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# GRADUATE AND POSTDOCTORAL STUDIES CALENDAR 2006 - 2007

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## Dean's Welcome





**July 2006**

July 1, Sat. HOLIDAY **CANADA DAY.** Libraries closed.

**August 2006**

- Aug. 1, Tues. **REG** Last day for returning students in all faculties to register (except Continuing Education) without a late registration fee.
- Aug. 2, Wed. **REG** Late registration and course change on Minerva for returning students in all faculties (except Continuing Education) with a \$50 late registration fee (\$20 for Special students and Graduate part-time students).  
to  
Sept. 5,  
Tues.
- Aug. 2, Wed. IDCARD Canadian students can avoid line-ups and get their ID cards early on August 2, 3, 7, 8, 9, 10, 14, 15, 16 and 17 at the ARR Service Centre from 9 a.m. to 5 p.m. If you miss these dates, you can still get your card with everyone else – but you may have to wait longer in line.  
to  
Aug. 17,  
Thurs.
- Aug. 3, **REG** Registration using Minerva for all newly admitted students in Graduate  
Thurs. to  
Sept. 5,  
Tues.
- Aug. 7, Mon. IDCARD New students can avoid line-ups and get their ID cards early from August 7-11, 14-18, 21-25, at Laird Hall, Room 106, from 9 a.m. to 3 p.m. If you miss these dates, one will be worked in for you during Orientation activities.  
to  
Aug. 25, Fri.
- Aug. 15, **INFO** Last day for students to request fee  
Tues. exemptions and to submit legal documents for proof of Canadian citizenship and proof of Quebec residency to the Admissions, Recruitment and Registrar's Office for

DATE	ACTIVITY CODE	ACTIVITY
Sept. 6, Wed. to Sept. 19, Tues.	<b>REG</b>	Late registration period with \$100 late registration fee for all faculties; \$40 for Special students and Graduate part-time students.
Sept. 7, Thurs.	<b>ORIENT</b>	University Orientation for new postdoctoral scholars in Thomson House, 3650 McTavish Street, 5:00 p.m. - 6:00 p.m.
Sept. 19, Tues.	<b>W</b>	Deadline for Web withdrawing (grade of "W") from multi-term courses (D1/D2, N1/N2) that started in Summer 2006 ( <b>with fee refund for Fall term</b> ).
	<b>NOTE</b>	Please note that students in multi-term courses with course numbers ending in N1 and N2 only (started in the winter, skip the summer, are completed in the subsequent Fall term) may withdraw on Minerva until May 15 and following May 15 until the end of the Fall term course change period on <b>September 19</b> (with full refund for the Fall term) by contacting their faculty Student Affairs Office.
Sept. 19, Tues.	<b>REG</b>	Course Change (drop/add) deadline for Fall term and first part of multi-term courses starting in September 2006.
Sept. 22, Fri.	<b>AWRD</b>	Returning Master's and Doctoral level students should enquire of their departments or the GPSO (Graduate Fellowships and Awards) regarding precise deadlines for internal and external fellowship competitions; important deadlines normally fall during the months of October and November.
Sept. 24, Sun.	<b>W/W--</b>	Deadline to Web withdraw (grade of "W") with full refund (less \$100 minimum charge for returning students; less deposit or \$100 minimum charge for new students, in case of complete withdrawal from the University).
<b>October 2006</b>		
Oct. 2, Mon.	<b>THES</b>	Deadline for submission of doctoral theses with Nomination of Examiners forms to GPSO (Thesis Office) for students expecting to graduate in February 2007. Meeting this deadline does not guarantee a Winter graduation.
Oct. 4, Wed.	<b>EXCH</b>	2 <sup>nd</sup> Annual McGill Exchange Fair.
Oct. 9, Mon.	<b>HOLIDAY</b>	<b>THANKSGIVING DAY.</b> (Classes cancelled). Administrative offices closed. Continuing Education evening classes will be re-scheduled. All lectures, labs, conferences, etc. that were not held on Monday, October 9, 2006 because of Thanksgiving Day have been rescheduled to Tuesday, October 10, 2006.
Oct. 10, Tues.	<b>NOTE</b>	October 10th does not follow the normal schedule. All lectures, labs, conferences, etc. that were not held on Monday, October 9, 2006 because of Thanksgiving Day have been rescheduled to Tuesday, October 10, 2006.

Oct. 16, Mon.	<b>THES</b>	Deadline for submission of Master's theses with Nomination of Examiners forms to GPSO (Thesis Office) for students expecting to graduate in February 2007. Meeting this deadline does not guarantee a Winter graduation.
Oct. 19, Thurs. to Oct. 22, Sun.	<b>EVENT</b>	Homecoming 2006 (including Macdonald Campus Centenary activities).
Oct. 21, Sat. to Oct. 22, Sun.	<b>EVENT W</b>	Macdonald Centenary Homecoming. Deadline for Web withdrawing (grade of "W") from Fall term courses and Continuing Education Fall term courses ( <b>with no refund</b> ).
<b>November 2006</b>		
Nov. 10, Fri.	<b>CONV</b>	10:00 Fall Convocation 14:30 Fall Convocation
Nov. 16, Thurs. to Dec. 6, Wed.	<b>INFO</b>	MOLE Evaluation period for Fall term: McGill Online Evaluations available for completion on Minerva.
<b>December 2006</b>		
Dec. 4, Mon.	<b>INFO</b>	Deadline for all Undergraduate students and Graduate students in all <b>non-thesis</b> programs (certificates, diplomas [excluding Continuing Education] or master's non-thesis) who expect to complete their program requirements at the end of the Fall 2006 term (February 2007 graduation) to apply to graduate on Minerva.
Dec. 5, Tues.	<b>INFO</b>	Last day for students to request fee exemptions from and to submit legal documents for proof of Canadian citizenship and proof of Quebec residency to the Admissions, Recruitment and Registrar's Office for the Fall 2006 term. Students in Medicine or Continuing Education should submit their documents directly to their Faculty Student Affairs office or the Centre for Continuing Education. Documents received after this date will be updated for the following term only.
Dec. 5, Tues.	<b>LEC</b>	Last day of lectures.
Dec. 5, Tues. to Jan. 3, Wed.	<b>REG</b>	Winter term registration period for new students. Individual faculties and departments set their own dates within this period.
Dec. 6, Wed.	<b>INFO</b>	Study Day.
Dec. 7, Thurs. to Dec. 22, Fri.	<b>EXAM</b>	Examination period for Fall term courses and multi-term courses.
Dec. 15, Fri.	<b>REG</b>	Registration begins for Winter term Continuing Education courses via Minerva.
Dec. 25, Mon. to Jan. 2, Tues.	<b>HOLIDAY</b>	<b>CHRISTMAS AND NEW YEAR'S.</b> Administrative offices will be closed

**January 2007**

Jan. 1, Mon.	HOLIDAY	<b>NEW YEAR'S.</b> Administrative offices will be closed. Library hours available at Reference Desks.
Jan. 2, Tues.		
Jan. 3, Wed.	<b>REG</b>	Deadline for new students to register for Winter term without a late registration fee for all faculties.
Jan. 3, Wed.	LEC	Winter term lectures begin.
Jan. 3, Wed. to Jan. 19, Fri.	ORIENT	First-Year Resource Room opens daily (9:00 a.m. to 5:00 p.m.) Brown Student Services Building, Room 2007, 3600 McTavish Street.
Jan. 4, Thurs.	ORIENT	Faculty Orientation and Macdonald Centenary Overview for new undergraduate and graduate students in the Faculty of Agricultural and Environmental Sciences (5:30 p.m. - 6:30 p.m.), Ceilidh Centennial Center.
Jan. 4, Thurs. to Jan. 16, Tues.	<b>REG</b>	L under

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### **3 Programs Offered**

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#### **3.1 Graduate Diplomas and Certificates**

Graduate diplomas and graduate certificates are programs of study under the academic supervision of the Graduate and Postdoctoral Studies Office. They have as a prerequisite an under-

Housing (which includes Affordable Homes, Domestic Environments, and Minimum Cost Housing).

Prerequisites:

M.Arch. (professional degree) – McGill B.Sc.(Arch.) degree, or equivalent;

M.Arch. (post-professional degree) – an M.Arch. (professional degree) or equivalent professional degree.

See Architecture.

**Master of Arts Degree**

Programs leading to the degree of Master of Arts are offered in the following areas:

Anthropology (Thesis and Non-Thesis)

Medical Anthropology (Thesis and Non-Thesis)



**Prerequisites:**

Bachelor's degree in Social Work including courses in statistics and social science research methods. See Social Work.

**Special program:**

Joint M.S.W./Law.

**Master of Urban Planning Degree**

The program requires a minimum of two years residence and a three-month internship with a member of a recognized planning association.

**Prerequisites:**

Bachelor's degree in any one of the following: Anthropology, Architecture, Economics, Civil Engineering, Geography, Law, Management, Political Science, Social Work, Sociology or Urban Planning, with adequate knowledge of quantitative techniques. See Urban Planning.

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**3.4 Doctoral Degrees Offered****Doctor of Civil Law Degree**

Doctoral programs are offered in Air and Space Law and Law (Comparative Law). Both are predominantly research degrees awarded on the basis of a thesis that represents an original contribution to the development of legal science.

**Prerequisites:**

B.C.L. or LL.B. and usually LL.M. See Law.

**Doctor of Music Degree**

The Doctor of Music degree is offered in Composition. The

Doctoral thesis consists of a musical composition (a written and





program. If a previous awarded degree is a condition of admission, it must be fulfilled before registration in another program.

#### **4.2.2 Comprehensive Examinations – Doctoral**

**applicants must verify the deadlines with individual departments. Meeting minimum admission standards does not guarantee admission.**

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### 5.1 Application for Admission

Two procedures are available to apply for graduate admission: online and paper-based forms. Application information and the online application form are available at [www.mcgill.ca/applying/graduate](http://www.mcgill.ca/applying/graduate). Paper application packages should be obtained from individual departments.

Using either procedure, applicants (with some exceptions) are required to ask two instructors familiar with their work to send letters of recommendation. All applicants must themselves send, or ask the appropriate university authorities to send, two official or certified copies of their complete university-level academic record to date. For McGill graduates the appropriate authority is the Registrar. Letters of recommendation and official transcripts must be sent **directly** to the department concerned. Please note that all documents submitted to McGill University in support of an application to be admitted, including, but not limited to transcripts, diplomas, letters of reference and test scores, become the property of McGill University and will not be returned to the applicant or issuing institution under any circumstance.

A **non-refundable** fee of \$60 (\$100 for some Management programs) in Canadian funds **must** accompany each application, otherwise **it cannot be considered**. This sum must be paid by credit card if the online application is used. For paper applications, the fee must be paid in negotiable form, such as a bank draft, money order or certified cheque (but not in cash), at the current rate of exchange, or by credit card. Candidates for Special and Visiting Student, and Qualifying status must apply and pay the application fee every year.

It is recommended that applicants submit a list of the titles of courses taken in the major subject, since transcripts often give code numbers only. **Transcripts written in a language other than English or French must be accompanied by a certified translation.** An explanation of the grading system used by the applicant's university is essential. The applicant should also indicate the major subject area in which further study is desired.

Completed applications, with supporting documents, must reach departmental offices according to individual department deadlines. Applicants should contact the department concerned. International students are advised to apply well in advance of the deadlines as immigration procedures may be lengthy. Applications received after the prescribed dates will not be considered. Candidates will be notified of acceptance or refusal as quickly as possible. In cases of refusal, an official written appeal may be considered by the Associate Dean (Graduate and Postdoctoral Studies). The appeal fee is \$40.

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### 5.2 Graduate Record Examination and Other Admission Tests

The Graduate Record Examination (GRE) (Educational Testing Service, Princeton, N.J. 08540) consists of a relatively advanced test in the candidates' specialty, and a general test of their attainments in the several basic fields of knowledge, for which no special preparation is required or recommended. It is offered at many centres, including Montreal, several times a year; the entire examination takes about eight hours, and there is a registration fee. Only some departments require applicants to write the GRE examination, but all applicants who have written either the general aptitude or the advanced test are advised to submit the scores along with their other admission material.

This credential is of special importance in the case of applicants whose education has been interrupted, or has not led directly towards graduate study in the subject selected. In such cases the department has the right to insist on a report from the Graduate Record Examination or some similar test. High standing in this examination will not by itself guarantee admission. The Miller

Analogies Test may be used similarly. Some departments of the Faculty of Education also require the taking of various tests.

Applicants to graduate programs in Management must submit scores from the Graduate Management Admissions Test (GMAT).

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### 5.3 Competency in English

Non-Canadian applicants to graduate studies whose mother tongue is not English and who have not completed an undergraduate degree from a recognized institution where English is the language of instruction must submit documented proof of competency in oral and written English. **Before acceptance**, appropriate exam results must be submitted directly from the TOEFL or IELTS Office. An institutional version of the TOEFL is not acceptable. Examples of appropriate exam results are: TOEFL (Test of English as a Foreign Language) with a minimum score of 550 (or 213 on computer-based test or total of 86 on Internet-based test with each component having a score of not less than 20), or IELTS (International English Language Testing Systems) with a minimum overall band of 6.5. Permanent Residents may be required to submit a TOEFL score. Applications will not be considered if a TOEFL or IELTS test result is not available. Higher scores may be set by individual departments.

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### 5.4 Admission Requirements

twelve-month period, or pass the TOEFL with a score meeting the admission requirement of the graduate program for which the student has applied.

**Any students who fails to meet the English-language requirement within one calendar year of admission to the Parallel Admission Program will be asked to withdraw.**

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## 5.6 Admission to a Qualifying Program

Some applicants whose academic degrees and standing entitle them to serious consideration for admission to graduate studies, but who are considered inadequately prepared in the subject selected may be admitted to a Qualifying Program. The undergraduate-level courses to be taken in a Qualifying Program will be prescribed by the department concerned.

