COMMITTEE**
K.H. Norrie, B.A., M.Phil., Ph.D.

**ELECTED BY THE BOARD**

R. Buckingham, B.Sc. (’69), J.D.
E.W. Buffett
J.R. Bullock
N.G. Cooper, B.A. (’94)
R.C. Loucks, B.B.A.
VA. McKenna, B.A., LL.B.
I.M. So, B.Com. (’67), M.B.A., C.F.A.

**APPOINTED BY THE BOARD OF TRUSTEES OF MCMASTER DIVINITY COLLEGE**


**APPOINTED BY THE ALUMNI**

W.C. Fox, M.B.A. (’73)
S.J.J. Letwin, B.Sc. (’77), M.B.A., C.G.A.
E.A. Minich, B.Sc. (’72), M.B.A. (’74)
L.C. Stephenson, B.A. (’75)
R.P. Washburn, B.A. (’73), M.A. (’74)

**APPOINTED BY THE SENATE**

J.J. Drake, M.A., M.Sc. (’70), Ph.D. (’74)
M.A. Elbestawi, B.Sc., M.Eng. (’76), Ph.D. (’80)
D. Goelinhich, B.A., M.A. (’76), Ph.D. (’81)

**ELECTED BY THE TEACHING STAFF**

L.G. Allan, B.A., M.A., Ph.D. (’68)
M.A. Baumann, B.Sc.N., M.Sc.N., Ph.D.
B.W. Carroll, B.A., M.A., Ph.D.
I. Hambleton, B.Sc., M.Sc., Ph.D.

**ELECTED BY THE UNDERGRADUATE STUDENTS**

A. Rohani

**ELECTED BY THE GRADUATE STUDENTS**

S. Salim, B.Sc.

**ELECTED BY THE NON-TEACHING STAFF**

J. McAndrew

**APPOINTED BY THE LIEUTENANT GOVERNOR IN COUNCIL**

R.D. Coulthred, Dip.F.S.
G. D. Graham, B.A., LL.B.
D.M. Green, C.M.
D.A. Pether, B.Sc.
M.M. Romeo, B.A. (’90)
T.J. Weisz, B.A. (’67), LL.B., LL.M.

**HONORARY GOVERNORS**

J.G. Chambers, B.A., LL.D.(Hon.)
J.R. Gordon, B.Sc., P.Eng., LL.D.(Hon.), O.C.
G.M. Luxton, B.A., Q.C., LL.D.(Hon.)
D.C. Marrs, LL.D.(Hon.)
B.D. Nicol, F.C.A., LL.D.(Hon.)
J.H. Panabaker, B.A., LL.D.(Hon.)
The Honourable Justice L.T. Pennell, B.A. (’38), P.C., LL.D.(Hon.)
E.B. Priestner, B.A., LL.D.(Hon.)
E.A. Taylor, B.A., M.B.A. (’63)

**OFFICERS OF THE BOARD**

**CHAIR**
E.A. Minich

**VICE-CHAIR**
E.W. Buffett

**SECRETARY**
W.B. Frank

### SENATE (2002-2003)

**EX OFFICIO**

**CHANCELLOR**

**PRESIDENT AND VICE-CHANCELLOR**
R.J. George, C.M., B.A., M.A., Ph.D., D.U.(Hon.), D. Hon. C., D.Litt.(Hon.)

**PROVOST AND VICE-PRESIDENT (ACADEMIC)**
K.H. Norrie, B.A., M.Phil., Ph.D.

**VICE-PRESIDENT (RESEARCH AND INTERNATIONAL AFFAIRS)**
M. Shoukri, B.Sc., M.Eng., Ph.D.

**VICE-PRESIDENT (ADMINISTRATION)**
K.S. Bealbre, B.A., C.G.A.

**VICE-PRESIDENT (UNIVERSITY ADVANCEMENT)**
R. Trull, B.A.

**DEAN AND VICE-PRESIDENT (HEALTH SCIENCES)**
J.G. Kelton, M.D., FR.C.P(C)

**PRINCIPAL OF MCMASTER DIVINITY COLLEGE**
S.E. Porter, B.A., M.A., Ph.D.

**DEAN, FACULTY OF SOCIAL SCIENCES**
(AUNTIL JUNE 30, 2003)
A.J. Harrison, B.A., M.A., Ph.D.

**DEAN, FACULTY OF ENGINEERING**
M. Elbestawi, B.Sc., M.Eng., Ph.D.

**DEAN, FACULTY OF SCIENCE**
P.G. Sutherland, B.Sc., M.S., Ph.D.

**ACTING DEAN, FACULTY OF HUMANITIES**
H. Jones, B.A., M.A., Ph.D.

**DEAN, FACULTY OF BUSINESS**
V.V. Babu, B.Eng., M.B.A., Ph.D.

**DEAN OF GRADUATE STUDIES**
F.L. Hall, A.B., M.Sc., Ph.D.

**UNDERGRADUATE COUNCIL CHAIR**
F.A. Hall, Assoc. Dipl., B.Mus., M.A., Ph.D.
Elected from the Faculty of Business

C.C.Y. Kwan, M.B.A., Ph.D.
J.W. Medcof, B.A., M.A., Ph.D.
S.M.D. Nairnar, B.A., M.A., Ph.D.

Elected from the Faculty of Engineering

S. Chidac, B.Eng., M.Eng., Ph.D.
P.E. Wood, B.A.Sc., Ph.D., F.C.I.C.

Elected from the Faculty of Health Sciences

D.N. Buckley, B.A., M.D., F.R.C.P. (C)
A.P. Freitag, B.Sc., M.D., F.R.C.P. (C)
B.J. O'Brien, B.A., M.Sc., Ph.D.
C. Tompkins, B.Sc.N., M.Ed., Ph.D.
R. Williams, M.Sc., M.H.Sc., Ph.D., Dip.P.&O.T.

Elected from the Faculty of Humanities

M. Ahmed, L. Les, L. Les, L. de LU
J.J. Colarusso, B.A., M.A., Ph.D.
S. Fast, B.M., M.A., Ph.D.
D.C. Goellnicht, B.A., M.A., Ph.D.
M.D. Kliffer, B.A., M.A., Ph.D.
J.C. Stout, B.A., Ph.D.

Elected from the Faculty of Social Sciences

M.A. Cooper, B.A., M. Phil., Ph.D.
M. Denton, B.A., M.A., Ph.D.
M.D. Dooley, B.A., M.S., Ph.D.
S. Inglis, B.E., M.A., Ph.D.
H. Jacek, B.S.S., M.A., Ph.D.
M.S. Watt, B.A., M.S.W., Adv Dip., S.W., D.S.W.
C.A.B. Yates, B.A., M.A., Ph.D.

Elected from the Faculty of Theology


Appointed by and from the teaching staff of the Divinity College

M. Horsnell, B.A., Th.M., Ph.D.

Elected by the Undergraduate Students of the University

J. Charpentier
J. Hyde
A. Leung
K. Somers
M. Yep

Elected by the Graduate Students of the University

M.M. Ali, B.Sc., M.Sc.
T. Jacobs, B.A., M.A.
J.J. Leaverick, B.A., M.A.
L. Li, B.A.
N. O'Mara, B.A.

Appointed from among the graduates of the University

D. Dawson, B.A. (~76), B.A. (~78)
M. Lyons B.A. (~49), D.Litt.(Hon.) (~'96)
M. Mallard, B.A. (~'57)

Appointed by and from the Board of Governors

D.L. Barber, B.A., M.Sc., Ph.D.
J.L. McAndrew, B.Sc.

Officers of the Senate

Chancellor
M.M. Hawkrigg
Chair
P.J. George
Vice-Chair
K.H. Norrie
Secretary
J.E. Morris (Until June 30, 2003)

Officers of the University

Chancellor
President and Vice-Chancellor
Peter J. George, C.M., B.A., M.A., Ph.D., D.U. (Hon.), D. Hon. C., D.Litt. (Hon.)
Provost and Vice-President (Academic)
Kenneth H. Norrie, B.A., M.Phil., Ph.D.
Vice-President (Research and International Affairs)
Mamdouh Shoukri, B.Sc., M.Sc., Ph.D., P.Eng.
Dean and Vice-President (Health Sciences)
John G. Kelton, M.D., F.R.C.P.C
Vice-President (Administration)
Karen S. Belaire, B.A., C.G.A.
Vice-President (University Advancement)
Roger Trull, B.A.

Associate Vice-President (Academic)
Frederick A. Hall, Assoc. Dipl., B.Mus., M.A., Ph.D.
Associate Vice-President (Student Affairs)
Registrar
B. George Granger, B.A.
Assistant Vice-President (Finance)
Lillian M. Schmee, B.A., M.B.A.
Assistant Vice-President (Human Resources)
Mark E. Haley, C.H.R.P.
University Librarian
Graham R. Hill, B.A., M.A., M.I.L.
Principal of McMaster Divinity College
Stanley E. Porter, B.A., M.A., Ph.D.
Secretary of the Board of Governors
W. Bruce Frank, B.A., M.A., Ph.D.
Secretary of the Senate

APPOINTED BY AND FROM THE TEACHING STAFF
OF THE DIVINITY COLLEGE
M. Horsnell, B.A., Th.M., Ph.D.

APPOINTED FROM AMONG THE GRADUATES
OF THE UNIVERSITY
D. Dawson, B.A. (~76), B.A. (~78)
M. Lyons B.A. (~49), D.Litt.(Hon.) (~96)
M. Mallard, B.A. (~'57)

OFFICERS OF THE SENATE
CHANCELLOR
M.M. Hawkrigg
CHAIR
P.J. George
VICE-CHAIR
K.H. Norrie
SECRETARY
J.E. Morris (Until June 30, 2003)

ASSOCIATE VICE-PRESIDENT (ACADEMIC)
Frederick A. Hall, Assoc. Dipl., B.Mus., M.A., Ph.D.
ASSOCIATE VICE-PRESIDENT (STUDENT AFFAIRS)
REGISTRAR
B. George Granger, B.A.
ASSISTANT VICE-PRESIDENT (FINANCE)
Lillian M. Schmee, B.A., M.B.A.
ASSISTANT VICE-PRESIDENT (HUMAN RESOURCES)
Mark E. Haley, C.H.R.P.
UNIVERSITY LIBRARIAN
Graham R. Hill, B.A., M.A., M.I.L.
PRINCIPAL OF MCMASTER DIVINITY COLLEGE
Stanley E. Porter, B.A., M.A., Ph.D.
SECRETARY OF THE BOARD OF GOVERNORS
W. Bruce Frank, B.A., M.A., Ph.D.
SECRETARY OF THE SENATE

APPOINTED BY AND FROM THE TEACHING STAFF
OF THE DIVINITY COLLEGE
M. Horsnell, B.A., Th.M., Ph.D.