Qualifying students are registered in graduate studies, **but not as candidates for a degree**. Only one qualifying year (i.e., two full-time terms) is permitted.

In all cases, after the completion of a qualifying year or term, an applicant interested in commencing a degree program must apply for admission by the stated deadlines. In cases where a department recommends a change of registration from Qualifying Pro-

Half-time students are reminded that they must complete the degree within the time limitation imposed by the Graduate and Postdoctoral Studies Office, and that if they choose to be half-time they must: a) be so for an even number of half-time terms (i.e., two half-time terms equal one full-time term) and b) fulfil the minimum residence requirement in their program.

### 6.1.3 Part-time Students

Certain degree programs can be followed on part-time basis (e.g., M.Ed., M.Eng. non-thesis option, M.B.A., M.S.W. non-thesis option, and S.T.M.). Students in non-thesis programs (including the C.A. program) as well as Special, Visiting and Qualifying, Certificate and Diploma students, **not taking at least 12 credits per term**, are considered to be part-time. Students may, in some departments, proceed towards the degree on a part-time basis.

Part-time students are reminded that they must complete the degree within the time limitation imposed by the Graduate and Postdoctoral Studies Office.

Part-time students who do not take any courses or drop all courses, during any semester, automatically become non-resident students and are charged fees accordingly.

In cases of part-time and transfer students, all coursework might not be completed during the residency. It must therefore be completed during one or more additional terms (non-thesis extensions).

### 6.1.4 Additional Session (Thesis Programs) and Non-Thesis Extension (Non-Thesis Programs) Students

Students in additional session or non-thesis extension are students with a registration status of additional session (thesis programs) or non-thesis extension (non-thesis programs) and paying fees accordingly. The following are such students:

1. Graduate students who have completed the residency requirements in a Master's program.
2. Graduate students who have completed 8 full-time semesters in a doctoral program (when admitted to Ph.D. 1).
3. Graduate students who have completed 6 full-time semesters in a doctoral program (when admitted to Ph.D. 2).

In the doctoral program, students must be registered on a full-time basis for one more year after completion of the residency (i.e., Ph.D. 4 year) before continuing as additional session students until completion of the program. It is expected that, at this stage, all the course work and Comprehensive Examinations will have been completed and the student will be engaged in thesis preparation.

Graduate students in non-thesis programs, graduate diplomas and certificates who have registered for all required courses but have not completed the work and/or have completed the residency requirements must register as non-thesis extension students and pay fees accordingly. Students in a non-thesis extension session who are not registered for at least 12 credits per term, are not considered engaged in full-time studies.

### 6.1.5 Qualifying Students

Students admitted to a Qualifying Program are known as Qualifying Students. They must meet the minimum entrance requirements of the Graduate and Postdoctoral Studies Office. The courses taken during a qualifying year will not be credited towards a degree program. Students are registered in graduate studies but have not yet been admitted to a degree program. These students take a full load (12 credits minimum) per semester of undergraduate courses as specified by the department. Only one qualifying year is permitted.

### 6.1.6 Special Students

Students who meet the minimum entrance requirements of the Graduate and Postdoctoral Studies Office and wish to take **one, or at most two, graduate-level courses per term** (6 credits) without intention of proceeding to a degree or diploma are termed Special

Students. After completion of a maximum of 12 credits, an applicant **may not** continue as a Special Student.

If graduate Special Students subsequently become candidates for higher degrees, they may receive academic credit for relevant graduate courses taken as Special Students. They must apply every year.

**Students who wish to take undergraduate courses only must apply as Special Students in the undergraduate faculty concerned, even if they already hold degrees.**

### 6.1.7 Visiting Students

Visiting Students are those students who are registered in a degree program at another university and who have obtained written permission from both universities to take a course(s) for credit towards that degree program. Students studying in the province of Quebec who are in this category are eligible for a transfer of credit if the required permission is obtained on Quebec Inter-University Transfer forms. These forms are available on-line at [www.mcgill.ca/student-records/register/iut](http://www.mcgill.ca/student-records/register/iut). McGill students registering for courses required for their degree program at other Quebec universities are required to pay for the course(s) at the home university. McGill University and Université de Montréal participate in an exchange (graduate) with the University of British Columbia and the University of Toronto.

As a rule, graduate students should not register for courses through Inter-university Transfers (IUT) during the last semester before graduation. There are considerable delays in receiving official transcripts which delay the degree audit process and graduation. If special departmental permission is given for such a course to be taken in the last semester, there will be no extension given for the grade submission deadline.

### 6.1.8 Visiting Research Students

Graduate students registered in a degree program at another university who wish to come to McGill to do **research only** may do so after acceptance by the GPSO. The department recommending admission must specify "**Visiting Research**"

The student **must register as a Non-Resident student**, and pay the non-resident fee. Student services fees are not levied and the ID card is not validated. Students can only be non-resident for a maximum of one year. The non-resident fee is \$100 per term.

#### **6.1.10 Leave of Absence Status**

A leave of absence may be granted by the Graduate and Postdoctoral Studies Office for maternity or parenting reasons or for health reasons (see [section 10.6 "Health and Parental/Familial Leave of Absence Policy"](#)). Such a leave must be requested on a term by term basis and may be granted for a period of up to 52 weeks. Students and Postdocs must make a request for such a leave in writing to their department and submit a medical certificate justifying the leave. The department shall forward the request to the GPSO.

Students and Postdocs who have been granted such a leave will have to register for the term(s) in question and their registration will show as "leave of absence" on their record. No tuition fees will be charged for the duration of the authorized leave. Research



### 6.2.7 Time Limitation

Candidates for Master's degrees must complete the degree **within three years of initial registration**. If the degree is pursued strictly on a less than full-time basis, it must be completed within five years of initial registration.

In exceptional cases, a student who wishes to submit a thesis, or to complete outstanding degree requirements, after withdrawal may do so only on the recommendation of the department concerned. A graduate application must be submitted by stated deadlines and re-admission fees will apply. The final decision rests with GPSO.

By annual registration, **all** doctoral candidates may maintain their connection with the University **for four years** after completing their residence requirements.

The object of these regulations is to encourage candidates to complete their theses and qualify for their degree without undue delay.

*Council of the FGSR - February 2, 1996*

### 6.2.8 Withdrawal from a Degree Program

Departments have the right to ask students to withdraw from the program if progress is not satisfactory, or if they have failed two courses required for their program, or for lack of performance in research. Please see [section 6.9 "Failure Policy"](#).

Any student who withdraws from the University **must complete a Withdrawal Form** available from the Graduate and Postdoctoral Studies Office. Fees will then be refunded according to the conditions outlined in [section 6.5 "Course Change Period"](#) and in [section 6.6 "Regulations Concerning Withdrawal"](#).

### 6.2.9 Late Registration

Students who fail to register during the normal registration period may do so within the period designated by the University for late registration. They will be assessed a late registration fee as listed below:

**Returning Students:** May register late from Friday, August 4 until and including Tuesday, September 5 with the payment of a late registration fee of \$50 (\$20 for Special Students).

**New and Returning Students (Fall):** Students may register late via Minerva from Wednesday, September 6 until Tuesday, September 19 with the payment of a late registration fee of \$100 (\$40 for Special Students).

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## 6.3 Course Information

### 6.3.1 Course Numbering

Each McGill course is assigned a unique seven-character course "number".

**The first four characters (Subject Code)** refer to the unit offering the course.

These codes were implemented in September 2002, replacing the three-number Teaching Unit Codes previously used. A complete list of Teaching Unit Codes and their Subject Code equivalents can be found on the Web at [www.mcgill.ca/student-records/transcripts](http://www.mcgill.ca/student-records/transcripts).

**The three numbers following the Subject Code** refer to the course itself, with the first of these indicating the level of the course.

- Courses numbered at the 100, 200, 300, and 400 levels are intended for undergraduate students. In most programs courses at the 300 level and 400 level are normally taken in the student's last two years.
- Courses at the 500-level are upper-level undergraduate

particulière ou dans une discipline. Dans certains programmes, les étudiants doivent inclure un certain nombre de ces cours afin de satisfaire aux exigences du programme.

**Note: Complementary courses are not electives.** The difference between Complementary courses and Required courses is that Complementary courses offer an element of choice, however small that choice may be. Students may choose from the two (or more) courses specified within Complementary Course segment(s) of a program description, but ONLY from those.

**Elective course:** courses chosen freely (with advice and approval of the Graduate Program Director and GPSO).

#### 6.3.4 Class Schedule and Course Catalog

Students should consult Class Schedule when preparing to register ([www.mcgill.ca/courses](http://www.mcgill.ca/courses)). Here they will find up to date information including days and times when courses are offered, class locations, names of instructors, and course pre-requisites. Class Schedule only displays courses that are being offered in the term selected.

For a complete listing of all McGill courses, even if they are not offered in a given year or term, students may consult the Course Catalog at [www.mcgill.ca/courses](http://www.mcgill.ca/courses). Searches are conducted by term and provide information such as full course descriptions, course pre-requisites and registration requirements.

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### 6.4 Summer Studies

Registration regulations may change for Summer 2007. Detailed information about summer registration will also be available in March 2007 on the web at [www.mcgill.ca/gps/records/registration](http://www.mcgill.ca/gps/records/registration).

Graduate courses are available in some subject areas during the summer and the *Summer Studies Calendar* should be consulted for a complete listing of undergraduate and graduate level courses.

Students doing graduate work in Education are strongly advised to enrol in summer studies and many programs can only be completed by participation in summer studies.

Registration for courses for graduate students takes place via Minerva for the Summer session.



**6.6.3 Deadlines for University Withdrawal**

All students who have accessed Minerva to register must officially withdraw within deadlines if they decide not to attend the term(s) for which they have registered. See Withdrawal (W) deadline dates in the Calendar of Dates.

Students who wish to withdraw from the University by the deadlines indicated below must drop or withdraw from all courses on Minerva and submit a withdrawal form to GPSO.

**Fall Term:**

Deadline for University withdrawal with refund (minus \$100 for returning and \$200 for new students):

Sunday, September 24, 2006

**Winter Term:**

Deadline for University withdrawal with refund (minus \$100 for returning and \$200 for new students):

Sunday, January 21, 2007

Students who are blocked from dropping or withdrawing from their last course on Minerva are required to contact their Student Affairs Office.

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## 6.8 Verification of Student Record

### 6.8.1 Unofficial Transcripts

Students are responsible for verifying their academic record on Minerva using the unofficial transcript to ensure that they are registered in the proper courses, and that the correct program information and expected term of graduation is appearing on their record.

Graduating students must make sure to verify their record on Minerva prior to the end of term in which they are graduating to ensure that the correct expected term of graduation is indicated on their unofficial transcript; if not, the student may be overlooked for graduation. Any questions or problems with their record should be directed to the Graduate Program Director.

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## 6.9 Failure Policy

Students who have failed one course required by their department while registered as a graduate student may automatically write one supplemental examination, if the departmental policy permits, or retake that course or substitute an equivalent course. For the purposes of this policy, "required course" includes either a course required by the student's program of study, or a course that has been designated by the department for an individual student's program of study. Students with any further failures in that course, including the supplemental, or a failure in any other course, will be required to withdraw from their program of study. When a student retakes a course, he/she is required to pay the fee charged for the course in question. Ph.D. students and Master's students in thesis programs can also be required to

f 4 ( r ) 7

**To replace a damaged diploma or change the name on the diploma:**

Students must send or deliver the original diploma. Include clear and complete photocopies of legal documents supporting the name change. Please refer to [section 6.18, "Legal Name"](#) for the list of acceptable documents. Please note that the name change must be processed in the system before a duplicate diploma can be issued. Students must enclose a letter containing the following important information: full name; student number; address; phone number; date of birth; reason for a replacement diploma; new spelling/grammar changes.

**6.12.4 Dean's Honour List**

Only graduate students who have completed their program within the University's time limitation for their program are considered for the Dean's Honour List designation.

The criteria for inclusion in the Dean's Honour List is as follows:

**Master's Thesis Candidates:**

Truly outstanding student recommended by the department.

**6.13 Policy Concerning Access to Records**

Statements of account and all other correspondence are sent directly to students who retain full control as to who has access to their records or accounts. (Officers and members of the University staff may also have access to relevant parts of such records for recognized and legitimate use.) No progress report or any other information is sent to parents and/or sponsors unless specifically requested by the student in writing.

In accordance with the Act Respecting Access to Documents held by Public Bodies and the Protection of Personal Information (the "Access Act") personal information, including transcripts of academic records, may be released only with the authorization of the student. When a student applies to McGill, he/she authorizes the University to release certain personal information (name, address, telephone number, e-mail address, date of birth, program and student status) to the persons and bodies listed below.

The following persons and bodies are included in the authorization:

- a. libraries of other Quebec universities with which McGill established reciprocal borrowing agreement (ID number and bar code may also be disclosed to such libraries)
- b. the Quebec Ministère de l'Éducation, du Loisir et du Sport (MELS), in order to create, validate and/or modify the student's Permanent Code
- c. the appropriate authorities involved with the external or internal funding of the student's fees (financial records may also be disclosed to such authorities)
- d. the Association of Universities and Colleges of Canada
- e. the Association of Registrars of Universities and Colleges of Canada and the Conférence des recteurs et des principaux des universités du Québec, or the member institutions of these organizations, for the purpose of admissions operations and the production of statistics
- f. the school(s) or college(s) which the student attended
- g. students and alumni who have volunteered to speak with admitted students

h. the Student Associations recognized by the University of Quebec

i. the Registrar of the University of Quebec

j. the Registrar of the University of Quebec

Strategies to prevent cheating are also provided on the Integrity Website. The possession or use of unauthorized materials in any test or examination constitutes cheating. Responses on multiple-choice examinations are normally checked by the exam security computer monitoring program. The program detects pairs of stu-



Student Affairs Office will be closed on Thursday, June 22 and Thursday, June 29, followed by the statutory holidays of Friday, June 23rd and Friday, June 30th. The regular Monday through Fri-









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## 7.9 Extra-Curricular Activities

There are over 250 activities and clubs which students may join. These include international clubs; religious groups; political clubs; fraternities; communications groups such as Radio McGill, the *McGill Tribune*, and the *McGill Daily*; and some 50 miscellaneous groups (e.g., science clubs; literary, theatrical and musical societies; a chess club; and the McGill Outing Club).