APPOINTED FROM AMONG THE GRADUATES
OF THE UNIVERSITY
D. Dawson, B.A. (~76), B.A. (~78)
M. Lyons B.A. (~49), D.Litt.(Hon.) (~96)
M. Mallard, B.A. (~'57)
PROFESSORS EMERITI

ANTHROPOLOGY
David R. Counts/B.A. (Texas), Ph.D. (Southern Illinois)
David J. Damas/A.B. (Toledo), A.M., Ph.D. (Chicago)
Edward V. Glennville/B.A., Ph.D. (Dublin)
William C. Noblet/B.A. (Toronto), Ph.D. (Calgary)
Richard J. Preston/M.A., Ph.D. (North Carolina)
Richard Slobodin/B.A., M.S. (City College of New York), Ph.D. (Columbia)

BIOCHEMISTRY
Russell A. Bell/M.Sc. (Wellington), M.S. (Wisconsin), Ph.D. (Stanford), F.C.I.C., Professor of Chemistry
Luba A. Branda/B.Sc., D.Sc. (Uruguay)
William W. Chau/M.A., M.D. (Cambridge)
Barbara M. Ferrier/B.Sc., Ph.D. (Edinburgh)
Karl B. Freeman/B.A., Ph.D. (Toronto)
Hara P. Ghaso/B.Sc., M.Sc., Ph.D. (Calcutta)
Ross H. Hall/B.A. (British Columbia), M.A., Ph.D. (Cambridge)
Denis R. McCalla/B.Sc. (Alberta), M.Sc. (Saskatchewan), Ph.D. (California Inst. of Technology), F.C.I.C.

BIOLOGY
Stanley T. Bayley/B.Sc., Ph.D. (London)
Douglas Davidson/B.Sc. (Dalhousie), D.Phil. (Oxford)
Douglas M. Davies/B.Sc., M.A., Ph.D. (Toronto), F.E.S.C.
Frank L. Graham/B.Sc. (Manitoba), M.A., Ph.D. (Toronto), F.R.S.C.
Kenneth A. Kershaw/B.Sc. (Manchester), Ph.D. (N. Wales), D.Sc. (Wales), F.R.S.C.
Stanley Mak/B.Sc. (Saskatchewan), Ph.D. (Toronto)
Richard A. Morton/M.Sc., Ph.D. (Chicago)
B. Ann Oakes/B.A. (Toronto), M.A., Ph.D. (Saskatchewan), F.R.S.C.
Ludvik A. Prevec/M.A., Ph.D. (Toronto)
Iwao Takahashi/B.A. (Hakodate), M.S.A. (Kyushu), Ph.D. (Montreal)
Stephen F.H. Threlkeld/M.Sc. (Alberta), Ph.D. (Cambridge)
Jean E.M. Westerman/B.Sc. (Western Ontario), M.A. (Mount Holyoke), Ph.D. (Toronto)
Bradley N. White/B.Sc. (Nottingham), Ph.D. (McMaster)

CHEMICAL ENGINEERING
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. (Wisconsin), D.Sc. (Queen's), D.Sc. (Guelph), F.C.I.C., F.A.I.Ch.E., P. Eng.

CHEMISTRY
Russell A. Bell/B.Sc. (Wellington), M.S. (Wisconsin), Ph.D. (Stanford), F.C.I.C.
Ronald F. Childs/B.Sc (Bath), Ph.D., D.Sc. (Nottingham)
Orville E. Hileman, Jr./B.S.Ed. (Bowling Green State), Ph.D. (Case Institute of Technology), F.C.I.C.
David A. Humphreys/B.Sc., M.Sc. (London), Ph.D. (McMaster), F.C.I.C.
Joseph D. Lapo/8.Sc. (St. Louis), M.S. (Chicago), Ph.D. (Loyola)
David B. MacLean/B.Sc. (Acadia), Ph.D. (McGill), F.R.S.C., F.I.C.I.
Michael J. McGlinche/B.Sc., Ph.D. (Manchester), F.C.I.C.
David P. Sanchez/B.Sc., Ph.D. (London)
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.

CIVIL ENGINEERING
Gunnar A.E. Oravas/B.Eng., M.S., Ph.D. (Michigan)
Alan A. Smith/B.Sc. (Glasgow), Ph.D. (Strathclyde), P.Eng.

CLASSICS
George M. Paul/M.A. (Oxford), Ph.D. (London)
Donald M. Shepherd/M.A. (Queen's), Ph.D. (Chicago)

COMMERCE
Roy J. Adams/B.A. (Pennsylvania State), M.A./Ph.D. (Wisconsin) (Industrial Relations)
Norman Archer/B.Sc. (Alberta), Ph.D. (McMaster), M.S. (New York) (Management Science)
Peter M. Banting/B.A., M.B.A. (McMaster), Ph.D. (Michigan State) (Marketing)
Harish C. Jain/B.Com. (Delhi), M.B.A. (Indiana), Ph.D. (Wisconsin) (Human Resources and Labour Relations)
Robert F. Love/B.A.Sc. (Toronto), M.B.A. (Western Ontario), Ph.D. (Stanford), P.Eng. (Management Sciences)
Winston H. Mahatoo/B.A. (London), B.Sc., M.Sc. (McGill), Ph.D. (Montreal) (Marketing)

COMPUTING AND SOFTWARE
Syed Ahmad/A.M., LL.B. (Aligarh), M.Sc., D.Sc. (London)
James A. Johnson/M.A., Ph.D. (Minnesota)
Ernest H. Oksanen/A.M. (Michigan), B.A., Ph.D. (Queen's)
Yorgos Y. Papageorgiou/Dipl. Arch. Eng. (National Technical, Athens), N.C.P., Ph.D. (Ohio State), D.Sc. (Louvain)
William R. Scammell/B.Com.Sc. (Queen's, Belfast), Ph.D. (Wales)
Robert W. Thompson/B.A. (Toronto), M.A. (Queen's), Ph.D. (London)
James R. Williams/M.A., Ph.D. (Minnesota)

ELECTRICAL AND COMPUTER ENGINEERING
Charles R. Carter/B.A., M.A.Sc. (British Columbia), Ph.D. (McMaster), P. Eng.
David R. Conn/B.Sc., M.Sc. (Queen's), P.Eng.
Arthur S. Giadwan/D.Sc. (Glasgow), Ph.D. (London)
Reuven Kitai/M.Sc., D.Sc. (Wilwatersand), F.I.E.E.
John Lilla/B.Sc. (British Columbia), M.Sc. (Western Ontario)
ENGINEERING PHYSICS

Edward A. Ballik/B.Sc. (Queen’s), D.Phil. (Oxford), P.Eng.
John A. Davies/B.A., M.A., Ph.D. (Toronto), F.R.S.C., F.D.R.S.
Terence J. Kennett/B.Sc., M.Sc., Ph.D. (McMaster)

ENGLISH

Carl P.A. Bullstadt/B.A., M.A. (Western Ontario), Ph.D. (London)
Alwyn Berland/M.A. (Chicago), M.Litt. (Cambridge)
Andrew W. Brink/B.A., M.A. (Toronto), Ph.D. (London)
Thomas H. Cain/B.A., M.A. (Toronto), Ph.D. (Wisconsin)
Barnes A.W. Jackson/B.A. (McMaster), D.Phil. (Oxford)
Alvin A. Lee/B.A., M.Div., M.A. Ph.D., D.Litt. (Toronto), D.Litt. (McMaster)
Laurel A. Means/B.A., M.A. (Arkansas), M.A.Ph.D. (Toronto)
Richard E. Morton/B.A. (Wales), B.Litt. (Oxford)
Graham Petrie/ M.A. (St. Andrews), B.Litt. (Oxford)
W. Graham Reobuck/B.A. (Durham), M.A. (McMaster), Ph.D. (London)
F. Norman Shrive/C.D., B.A. (McMaster), M.A. (Queen’s)
Ronald W. Vincse/ B.A. (McMaster), M.A. (Rice), Ph.D. (Northwestern)
Chauncey D. Wood/A.B. (Union College), M.A., Ph.D. (Princeton)

FRENCH

W. Norman Jesus/M.A. (Cambridge), Les L. (Bordeaux)
Owen R. Morgan/B.A. (Nottingham)
Cesar Rouben/L’s Sa S. (Paris-Sorbonne), B.A. (Sir George Williams), M.A., Ph.D. (McGill)
G. Derek West/M.A. (Oxford), Ph.D. (London)

GEOGRAPHY AND GEOLOGY

Brian J. Burley/B.Sc. (London), M.Sc. (British Columbia), Ph.D. (McGill)
Andrew F. Burghardt/A.B. (Harvard), M.A., Ph.D. (Wisconsin)
Brian T. Bunting/M.A. (Sheffield), Ph.D. (London)
Paul M. Ciflord/B.Sc. (Southampton), Ph.D. (London)
James H. Crockett/B.Sc. (New Brunswick), Ph.D. (M.I.T)
John A. Davies/B.A. (Bristol), M.Sc. (McGill), Ph.D. (London)
Derek C. Fort/M.A., D.Phil. (Oxford), F.R.S.C.
H. Douglas Grundy/B.Sc., Ph.D. (Manchester)
Leslie J. King/M.A. (New Zealand), Ph.D. (Iowa), F.R.S.C.
S. Brian McCann/B.Sc. (Wales), Ph.D. (Cambridge)
Yorgos Y. Papageorgiou/Dipl. Arch. Eng. (National Technical, Athens), M.C.P., Ph.D. (Ohio)
R. Lloyd G. Reeds/M.A., Ph.D. (Toronto)
Wayne R. Rouse/B.Sc. (McMaster), M.Sc., Ph.D. (McGill)
Denis M. Shaw/B.A., M.A., Ph.D. (Chicago), F.R.S.C.
Gerd E.G. Westermann/B.Sc.(Braunschweig), Dipl. Geol., Dr. rer. nat. (Tubingen)
Harold A. Wood/M.A., Ph.D. (Toronto)

University Professor (Emeritus)

Henry P. Schwarz/B.A. (Chicago), M.S., Ph.D. (California Institute of Technology), F.R.S.C.

HISTORY

Alan Cassels/M.A. (Oxford), Ph.D. (Michigan), F.R.H.S.
Paul S. Fritz/B.A. (Queen’s), M.A. (Wisconsin), Ph.D. (Cambridge), F.R.H.S.
Daniel J. Geagan/A.B. (Boston), Ph.D. (Johns Hopkins)
Charles M. Johnston/B.A. (McMaster), M.A., Ph.D. (Pennsylvania)
Robert H. Johnston/B.A. (Toronto), M.A., Ph.D. (Yale)
Harvey A. Levenstein/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)

KINESIOLOGY

Frank J. Hayden/B.A. (Western Ontario), M.A., Ph.D. (Illiols)
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)

MATeRIALS SCIENCE AND ENG ineERING

M. Brian Ives/B.Sc., Ph.D. (Bristol), F.A.S.M., P. Eng.
Wei-Kuo Lu/B.S. (Cheng-Kung), Ph.D. (Minnesota), F.C.I.M.

MATHEMATICS AND STATISTICS

Bernhard Banachewski/Dipl. Math., Dr.rer.nat. (Hamburg), F.R.S.C., McKay Professor of Mathematics, Emeritus
Curtis E. Billigheimer/B.A., B.Sc., M.A. (Melbourne), Ph.D. (Toronto)
Tae Ho Choe/B.S., B.Sc., M.A. (Kyungpook), Ph.D. (Florida)
Joseph Cosima/Dipl. Math. (Eötvös), 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. Heining/B.Sc. (McMaster), M.A. (Western Ontario), Ph.D. (Toronto)
Yagqniul Husain/B.A., M.A. (Allaghar), Ph.D. (Syracuse)
Norman D. Lane/B.A. (Queen’s), M.A., Ph.D. (Toronto)
Rubens G. Lintz/B.A., Ph.D. (Sao Paulo)
S. Gopal Mohanty/B.A. (Utkal), M.A. (Panjab), Ph.D. (Alberta)
Bruno J.W. Muller/B.Sc. (Gottingen), M.Sc., Ph.D. (Mainz)
Carl R. Riempi/B.A. (Toronto), Ph.D. (Princeton)
Alexander Ross/M.S. (Kiev State), Ph.D. (Swak Acad. Sciences)
James D. Stewart/B.Sc. (Toronto), M.S. (Stanford), Ph.D. (Toronto)

MECHANICAL ENGINEERING

Mohammed A. Dokainish/B.Sc. (Cairo), M.A.Sc., Ph.D. (Toronto), P.Eng. (Adjunct)
Rose L. judir/B.Sc. (Western Ontario), M.Eng. (McMaster), Ph.D., (Michigan), P.Eng., (Adjunct)
George Labla/B.Sc. (London), Ph.D. (Glasgow), P.Eng., (C.Eng., (Adjunct)
George F. Round/B.Sc., Ph.D., D.Sc. (Birmingham), F.C.I.C., P.Eng., (Adjunct)

MEDICAL PHYSICS AND RADIATION SCIENCES

Terence J. Kennett/M.Sc., Ph.D. (McMaster)
William V. Prestwich/B.Sc., Ph.D. (McMaster)

MODERN LANGUAGES AND LINGUISTICS

Antonio G. Alessio/D.Litt.(Genoa)
John D. Browning/B.A., M. Phil. (London), Ph.D. (Essex)
Samuel D. Cioran/B.A. (McMaster), Ph.D. (Toronto)
Stelio Cro/L en L. (Buenos Aires), Dott. Ling. e Lett. (Venice)
Karl Denner/M.A. (Kentucky), Ph.D.(Johns Hopkins)
Gerhard Teuscher/Dipl.- Uebersetzter (Mainz-Gernersheim), M.A. (Toronto), Ph.D. (SUNY-Buffalo)
George Thomas/B.A., Ph.D. (London)
NURSING
E. Mary Buzzell/B.N. (McGill), M.Sc.N., M.Ed. (Boston), R.N.
Joan Croxall/B.S. (Niagara), M.A. (Dalhousie), M.Sc. (McMaster), Ph.D. (Toronto), R.N.
Jo-Ann Fox-Threlkeld/B.N. (New Brunswick), M.Sc., Ph.D. (Queen’s), R.N.
Jackie Roberts/B.Sc.N., M.Sc. (McMaster), R.N.
Karin von Schilling/B.Sc.N. (Toronto), M.Sc.N. (California), R.N.
Robin Weir/B.Sc.N. (Western Ontario), M.Sc. (Boston), M.Ed., Ph.D. (Toronto), R.N.

PHILOSOPHY
Gary B. Madison/B.A. (St. Joseph’s College), M.A. (Marquette), Ph.D. (Paris)
Evan Simpson/A.B. (Amherst), Ph.D. (Duke)

PHYSICS AND ASTRONOMY
Rajat K. Bhaduri/M.Sc. (Calcutta), Ph.D. (McMaster)
Dennis G. Burke/B.E., M.Sc. (Saskatchewan), Ph.D. (McMaster)
John A. Cameron/B.A. (Toronto), Ph.D. (McMaster)
Malcolm F. Collins/M.A., Ph.D. (Cambridge)
W. Ross Datta/M.Sc. (McMaster), Ph.D. (Wisconsin), F.R.S.C.
David A. Goodings/B.A. (Toronto), Ph.D. (Cambridge)
Martin W. Johns/M.A. (McMaster), Ph.D. (Toronto), D.Sc. (Brandon), F.R.S.C.
Teresina J. Kennes/M.Sc., Ph.D. (McMaster)
John A. Kushner/B.Sc. (Bishop’s), M.A. (Queen’s), Ph.D. (Liverpool), F.R.S.C.
Carman C. McMullen/M.Sc., Ph.D. (McMaster)
Yukihisa Nagami/B.Sc., D.Sc. (Kyoto)
Melvin A. Preston/B.A., M.A. (Toronto), Ph.D. (Birmingham), D.Sc. (McMaster), C.D., F.R.S.C.
Donald W.L. Sprung/B.A. (Toronto), Ph.D., D.Sc. (Birmingham), F.R.S.C.
Carl V. Stager/B.Sc. (McMaster), Ph.D. (M.I.T.)
Robert G. Summers-Gill/M.A. (Saskatchewan), Ph.D. (California)
Thomas Timusk/B.A. (Toronto), Ph.D. (Cornell), F.R.S.C.
Derek Walton/B.Sc.A. (Toronto), Ph.D. (Harvard)

POLITICAL SCIENCE
Janet Ajzenstat/B.A. (Toronto), M.A. (McMaster), Ph.D. (Toronto)
Adam Bromke/M.A. (St. Andrews), Ph.D. (Montreal and McGill)
William M. Chandler/B.A. (Cornell), Ph.D. (North Carolina)
Marshall N. Goldberg/B.A. (Florida), Ph.D. (North Carolina)
Gordon P. Means/B.A. (Reed College), M.A., Ph.D. (Washington)
Denny Novak/B.A. (Toronto)
Peter J. Pochtrynyj/B.A. (Temple), M.A., Ph.D. (Columbia)

PSYCHOLOGY
Ian M. Begg/B.A., M.A., Ph.D. (Western Ontario)
D. William Carmean/B.A. (Saskatchewan), M.A., Ph.D. (Toronto)
Larry L. Jacoby/B.A. (Washburn), M.A., Ph.D. (Southern Illinois)
Herbert M. Jenkins/A.B. (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)

RELIGIOUS STUDIES
John G. Arapura/B.A. (Serampore 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)
Louis I. Greenspan/M.A. (Dalhousie), Ph.D. (Brandeis)
Yun-hua Jan/M.A., Ph.D. (Visva-Bharati)
Johannis J. Mol/B.D. (Union Theological Seminary), M.A., Ph.D. (Columbia)
John C. Robertson/B.A. (Texas Wesleyan College), B.D. (Southern Methodist University), S.T.M., M.A., Ph.D. (Yale)
Gerard Vallee/B.A. (Laval), M.A. (Montreal), Ph.D. (Münster)
Paul Younger/A.B. (LaFayette), M.A. (Banaras), B.D. (Serampore), Th.M., M.A., Ph.D. (Princeton)

SCHOOL OF THE ARTS
Marta Hidy/Dipl Perf. (Budapest), F.R.H.C.M. (Hon.) (Music)
Graham Patrie/M.A. (St. Andrews), B. Litt. (Oxford) (Theatre & Film Studies)
Ronald W. Vince/B.A. (McMaster), M.A. (Rice), Ph. D., (Northwestern) (Theatre & Film Studies)
George B. Wallace/M.A. (Trinity College, Dublin) (Art)
William Wallace/B. Mus., Ph.D. (Utah) (Music)

SOCIAL WORK
Cyril Greenwood/M.Sc. (North Wales), Ph.D. (Birmingham)
Sally Palmer/B.A. (Western Ontario), B.S.W., M.S.W., Ph.D. (Toronto)

SOCIOLGY
Jack W. Haas/B.S. (SUNY-Brockport), Ph.D. (Syracuse)
D. Ralph L. Matthews/B.A. (Memorial), M.A., Ph.D. (Minnesota)
Peter C. Pineo/B.A. (British Columbia), M.A. (McGill), Ph.D. (Chicago)
Vivianne Walters/B.A., M.A. (Sheffield), Ph.D. (McGill)
364 GENERAL INDEX