The University Centre, 3480 McTavish Street, provides club rooms for these activities in a four-storey building with cafeterias, a ballroom, lounges and an experimental theatre. Activities for graduate students are centred in David Thompson House at 3650 McTavish Street. On the Macdonald Campus facilities are located in the Centennial Centre (refer to FAES section).

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## 7.10 Ombudsperson for Students

The position of Ombudsperson for Students is filled on a half-time basis by an academic staff member. The Ombudsperson receives complaints from students and assists in the resolution of those complaints through informal means including information, advice, intervention, and referrals with a view to avoiding the more formal grievance procedures that already exist in the University.

The Office of the Ombudsperson is a confidential, independent, and neutral dispute resolution service for all members of the student community. Please call (514) 398-7059 for an appointment. Office of the Ombudsperson, Brown Building, Room 5202  
Website: [www.mcgill.ca/ombudsperson](http://www.mcgill.ca/ombudsperson)

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## 7.11 Bookstore

The McGill University Bookstore stocks new and used textbooks, a full range of books for the academic and professional community, stationery supplies, and McGill insignia clothing and gift items.

3420 McTavish Street Telephone: (514) 398-7444  
Website: [www.mcgill.ca/bookstore](http://www.mcgill.ca/bookstore)

Macdonald Bookstore Telephone: (514) 398-8300  
Centennial Centre

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## 7.12 Computer Store

The McGill Computer Store, located on the second floor of the University Bookstore, sells a full range of PC, Macintosh and Unix hardware, computer software and consumer electronics at educational prices.

3420 McTavish Street Telephone: (514) 398-5025  
Website: [www.mcs.mcgill.ca](http://www.mcs.mcgill.ca) [sales.mcs@mcgill.ca](mailto:sales.mcs@mcgill.ca)

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## 7.13 Day Care

The McGill Childcare Centre is an independently run centre which can accommodate approximately 100 children, ranging in age from 4 months to 5 years. As placements are limited, especially for certain age groups, early application is suggested.

The Centre is located at:

3491 Peel Street, Montreal, QC H3A 1W7  
Telephone: (514) 398-6943

A Campus Day Care Centre, located adjacent to the Macdonald Campus, is an independently run centre which can accommodate approximately 60 children, ranging in age from 4 months to 5



\* All students making application to the Graduate and Postdoctoral Studies Office are required to pay this fee, including those already registered at McGill.

If a department or an applicant defers an admission within the following year, the application fee need not be paid again.

\*\* Students will be charged a graduation fee in their graduating year according to the following schedule: February graduation - end of November; May graduation - end of February; and October graduation - end of March. Students added to the graduation lists late will be charged accordingly.

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## **8.7 Billings and Due Dates**

### **Confirmation of Acceptance Deposit**

add/drop period. **Failure to do so will lead to the current term's registration being cancelled.**

### 8.9.2 Acceptance of Fees vs. Academic Standing

Acceptance of fees by the University in no way guarantees that students will receive academic permission to pursue their studies. If it is subsequently determined that the academic standing does not permit the student to continue, all fees paid in advance will be refunded on application to the Student Accounts Office.

### 8.9.3 Fees for Students in Two Programs

Students in two programs normally are billed additional fees for their second program. Depending on the level of the two programs, e.g., one program at the undergraduate vs. one program at the graduate level, students may incur both society and faculty fees and/or additional tuition fees. Consult the student accounts Website for further details.

Students in two programs may consult the Admissions, Recruitment and Registrar's Office for information on tuition fees. Adjustments to bills will be made throughout the term when fees cannot be automatically calculated.

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## 8.10 Deferred Fee Payment

### 8.10.1 Students with Sponsors

Students whose fees will be paid by an outside agency such as the Department of Veterans Affairs, CIDA, a foreign government, or their University department (i.e., teaching assistants or demonstrators), must have written evidence to that effect. Sponsors and students alike must inform the University that a sponsorship is taking place so that the contract may be initiated and the student's fee account affected. Notification to the University should occur at least one month prior to the beginning of the term in which the contract is to take effect. Full documentation on the procedure as well as the forms required to be completed are found at [www.mcgill.ca/student-accounts/third](http://www.mcgill.ca/student-accounts/third).

When a third party has agreed to pay fees on behalf of a student, payment will be recorded on the fee account, thereby reducing the balance the student must pay. The University reserves the right to insist upon payment. If the third party does not pay the promised fees within 90 days of invoicing, the student will be responsible for paying the fees plus the late payment fee and accrued interest.

### 8.10.2 Students Receiving McGill Scholarships/Awards

**Fall Term:** McGill scholarships or awards normally are credited to the recipient's fee account by mid-August. These awards have the effect of reducing the student's outstanding balance.

**Winter Term:** Students can view upcoming Winter term scholarships or awards on Minerva once processed by the Student Aid Office. These awards are future-dated and will be released to the student's fee account by January 3.

### 8.10.3 Students Receiving Government Aid

Students are encouraged to pay their tuition promptly upon receipt of their government assistance. Interest on outstanding tuition is charged monthly beginning in August for returning students and in September for new students. Students who have applied for government assistance for full-time studies by June 30 (June 1st for US students) will be entitled to an exemption of interest and late

**CERTAIN SPECIAL PROGRAMS CHARGE DIFFERENT FEES**

**M.B.A. (Master's in Business Administration)**

**International Master's Program for Practising Managers**

All students – all fees: \$42,500 U.S.

**Master in Manufacturing Management**

The tuition fees over the program (normally 4 terms) will total \$25,000. Other fees are estimated to be as follows for the Fall and Winter terms:

McGill professors, including Adjunct Professors. They are expected to be engaged primarily in research with minimal teaching or other responsibilities.

## **2. Registration**

- i. Postdocs must be registered annually with the University through the Graduate and Postdoctoral Studies Office. Initial registration will require an original or notarized copy of the Ph.D. diploma. Registration will be limited to persons who fulfil the definition above and for whom there is an assurance of appropriate funding and where the unit can provide assurance of the necessary resources to permit postdoctoral education.
- ii. Upon registration, the Postdoc will be provided with a University identity card issued by the Registrar's Office.

## **3. Appointment, Pay, Agreement of Conditions**

- i. Upon registration, all Postdocs must be appointed regardless of whether their funding comes from a McGill account. Their appointments may not exceed their registration status.
- ii. In order to be registered as a Postdoc, an individual must be assured of financial support, other than from personal means, during his/her stay in the University equivalent, at the time of appointment, to the minimal stipend requirement as set by the University in accordance with guidelines set by federal and provincial research granting agencies. There are no provisions for paid family leave unless this is stipulated in the regulations of a funding agency outside the University.
- iii. At the outset of a postdoctoral appointment, a written Letter of Agreement for Postdoctoral Education should be drawn up and signed by the Postdoc, the supervisor, and the department head or delegate (see template Letter of Agreement on the Web at [www.mcgill.ca/gps/postdoc](http://www.mcgill.ca/gps/postdoc)). This should stipulate, for example, the purpose of the postdoctoral appointment (research and the advancement of knowledge), the duration of the fellowship/stipend, the modality of pay, the work space, travel funds, and expectations and compensation for teaching and student research supervision. Leaves from postdoctoral education must comply with the Graduate and Postdoctoral Studies Policies for Vacation, Parental/Familial, and Health Leave (Graduate and Postdoctoral Studies General Information [section 10.3 "Vacation Policy for Graduate Students and Postdocs"](#))

*Information, Regulations and Research Guidelines* booklet of the Graduate and Postdoctoral Studies Office;

- to present themselves for registration to the Graduate & Postdoctoral Studies Office with a complete submission;
- to sign and adhere to their Letter of Agreement for Postdoctoral Education;
- to communicate regularly with their supervisor;
- to inform their supervisor of their absences.

vii. Some examples of the responsibilities of the University are:

- to register Postdocs;
- to provide an appeal mechanism in cases of conflict;
- to help eligible Postdocs who have non-resident status in virtue of the Quebec Taxation Act to obtain a Certificate of Eligibility to the Quebec Tax Exemption for Postdoctoral Researchers;
- to provide documented policies and procedures to Postdocs;
- to provide Postdocs with the necessary contacts for language courses, housing, immigration, daycare, schooling, and health care information.

Approved by Senate April 2000.

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### **9.3 Vacation Policy for Graduate Students and**



with supervisors and committees, attendance at research seminars, semester or annual reviews of student progress). In addition to regular meetings between the student and supervisor or advisory/thesis committee, each unit must establish a procedure to provide feedback to thesis students regarding their research progress. At least annually, there must be a meeting between the student, supervisor and advisory/thesis committee or, in the case where there is no such advisory/thesis committee, there must be a meeting between the supervisor and a departmental representative, at which objectives for the upcoming year are established and the prior year's research progress recorded and evaluated. A written record of such meetings must include the signature of the student, supervisor, and the advisory/thesis committee member or a departmental representative, and this record must be retained in the student's departmental file. (The Graduate Student Research Objectives Report Form, the Graduate Student Research Progress Record, and the Graduate Student Research Progress Report Form are to be utilized to keep a record of these meetings.) In the case where they must be





statement indicating that the student has already met with the faculty member responsible for the course to review the mark or indicating why this has not been possible. The reread fee

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## **11.2 University Archives**

The McGill University Archives (MUA) acquires, preserves and makes available to researchers (including students) of all disciplines more than 5,000 metres of records dating from 1797 to the present. These records document the history of McGill University faculty research, alumni and student organizations, and select Montreal-based organizations, all in a variety of media (including

On the WebCT Vista Website at [www.mcgill.ca/webct](http://www.mcgill.ca/webct) students will find an overview of WebCT Vista tools, task-oriented how-tos and general advice for student success with educational technology. Help is available on-line via the ICS Virtual Help Desk at [www.mcgill.ca/ics/vhd](http://www.mcgill.ca/ics/vhd) or by phone at (514) 398-3398.

#### **12.1.4 Computer Labs**

The computer labs are provided by many faculties and departments for students in their programs. A list of these labs can be found at [www.mcgill.ca/index/computer](http://www.mcgill.ca/index/computer). Check the unit listings or contact the unit directly for information concerning facilities and accessibility.

#### **12.1.5 Instructional Multimedia Services (IMS)**

Instructional Multimedia Services (IMS) provides services related to the use of technology in teaching. It is McGill's central facility for the loan of audiovisual equipment and support for video production.

The IMS Audiovisual Arrangements Section located in the lobby of the Redpath Library and the IMS office at the Macdonald Campus house a full range of audio, video, computer, and projection equipment available for loan to McGill students. Equipment is provided free of charge for credit course activities. Training in equipment use is available and advance reservations are highly recommended. Further details are available on the IMS Website, [www.mcgill.ca/ims/equipment/loan](http://www.mcgill.ca/ims/equipment/loan).

The IMS also maintains two video editing suites available for staff and students who wish to produce their own programs. These suites are self-instructional, and sessions should be reserved in advance. For more information or to reserve a session, please contact the IMS Main Office, 688 Sherbrooke St. W., Suite 1600, (514) 398-7200.

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## **13 Research Policy, Patents, Postdocs, Associates, Trainees**

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### **13.1 Policy on Research Ethics**

research resources for personal or any other use, except in cases where the grant or contract specifically provides otherwise.

Nothing in the provisions of this policy is intended to impugn the actions of a person who has made an honest error, or who exercises judgement or interprets data or designs experiments in a way which may reasonably be the subject of honest differences of opinion.

**6. Duties Where Research with Human and Animal Subjects is Concerned**

*(a) Human Subjects*

All research involving human subjects must be conducted in a manner consistent with the highest scholarly and ethical standards, in accordance with the regulations and guidelines prescribed by Law, the Tri-Council Policy State148d2r.de3o

accordance with the disciplinary procedures generally applicable to that person. For the purposes of those procedures, misconduct under this Policy is a matter subject to discipline pursuant to those procedures. Any allegation of misconduct under this Policy made against a student shall be dealt with in accordance with the procedures established under the Senate Code on Student Conduct and Disciplinary Procedures, and, for the purposes of that Code, misconduct under this Policy is an academic offence.

*Approved by Senate, March 22, 1995.*

*Approved by Board of Governors, May 29, 1995*

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## **13.2 Regulations on Research Policy**

### **Preamble**

Research in the University is relevant for the general benefits of





the secondary use of data previously collected from human subjects; identifiable private information about an individual; human remains, cadavers, human organs, tissues and biological fluids,





wherein ownership rights are determined by specific terms of the agreement. Unless the terms of the agreement give owner-

**6.13 Tangible Research Material:**

Tangible Research Material ("TRM"), may be distributed for academic purposes under agreements forbidding transfer to third parties. Where TRM is distributed for academic purposes, OTT charges recipients only costs related to reproduction, shipping, and handling. Where commercial development is envisaged, or where TRM is received from, or transferred to, a commercial entes,6tr



(Research) and all other parties having an interest in the outcome of the dispute of his request to appoint a Hearing Subcommittee, and shall promptly provide them with a copy of the notice to appeal and all documentation and representations filed with the Office of the Secretary-General.

**11.6 Dispute on Commercialization Plan:**

Where the dispute submitted to the Hearing Subcommittee concerns the commercialization plan, the parties shall file with the Hearing Subcommittee the plans they are proposing. The Hearing Subcommittee shall have jurisdiction to decide which of the commercialization plans should be implemented. The Hearing Subcommittee shall also have the power to propose an alternative commercialization plan, in which case it shall indicate which of the parties shall be responsible for its implementation.

**11.7 Secretary:**

The Office of the Secretary-General shall provide a secretary for the Intellectual Property Appeals Committee.

**11.8 Hearing and Decision:**

The Hearing Subcommittee shall conduct the appeal in a manner consistent with principles of natural justice and shall ensure that all parties having an interest in the outcome of the decision have an opportunity to make representations and shall render a decision within 15 working days of its constitution, unless the parties consent in writing to a longer delay.

**11.9 Advisors:**

A party to the appeal has the right to be assisted by a member of the University community who has agreed to act in an advisory capacity to that party. The advisor shall receive no remuneration for acting as an advisor.

**11.10 No Further Appeal:**

The decision of the Subcommittee shall be final and binding upon all parties.

**11.11 Reports:**

The Intellectual Property Appeals Committee shall report annually to Senate on the administration of the procedures described here.

**12. Enforcement**

Acceptance of this policy is a



Where such enterprise has made a grant, gift or donation to the University, no payment out of such grant, gift or donation shall be made to the interested member without prior approval of the Principal.

Members intending to acquire an economic interest in an enterprise shall inform all students who may be affected by their actions at the earliest possible date. Students shall immediately be free to seek the advice of the Departmental Chair, the Dean of the Faculty, or the Dean of Graduate and Postdoctoral Studies.

Where students are employed by such enterprise, the member having an interest therein shall ensure that students who have already done substantial work under their academic supervisor shall be able to continue in their chosen area of research. Where it is possible to differentiate between the project of the thesis student and that of the enterprise in such a way that the student may continue the thesis project unhampered, the Dean of Graduate and Postdoctoral Studies shall arrange for the appointment of a co-supervisor unconnected with the enterprise.

No attribute of or reference to the University or any of its officials, affiliated colleagues, associations or organizations, including the name or insignia shall be used to promote the enterprises of members, except where required by law.

Where members acquire an interest in enterprises set up by their colleagues, they do so as private individuals, and may not permit their official University positions to be used for publicity, endorsement or advertising purposes except where required by law.

*Approved by Senate, April 3, 1985, Minute 75*  
*Approved by Board of Governors, November 18, 1985,*  
*Minute 5922*

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### **13.8 Safety in Field Work**

This policy has been established in light of the fact that research and teaching activities performed outside of the University's geographical boundaries may involve particular risks to the participants. It must be recognized that the risks associated with the work performed, the availability of University support services, the level of supervision, accessibility to emergency services, and local government legal requirements may differ significantly from activities carried out on University premises. Reasonable efforts must be made to ensure that all policies pertaining to the safety of University staff and students be used as minimum standards for field work.

The responsibility for ensuring these standards are considered rests on all persons who participate in the teaching and research activities in the field. The University expects those persons who directly supervise and carry out teaching and research in the field to inform the participants of these standards.

The following factors must be considered before undertaking



Office of International Research, 1555 Peel Street, 11th floor,  
Telephone: (514) 398-4197 Fax: (514) 398-6878  
E-mail: francois.carrier@mcgill.ca  
Website: [www.mcgill.ca/international](http://www.mcgill.ca/international)

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### 13.13 Postdocs

See [section 9.1 "Postdocs"](#) for information on Postdoctoral Research.

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### 13.14 Research Associates

A Research Associate is a senior career researcher who usually works independently, in most cases has a Ph.D. or equivalent, and is often supported directly by outside granting agencies.

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### 13.15 Academic Trainees

Academic Trainees are persons working, for or without remuneration, to perfect their skills.

Academic Trainees are invited by the University to conduct their activities on campus under academic supervision, and are typically from industry or on an exchange.

"Academic Trainee" is not a work or employee classification; rather it is closer to "stagiaire" in French, a person who is carrying out a "practicum". Academic Trainees are not registered as students, postdocs or graduate students at McGill or elsewhere, but are pursuing further training in their respective fields.













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graduate studies, **but not as candidates for a degree**. Only one qualifying year is permitted. **Successful completion of a qualifying program does not guarantee admission to a degree program.**

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## 1.5 Program Requirements

### **M.Sc. in Agricultural Economics (Thesis)** (46 credits)

Students may specialize, by way of their research program, in agribusiness, development, finance, marketing and trade, policy, and resource and ecological economics.

**Required Course** (1 credit)

★ **AGEC 633 ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS.** (3) An advanced course in the theory and problems of environmental and resource economics and in the analytical techniques used to assess environmental and resource use issues.

**AGEC 642 ECONOMICS OF AGRICULTURAL DEVELOPMENT.** (3) This course focuses on the role of agriculture in economic development. Topics covered will be - development theories, economic efficiency, employment, technology adoption and structural change in developing countries. Also, agriculture, food and development policies and implications for long term planning will be discussed.

**AGEC 679 FINANCING: ALTERNATIVE S**

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## 1.6 Courses

Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.

The course credit weight is given in parentheses after the title.

**AGEC 503 LOCATION & SPATIAL DEVELOPMENT.** (3) (Winter) (Prerequisite: GEOG 216 and GEO 202, or one course in each of microeconomics and macroeconomics, or permission of instructor.) (Not open to students who have taken GEOG 503) Patterns of regional economic growth or decline explained in terms of the competitive behaviour of profit-maximizing firms and utility-maximizing households. Ideas, models and evidence developed in competitive location theory.

**AGEC 611 PRICE ANALYSIS.** (3) Topics in advanced microeconomic theory with applications in agricultural economics.

**AGEC 630 FOOD AND AGRICULTURAL POLICY.** (3) This course examines the role of government in the agriculture and food industry through the nature and causes of the problems addressed, the instruments and institutions by which policy is implemented and the effects of different policies. Emphasis is placed on the application of economic models to analyze policy problems.

P. Barker\*; B.Sc.(S.Fraser), Ph.D.(Alta.)  
O.W. Blaschuk\*; B.Sc.(Winn.), M.Sc.(Man.), Ph.D.(Tor.)  
E. Daniels; M.Sc., Ph.D.(Man.)  
S. David\*; Ph.D.(Man.)  
E. Davis; B.Sc., M.Sc.(W.Ont.), Ph.D.(McG.)  
T. Kennedy\*; B.Sc.(McM.), M.Phil., Ph.D.(Col.)  
M.F. Lalli; B.S., M.A.(Bowling Green), Ph.D.(McG.)  
N. Lamarche-Vane; B.Sc., Ph.D.(Montr.)  
M. Latterich; B.Sc., Ph.D.(Durham)  
M. McKee\*; B.Sc.,M.Sc.,Ph.D.(McG.)  
P. McPherson\*; M.Sc.(Man.), Ph.D.(Iowa)  
D. Reinhardt; M.S.(Kaiserslautern), Ph.D.(Munich)  
W. Sossin\*; S.B.(MIT), Ph.D.(Stan.)  
S. Stifani\*; Ph.D.(Rome), Ph.D.(Alta.)  
H. Vali\*; B.Sc., M.Sc., Ph.D.(Munich)  
D. Walker\*; B.Sc.(Geneva), Ph.D.(Salk), Ph.D.(Geneva)

*Assistant Professors*

F. Bedford; B.Sc.(Birm.), Ph.D.(Lond.)  
E. Chevet; M.Sc. Ph.D. (Paris)  
M. Greenwood\*; B.Sc.,M.Sc.(C'dia), Ph.D.(McG.)  
C. Mandato; B.Sc., Ph.D.(Wat.)  
J.F. Presley; B.A., Ph.D.(Texas)

*Associate Members*

A. Berghuis, C. Chalk, J.F. Clouti

McGill's online application form for graduate program candidates is available at [www.mcgill.ca/applying/graduate](http://www.mcgill.ca/applying/graduate).

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## **2.5 Program Requirements**

The M.Sc. program is a 48-credit program. Students must complete 15 credits in course work and 33 credits of thesis research (ANAT 698 and ANAT 699).

For the Ph.D. degree, the student must complete a series of courses selected to suit individual requirements. In addition, Ph.D. candidates will write a comprehensive examination after the end of the first year.

For both degrees, the major emphasis is placed on the conduct of original research and the preparation of a thesis.





**M.Sc. Applied** (45 credits)

The M.Sc. Applied (non-thesis) degree is oriented to animal scientists already working in industry or government, to undergraduate students inspired by concepts in sustainable and integrated animal agriculture, to project leaders interested in animal resource management and to veterinarians. The program aims to provide graduate training in applied areas of animal production with a view towards integrating technology and management in animal production with allied areas of agricultural resource utilization.

**Project Component – Required** (15 credits)

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**3.6 Courses**

Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses avadaysourimesouloc(ect sou0Eist dw)Tj/1.

**Ph.D.**

Since the Ph.D. is primarily a research degree, the amount of course work required may comprise a smaller portion of the total than is the case for the M.Sc., this will depend on the background of the individual student, and must be approved by the student's advisory committee. This course work must include two seminar courses at the graduate level and the Ph.D. Comprehensive Examination ANSC 701.

The thesis must clearly show originality and be a contribution to knowledge.

**Ph.D. in Animal Science– Bioinformatics  
Option/Concentration****Required Courses** (5 credits)



**ANSC 701D1 (0), ANSC 701D2 (0) DOCTORAL COMPREHENSIVE EXAMINATION.** (Students must register for both ANSC 701D1 and ANSC 701D2) (No credit will be given for this course unless both ANSC 701D1 and ANSC 701D2 are successfully completed in consecutive terms) (ANSC 701D1 and ANSC 701D2 together are equivalent to ANSC 701)

**ANSC 797 ANIMAL SCIENCE SEMINAR 3.** (1) (1 hour) One of two seminars to be given by all students in a Ph.D. program. Review of literature in relation to the student's proposed research and an experimental design of the research to be conducted.

**ANSC 798 ANIMAL SCIENCE SEMINAR 4.** (1) (1 hour) One of two seminars to be given by all students in a Ph.D. program. Presentation of a current scientific topic which is not related to the student's research. The topic for the presentation should be cleared by the thesis supervisor.

## 4 Anthropology

Department of Anthropology  
Stephen Leacock Building  
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Website: [www.mcgill.ca/anthropology](http://www.mcgill.ca/anthropology)

Chair — Michael S. Bisson

### 4.1 Staff

#### Professors

Donald W. Attwood; A.B.(Calif.), Ph.D.(McG.)

Colin A. Chapman; B.Sc., M.A., Ph.D. (Alta.) (*joint appoint. with McGill School for Environment*)

Margaret Lock; B.Sc.(Leeds), M.A., Ph.D.(Calif.) (*joint appt. with Social Studies of Medicine*)

Jérôme Rousseau; M.A.(Montr.), Ph.D.(Cant.)

Philip Carl Salzman; A.B.(Antioch), M.A., Ph.D.(Chic.)

Bruce G. Trigger; B.A.(Tor.), Ph.D.(Yale), F.R.S.C. (*James McGill Professor*)

Allan Young; B.A.(Penn.), M.A.(Wash.), Ph.D.(Penn.) (*joint appt. with Social Studies of Medicine*)

#### Associate Professors

Michael S. Bisson; B.A., M.A., Ph.D.(Calif.)

Laurel Bossen; B.A.(Barnard), M.A., Ph.D.(SUNY, Albany)

Ellen Corin; B.A., M.A., Ph.D.(Louvain) (*joint appt. with Psychiatry*)

John Galaty; M.A., Ph.D.(Chic.)

Carmen Lambert; B.A.(Montr.), M.A., Ph.D.(McG.)

Ronald W. Niezen; B.A.(Br.Col.), M.Phil., Ph.D.(Camb.)

Kristin Norget; B.A.(Vic.,B.C.), M.Phil., D.Phil.(Cant.)

James M. Savelle; B.Sc., M.Sc.(Ott.), M.A.(Ark.), Ph.D.(Alta.)

Colin H. Scott; B.A.(Regina), M.A., Ph.D.(McG.)

#### Assistant Professors

André Costopoulos; B.A.(McG.), M.Sc.(Montr.), Ph.D.(Oulu, Finland)

Ismael Vaccaro; B.A.(Barcelona), M.A.(E.H.E.SS. Paris), M.A., Ph.D.(Wash.) (*joint appointment with M.S.E.*)

Nicole Couture; B.A.(Trent), M.A., Ph.D.(Chic.)

Sandra T. Hyde; B.A.(Calif., Santa Cruz), M.P.H.(Hawaii), Ph.D.(U.C. Berkeley)

Setrag Manoukian; Laurea, (U.di Venezia), M.A., Ph.D.(Mich.) (*joint appointment with Institute of Islamic Studies*)

### 4.2 Programs Offered

The Department offers training leading to the M.A. and Ph.D. in Anthropology. Admission is to the M.A. program, except when a student already holds a Master's degree. It is expected, however,

that most applicants will be oriented towards achievement of the Ph.D.

The Department offers several alternative M.A. programs:

1. M.A. with thesis;
2. M.A. with research paper;
3. M.A. in Medical Anthropology, with or without thesis.

### 4.3 Admission Requirements

#### Master's

Admission to the M.A. program is open competitively to students holding an Honours or Major B.A. in Anthropology. Outstanding candidates with B.A. degrees in other disciplines but with substantial background related to anthropology are sometimes admitted on the condition that they complete a specified number of additional courses in Anthropology.

The applicants admitted usually have undergraduate Grade Point Averages of 3.5 or above on a 4.0 point scale.

#### Ph.D.

Admission to the Ph.D. program is open competitively to students with a Master's degree in Anthropology. In very special circumstances candidates with Master's degrees in related disciplines may be admitted.

### 4.4 Application Procedures

The deadlines for receipt of all application material for September admission is January 1.

Applications will be considered upon receipt of:

1. Graduate Application Form;
2. application fee (\$80), official transcripts;
3. two letters of recommendation;
4. statement of research interests (including reasons for wanting to pursue them at McGill);
5. test results (GRE); and
6. test results (TOEFL), if required.  
(For international students who have not completed a previous degree at an English language university, a minimum TOEFL score of 600 on paper-based, 250 on computer-based test or 100 on an Internet-based test (IBT), with each component score not less than 20, is required.)