GENERAL INDEX '
Abbott Memorial Scholarship Loan Fund (Medicine) .............................. 59
Aboriginal Applicants (Medicine) ..........'................................ ;.................. 57
Academic Awards (Medicine) .................................................................. 59
Academic Awards, General Conditions ................................................ ; 326
Academic Counselling at Admission ........... ;....... ;.. ;................................ 19
Academic Dishonesty, Academic Integrity and ....................................... 27
Academic Eligibility (Medicine) ........................................;................... ;... 57
Academic Facilities, Student Services and Organizations .................... 295
Academic Integrity and Dishonesty ........... L ............................................ 27
Academic Probation (defined) :.......... :............................................ ~ ........... 9
Academic Regulations, Arts and Science Programme ..................... 21,32
Academic Regulations, Bachelor of Health Sciences
'
(Honours)Programme .................. ;.........•.. :....... ;.............. ;.................... 54
Academic Regulations, B.Tech. Degree ................................. :............... 49
Academic Regulations, Department of Kinesiology ..... ;; ............ ,............ 22
AcademicRegulations, Faculty of Engineering ........................... 22, 39, 49
Academic Regulations, Faculty of Health Sciences (see Bachelor of
Health Sciences (Honours) programme, School of Medicine;
Midwifery Education Programme, School of Nursing)
Academic Regulations, Faculty of Humanities ..................•..... ~ ... ;..... 22, 71
Academic Regulations, Faculty of Science ..................................... ~. 22, 89
Academic Regulations, Faculty of Social Sciences ........................ 22, 121
(see also Department of Kinesiology and School of Social Work)
Academic Regulations, General ..................................•........................... 20
Academic Regulations, Indigenous Studies, Combined B.A. in ............ 140
Academic Regulations, Midwifery Programme ........................................ 61
Academic ReguJations, School of Business ........... ,........................... 21 ,35
Academic Regulations, School of Nursing ...................,........................... 68
Academic Regu'lations, School of Social Work ............................ ,.. 22, 138
Academic Standing and Programme Requirements ............................... 21
Academic Standing Requirements,Levell Registration, and ................ 21
Academic User Fees ............................................................................... 31
Accounting, Diploma in ...................•.................•.......................•.:.......... 144
Addiction Care Worker, Diploma in ....................................................... 144
Addiction Studies, Certificate in ........................................ :.................... 144
Address, Mailing, Web ................... ,.....: .....................,......... ,.................. 1,2
Admission from Other Canadian Provinces ..'.......................................... 14
Admission from Other Countries .............. :................. ;............................ 14
Admission from Ontario Colleges of Applied Arts and Technology .. ;..... 16
Admission from Ontario Secondary Schools ........................................... 10
Admission from Six Nations Polytechnic .........•.. ,.................................... 16
Admission, Part-time Degree Studies .................................................... 143
Admission Procedures
Bachelor of Health Sciences (Honours) ............................................... 52

~~~~~~~.~~~~:~~~.:::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::: ~~
Admission Requirements ...........,.....................•........................................ 10
Arts and Science I Admission ............................................................... 11
Business I Admission ............................................................................ 11
Engineering I Admission ................ ;...................................................,.. 11
Health Sciences I Admission ................................................................ 11
Health Sciences (Honours) Admission ................................................. 53
Humanities I Admission ,.;:................................. .-.................................... '12
Kinesiology I Admission ........................................................................ 12
Mathematics and Statistics I Admission ................. ;............................. 12
Medical Programme Admission' ............................................................ 57
Medical Radiation Science I .............. :................................................... 12
Midwifery I Admission .•................................................ ,.................. 13, 60
Music I Admission ................................................................................. 13
Nursing I Admission ...... ;................................................................. 13,64
Nursing McMaster/MohawkiConnestoga Collaborative B.Sc.N.
Programme Admission ..................................... ;................................. 65
Nwsing, Nurse Practitioner Admission ................................................. 64
Nursing,Post Diploma Admission' ........................................................ 64
Science I Admission ........................, ......................................... :........ ,.13
Social Sciences I Admission ;................................................................ 13
Social Work Admission
B.A.!B.S.W...................................•.................................................. 137
B.S.W.... ;..........................................................;................................ 138

Admission Procedures and Registration (Health Sciences) ....... :........... 52
Admission with Other Qualifications .......... ;............... ;............................. 14
Admissions Office, enquiries ..................................................................... 2 .
Adult Oncology Courses (see Nursing courses)
Adult Oncology Programme ................ ;................................................... 67
Advanced credit, admission with ............................................................. 15
Advanced Placement Courses, admission ......................................;....... 15
Advanced Standing/credit (defined) ..................................................:....... 9
Alcohol Policy and Residence Community Alcohol Policy ...................... 28
Alumni Association, enquiries, description ........................................ 2,303
Ancient History and Archaeology (Classics) .................................... 76, 77
Anthropology, courses ....................... ,................................................... 146
Anthropology programmes (Department of) ................................... ;...... 122
Anthropology Subfields .......................................................................... 1,22
.Anti-Discrimination Policy ....... ;............................ ,................................... 28
Anti-Discrimination, Sexual Harassment!, Office (SHADO) ............ ;..... 298
Antirequisite (defined) ......................................................................:......... 9
Appeal Procedures .................................................................................. 27
Application Deadlines, (all programmes, full- and part-time) ................... 19
Application Deadlines, Health Sciences ............................... :............ 19, 50
Application for Deferred Registration (Medicine,
Midwifery, Nursing) ................................................................... 58,61, 65
Application Procedures (see also Faculties, Programmes
and Schools' sections) .............................................................. ;............ 18
Applied Business Management Courses ..................................'............ 150
Applied Business Management, Concurrent Certificate in, (Human
Resources ManagementSpecialization) .................................. ~ ......... 144
Applied Radiation Sciences, Medical Physics and ....................... 110,240
Archaeology .'......... ;............................. ;........................................... 76, 122
Archaeology (Interdisciplinary Minor) ..... :.............................................. 141
Areas of Study (English) ......... ;......................................................:......... 79
Art courses :................. :................................... .'.. ;.............'....................... ,151
Art and Art History programmes ...........................;.................................. 73
Art History Courses ..................................................... ;.......................... 152
Art History programmes ........................................................................... 73
Art Portfolio ............ :.............................. ;...'.......... ;...................... '13, 70, 151
Arts and Science Awards ....................................................................... 347
Arts and Science, combined programmes .............................................. 33
Arts and Science courses .... ,...................................... ;... ;...................... 153
Arts and Science Programme ............................................................. 32-33·
Arts and Science Programme Bursaries ........................ ~ .............. ,....... 311
Arts, School of the, programmes .............................................................. 73
Arts, School of the, courses ........ ;..............................................:.; .... ;... 281
Asian Studies, (Thematic Area) .......... :.................................................. 142
Associate Vice-President (Student Affairs) ....................................... 2,298
Astronomy courses ............................................'.................................... 266
Astronomy Minor .................................................................................... 115
Astronomy, Physics and, Department of ...................,............................ 113
Athletic Bursaries .................................................................................... 309
Athletics and Recreation ........................................... ;.... :................... 3,299
Audio Visual Services (see McMaster Media Production Services)
Auditing Courses ...............'...................................................................... 20
Autobiographical s'ubmission (Medicine) ...............................................,. 58
Awards (see ,Undergraduate Academic Awards and Community
Contribution Awards)
,
B.A. programmes, Faculty of Humanities ........................................... 74-86
B.A.programmes, Faculty of Social Sciences ..... ;........................ , 123-139
B.A. (Honours) programmes, Faculty of Humanities .......................... 73-86
B.A. (Honours) programmes, Faculty of Social Sciences .............. 122-139
B.A.!B.S.W. programme ..................................... :........................... 137-138
B.Arts Sci. programmes ..................................................................... 32-33
B.Com. programme ..... :........................................................................... 37
B.Com. (Honours) programme ............................................................... 37
B.Eng. programmes ............................................................................. 39-49
B·.Eng.Mgt. programmes ..................................................................... 40-48
B.Eng. Society programmes ........................................................:..... .40~49
B,H.Sc. (Honours) programme ........................................................... 52-54
B.H.Sc. (Midwifery) programme ......................................................... 60-62
B.Kin. (Honours) programme ............................................:.................... 131


### GENERAL INDEX

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concurrent Certificate in Applied Business Management (Human Resources Management Specialization)</td>
<td>144</td>
</tr>
<tr>
<td>Conference Services</td>
<td>302</td>
</tr>
<tr>
<td>Conference Services, Housing, and (Residences) enquiries, description</td>
<td>2, 301</td>
</tr>
<tr>
<td>Confidentiality of Student Records</td>
<td>25</td>
</tr>
<tr>
<td>Consortium, Nursing, courses</td>
<td>251</td>
</tr>
<tr>
<td>Continuance at the University, minimum requirements</td>
<td>21</td>
</tr>
<tr>
<td>Continuing Students, admission, application</td>
<td>16, 18, 34</td>
</tr>
<tr>
<td>Continuing Education, Centre for, enquiries, description</td>
<td>2, 144</td>
</tr>
<tr>
<td>Continuing Students (defined)</td>
<td>9, 15</td>
</tr>
<tr>
<td>Convocation dates</td>
<td>4</td>
</tr>
<tr>
<td>Cooperative Internship Options (Social Sciences)</td>
<td>120</td>
</tr>
<tr>
<td>Cooperative Programmes (Science)</td>
<td>88</td>
</tr>
<tr>
<td>Co-op Fees</td>
<td>30</td>
</tr>
<tr>
<td>Corequisite (defined)</td>
<td>9</td>
</tr>
<tr>
<td>Counselling, Academic</td>
<td>19, 143</td>
</tr>
<tr>
<td>Course Availability</td>
<td>7</td>
</tr>
<tr>
<td>Course Enrolment Limits</td>
<td>4</td>
</tr>
<tr>
<td>Course Groupings (Social Work)</td>
<td>138</td>
</tr>
<tr>
<td>Course Numbers (defined)</td>
<td>9</td>
</tr>
<tr>
<td>Course Listings</td>
<td>146</td>
</tr>
<tr>
<td>Courses Available to All Students, upper level</td>
<td>7</td>
</tr>
<tr>
<td>Courses Available to Students in Level I and above, upper level</td>
<td>7</td>
</tr>
<tr>
<td>Courses Available to Students in Level III and above, upper level</td>
<td>7</td>
</tr>
<tr>
<td>Courses, Selection of</td>
<td>20</td>
</tr>
<tr>
<td>Creative Design and Imaging Division</td>
<td></td>
</tr>
<tr>
<td>Confidentiality of Non-Canadian Grades</td>
<td>58</td>
</tr>
<tr>
<td>Credit at Another University</td>
<td>17</td>
</tr>
<tr>
<td>Credit in Courses by Special Assessment</td>
<td>15</td>
</tr>
<tr>
<td>Critical Theory and Another Subject, Combined Honours in Cultural Studies and, programme</td>
<td>79</td>
</tr>
<tr>
<td>Cross-listed Course (defined)</td>
<td>9</td>
</tr>
<tr>
<td>Cultural Studies and Critical Theory and Another Subject, Combined Honours in, programme</td>
<td>79</td>
</tr>
<tr>
<td>Cultural Studies and Critical Thinking courses</td>
<td>187</td>
</tr>
<tr>
<td>Cumulative Average (CA), Calculation of, After Reinstatement</td>
<td>21</td>
</tr>
<tr>
<td>Cumulative Average (CA) (defined)</td>
<td>9</td>
</tr>
<tr>
<td>Curriculum Plans</td>
<td></td>
</tr>
<tr>
<td>Health Sciences (Honours)</td>
<td>53</td>
</tr>
<tr>
<td>Medicine</td>
<td>56</td>
</tr>
<tr>
<td>Midwifery</td>
<td>60</td>
</tr>
<tr>
<td>Nursing</td>
<td>66</td>
</tr>
<tr>
<td>Dates, Sessional</td>
<td>4, 5</td>
</tr>
<tr>
<td>Deadlines, Application (see also Faculties, Programmes and Schools sections)</td>
<td>13, 50</td>
</tr>
<tr>
<td>Dears (see listings under Faculty sections)</td>
<td></td>
</tr>
<tr>
<td>Dears' Honour List</td>
<td>23, 62</td>
</tr>
<tr>
<td>Deferral of Admission (for Ontario Secondary School students)</td>
<td>11</td>
</tr>
<tr>
<td>Deferral of Admission (for non-Ontario Secondary School students)</td>
<td>15</td>
</tr>
<tr>
<td>Deferred Examinations</td>
<td>24, 35</td>
</tr>
<tr>
<td>Deferred Examinations, dates (see Sessional Dates)</td>
<td></td>
</tr>
<tr>
<td>Deferred Examinations, Petitions for Relief for Missed Term</td>
<td>23</td>
</tr>
<tr>
<td>Work and</td>
<td>23</td>
</tr>
<tr>
<td>Deferred Registration, Application for (Medicine, Midwifery, Nursing)</td>
<td>58, 61, 65</td>
</tr>
<tr>
<td>Degree (defined)</td>
<td>9</td>
</tr>
<tr>
<td>Degrees by Programme</td>
<td>8</td>
</tr>
<tr>
<td>Degrees, Courses and Programmes</td>
<td>6</td>
</tr>
<tr>
<td>Degrees and Programmes (Summary)</td>
<td>6</td>
</tr>
<tr>
<td>DeGroote, Michael G., School of Business</td>
<td>34</td>
</tr>
<tr>
<td>Department (defined)</td>
<td>9</td>
</tr>
<tr>
<td>Diploma in Music Performance</td>
<td>75</td>
</tr>
<tr>
<td>Diploma in Spatial Analysis and GIS (Geographical Information Systems)</td>
<td>145</td>
</tr>
<tr>
<td>Diploma Programme in Clinical Behavioural Sciences</td>
<td>51</td>
</tr>
<tr>
<td>Diploma Programme in Environmental Health</td>
<td>51</td>
</tr>
<tr>
<td>Diploma Programme in Occupational Health and Safety</td>
<td>51</td>
</tr>
<tr>
<td>Diploma Programmes, Certificate and</td>
<td>144</td>
</tr>
<tr>
<td>Directory for Correspondence and Enquiries</td>
<td>2</td>
</tr>
<tr>
<td>Disabilities, Students with, Bursaries for</td>
<td>304, 309</td>
</tr>
<tr>
<td>Disabilities, Students with, Services for</td>
<td>2, 298</td>
</tr>
<tr>
<td>Disclosure of Personal Information to Statistics Canada, Notification of</td>
<td>26</td>
</tr>
<tr>
<td>Divinity, College of</td>
<td>2, 3</td>
</tr>
<tr>
<td>Dr. Mary E. Kaisel Certification of Leadership</td>
<td>298</td>
</tr>
<tr>
<td>Drama courses (see Theatre &amp; Film courses)</td>
<td></td>
</tr>
<tr>
<td>Drama programmes (see Theatre &amp; Film Studies programmes)</td>
<td></td>
</tr>
<tr>
<td>Early Admission (from an Ontario Secondary School)</td>
<td>10</td>
</tr>
<tr>
<td>Earth and Environmental Sciences Co-op programme</td>
<td>104</td>
</tr>
<tr>
<td>Earth and Environmental Sciences programme</td>
<td>103</td>
</tr>
<tr>
<td>Earth Science Minor</td>
<td>105</td>
</tr>
<tr>
<td>Economics courses</td>
<td>190</td>
</tr>
<tr>
<td>Economics programmes (Department of)</td>
<td>124</td>
</tr>
<tr>
<td>Economics and Computer Science (B.A.) programme</td>
<td>125</td>
</tr>
<tr>
<td>Economics and Mathematics (B.A.) programme</td>
<td>125</td>
</tr>
<tr>
<td>Eighteenth Century Collection</td>
<td>3, 295</td>
</tr>
<tr>
<td>Elective Courses (defined)</td>
<td>9</td>
</tr>
<tr>
<td>Elective Courses Available to Level I Students</td>
<td>6</td>
</tr>
<tr>
<td>Electives (Medicine, Nursing)</td>
<td>56, 66, 67</td>
</tr>
<tr>
<td>Electrical and Biomedical Engineering programmes</td>
<td>43</td>
</tr>
<tr>
<td>Electrical and Computer Engineering courses</td>
<td>193</td>
</tr>
<tr>
<td>Electrical Engineering and Management programme</td>
<td>43</td>
</tr>
<tr>
<td>Electrical Engineering and Society programme</td>
<td>43</td>
</tr>
<tr>
<td>Electrical Engineering (B.Eng.) programme</td>
<td>42</td>
</tr>
<tr>
<td>Electrical Engineering courses</td>
<td>194</td>
</tr>
<tr>
<td>E-mail Addresses (see Faculties, Programmes and Schools sections)</td>
<td></td>
</tr>
<tr>
<td>Emergency Loans, Short Term</td>
<td>305</td>
</tr>
<tr>
<td>Employment Centre, Career Planning and, enquiries, description</td>
<td>2, 299</td>
</tr>
<tr>
<td>Engineering and Management courses</td>
<td>197</td>
</tr>
<tr>
<td>Engineering and Society courses</td>
<td>197</td>
</tr>
<tr>
<td>Engineering and Society Focus Electives</td>
<td>38</td>
</tr>
<tr>
<td>Engineering Awards</td>
<td>346</td>
</tr>
<tr>
<td>Engineering Bursaries</td>
<td>913</td>
</tr>
<tr>
<td>Engineering, Faculty of</td>
<td>38</td>
</tr>
<tr>
<td>Engineering (General) courses</td>
<td>196</td>
</tr>
<tr>
<td>Engineering, Material Science and, courses</td>
<td>232</td>
</tr>
<tr>
<td>Engineering Physics and Management programme</td>
<td>44</td>
</tr>
<tr>
<td>Engineering Physics and Society programme</td>
<td>44</td>
</tr>
<tr>
<td>Engineering Physics (B.Eng.) programme</td>
<td>43</td>
</tr>
<tr>
<td>Engineering Physics courses</td>
<td>198</td>
</tr>
<tr>
<td>Engineering Technology (General) courses</td>
<td>169</td>
</tr>
<tr>
<td>English Assumes of Study</td>
<td>79</td>
</tr>
<tr>
<td>English courses</td>
<td>200</td>
</tr>
<tr>
<td>English Language Proficiency Requirement</td>
<td>10, 58</td>
</tr>
<tr>
<td>Enrolment Programme, admission</td>
<td>17</td>
</tr>
<tr>
<td>Entering Students, Academic Awards for (Terms, Awards)</td>
<td>327, 328</td>
</tr>
<tr>
<td>Entrance Awards</td>
<td>328</td>
</tr>
<tr>
<td>Environmental Health, Diploma programme in</td>
<td>11</td>
</tr>
<tr>
<td>Environmental Science courses</td>
<td>204, 208</td>
</tr>
<tr>
<td>Environmental Sciences, Earth and, Co-op programme</td>
<td>104</td>
</tr>
<tr>
<td>Environmental Sciences, Earth and, programme</td>
<td>103</td>
</tr>
<tr>
<td>Environmental Science Minor</td>
<td>105</td>
</tr>
<tr>
<td>Environmental Studies, Geography and, (B.A.) programme</td>
<td>126</td>
</tr>
<tr>
<td>Environmental Studies Minor</td>
<td>127</td>
</tr>
<tr>
<td>European Studies courses</td>
<td>243</td>
</tr>
<tr>
<td>Evaluation methods, Student (Medicine)</td>
<td>55</td>
</tr>
<tr>
<td>Evening courses, explained (see Sessional Dates and Part-time Degree Studies)</td>
<td>55</td>
</tr>
<tr>
<td>Part-time Degree Studies</td>
<td></td>
</tr>
<tr>
<td>Evening Session, dates (see Sessional Dates)</td>
<td></td>
</tr>
<tr>
<td>Examination, dates (see Sessional Dates)</td>
<td></td>
</tr>
<tr>
<td>Examinations, Schedules and Reservations, enquiries</td>
<td>2</td>
</tr>
<tr>
<td>Examinations regulations</td>
<td>24</td>
</tr>
<tr>
<td>Exchange Programme Bursaries</td>
<td>320</td>
</tr>
<tr>
<td>Exchange Programmes</td>
<td>21, 32, 36, 38, 72, 88, 122</td>
</tr>
<tr>
<td>Exchange Students, Overseas and, enquiries</td>
<td>72</td>
</tr>
<tr>
<td>Exchanges Office</td>
<td>300</td>
</tr>
<tr>
<td>Expenses (see Financial Information)</td>
<td>9</td>
</tr>
<tr>
<td>Extra Courses (defined)</td>
<td></td>
</tr>
<tr>
<td>Exterm Work (see also regulations under Faculties, Programmes and Schools sections)</td>
<td>20</td>
</tr>
</tbody>
</table>
Graduand and Second Degree Scholarships and
Prizes by Faculty, In-Courses ........................................ 347
Graduand and Second Degree Awards, List of In-Course ...... 329
Graduate Studies, School of, enquiries ................................ 2
Graduating Students, Academic Awards for (Terms) .............. 327
Graduation, regulations ...................................................... 25, 54, 62, 91
Graduates Applying for a Second Bachelor's Degree .............. 15
Grades of McMaster Certificate/Diploma Programmes ............. 17
Greek courses ........................................................................ 169
Greek Minor .......................................................................... 77
Grievances, enquiries, description .......................................... 2, 27
H.G. Thode Library of Science and Engineering ..................... 295
Health Centre, Student ........................................................ 300
Health Physics Co-op, Medical and, programme ..................... 110
Health Physics, Medical and, programme .............................. 110
Health Professional Education Programmes, Undergraduate .... 50
Health Regulations (Health Sciences) .................................... 51
Health Requirements (Nursing) ............................................. 14
Health Sciences Awards ...................................................... 349
Health Sciences Bursaries .................................................... 53, 314
Health Sciences courses (B.H.Sc. (Honours) programme) ........ 213
Health Sciences courses (Nursing, Midwifery) ......................... 215
Health Sciences Education Programmes, Post-Professional ...... 51
Health Sciences (Honours) Curriculum ................................ 53
Health Sciences, Faculty of .................................................. 50
Health Sciences Library ...................................................... 295
Health Service, Student (see Campus Health Centre) ............... 295
Health Services, Student, fees .............................................. 30
Health Studies courses ...................................................... 217
Health Studies programmes ................................................ 125
Hebrew courses .................................................................... 279
Honours Programmes (see descriptions and regulations under the Faculties, Programmes and Schools sections) ........ 107
Honours Science programmes ............................................ 117
Hospitality Services, enquiries, description ......................... 2, 301
Housing, Off-campus, enquiries, description ......................... 2, 302
Housing and Conference Services (Residences) ................. 2, 301
Housing, Residence fees ..................................................... 30
Human Resources Management, Diploma in ......................... 144
Human Resources Management Specialization (Concurrent Certificate in Applied Business Management) ........ 144
Human Rights, Statement on .............................................. 29
Humanities Awards .............................................................. 315
Humanities, Faculty of .......................................................... 70
Humanities (General) courses ................................................. 223
Humanities/Religious Studies Requirement ........................... 121
Humanities Study Abroad ..................................................... 72
Imersion Programmes in French, Summer ............................ 72
Immunization (Medicine) ..................................................... 57
In-course Awards (defined) .................................................. 328
In-course, Graduand and Second Degree Awards, List of ...... 329
In-course, Graduand and Second Degree Scholarships and ... 329
Prizes by Faculty ................................................................. 347
Index of Awards .................................................................. 356
Index of Bursaries ............................................................... 321