The Department admissions committee announces its selections by mid-March.

A number of teaching assistantships are available to graduate students in the Department. Applicants who wish to be considered for an assistantship, a McGill Recruitment Fellowship, or for Differential Fee Waivers (for international students) should include a note to that effect with their applications. For information regarding a variety of other fellowship programs, see the "Graduate Fellowships and Awards" section of the Graduate and Postdoctoral Studies Calendar.

Application information is available on the Department Website.

### 4.5 Program Requirements

#### M.A. Degree

The purpose of the M.A. program is to provide advanced level training in anthropology and to prepare students for research at the Ph.D. level.

#### M.A. Degree with Thesis (48 credits)

The Master's degree with thesis is a 48-credit program: 4 courses (12 credits) and the M.A. thesis (36 credits).

The student's program of work, which is based on his/her research interests, is developed in consultation with the student's supervisor and the two other members of his or her advisory committee. Students are required to take four courses in the form of seminars and/or tutorials. The set of four courses should be directed toward and converge in the thesis research. M.A. thesis

research may take the form of fieldwork but a library thesis is strongly advised so that students can proceed more rapidly to the Ph.D.

**M.A. Degree with Research Paper** (45 credits)

**ANTH 511 COMPUTATIONAL APPROACHES TO PREHISTORY. (3)**  
(Winter) (Prerequisites: ANTH 357 or ANTH 359.) (Restriction:  
Restricted to U3 and graduate students in the Anthropology  
Department.) Covers the application of computational methods to  
archaeological problems and the modeling and simulation of pre-

## 5 Architecture

School of Architecture  
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Telephone: (514) 398-6700  
Fax: (514) 398-7372  
Website: [www.mcgill.ca/architecture](http://www.mcgill.ca/architecture)

*Director* — David Covo

*Graduate Program Coordinator* — Alberto Pérez-Gómez

---

### 5.1 Staff

#### *Emeritus Professors*

Derek Drummond; B.Arch.(McG.), F.R.A.I.C., O.A.Q., O.A.A.  
Radoslav Zuk; B.Arch.(McG.), M.Arch.(MIT), D.Sc.(U.A.A.),  
F.R.A.I.C., O.A.Q., O.A.A.

#### *Professors*

Anmarie Adams; B.A.(McG.), M.Arch., Ph.D.(Calif.), M.R.A.I.C.  
(*William Dawson Scholar*)  
Vikram Bhatt; N.Dip Arch.(Ahmed.), M.Arch.(McG.), M.R.A.I.C.  
Avi Friedman; B.Arch.(Technion), M.Arch.(McG.), Ph.D.(Montr.),  
O.A.Q., I.A.A.  
Alberto Pérez-Gómez; Dipl.Eng.(Nat.Pol.Inst.Mexico), M.A.,  
Ph.D.(Essex) (*Saidye Rosner Bronfman Professor of  
Architectural History*)  
Adrian Sheppard; B.Arch.(McG.), M.Arch.(Yale), F.R.A.I.C.,  
O.A.Q., A.A.P.P.Q.

#### *Associate Professors*

Martin Bressani; B.Sc., B.Arch.(McG), M.Sc.(Arch.)(MIT), D.E.A.,  
Docteur (Paris-Sorbonne - Paris IV), O.A.Q.  
Ricardo Castro; B.Arch.(Los Andes, Col.), M.Arch., M.A.(Ore.),  
M.R.A.I.C.  
David Covo; B.Sc.(Arch.), B.Arch.(McG.), F.R.A.I.C., O.A.Q.  
Robert Mellin; B.Arch., M.Sc.(Arch.) (Penn.), M.Arch.(McG.),  
M.Sc., Ph.D.(Penn.), M.R.A.I.C., N.A.A.  
Pieter Sijpkens; B.Sc.(Arch.), B.Arch.(McG)

#### *Faculty Lecturers*

Julia Bourke, Conor Sampson

#### *Course Lecturers*

Cecile Baird, Thomas Balaban, Ewa Bieniecka, Raouf Boutros,  
Louis Brilliant, Eugenio Carelli, Robert Claiborne, Kevin Hydes,  
Cassidy Johnson, Simon Jones, Richard Klopp, Annie Lebel,  
Gonzalo Lizarralde, Frank MacMahon, Shannon Pirie, Jacques



equivalent professional qualification, with a CGPA of at least 3.0 on a 4.0 point scale, are eligible for admission to the graduate programs. In special cases, applicants with a degree in a related field may be considered. The primary requirement for the M.Arch. (Post-professional) is 30 credits of course work, to be completed in the first two terms, and a 15-credit project report that is completed in the Summer term for the History and Theory option and in the Summer or Fall term for the Housing options. The residence requirement for the M.Arch. (Post-professional) degree is three academic terms, making it possible for students who elect to work on their project report in the Summer term to obtain their degree after twelve calendar months in the program.



sustainable design theory and applications in the built environment with students from a variety of fields (architecture, urban planning, engineering, sociology, environmental studies, economics, international studies). Architecture will provide the focus for environmental, socio-cultural and economic issues.

**ARCH 520 MONTREAL: URBAN MORPHOLOGY.** (3) (2-1-6) (Prerequisite: ARCH 251) Historical, geographical, demographical, and regional evolution of the metropolis of Montreal. Topics include: important quarters, the Montreal urban grid, industrialization, reform movements, geographical diversity, urban culture, local building techniques and materials. Basic concepts of urban morphology and their relationships to the contemporary urban context will be explored.

**ARCH 522 HISTORY OF DOMESTIC ARCHITECTURE IN QUEBEC.** (3) (2-0-7) (Prerequisite: ARCH 251) (Restriction: Departmental permission required) The architecture of houses in Quebec from 1650 to the present. Distinguished buildings are reviewed from the point of view of form, style, siting and material, as influenced by climate, culture and architectural antecedents in France, England and the United States. The course material is presented through alternating bi-weekly lectures and seminars.

★ **ARCH 523 SIGNIFICANT TEXTS AND BUILDINGS.** (3) (2-0-7) (Prerequisite: ARCH 251) (Alternating with ARCH 524) (Restriction: Departmental permission required) Critical study of significant architectural thought since 1750 as it has been expressed in buildings and texts (treatises, manifestos, criticisms). A specific theme will be addressed every year to allow in-depth interpretations of the material presented and discussed.

★ **ARCH 524 SEMINAR ON ARCHITECTURAL CRITICISM.** (3) (2-0-7) (Prerequisite: ARCH 251) (Alternating with ARCH 523) (Restriction: Departmental permission required) The development and current role of architectural criticism with particular reference to its affinities with art and literary criticism.

**ARCH 525 SEMINAR ON ANALYSIS AND THEORY.** (3) (2-0-7) (Prerequisite: ARCH 202 or permission of instructor) (Restriction: Departmental permission required) Analysis and evaluation of significant architectural projects with reference to contemporary architectural theories.

**ARCH 526 PHILOSOPHY OF STRUCTURE.** (3) (2-0-7) (Prerequisite: ARCH 202 or permission of Instructor) (Restriction: Not open to students who have taken ARCH 374) Philosophy of Structure aims to investigate structure in its broadest sense. The course is divided in two halves; the first one gives an overview of the development of theoretical structural fram

**ARCH 645 HOUSING PROJECT 1.** (6) (2-10-6) Innovative housing designs; lectures and studio work leading to a design project.

**ARCH 646 HOUSING PROJECT 2.** (6) (2-10-6) Innovative housing designs; lectures and studio work leading to a design project.

**ARCH 650 A**





together are equivalent to ARTH 701) See ARTH 701N1 for course description.(0)

**ARTH 725 METHODS IN ART HISTORY.** (3)

**ARTH 730 CURRENT PROBLEMS IN ART HISTORY 1.** (3) Current

**M.Sc. in Atmospheric and Oceanic Sciences (Thesis) –  
Computational Science and Engineering**

**Option/Concentration** (46 - 55 credits)

**Required Courses** (1 - 15 credits)

**Ph.D. in Atmospheric and Oceanic Sciences**

The Ph.D. program consists of supervised research and normally a minimum of two approved courses. Candidates are required to submit a written thesis proposal, to present a Ph.D. proposal seminar (ATOC 700) and to take the Ph.D. oral comprehensive examination (ATOC 701). The standard Graduate and Postdoctoral Studies Office requirements concerning a thesis must be satisfied.

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**7.5 Courses**

**Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.**

Term(s) offered (Fall, Winter, Summer) may appear after the credit weight to indicate when a course would normally be taught. Please check Class Schedule to confirm this information.

**Note:** All undergraduate courses administered by the Faculty of Science (courses at the 100- to 500-level) have limited enrolment. The course credit weight is given in parentheses after the title.

**ATOC 512 A**

**ATOC 531 CLIMATE DYNAMICS 2.** (3) (Winter) (3 hours lectures)  
(Prerequisite (Undergraduate): Permission of instructor) (Restriction: Graduate students and final-year Honours Atmospheric Science students. Others by special permission.) The general circulation of the atmosphere and oceans. Atmospheric and oceanic general circulation models. Observations and models of the

**ATOC 699 MASTER'S THESIS.** (12) Independent research under the supervision of the student's M.Sc. supervisor leading to the M.Sc. thesis.

**ATOC 699N1 MASTER'S THESIS.** (6) (Students must also register for ATOC 699N2) (No credit will be given for this course unless both ATOC 699N1 and ATOC 699N2 are successfully completed in a twelve month period) (ATOC 699N1 and ATOC 699N2 together are equivalent to ATOC 699) Independent research under the supervision of the student's M.Sc. supervisor leading to the M.Sc. thesis.

**ATOC 699N2 MASTER'S THESIS.** (6) (Prerequisite: ATOC 699N1) (No credit will be given for this course unless both ATOC 699N1 and ATOC 699N2 are successfully completed in a twelve month period) (ATOC 699N1 and ATOC 699N2 together are equivalent to ATOC 699) See ATOC 699N1 for course description.

**ATOC 700 PH.D. PROPOSAL SEMINAR.** (1)

**ATOC 701 PH.D. COMPREHENSIVE (GENERAL).** (0)

**ATOC 701D1 (0), ATOC 701D2 (0) PH.D. COMPREHENSIVE (GEN-ROPOSAL)**





Plus, additional credits, to a minimum of 6 total complementary course-credits, of 500 - or higher level courses in biomedical and allied sciences.

Complementary courses are chosen in consultation with the research director. The Graduate Advisory Committee may stipulate additional coursework depending on the background of the candidate. BIOC 450 Protein Structure and Function and BIOC 454 Nucleic Acids are additional requirements for those who have

**M.Sc. in Biochemistry – Bioinformatics**

**Option/Concentration** (45 credits)

**Required Courses** (6 credits)



**Thesis Component – Required (24 credits)****9.6 Courses**

Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.

The course credit weight is given in parentheses after the title.

**BIOE 680 BIOETHICAL THEORY.** (3) (Limited enrolment) A survey of some of the main problem areas and common argument forms used in current bioethics. Problem areas include consent, decisions to withhold or withdraw treatment, allocation of scarce resources, research with human subjects and confidentiality. Argument forms include those drawn from diverse ethical theories and traditions.

**BIOE 681 BIOETHICS PRACTICUM.** (3) (Limited enrolment) Four hours per week supervised placement within health care settings (e.g., intensive care, family practice, clinical ethics committees). In addition, students shall be assigned for the last month of the term to a single intensive placement. Participation in rounds, case discussions, and a weekly seminar.

**BIOE 682 MEDICAL BASIS OF BIOETHICS.** (3) (Limited enrolment.) The seminar examines the medical basis of timely ethical dilemmas in health care. Content includes: clinical concepts of pathogenesis, disease, screening, diagnosis, therapeutic interventions and prognosis; decision-making in clinical care and institutional policy development; organization of health care systems including socialized medicine, public health and institutions providing health care; medical research.

**BIOE 690 M.Sc. THESIS LITERATURE SURVEY.** (3)

**BIOE 691 M.Sc. THESIS RESEARCH PROPOSAL.** (3)

**BIOE 692 M.Sc. THESIS RESEARCH PROGRESS REPORT.** (6)

**BIOE 692D1 (3), BIOE 692D2 (3) M.Sc. THESIS RESEARCH PROGRESS REPORT.** (Students must register for both BIOE 692D1 and BIOE 692D2) (No credit will be given for this course unless both BIOE 692D1 and BIOE 692D2 are successfully completed in consecutive terms) (BIOE 692D1 and BIOE 692D2 together are equivalent to BIOE 692)

**BIOE 693 M.Sc. THESIS.** (12)

**BIOE 693D1 (6), BIOE 693D2 (6) M.Sc. THESIS.** (Students must register for both BIOE 693D1 and BIOE 693D2) (No credit will be given for this course unless both BIOE 693D1 and BIOE 693D2 are successfully completed in consecutive terms) (BIOE 693D1 and BIOE 693D2 together are equivalent to BIOE 693)

**BIOE 694 INDEPENDENT STUDIES 3.** (3)

**BASE FACULTY COURSES**

**BIOE 682 MEDICAL BASIS OF BIOETHICS.** (3) (Limited enrolment.) The seminar examines the medical basis of timely ethical dilemmas in health care. Content includes: clinical concepts of pathogenesis, disease, screening, diagnosis, therapeutic interventions and prognosis; decision-making in clinical care and institutional policy development; organization of health care systems including socialized medicine, public health and institutions providing health care; medical research.

**CMPL 642 LAW AND HEALTH CARE.** (3) (Limited enrolment.) The study of legal and ethical issues raised in medicine and healthcare with a particular focus upon the relationship between patient and healthcare professionals.