Indigenous Studies courses ................................................. 223
Indigenous Studies, Combined B.A. in ................................. 140
Industrial Internships (Engineering, Science) ......................... 38, 88
Information Services, Computing and ................................. 295
Information Technology (Infotech), Certificate in ................. 144
Innis Library ........................................................................ 295
368 GENERAL INDEX

Inquiry Course List (Science) ........................................... 86
Inquiry courses .................................................................. 225
Inquiry Seminars (Arts & Science Programme) .................. 32
Insurance ............................................................................ 31
Intensives (Midwifery) ..................................................... 60
Interdisciplinary Minors and Thematic Areas .................... 141
Interdisciplinary Programmes in the Humanities .............. 76
International Affairs, Office of ......................................... 297
International Applicant Pool (Medicine) ......................... 58
International Baccalaureate (IB) Diploma, Admission .......... 235
International Cross-Cultural Language Menus ................... 34
International Students' Advisor, enquiries, description .......... 2, 300
International Students' Awards ......................................... 329
International Study ......................................................... 21, 32, 36, 38, 72, 88, 122, 300
Internships, Industrial (Engineering) ............................... 38
Internship Options (Social Sciences) ............................... 120
Internship Programme (Commerce) ............................... 96
Interviews (Medicine) ...................................................... 58
Irregular status ................................................................. 21, 22, 54
Italian courses .................................................................... 246
Italian Minor ...................................................................... 93
Japanese courses ............................................................. 247
Japanese Language Minor ............................................... 84
Japanese Studies courses ............................................... 248
Japanese Studies programme ......................................... 82
Jewish Studies (Interdisciplinary Minor) ......................... 141
Keyes Certificate of Leadership, Dr. Mary E. ................... 298
Kinesiology courses .......................................................... 225
Kinesiology (B.Kin.) programmes (Department of) .......... 131
Kinesiology (B.Sc.) programme (Department of) ............... 105
Labour Studies courses .................................................... 230
Labour Studies programmes ............................................ 132
Landed Immigrant Students, Canadian Citizens and, fees .... 29
Language and Linguistics, (French) programme ............... 81
Language, Linguistics and Translation (French) programme . 80
Language and Literature (French) programmes ................. 80, 81
Latin courses .................................................................... 169
Latin Minor ........................................................................ 77
Leadership in Learning, Centre for .................................. 296
Learning Methods (Medicine) ............................................ 55
Letter of Permission (defined) ........................................... 9
Letter of Permission ........................................................ 17, 18, 20, 54, 72, 90, 122
Level (defined) ................................................................ 9
Level I, admission requirements ....................................... 10
Level I Courses, Limit on ................................................ 20
Level I Programmes (see Faculties, Programmes and Schools sections) 21
Level II Registration/Academic Standing Requirements .. 35, 54
Level of Registration ........................................................ 4
Liability, Release From .................................................... 2
Liaison Office, enquiries ................................................... 2
Libraries ............................................................................. 3, 296
Licence to Practise (Health Sciences) .............................. 51, 56
Life Science Programmes .................................................. 118
Limit on Level I Courses .................................................. 20
Limited Enrolment Courses (Science) ............................. 88
Limited Enrolment Programmes (Science) ....................... 90
Linguistics courses .......................................................... 248
Linguistics programmes, Modern Languages and (Department of) 82, 84
Linguistics programmes .................................................. 83
Listener, admission ........................................................... 17
Listeners, fees .................................................................... 30
List of In-course, Graduand and Second Degree Awards ... 329
Loan Funds (Medicine) ...................................................... 60
Loans (defined) ................................................................ 39
Loans (see Student Financial Aid) ..................................... 39
M-Opportunity Plan (Engineering) ................................... 39
MAPS (McMaster Association of Part-time Students) .......... 143, 303
MD programme ............................................................... 55
MSU (McMaster Students Union) ...................................... 302
MUGSI (McMaster University General Student Information) 89, 295
Mailing Address ............................................................... 2
Management, Engineering and, courses .......................... 197
Management Studies, Diploma in .................................. 144
Manufacturing Engineering and Management programme ... 44
Manufacturing Engineering and Society programme .......... 44
Manufacturing Engineering (B. Eng.) programme .............. 44
Manufacturing Engineering courses .................................. 239
Manufacturing Engineering Technology (B.Tech.) programme 49
Manufacturing Technology courses .................................. 232
Map ................................................................................. 549
March Caledon (Science) .................................................. 69
Materials courses ............................................................. 232
Materials Engineering and Management (Ceramic Stream) ... 45
Materials Engineering and Management programme .......... 45
Materials Engineering and Society (Ceramic Stream) ........ 46
Materials Engineering and Society programme ................ 45
Materials Engineering (B. Eng.) programme ..................... 44
Materials Engineering (Ceramic Stream) programme .......... 45
Materials Processing Minor .............................................. 106
Materials Properties Minor .............................................. 106
Materials Science (B.Sc.) programme ............................... 106
Materials Science and Engineering courses .................... 232
Mathematical Science programme .................................. 118
Mathematics and Physics programme ............................. 108
Mathematics and Statistics Co-op programme .................. 108
Mathematics and Statistics courses ................................. 234
Mathematics and Statistics programmes (Department of) .. 107
Mathematics, Biology and, programme ........................... 96
Mathematics, Computer Science and, programme ............ 102
Mathematics, Economics and, (B.A.) programme .......... 125
Mathematics programmes ............................................... 108
Mathematics, Philosophy and, programme (B.A.) ............. 85
Matric Student (defined) .................................................... 9
Matric Students, admission .............................................. 17, 61, 143
McMaster Association of Part-time Students (MAPS) ...... 143, 303
McMaster Centre for Gerontological Studies .................... 232
McMaster Certificate/Diploma Programmes, Graduates of .... 17
McMaster Honour Awards ................................................. 328
McMaster Media Production Services ............................. 296
McMaster/Mohawk/Conestoga Collaborative B.Sc.N. programme (see description in School of Nursing) ...
McMaster Museum of Art ................................................ 297
McMaster President's Award ............................................. 328
McMaster Students Union (MSU) ................................. 302
McMaster University Fee Waiver Authority ....................... 295
McMaster University General Student Information (MUGSI) 89, 295
McMaster University, Overview ....................................... 3
McMaster Work-Study Programmes ................................ 304
Meal Plan Fees, Residence and ........................................ 30
Mechanical Engineering and Management programme .... 46
Mechanical Engineering and Society programme ............... 47
Mechanical Engineering (B.Eng.) programme .................. 46
Mechanical Engineering courses ...................................... 239
Medals (see In-Course, Graduand and Second Degree Scholarships and Prizes by Faculty) 296
Media Production Services ................................................ 296
Medical and Health Physics Co-op programme ............... 110
Medical and Health Physics programme ......................... 110
Medical Curriculum Plan ................................................. 56
Medical Officer Training Plan ........................................... 60
Medical Physics and Applied Radiation Sciences ............. 110, 239
Medical Physics courses .................................................. 240
Medical Programme ........................................................ 50
Metallurgy of Iron and Steel, Certificate in ........................ 144
Michael G. DeGroote School of Business ......................... 34
Midwifery courses .......................................................... 241
Midwifery Curriculum ..................................................... 90
Midwifery programme .................................................... 80
Mills Memorial Library ................................................... 295
Minimum Final Average .................................................. 11
Minimum Requirements to Continue at the University ...... 21
Minor (defined) ................................................................ 9
Minors and Thematic Areas (see Interdisciplinary Minors and Thematic Areas) 197
Minors (regulations) ......................................................... 22
Minors (see Faculties, Programmes and Schools sections)...... 31
Miscellaneous Fees ..................................................... 31
Missed Term Work and for Deferred Examinations, Petitions for Relief for ........................................ 23
Modem Languages and Linguistics programmes (Department of) ... 82, 84
Mohawk (Indigenous Studies) courses ................................ 224
Molecular Biology, Biochemistry and, programmes .............. 94
Molecular Biology courses .............................................. 251
Molecular Biology programme ....................................... 111
Multidisciplinary Distance Learning Courses, Part-time .......... 51
Multimedia courses ..................................................... 252
Multimedia programme ............................................... 74
Multimedia Studies, Diploma in ..................................... 144
Museum of Art ........................................................... 297
Music Awards ............................................................. 329
Music courses ............................................................ 253
Music Performance, Diploma in ..................................... 75
Music programmes ...................................................... 74
Neural Computation courses ........................................ 257
Neural Computation programme ................................... 111
Non-credit Placements (Gerontology, Kinesiology) ............ 213, 229
Notification of Disclosure of Personal Information to Statistics Canada ..................................................... 26
Nurse Practitioner courses .......................................... 260
Nurse Practitioner Certificate Programme ....................... 67
Nurse Practitioner programme (see description in School of Nursing) ...................................................... 261
Nursing Consortium courses ........................................ 261
Nursing courses ........................................................ 257
Nursing Curriculum .................................................... 66
Nursing Leadership/Management courses (see Nursing courses) ................................................................. 67
Nursing Leadership/Management programme .................... 67
Nursing Occasional Category ........................................ 17
Nursing programmes ................................................. 66-67
Nursing, School of ..................................................... 62
OIA (Office of Indigenous Affairs) ................................... 236
OSAP (Ontario Student Assistance Programme) ............... 304
Occupational Health and Safety, Diploma programme in .... 51
On-Campus Housing, enquiries, description ...................... 2, 302
Office of the International Students' Advisor/Student Exchanges/ Work and Study Abroad ....................................... 300
Officers of the University ............................................. 360
Ojibwe (Indigenous Studies) courses .............................. 225
Ombuds Office, enquiries, description ............................ 2, 303
On-Campus Housing, enquiries, description .................... 2, 301
Oncology courses (see Nursing courses) ......................... 67
Oncology programmes ............................................... 67
Ontario Colleges of Applied Arts and Technology, admission from ....................................................... 16
Ontario Primary Health Care Nurse Practitioner Programme (C) Stream (see description in School of Nursing) ................................................................. 16
Ontario Secondary School Course Equivalents for Students from Other Canadian Provinces (Chart) ................. 14
Ontario Secondary School Student application procedures .......... 16
Ontario Secondary Schools, admission from ..................... 10, 11
Ontario Secondary School Reform, Planning for Admission and Transition .................................................. 16
Ontario Spatially Bursary Program ................................... 304
Ontario Student Assistance Programme (OSAP) ............... 304
Ontario Student Loans ................................................ 304
Ontario Work-Status Placement ...................................... 304
Organizations, Student Government and ......................... 302
Other Canadian Provinces, Admission from ...................... 14
Other Canadian Provinces, Ontario Secondary School Course Equivalents for Students from (Chart) .................... 14
Other Countries, Admission from ................................ 14
Other Universities, Transfers from ................................ 15
Overload Work .......................................................... 20, 72, 122
Overseas and Exchange Students, enquiries, description .... 2, 300
Paediatric Oncology courses (see Nursing courses) ............ 68
Paediatric Oncology programme ................................... 68
Parking, services described ......................................... 361
Part-time Canada Student Loans .................................... 304
Part-time Degree Studies ............................................ 143
Part-time Degree Programmes available (Summary) ............ 8
Part-time Multidisciplinary Distance Learning courses .......... 51
Part-time Student, application ...................................... 18
Part-time Student (defined) .......................................... 9
Part-time Student, fees ............................................... 25
Part-time, In-course Students, Academic Awards for (Terms) 237
Part-time Students, McMaster Association of, (MAPS) ............................. 143, 303
Part-time Studies Awards (defined) ................................ 326
Payment of Fees .......................................................... 30
Peace Studies, courses ................................................ 262
Peace Studies (Interdisciplinary Minor) (see Minor in Peace Studies, Faculty of Humanities) ...................................................... 84
Peace Studies programme ........................................... 84
Personal History, Supplementary Application Forms and .......................... 10
Personal Information to Statistics Canada, Notification of Disclosure of ...................................................... 26
Petitions for Relief for Missed Term Work and for Deferred Examinations .................................................. 23
Pharmacology courses ................................................ 263
Pharmacology, Biology and, Co-op programme ................. 69, 97
Philosophy courses .................................................... 263
Philosophy programmes (Department of) ......................... 85
Philosophy and Biology (B.A.) programme ....................... 85
Philosophy and Mathematics (B.A.) programme ............... 85
Photonics Engineering and Management programme .......... 47
Photonics Engineering and Society programme ................. 48
Photonics Engineering (B.Eng.) programme ..................... 47
Photonics Engineering courses ..................................... 199
Physical Education activities (see Academic Facilities, Student Services and Organizations -- Athletics and Recreation) ................................................................. 119
Physics and Astronomy courses ................................... 266
Physics and Astronomy programmes (Department of) ......... 113
Physics Co-op, programme .......................................... 114
Physics, Engineering courses ....................................... 198
Physics, Mathematics and, programme .......................... 108
Physics, Medical and Health, programme ....................... 110
Physics, Medical and Health, Co-op programme ............... 110
Physics, Medical courses ............................................ 240
Placements, Non-credit (Gerontology, Kinesiology) ............ 213, 219
Planning for Admission and Ontario Secondary School Reform .... 10
Police Studies, Diploma in ........................................... 144
Policies, University ..................................................... 4
Policy on Rights and Responsibilities of Undergraduate Students During Work Stoppages that Substantially Disrupt Academic Activities .................................. 28
Polish courses ........................................................... 250
Political Science courses .............................................. 269
Political Science programmes (Department of) .................. 133
Portfolio Requirement (Art 1F06) .................................. 13, 70, 151
Post-Degree Student (defined) ...................................... 9
Post-Degree Students, admission, application ................. 16, 18
Post Diploma (B) Stream (Nursing) (see description in School of Nursing) ................................................................. 328
Post Office ............................................................... 299
Post-Professional Health Sciences Education Programmes .... 51
Practitioner, Nursing, courses ...................................... 260
Prepayment of Fees .................................................... 31
Prerequisite (defined) .................................................. 9
President's Awards ..................................................... 328
Primary Health Care Nurse Practitioner Programme (see School of Nursing) ................................................................. 328
Printing Services (see McMaster Media Production Services) .......................... 328
Prices (see Undergraduate Academic Awards) ................... 9
Probation, Academic (defined) ..................................... 9
Probation, Programme (defined) ................................... 9
Professional Certification (see programme descriptions in Business, Engineering, Health Sciences and Science) ........ 8
Professional Degrees, summary ................................... 8
Professors (see Course Listings by Departments) ............... 361
Professors Emeriti Listing ............................................. 361
<table>
<thead>
<tr>
<th>Index Number</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>Academic Regulations in the Faculties, Programmes and Schools sections</td>
</tr>
<tr>
<td>22</td>
<td>Reviewing Review (defined)</td>
</tr>
<tr>
<td>23</td>
<td>Provost's Honour Roll</td>
</tr>
<tr>
<td>30</td>
<td>Psychiatric-Mental Health Nursing Certificate programme</td>
</tr>
<tr>
<td>32</td>
<td>Recreation, Athletics and</td>
</tr>
<tr>
<td>32</td>
<td>Substantially Disrupt Academic Activities</td>
</tr>
<tr>
<td>34</td>
<td>Registration</td>
</tr>
<tr>
<td>35</td>
<td>Registration (defined)</td>
</tr>
<tr>
<td>36</td>
<td>Registration, Examinations fees (Nursing programme)</td>
</tr>
<tr>
<td>36</td>
<td>Reinstatement (defined)</td>
</tr>
<tr>
<td>36</td>
<td>Reinstatement Request Form</td>
</tr>
<tr>
<td>36</td>
<td>Registration (see Academic Regulations in the Faculties, Programmes and Schools sections)</td>
</tr>
<tr>
<td>36</td>
<td>Residence Community Alcohol Policy, Alcohol Policy and</td>
</tr>
<tr>
<td>37</td>
<td>Residence Requirements, academic</td>
</tr>
<tr>
<td>49</td>
<td>Residence enquiries, description</td>
</tr>
<tr>
<td>50</td>
<td>Residences, fees</td>
</tr>
<tr>
<td>51</td>
<td>Residences, Summer</td>
</tr>
<tr>
<td>52</td>
<td>Result of Session (defined)</td>
</tr>
<tr>
<td>53</td>
<td>Retention of Documents</td>
</tr>
<tr>
<td>53</td>
<td>Returning Student Application</td>
</tr>
<tr>
<td>53</td>
<td>Review (defined)</td>
</tr>
<tr>
<td>53</td>
<td>Reviewing Period (defined)</td>
</tr>
<tr>
<td>53</td>
<td>Rights and Responsibilities of Undergraduate Students During Work</td>
</tr>
<tr>
<td>54</td>
<td>Stoppages that Substantially Disrupt Academic Activities, Policy on</td>
</tr>
<tr>
<td>55</td>
<td>Russell Archives</td>
</tr>
<tr>
<td>56</td>
<td>Russian courses</td>
</tr>
<tr>
<td>57</td>
<td>SA (Sessional Average) (defined)</td>
</tr>
<tr>
<td>58</td>
<td>SAT scores (Scholastic Aptitude Test)</td>
</tr>
<tr>
<td>59</td>
<td>SHADO (Sexual Harassment/Anti-Discrimination Office)</td>
</tr>
<tr>
<td>60</td>
<td>SOTA courses (School of the Arts)</td>
</tr>
<tr>
<td>61</td>
<td>Sanskrit courses</td>
</tr>
<tr>
<td>62</td>
<td>Schedules and Reservations, examinations, enquiries</td>
</tr>
<tr>
<td>63</td>
<td>Scholarships (see Undergraduate Academic Awards)</td>
</tr>
<tr>
<td>64</td>
<td>Scholarships and Prizes by Faculty, In-Course, Graduand and Second Degree</td>
</tr>
<tr>
<td>65</td>
<td>Scholarships, Student Financial Aid and, enquiries, description</td>
</tr>
<tr>
<td>67</td>
<td>School of the Arts, programmes, faculty listing, courses</td>
</tr>
<tr>
<td>68</td>
<td>School of Business, Michael G. DeGroote</td>
</tr>
<tr>
<td>68</td>
<td>School of Geography and Geology (B.S., B.A.)</td>
</tr>
<tr>
<td>69</td>
<td>School of Graduate Studies, enquiries</td>
</tr>
<tr>
<td>70</td>
<td>School of Medicine, described</td>
</tr>
<tr>
<td>71</td>
<td>School of Medicine, admission</td>
</tr>
<tr>
<td>72</td>
<td>School of Nursing, described</td>
</tr>
<tr>
<td>73</td>
<td>School of Nursing, admission</td>
</tr>
<tr>
<td>74</td>
<td>School of Social Work, programmes</td>
</tr>
<tr>
<td>75</td>
<td>Science Awards</td>
</tr>
<tr>
<td>76</td>
<td>Science Bursaries</td>
</tr>
<tr>
<td>77</td>
<td>Science (General) courses</td>
</tr>
<tr>
<td>78</td>
<td>Science I Course List</td>
</tr>
<tr>
<td>79</td>
<td>Science Inquiries, Community</td>
</tr>
<tr>
<td>80</td>
<td>Science (Complementary Studies Option) programme (see Honours Science programme)</td>
</tr>
<tr>
<td>81</td>
<td>Science, Faculty of</td>
</tr>
<tr>
<td>82</td>
<td>Second Baccalaureate Degree Students, Academic Awards for (Terms)</td>
</tr>
<tr>
<td>83</td>
<td>Second Bachelor's Degree, admission</td>
</tr>
<tr>
<td>84</td>
<td>Second Bachelor's Degree, regulations</td>
</tr>
<tr>
<td>85</td>
<td>Second Bachelor's Degree, regulation, Faculty of</td>
</tr>
<tr>
<td>86</td>
<td>Second Degree Awards, List of, In-Course, Graduand and</td>
</tr>
<tr>
<td>87</td>
<td>Second Degree Scholarships and Prizes by Faculty, In-Course, Graduand</td>
</tr>
<tr>
<td>88</td>
<td>Second Language Proficiency, Humanities</td>
</tr>
<tr>
<td>89</td>
<td>Second Undergraduate Degree</td>
</tr>
<tr>
<td>90</td>
<td>Session of Courses</td>
</tr>
<tr>
<td>91</td>
<td>Selection Procedure (Medicine, Midwifery)</td>
</tr>
<tr>
<td>92</td>
<td>Senate, members of</td>
</tr>
<tr>
<td>93</td>
<td>Senate Policy Statements</td>
</tr>
<tr>
<td>94</td>
<td>Senior, admission</td>
</tr>
<tr>
<td>95</td>
<td>Seniors, admission</td>
</tr>
<tr>
<td>96</td>
<td>Service Bursaries, Community</td>
</tr>
<tr>
<td>97</td>
<td>Services for Students with Disabilities, enquiries, description</td>
</tr>
<tr>
<td>98</td>
<td>Session (defined)</td>
</tr>
<tr>
<td>99</td>
<td>Session (defined for Awards)</td>
</tr>
<tr>
<td>100</td>
<td>Sessional Average (SA) (defined)</td>