**PHIL 543 SEMINAR: MEDICAL ETHICS.** (3) (Prerequisite: PHIL 343 or written permission of the instructor) (Restriction: Seminars are

open only to graduate students and final year Philosophy Majors, Honours and Joint Honours students, except by written permission of the Department) An advanced course devoted to a particular philosophical problem as it arises in the context of medical practice or the application of medical technology.

**RELG 571 RELIGION AND MEDICINE.** (3) (Fall) A study of the resources of major world religions (Judaism, Christianity, Islam, Hinduism, Buddhism, Taoism and Shinto) for thinking about ethical issues related to modern medicine, e.g., health, *in a ped*



**Thesis** – In Biology, the M.Sc. is considered to be a research degree and the candidate must present a thesis which should contain original contributions to knowledge.

**M.Sc. in Biology** (45 credits)

Additional course work may be required if the student's background is insufficient.

**Complementary Courses** (6 credits)

the Graduate Training Committee, enter at the Ph.D.2 level.

**Ph.D. Qualifying Examination** – The Qualifying exam is a formal evaluation of the student's ability to 7.9 (10) 7.4 the 5.8 (10) 6.35. 0.07. 0.0

**M.Sc. in Biology – Neotropical Environment Option**

(48 credits)

**Required Courses** (6 credits)

**M.Sc. in Biology – Bioinformatics Option** (48 credits)

**Required Courses** (3 credits)

**Transfer from M.Sc to Ph.D. Program** – The student's Supervisory Committee may recommend to the Graduate Training Committee that the student be permitted to transfer to the Ph.D. program. This is normally done at the end of the first year of the Master's program. Students who transfer into the Ph.D. program are required to take their Ph.D. Qualifying Examination within eight months of the transfer.

**Ph.D. REQUIREMENTS**

**Length of Program** – Candidates entering Ph.D.1 must complete at least three years of full-time resident study (6 terms). The normal and expected duration of the Ph.D. program is 4-5 years. A student who has obtained a Master's degree at McGill, or at an approved institution elsewhere may, upon the recommendation of

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**10.6 Courses**

**Students preparing to register should consult the Webs3at**



**BIOL 575 HUMAN BIOCHEMICAL GENETICS.** (3) (Winter) (3 hours lecture) (Prerequisites: BIOL 202 and BIOL 300.) Topics on the study of human systems that have led to advances in basic biology.

★ **BIOL 588 MOLECULAR/CELLULAR NEUROBIOLOGY.** (3) (Fall) (1 1/2 hours lecture, 1 1/2 hours seminar) (Prerequisite: BIOL 300 and BIOL 306 or permission) Discussion of fundamental molecular mechanisms underlying the general features of cellular neurobiology. An advanced course based on lectures and on a critical review of primary research papers.

**BIOL 592 INTEGRATED BIOINFORMATICS.** (3) (Fall) (3 hours lecture) (Prerequisite: BIOL 301 or permission of instructor.) (Restriction: Not open to students who have taken or are taking BINF 511.) 'Post-genomic' bioinformatics. Concepts behind large-scale computational analysis and comparison of genomes/proteomes (and beyond), and the implications for our understanding of the basic processes of molecular and cell biology and dingrTJ14l( a9(utof )7.4t477 Tw{(ology anTD-0.0D-0.001 T80 0 6.48 180.18 699d )7.40.047hular and cel

*Associate Members*

C. Baker (Ophthalmology), K. Cullen (Physiology), S. De Serres (Physical and Occupational Therapy), J. Gotman (Neurology and Neurosurgery), D. Guitton (Neurology and Neurology), A. Katsarkas (Otolaryngology), R. Mongrain (Mechanical Engineering), B.N. Segal (Otolaryngology), T. Steffen (Surgery),

**Ph.D. in Biomedical Engineering**

All students must complete a thesis and the Ph.D. Comprehensive (BMDE 700); any additional course work required will be determined on an individual basis by the student's advisor and Graduate Program Director. In addition, students must successfully pass the following research meetings:

1) Preliminary; 2) Thesis Proposal; 3) Thesis Progress; and 4) Thesis Submission. Details of each meeting can be found at: [http://www.bmed.mcgill.ca/require\\_phd.html](http://www.bmed.mcgill.ca/require_phd.html).

**Ph.D. in Biomedical Engineering– Bioinformatics**



DOCUMENTS SUBMITTED WILL NOT BE RETURNED.



ecological system design. Mathematics and computer oriented - students must be familiar with microcomputer operation.

**BREE 502 DRAINAGE/IRRIGATION ENGINEERING.** (3) (Prerequisite: BREE 217 (formerly ABEN 217)) (Restrictions: U3 students and above. Not open to students who have taken ABEN 611 or ABEN 502.) Benefits and importance of drainage; types of drainage systems; design and construction of main, surface and subsurface drainage systems; drainage materials. Crop water requirements; evapotranspiration models; design and layout of surface, sprinkler and drip irrigation systems; pipe hydraulics; pumps.

**BREE 504 INSTRUMENTATION AND CONTROL.** (3) (3 lectures and one 2-hour lab) (Prerequisite (Undergraduate): BREE 312 (formerly ABEN 312) or ECSE 281) (Restriction: Not open to students who have taken ABEN 504.) Principles and operation of instrument systems used for measurement and control in agricultural processes and research.

**BREE 506 ADVANCES IN DRAINAGE MANAGEMENT.** (3) (3 weeks intensive course) (Restriction: Not open to students who have taken ABEN 506.) Land drainage in relation to soils and crops. Design of regional drainage systems, stability of ditches, ice problems. Design of subsurface drainage systems. Theories of flow into drain tubes. Hydraulics of wells. Drainage of irrigated lands. Water table control.

**BREE 509 HYDROLOGIC**

**BREE 691 M.Sc. THESIS 1.** (4) (Restriction: Not open to students who have taken ABEN 691.) Problem definition and literature Review.

**BREE 692 M.Sc. THESIS 2.** (4) (Restriction: Not open to students who have taken ABEN 692.) .

**BREE 693 M.Sc. THESIS 3.** (4) (Restriction: Not open to students who have taken ABEN 693.) Methodology development.

**BREE 694 M.Sc. THESIS 4.** (4) (Restriction: Not open to students who have taken ABEN 694.) Experimentation 1.

**BREE 695 M.Sc. THESIS 5.** (4) (Restriction: Not open to students who have taken ABEN 695.) Experimentation 2.

**BREE 696 M.Sc. THESIS 6.** (4) (Restriction: Not open to students who have taken ABEN 696.) Data analysis.

**BREE 697 M.Sc. THESIS 7.** (4) (Restriction: Not open to students who have taken ABEN 697.) Draft thesis preparation.

**BREE 698 M.Sc. THESIS 8.** (4) (Restriction: Not open to students who have taken ABEN 698.) Thesis completion and acceptance.

**BREE 699 SCIENTIFIC PUBLICATION.** (3) (Periodic conferences) (Restriction: Not open to students who have taken ABEN 699.)



other Quebec universities through Plasma-Québec, a FQRNT *Regroupement Stratégique*.

Research related to the Environment is pursued on many fronts; for example, the plasma treatment of lithium batteries for recycling, the biodegradation of pesticides, and a number of projects considering the fate of plasticizers, chlorinated hydrocarbons and polymers in the environment. Other projects involve electrochemical treatment of wastewater, the transport and fate of microbial pathogens and other contaminants in the environment, activated sludge treatment, development of environmentally-friendly corrosion inhibitors, degradation of pharmaceuticals in wastewater, etc.

Research in Computational Materials Science is a science-based program that seeks to design and control materials, products, and processes using molecular, mesoscopic, and macro-

**Ph.D.**

The Ph.D. requires three years of residence at McGill.

**Chemical Engineering Fundamentals (Courses)**

include: polymer synthesis techniques, characterization of molecular weight, crystallinity, glass transition, phase behaviour, mechanical properties, visco-elasticity, rheology, and polymer processing for use in blends and composite materials.

**CHEE 584 POLYMER PROCESSING.** (3) (3-0-6) (Corequisite: CHEE 215 or MIME 356 or equivalent.) (Restriction: Not open to students who have taken CHEE 684.) Survey TD-0a6.259lasticca1 0 0 6.4c0.0046 Tc5r tri

**Research Courses:**

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**13.6 Courses**

Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.

The course credit weight is given in parentheses after the title.

**CHEE 541 ELECTROCHEMICAL ENGINEERING.** (3) (3-0-6) (Prerequisite: CHEE 310 or permission of instructor.) (Restriction: Not open to students who have taken CHEE 489.) Electrochemical systems: electrodes, reactors. Electrochemical stoichiometry, thermodynamics and kinetics. Mass and charge transport. Current and potential distribution in an electrochemical reactor. Electrocatalysis. Fuel cells technology. Batteries. Industrial electrochemical processes. Electrochemical sensors. Biomedical electrochemistry. Passivity, corrosion and corrosion prevention. Electrocrystallization. Experimental Methods.

**CHEE 543 PLASMA ENGINEERING.** (3) (3-1-5) (Prerequisites: CHEE 220 and CHEE 314 or equivalent.) Description of the plasma state and parameters, plasma generation methods, and of the related process control and instrumentation. Electrical breakdown in gases and a series of discharge models are covered. Plasma processing applications such as PVD, PECVD, plasma polymerisation and etching, environmental applications, nanoparticle synthesis, spraying and sterilization are treated.

**CHEE 563 BIOFLUIDS AND CARDIOVASCULAR MECHANICS.** (3) (3-0-6) (Prerequisites: CHEE 314 or MECH 331 or permission of instructor.) (Restriction: Not open to students who have taken MECH 563.) Basic principles of circulation including vascular fluid and solid mechanics, modeling techniques, clinical and experimental methods and the design of cardiovascular devices.

**CHEE 571 SMALL COMPUTER APPLICATIONS: CHEMICAL ENGINEERING.** (3) (3-0-6) (Prerequisite: CHEE 458 or permission of the instructor.) The use of small computers employing a high level language for data acquisition and the control of chemical processes. Real-time system characteristics and requirements, analog to digital, digital to analog conversions and computer control loops are examined. Block level simulation.

**CHEE 582 POLYMER SCIENCE & ENGINEERING.** (3) (3-0-6) (Prerequisite: CHEE 314 or equivalent.) (Restriction: Not open to students who have taken CHEE 481.) Application of engineering fundamentals to the preparation and processing of polymers emphasizing the relationship between polymer structure and properties. Topics

**CHEE 695 P**

**Biophysical** – Excited electronic states of proteins and nucleic acids; spectroscopic probes of biopolymer conformation; sensitized photochemistry in biopolymers; dynamics of protein and nucleic acid conformations. Spectroscopic analysis of oxygen transport in aerobic metabolism.

**Colloid and Polymer** – Monomolecular layers; solution properties of high polymers; molecular morphology; rheology and stability of dispersions; phase transitions in polymers and polymer blends; polymer reinforcement; radiation effects and solid-state polymerization; mechanisms of polymerization reactions; wetting and spreading; the glass transition; molecular dynamics and polymer properties; ionic polymers; cellulose and paper; carbohydrate biopolymers; pollution abatement; polymer melt rheology; synthetic latex; rheo- and electro-optical phenomena; polymers at interfaces.

**Inorganic** – Synthesis of new classes of organometallic complexes and inorganic polymers; homogeneous catalysis; cationic polysulfur and polysulfoxide complexes; organosilicon chemistry; spectroscopic studies (e.g., FT-IR, laser Raman, multinuclear NMR, and mass) of complexes; kinetics and mechanisms of inorganic and organometallic reactions; bioinorganic chemistry; inorganic materials chemistry; asymmetric catalysis; surface chemistry.

**Organic** – Synthesis and structure of heterocyclic compounds; natural products; carbohydrates; cellulose; plant-growth regulators; organic sulphur, chemistry; stereochemistry; reaction mechanisms; charge transfer complexes; new synthetic methods; conformational analysis; solvation effects; substituent effects; polymer supports; nucleic acids, anti-sense and anti-gene oligonucleotides.

**Physical** – Laser excited luminescence and novel optical materials. Order-disorder phenomena in molecular crystals and liquid crystals. Vibrational spectroscopy at high pressures. Nuclear quadrupole resonance spectroscopy.

**Pulp and Paper** – Research in areas of chemistry of interest to the Canadian pulp and paper industry is also performed at the Pulp and Paper Research Centre, adjacent to the Chemistry Department. Current research topics include cellulose and lignin chemistry, the chemistry of pulping and bleaching, colloidal aspects of papermaking, physical chemistry of cellulosic materials, and de-inking and recycling of paper.

**Theoretical** – Non-equilibrium statistical mechanics, kinetic theory of fluids and plasmas, non-equilibrium thermodynamics of non-linear transport processes for systems far from equilibrium and fluid dynamics. Theories of nuclear magnetic resonance and multi-quantum NMR spectra are developed with emphasis on the determination of the structures of proteins from NMR. Molecular structure, chemical bonding, intermolecular forces in solids and isolated molecules in dimers and metastable polymers are studied quantum mechanically.

### 14.3 Admission Requirements

The minimum academic standard for admission to research thesis M.Sc., Ph.D. and the M.Sc. (Applied) degree programs is a minimum standing equivalent to a Cumulative Grade Point Average (CGPA) of 3.0 out of a possible 4.0 or a CGPA of 3.2/4.0 for the last two full-time academic years. Applicants from other institutions should have an academic background equivalent to that of a McGill graduate in the Chemistry Honours/Major programs. If possible, candidates should specify the field of research in which they are interested.

#### Admissions Requirements - Chemical Biology Option

As for the regular graduate programs of the participating departments, acceptance into the Chemical Biology Option consists of two steps:

1. Preliminary approval by the Department's Graduate Committee based on the student's transcript, references and other documents submitted with the application. The criteria for

assessment at this level are the same as for the regular graduate programs of the participating departments.