</tr>
<tr>
<td>101</td>
<td>Sessional Dates</td>
</tr>
<tr>
<td>102</td>
<td>Sexual Harassment/Anti-Discrimination Office (SHADO)</td>
</tr>
<tr>
<td>103</td>
<td>Sexual Harassment Policy</td>
</tr>
<tr>
<td>104</td>
<td>Short-Term Emergency Loans</td>
</tr>
<tr>
<td>105</td>
<td>Six Nations Polytechnic Acceptance, Admission From</td>
</tr>
<tr>
<td>106</td>
<td>Social and Political Context of Social Work</td>
</tr>
<tr>
<td>107</td>
<td>Social Sciences Awards</td>
</tr>
<tr>
<td>108</td>
<td>Social Sciences Bursaries</td>
</tr>
<tr>
<td>109</td>
<td>Social Sciences (General) courses</td>
</tr>
<tr>
<td>110</td>
<td>Social Sciences, Faculty of</td>
</tr>
<tr>
<td>111</td>
<td>Social Work course groupings</td>
</tr>
<tr>
<td>112</td>
<td>Social Work courses</td>
</tr>
<tr>
<td>113</td>
<td>Social Work programmes (School of)</td>
</tr>
<tr>
<td>114</td>
<td>Society, Engineering and, courses</td>
</tr>
<tr>
<td>115</td>
<td>Sociology, Gerontology and, programme</td>
</tr>
<tr>
<td>116</td>
<td>Sociology courses</td>
</tr>
<tr>
<td>117</td>
<td>Sociology programmes (Department of)</td>
</tr>
<tr>
<td>118</td>
<td>Software, Computing and (Department of)</td>
</tr>
<tr>
<td>119</td>
<td>Software Engineering and Management programme</td>
</tr>
<tr>
<td>120</td>
<td>Software Engineering and Society programme</td>
</tr>
<tr>
<td>121</td>
<td>Software Engineering (B.Eng.) programme</td>
</tr>
<tr>
<td>122</td>
<td>Software engineering courses</td>
</tr>
<tr>
<td>123</td>
<td>Spatial Analysis and GIS (Geographical Information Systems), Diploma</td>
</tr>
<tr>
<td>124</td>
<td>Special Applicants (Medicine)</td>
</tr>
<tr>
<td>125</td>
<td>Special Assessment, Credit in Courses by</td>
</tr>
<tr>
<td>126</td>
<td>Specialist Option programmes (see Faculties and Social Sciences in Faculties, Programmes and Schools sections)</td>
</tr>
<tr>
<td>127</td>
<td>Specialization Options (see Faculties of Science and Social Sciences in Faculties, Programmes and Schools sections)</td>
</tr>
<tr>
<td>128</td>
<td>Specific Achievement Awards (Terms)</td>
</tr>
<tr>
<td>129</td>
<td>Spring Counselling (Health Sciences (Honours), Humanities, Science)</td>
</tr>
<tr>
<td>130</td>
<td>Spring/Summer Sessions, dates</td>
</tr>
<tr>
<td>131</td>
<td>statement on Human Rights</td>
</tr>
<tr>
<td>132</td>
<td>Statistics, Computer Science and, programme</td>
</tr>
</tbody>
</table>
Statistics Co-op, Mathematics and, programme ........................................ 106
Statistics courses ................................................................................. 237
Statistics, Mathematics and, programmes ........................................ 107, 108
Statistics, Mathematics and, programmes (Department of) .................. 107
Statistics programme ........................................................................... 108
Student Appeal Procedures .................................................................. 27
Student Affairs (Associate Vice-President), enquiries, description ........ 2, 298
Student Code of Conduct ...................................................................... 27
Student Counselling Service (see Centre for Student Development) ..... 
Student Development, Centre for, enquiries, description ................... 2, 298
Student Evaluation Methods (Medicine) .................................................. 55
Student Exchanges/Work and Study Abroad ........................................ 300
Student Financial Aid and Scholarships, enquiries, description ............ 2, 300, 304
Student Financial Aid Index .................................................................. 321
Student Government and Organizations ................................................ 302
Student Health Service (see Campus Health Centre) ............................
Student Health Services Fees ................................................................ 30
Student Liaison, enquiries ................................................................... 2
Student Records, access to ................................................................. 28
Student Services .................................................................................. 296
Student Services and Organizations, Academic Facilities .................... 295
Students with Disabilities, Bursaries for ............................................. 304, 309
Students with Disabilities, Services for ............................................... 2, 298
Study Abroad (see also Third Year Study Elsewhere) ......................... 21, 300
Subject Requirements for Specific Level I Programmes ....................... 11
Summer Immersion Programmes in French ......................................... 72
Summer Residence .............................................................................. 30
Supplementary Application Forms and Personal History ...................... 10
Supplementary Bursary Aid for Award Recipients .................................. 320
Supplementary Fees ............................................................................ 29
TOEFL (Test of English as a Foreign Language) .................................... 10
TWE (Test of Written English) ............................................................. 10
Technical Electives (Engineering) ......................................................... 38
Technology, Engineering (General) courses ......................................... 199
Technology, Manufacturing courses .................................................... 232
Term (defined) .................................................................................... 9
Terminology, Academic Awards ............................................................ 326
Terms of Awards .................................................................................. 327
Test of English as a Foreign Language (TOEFL) ................................... 10
Test of Written English (TWE) ............................................................. 10
Theatre & Film courses ......................................................................... 286
Theatre & Film Studies programmes ..................................................... 75
Thematic Areas, Interdisciplinary Minors and ....................................... 141
Third Year Study Elsewhere (Humanities, Science) .............................. 72, 88
Thode Library of Science and Engineering .......................................... 295
Three-Level B. Sc. programmes ........................................................... 88, 118-119
Transcript, defined ............................................................................... 9
Transcript requirements and Transcript Request Forms ........................
TRF (Medicine) .................................................................................... 58
Transfer between programmes .............................................................. 22
Transfers from Other Universities, admission ....................................... 15
Transfer of Course Credits, General Policy .......................................... 15
Transfer of Credit Between Faculties ..................................................... 20
Transfer of Programme After Admission .............................................. 11
Travel Bursary Programme .................................................................. 320
Travel Scholarships ............................................................................ 354
Tuition (defined) .................................................................................. 9
Tuition Fees ......................................................................................... 29, 30
Two-Tier Applications (Social Work) .................................................... 137, 138
Undergraduate Academic Awards ....................................................... 25, 326
Undergraduate Awards Index ............................................................... 355
Undergraduate Fees ............................................................................ 29
Undergraduate Health Professional Education Programmes ................ 50
Undergraduate Medical Programme .................................................... 55
Undergraduate Student (defined) ......................................................... 9
United States, admission from ............................................................. 15
Units (defined) ..................................................................................... 9
University Chaplains ........................................................................... 302
University Library ................................................................................ 295
University Policies .............................................................................. 4, 27
University Regulations .......................................................................... 20
University Wide Scholarships .............................................................. 354
Unsuccessful Applicants (Health Sciences) .............................................. 59, 61, 65
Upper Level Courses Available to All Students .................................. 7
Upper Level Courses Available to Students in Level II and above ............ 7
Upper Level Courses Available to Students in Level III and above .......... 7
User Fees ........................................................................................... 31
Using the Calendar .............................................................................
Videoconferencing (see McMaster Media Production Services) ........... 1
Visa, Students’ fees ............................................................................. 30
Visual Art, Foundation Studies, Diploma in .......................................... 144
Web Address (University) ................................................................... 1, 2
Web Addresses for Faculties and Departments (see Faculties, Programmes and Schools sections) ......................................................
Weighted Average (defined) ................................................................. 9
William Ready Division of Archives and Research Collections ........... 295
Winter Session, dates .......................................................................... 5
Withdrawal (defined) .......................................................................... 9
Withdrawal (cancelling, dropping) from a Course (see Sessional Dates) 20, 122
Withdrawal from the University ........................................................... 20, 122
Women’s Studies courses ..................................................................... 291
Women’s Studies programme ............................................................... 86
Workload (B.H.Sc. Honours) ................................................................. 54
Workload (Business) .......................................................................... 35
Workload (Engineering) ...................................................................... 39
Workload (Science) ............................................................................ 90
Work and Study Abroad/Student Exchanges ........................................ 300
Work-Study Programmes .................................................................... 304
Writing, Certificate in .......................................................................... 144
Requests for the Undergraduate Calendar are handled by the university bookstore Titles. The cost of the calendar is $3.00 (including taxes) plus shipping and handling. The chart below will help you in determining the total cost of your calendar needs.

<table>
<thead>
<tr>
<th>Copies</th>
<th>Canada</th>
<th>USA</th>
<th>Overseas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$7.00</td>
<td>$10.00</td>
<td>$20.00</td>
</tr>
<tr>
<td>2</td>
<td>$11.00</td>
<td>$14.00</td>
<td>$30.00</td>
</tr>
<tr>
<td>3</td>
<td>$15.00</td>
<td>$18.00</td>
<td>$35.00</td>
</tr>
</tbody>
</table>

Communication with the bookstore can be by the following methods:

- Mail: Titles Bookstore
  McMaster University
  1280 Main St W
  Hamilton, ON L8S 4L8

- e-mail: bookstr@mcmaster.ca
- fax: (905) 572-7160
- phone: (905) 525-9140 extension 24751
- www page: http://titles.mcmaster.ca

Payment must be included with any request. Payment can be by cheque, money order or credit card - Visa, MasterCard and American Express only. (Any request by email, fax or phone must be by credit card and must include credit card name, number, name of card holder and expiry date.)

For your convenience McMaster University Undergraduate calendars are also available via the Web at http://www.mcmaster.ca. From our homepage, enter "Prospective Students" and access "Undergraduate Calendar" or enter "Undergraduate Studies/Programs" and access "Course Calendar" to view the Calendars.