2. Acceptance by an individual research director. For students wishing to participate in the Chemical Biology Option, the director must propose a research project for the student that provides training in the methods and philosophy of chemical biology. Project proposals are assessed by the Chemical Biology Program Committee.

### 14.4 Application Procedures

All inquiries concerning graduate work in the Department should be addressed to the Director of Graduate Studies, Department of Chemistry.

#### FINANCIAL ASSISTANCE

##### M.Sc. and Ph.D. Degrees

Financial assistance for accepted graduate students who do not hold fellowships or scholarships is normally available in the form of laboratory demonstrators/assistantships, and occasionally by payment from research funds. Graduate students devote 12 hours per week (contact hours, plus grading of reports, etc.) during the academic session to their teaching duties. Financial assistance during the remainder of the year is provided from research funds. Most students receive partial fee waivers. Scholarship holders, such as NSERC or awards of similar value, receive a tuition fee waiver.

##### M.Sc. (Applied) Degree

Financial assistance for candidates in the M.Sc. (Applied) program is not available during the two academic sessions when courses are taken, unless candidates are recipients of scholarships. During the four-month project, candidates are paid at rates established by participating companies.

### 14.5 Program Requirements

#### M.Sc.\* and Ph.D. Degrees

1. Students must take such examinations as may be required in (a) assigned courses given in the Department of Chemistry, (b) assigned cognate courses given in other departments. Courses are assigned after taking into consideration the student's previous training and research interest.
2. Students must successfully complete a research project and submit an acceptable thesis.
3. Students must satisfy the examiners in an oral examination on the thesis and related subjects (required only of candidates for the Ph.D. degree).
4. All the usual requirements of the Graduate and Postdoctoral Studies Office must be satisfied.

\* This program requires 45-50 credits.

A minimum of 6 credits of course work is required; the balance of credits will be made up from either a combination of course work (graduate and upper undergraduate) and thesis credits, or from thesis research credits only. There will be a minimum of 24 credits in the thesis research component.

#### Examinations in Chemistry

1. Examinations in assigned courses are normally taken by the candidates in December and May. In special circumstances, and with the permission of the Department and the Graduate and Postdoctoral Studies Office, they may be taken in September.
2. A candidate for the Ph.D. degree shall pass all such examinations, other than those in certain special courses, before the final year, except in special circumstances and then only with the approval of the Department.

#### M.Sc. (Applied) Degree

This program requires a minimum of 45 credits, 30 credits of course work (500 level and higher) plus a 15-credit project in

some aspect of chemical industry, normally completed during a four-month project.

## 14.6 Courses

Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.

Term(s) offered (Fall, Winter, Summer) may appear after the credit weight to indicate when a course would normally be taught. Please check Class Schedule to confirm this information.

**Note:** All undergraduate courses administered by the Faculty of Science (courses at the 100- to 500-level) have limited enrolment.

The course credit weight is given in parentheses after the title.

### Advanced Undergraduate Courses

Undergraduate courses may be required of a student who is admitted to a graduate program if deficiencies are perceived in the student's previous training. Descriptions of undergraduate courses may be found in the Faculty of Science section of the *Undergraduate Programs Calendar*.

**CHEM 502 ADVANCED BIO-ORGANIC CHEMISTRY.** (3) (Prerequisite: CHEM 302) (Restriction: Not open to students who have taken CHEM 402.) This course will cover biologically relevant molecules, particularly nucleic acids, proteins, and their building blocks. In each case, synthesis and biological functions will be discussed. The topics include synthesis of oligonucleotides and peptides; chemistry of phosphates; enzyme structure and function; coenzymes, and enzyme catalysis; polyketides; antiviral and anti-cancer agents.

**CHEM 503 DRUG DESIGN AND DEVELOPMENT 1.** (3) (Fall) (Prerequisites: CHEM 302, BIOL 200, BI

chemiluminescence, explosions. Extensive use of computers to simulate the kinetic behaviour of chemical systems.

**CHEM 581 INORGANIC TOPICS 1.** (3) (Winter) (Prerequisite: CHEM 381) An introduction to some areas of current interest in inorganic chemistry. Each year a selection of several particularly active areas will be chosen.

**CHEM 582 SUPRAMOLECULAR CHEMISTRY.** (3) (Prerequisites: CHEM 222, CHEM 381) Introduction to supramolecular organization will be followed by discussions on the nature of interactions and methodologies to create ordered aggregates of high complexity. Potential of supramolecular chemistry in fabricating smart materials will be explored using specific topics including inclusion chemistry, dendrimers, molecular self-assembly and crystal engineering.

**CHEM 585 C**

such as wet and dry strength agents, sizing agents, fillers, filler retention aids, antifoam agents, biocides, dyes, dewatering agents, drainage and formation aids. The course also addresses the chemistry of deinking of waste papers and the treatment of effluents.

**CHEM 688 ASSESSMENT.** (3) (Restriction: Restricted to graduate students in Chemistry.) An evaluation that is completed before the end of the second year of registration.

**CHEM 689 SEMINARS IN CHEMICAL BIOLOGY 2.** (1) (Restrictions: Open only to students registered for the M.Sc. or Ph.D. Graduate Option in Chemical Biology.) Second multidisciplinary seminar in chemical biology.

**CHEM 690 SEMINARS IN CHEMICAL BIOLOGY 4.** (1) (Restrictions: Open only to students registered for the M.Sc. or Ph.D. Graduate Option in Chemical Biology.) Fourth multidisciplinary seminar in chemical biology.

**CHEM 690 SEMINARS IN CHEMICAL BIOLOGY 4.** (1) (Restrictions: Open only to students registered for the M.Sc. or Ph.D. Graduate Option in Chemical Biology.) Fourth multidisciplinary seminar in chemical biology.

**CHEM 691 M.Sc. THESIS RESEARCH.** (3) Independent research work leading to writing of M.Sc. thesis for final submission to the Graduate and Postdoctoral Studies Office.

**CHEM 692 M.Sc. THESIS RESEARCH.** (6) Independent research work leading to writing of M.Sc. thesis for final submission to the Graduate and Postdoctoral Studies Office.

**CHEM 693 M.Sc. THESIS RESEARCH.** (9) Independent research work leading to writing of M.Sc. thesis for final submission to the Graduate and Postdoctoral Studies Office.

**CHEM 694 M.Sc. THESIS RESEARCH.** (12) Independent research work leading to writing of M.Sc. thesis for final submission to the Graduate and Postdoctoral Studies Office.

**CHEM 695 M.Sc. THESIS RESEARCH.** (15) Independent research work leading to writing of M.Sc. thesis for final submission to the Graduate and Postdoctoral Studies Office.

**CHEM 696 M.Sc. THESIS RESEARCH.** (6) Independent research work leading to writing of M.Sc. thesis for final submission to the Graduate and Postdoctoral Studies Office.

**CHEM 697 M.Sc. THESIS RESEARCH.** (9) Independent research work leading to writing of M.Sc. thesis for final submission to the Graduate and Postdoctoral Studies Office.

**CHEM 698 M.Sc. THESIS RESEARCH.** (12) Independent research work leading to writing of M.Sc. thesis for final submission to the Graduate and Postdoctoral Studies Office.

**CHEM 701 COMPREHENSIVE EXAMINATION 1.** (0) (Restriction: Ph.D. students in Chemistry.) An evaluation that is completed before the end of the third year of registration.

**CHEM 702 COMPREHENSIVE EXAMINATION 2.** (0) (Restriction: Ph.D. students in Chemistry.) An evaluation that is completed before the end of the fourth year of registration.

**CHEM 721 ORGANIC CHEMISTRY RESEARCH SEMINAR.** (3) Upon completion of the organic cumulative examinations, students will present a seminar on their research work (including background and future plans).

**CHEM 763 RESEARCH REPORT 2.** (3) (Restriction: graduate students in Chemistry.) Students will present a seminar on a complete or nearly complete research project and discuss these results.

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## 15 Civil Engineering and Applied Mechanics

Department of Civil Engineering and Applied Mechanics  
Macdonald Engineering Building  
817 Sherbrooke Street West  
Montreal, QC H3A 2K6  
Canada

Telephone: (514) 398-6858  
Fax: (514) 398-7361  
E-mail: [gradinfo.civil@mcgill.ca](mailto:gradinfo.civil@mcgill.ca)  
Website: [www.mcgill.ca/civil](http://www.mcgill.ca/civil)

*Chair* — D. Mitchell

*Chair of Graduate Program* — G. McClure

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### 15.1 Staff

#### *Emeritus Professors*

P.J. Harris; B.Sc.(Man.), M.Eng., Ph.D.(McG.), F.E.I.C.,  
F.C.S.C.E., Eng.

R.G. Redwood; B.Sc.(Brist.), M.A.Sc.(Tor.), Ph.D.(Brist.),  
F.C.S.C.E., FI Struct. Eng., Eng.

S.B. Savage; B.Eng.(McG.), M.S.Eng.(Cal.Tech.), Ph.D.(McG.),  
F.R.S.C.

#### *Professors*

V.H. Chu; B.S.Eng.(Taiwan), M.A.Sc.(Tor.), Ph.D.(MIT), Eng.

M.S. Mirza; M.S., B.Eng.(Karachi), M.Eng., Ph.D.(McG.), F.E.I.C.,  
F.C.S.C.E., F.A.C.I.



in the Departments of Bioresource, Chemical, Civil, and Mining, Metals and Materials Engineering. This program emphasizes interdisciplinary fundamental knowledge courses, practical applications in diverse environmental contexts, and functional skills needed for solving environmental problems. Candidates must

Master's degree acceptable to the Department may, however, be considered for direct registration for the Ph.D. degree (Ph.D.II).

The Ph.D. program consists of a research project and courses as required to develop the candidate's background. Candidates are expected to take a comprehensive preliminary oral examina-

**M.Sc.**

Candidates with a Bachelor's degree in a discipline other than Engineering, such as Science or Arts, may be accepted into a M.Sc. program in the Department. Such students would typically study in the fluid mechanics, water resources, or environmental engineering areas, and would follow the Thesis Option program requirements.

**M.Sc. (Thesis) in Civil Engineering** (45 credits)

**Required Course** (1 credit)

**Ph.D.**

Candidates normally register for the M.Eng. degree, Thesis Option, or M.Sc. degree in the first instance. Those who have a





**Ph.D.**

- 1) Course work: 24 credits;
- 2) Reading list;
- 3) Thesis and Oral Defence.

**16.6 Courses**

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**CLAS 515D1 (3), CLAS 515D2 (3) LATIN AUTHORS.** (Prerequisite (Undergraduate): 9 credits in Intermediate Latin or equivalent) (Restriction: Honours and Graduate students) (Students must register for both CLAS 515D1 and CLAS 515D2.) (No credit will be given for this course unless both CLAS 515D1 and CLAS 515D2 are successfully completed in consecutive terms) Completion of a Reading List in Latin, with Faculty supervision, to be tested by written examination.

**CLAS 525D1 (3), CLAS 525D2 (3) ANCIENT GREEK AUTHORS.** (Prerequisite (Undergraduate): 9 credits in Intermediate Greek or equivalent) (Restriction: Honours and Graduate students) (Students must register for both CLAS 525D1 and CLAS 525D2.) (No credit will be given for this course unless both CLAS 525D1 and CLAS 525D2 are successfully completed in consecutive terms) Completion of a Reading List in Greek, with Faculty supervision, to be tested by written examination.

**CLAS 696 M.A. THESIS 1: RESEARCH METHODS IN CLASSICS.** (3)

**CLAS 697 M.A. THESIS 2: RESEARCH PROPOSAL.** (3)

**CLAS 697D1 (1.5), CLAS 697D2 (1.5) M.A. THESIS 2: RESEARCH PROPOSAL.** (Students must register for both CLAS 697D1 and CLAS 697D2) (No credit will be given for this course unless both CLAS 697D1 and CLAS 697D2 are successfully completed in consecutive terms) (CLAS 697D1 and CLAS 697D2 together are equivalent to CLAS 697)

**CLAS 697N1 M.A. THESIS 2: RESEARCH PROPOSAL.** (1.5) (Stu-  
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## 17.2 Programs Offered

The School offers a professional degree in Communication Sciences and Disorders at the M.Sc. (Applied) level with specialization in Speech Language Pathology and two research degrees, an M.Sc. (Research) and a Ph.D. in Communication Sciences and Disorders.

### **M.Sc.(Applied) Degree in Communication Sciences and Disorders**

The professional degree leads to a Master of Science (Applied) with a specialization in Speech Language Pathology. The program involves two academic years of full-time study and related practical work followed by a Summer internship. To prepare students as creative professionals, the program emphasizes the understanding of principles and theories, and their present or potential clinical applications, in addition to the teaching of specific techniques for assessment and intervention. Active participation in the learning process is encouraged.

The profession of Speech-Language Pathology concerns assessment and intervention in speech and language disorders. In particular, the Speech-Language Pathologist is concerned with two major parameters of communication sciences and disorders: language and speech. At present, most speech-language pathologists in Canada work in hospitals, public school systems, rehabilitation centres, and in .4( Tw[o1.1257c4]TJQ )-7.5 ev4é0008 inin



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## 17.6 Courses

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**SCSD 609 NEUROMOTOR DISORDERS.** (3) The focus of this course will be on the assessment and management of motor speech disorders, associated with both acquired and developmental neuromotor disorders, and swallowing disorders (of both neuromotor and structural origin).

**SCSD 616 AUDIOLOGY.**



**SCSD 679 A**

the major subject, since transcripts often give code numbers only.

4. Two letters of recommendation on letterhead or bearing the university seal and with original signatures from two instructors familiar with the applicant's work, preferable in the applicant's area of specialization, are required. It is the applicant's responsibility to arrange for these letters to be sent.
5. Non-Canadian applicants whose mother tongue is not English and who have not completed an undergraduate degree using the English language are required to submit documented proof of competency in oral and written English, by completing the

**COMS 613 GENDER AND TECHNOLOGY.** (3) Crime, Media and Culture Contemporary culture and media in Canada and Quebec

J. Pineau; B.Sc.(Wat.), M.Sc., Ph.D.(Carn. Mell.)  
D. Precup; B.Sc.(Tech. U. of Cluj-Napoca), M.Sc., Ph.D.(Mass.)  
M. Robillard; B.Eng.(École Poly., Montr.), M.Sc., Ph.D.(Br.Col.)  
H. Vangheluwe; B.Sc., M.Sc., D.Sc.(Ghent, Belgium)  
C. Verbrugge; B.A.(Qu.), Ph.D.(McG.)  
A. Vetta; B.Sc., M.Sc.(LSE), Ph.D.(MIT)

*Faculty Lecturer*

J. Vybihal

*Associate Member*

T.R. Shultz (Psychology)

*Adjunct Professors*

S. Brands, R. De Mori, I. Rekleitis

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## 19.2 Programs Offered

Master's in Computer Science (Thesis Option), including the Computational Science and Engineering (CSE) option and the Bioinformatics option.

Master's in Computer Science (Project Option)

Ph.D. in Computer Science, including a Bioinformatics option.

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## 19.3 Admission Requirements

### Master's (M.Sc.)

The minimum requirement for admission is a bachelor's degree (CGPA 3.2 or better, or equivalent) with the course work in Computer Science indicated in the brochure "Information for Applicants to Graduate Programs".

The brochure supplements information in this Calendar and should be consulted by all graduate students.

### Ph.D.

In order to apply to the Ph.d. program, applicants should hold an M.Sc. degree in Computer Science or a closely related area, from a well-recognized university. Students who hold a B.Sc. degree in Computer Science but have an exceptionally strong academic record may also apply directly to the Ph.D. program. If admitted, such students will initially register in the M.Sc. (thesis) program and will have the option to transfer to the Ph.D. program at the end of their first academic year, contingent on excellent performance as judged by the Ph.D. committee. They must apply for admission to the Ph.D. Program to transfer from the M.Sc. to the Ph.D.

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## 19.4 Application Procedures

Applications will be considered upon receipt of:

1. application form
  2. original or certified copies of transcripts
  3. two letters of reference
  4. \$80 application fee
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**Ph.D. in Computer Science – Bioinformatics****Option/Concentration****Required Courses** (6 credits)

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**19.6 Courses**

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Term(s) offered (Fall, Winter, Summer) may appear after the credit weight to indicate when a course would normally be taught. Please check Class Schedule to confirm this information.

**Note:** All undergraduate courses administered by the Faculty of Science (courses at the 100- to 500-level) have limited enrolment.

The course credit weight is given in parentheses after the title.

**COMP 505 ADVANCED COMPUTER ARCHITECTURE.** (3) (3 hours) (Prerequisites: COMP 302 and COMP 273 or equivalent) Basic principles and techniques in the design of high-performance computer architecture. Topics include memory architecture: cache structure and design, virtual memory structures; pipelined processor architecture: pipeline control and hazard resolution, pipelined memory structures, interrupt, evaluation techniques; vector processing; RISC vs. CISC architectures; general vs. special purpose architectures; VLSI architecture issues.

**COMP 506 ADVANCED ANALYSIS OF ALGORITHMS.** (3) (Winter) (3 hours) (Prerequisite: COMP 330 or COMP 360 or COMP 431.) The study of computational complexity and intractability: Cook's Theorem, NP-completeness, oracles, the polynomial hierarchy, lower bounds, heuristics, approximation problems.

**COMP 507 COMPUTATIONAL GEOMETRY.** (3) (Fall) (3 hours) (Prerequisite: COMP 360 or COMP 362 or permission of instructor or corequisite COMP 506.) Problems in computational geometry; worst-case complexity of geometric algorithms; expected complexity of geometric algorithms and geometric probability; geometric intersection problems; nearest neighbour searching; point inclusion problems; distance between sets; diameter and convex hull of a set; polygon decomposition; the Voronoi diagram and other planar graphs; updating and deleting from geometric structures.

**COMP 512 DISTRIBUTED SYSTEMS.** (4) (Fall) (Prerequisites: COMP 310, COMP 251 or equivalent.) Models and Architectures. Application-oriented communication paradigms (e.g. remote method invocation, group communication). Naming services. Synchronization (e.g. mutual exclusion, concurrency control). Fault-tolerance (e.g. process and replication, agreement protocols). Distributed file systems. Security. Ex



**COMP 616N1 BIOINFORMATICS SEMINAR.** (1.5) Introduction to current trends in Bioinformatics and closely related fields such as genomics and proteomics.

**COMP 616N2 BIOINFORMATICS SEMINAR.** (1.5) See COMP 616N1 for course description.

**COMP 617 INFORMATION SYSTEMS.** (4) (3 hours) (Prerequisite: COMP 612) Seminar course. A major area of application of the techniques covered in 308-612 is discussed. No prior expertise in the application area is required, since the emphasis of the course is on methods of computation. Storage structures and algorithms for efficient retrieval and processing of data for the application will be discussed.

**COMP 618 BIOINFORMATICS: FUNCTIONAL GENOMICS.** (3) (Prerequisite: Enrollment in Bioinformatics Option Program or permission of coordinators.) (Restrictions: Enrollment by students in the Bioinformatics Option Program or by permission of course coordinators only. Computer Science graduate students not in the Bioinformatics Option Program need additional permission of the M.Sc. or Ph.D. Committee respectively.) Techniques related to microarrays (normalization, differential expression, class prediction, class discovery), the analysis of non-coding sequence data (identification of transcription factor binding sites), single nucleotide polymorphisms, the inference of biological networks, and integrative Bioinformatics approaches.

**COMP 621 OPTIMIZING COMPILERS.** (4) (3 hours) (Prerequisite: COMP 251 or equivalent, COMP 302 or equivalent, COMP 520 is useful but not strictly necessary) This course examines the components of optimizing compiler, tree-like and graph-like intermediate representations, flow analysis, abstract interpretation, program transformation, register allocation, an introduction to instruction scheduling and parallelization techniques. Students complete assignments and a course project.

**COMP 623 CONCURRENT PROGRAMMING LANGUAGES.** (4) (3 hours) (Prerequisite: COMP 302 or equivalent.) The course will include the following topics: deadlock, fairness, liveness and safety properties, distributed protocols, standard concurrent programming problems, a comparative study of concurrent programming paradigms. Additional topics: dataflow programming, concurrent constraint programming, concurrent logic programming, process algebra, fault tolerant distributed systems, parallel object-oriented languages.

**COMP 627 THEORETICAL PROGRAMMING LANGUAGES.** (4) (3 hours) (Prerequisites: COMP 524 and COMP 530) Programming language semantics. Lambda calculus, the Church Rosser theorem, typed lambda calculus, the strong normalization theorem, polymorphism, type inference, elements of domain theory, models of the lambda calculus, relating operational and denotational semantics, full abstraction. Reasoning about programs. Soundness and relative completeness of program logics.

**COMP 642 NUMERICAL ESTIMATION.** (4) (4 hours) (Prerequisites: MATH 323, MATH 324 and COMP 350) (Corequisite: COMP 540) Efficient and reliable numerical algorithms in estimation and their applications. Linear models and least squares estimation. Maximum-likelihood estimation. Kalman filtering. Adaptive estimation, GPS measurements and mathematical models for positioning. Position estimation. Fault detection and exclusion.

**COMP 644 PATTERN RECOGNITION.** (4) (3 hours) Techniques for smoothing, approximating and enhancing spatial and temporal data. Feature extraction and shape measurement using spatial moments and medial axis transforms. Detecting structure using Hough transforms and proximity graphs. Discriminant functions. Neural networks. Bayesian decision theory. Feature selection. Estimation of misclassification. Nearest neighbour decision rules. Applications.

**COMP 646 COMPUTATIONAL PERCEPTION.** (4) (3 hours) Seminar course on perception problems from a computer science perspective. -0.0003 umliT3 Tc]Ced701



**COMP 692 APPROXIMATION ALGORITHMS.** (4) (Prerequisites: COMP 362 or MATH 350 or permission of instructor. Strong background in algorithms and/or mathematics.) The theory and application of approximation algorithms. Topics include: randomized algorithms, network optimization, linear programming and semi definite programming techniques, the game theoretic method, the



**Courses with numbers ending D1 and D2** are taught in two consecutive terms (most commonly Fall and Winter). Students must register for both the D1 and D2 components. No credit will be given unless both components (D1 and D2) are successfully completed in consecutive terms.

The course credit weight is given in parentheses after the title.

**DENT 504 BIOMATERIALS AND BIOPERFORMANCE.** (3) (Restrictions: Graduate and final year undergraduates from physical, biological, medical and dental sciences, and engineering.) Biological and synthetic biomaterials, medical devices, and the issues related to their bioperformance. The physicochemical characteristics of biomaterials in relation to their biocompatibility and sterilization.

**DENT 562 CALCIFIED TISSUES.** (3) (3 hours of lecture supplemented by 1 hour laboratory or conferences) An advanced course on the morphology and cell biology of calcified tissues. This course provides a problem-oriented analysis of research on the structure and mechanism of formation of connective tissue, cartilage and bone, but with particular emphasis on the tissues of the tooth.



describing reasons for interest in the program and career goals,  
and the following supporting documents:

**Transcripts** - Two official copies of all university level transcripts

**12 credits in graduate level Nutrition related courses chosen from:**

**Graduate Diploma in Registered Dietitian Credentialing  
(30 credits)**

The Graduate Diploma is open to students who have completed a graduate degree with the School of Dietetics and Human Nutrition including NUTR 611 Graduate Professional Practice 1.

**Required courses**

**Ph.D.**

Requirements for the Ph.D. include a course of study recommended by the committee including a comprehensive examination (NUTR 701), a research di

undertake projects in library, laboratory, or field study. An approved course outline must be on file in the School's office prior to registration.

★ **NUTR 610 MATERNAL AND CHILD NUTRITION.** (3) Advanced discussion of the scientific basis for nutrient requirements during pregnancy, lactation, and infant nutrition in humans and comparative animal species; milk and formula composition; malnutrition and supplemental feeding programs in developed and developing countries; nutrient requirements and controversial issues in childhood and adolescent nutrition.

**NUTR 611 GRADUATE PROFESSIONAL PRACTICE 1.** (3) (Prerequisite: NUTR 613, and NUTR 614.) (Restrictions: Limited to McGill M.Sc. and M.Sc.Applied (Human Nutrition) students accepted for the Graduate Diploma in R.D. Credentialing and eligible Ph.D. stu-









unless both EPSC 699N1 and EPSC 699N2 are successfully completed in a twelve month period) (EPSC 699N1 and EPSC 699N2 together are equivalent to EPSC 699) Independent study, theoretical and/or laboratory work in connection with the development of an M.Sc. thesis. Success in the course is dependent on presentation of an adequate progress report to the supervisory committee.

**EPSC 699N2 THESIS PREPARATION 3.** (6) (Prerequisite: EPSC 699N1) (No credit will be given for this course unless both EPSC 699N1 and EPSC 699N2 are successfully completed in a twelve month period) (EPSC 699N1 and EPSC 699N2 together are equivalent to EPSC 699) See EPSC 699N1 for course description.

**EPSC 700 PRELIMINARY DOCTORAL EXAMINATION.** (0)

**EPSC 700D1 (0), EPSC 700D2 (0) PRELIMINARY DOCTORAL EXAMINATION.** (Students must register for both EPSC 700D1 and EPSC 700D2) (No credit will be given for this course unless both EPSC 700D1 and EPSC 700D2 are successfully completed in consecutive terms) (EPSC 700D1 and EPSC 700D2 together are equivalent to EPSC 700)

**EPSC 706 ADVANCED SEDIMENTOLOGY.** (6) (2 hours lectures or seminar and 3 hours laboratory) Classical and recent papers on sedimentary rocks, processes and environments of transport, deposition, diagenesis and lithification, sedimentary mineral deposits. Basin evolution. Sedimentation and tectonics. Methods of study of sedimentary rocks and statistics.

**EPSC 706D1 (3), EPSC 706D2 (3) ADVANCED SEDIMENTOLOGY.** (Students must register for both EPSC 706D1 and EPSC 706D2) (No credit will be given for this course unless both EPSC 706D1 and EPSC 706D2 are successfully completed in consecutive terms) (EPSC 706D1 and EPSC 706D2 together are equivalent to EPSC 706) Classical and recent papers on sedimentary rocks, processes and environments of transport, deposition, diagenesis and lithification, sedimentary mineral deposits. Basin evolution. Sedimentation and tectonics. Methods of study of sedimentary rocks and statistics.

**EPSC 710 GEOTECTONICS.** (3) (2 hours lectures or seminars) Plate tectonics and orogenesis. Plate tectonics in the geologic past. Problems of tectonic evolution in Precambrian time.

**EPSC 715 INS**



linguistic competence for business communication, and to provide students with some knowledge on China's trade policies as well as on different methods of trading with China.

**EAST 537D1 (3), EAST 537D2 (3) CHINA TODAY THROUGH TRANSLATION.** (Prerequisite (Undergraduate): students with native or near native proficiency may register directly, other students require permission of instructor) (Restriction: Not open to students who have taken EAST 437) (Students must register for both EAST 537D1 and EAST 537D2.) (No credit will be given for this course unless both EAST 537D1 and EAST 537D2 are successfully completed in consecutive terms) A course to develop practical translation skills and understanding of contemporary China, focusing on Sino-Canadian and multi-lateral political, cultural and trade issues. Interpretive skills will be enhanced through translation exercises and discussion in class. Course materials include original documents and videos from the business communications and other fields.

**EAST 540D1 (3), EAST 540D2 (3) FOURTH LEVEL JAPANESE.** (Prerequisite (Undergraduate): EAST 440 or equivalent or permission of instructor) (Students must register for both EAST 540D1 and EAST 540D2.) (No credit will be given for this course unless both EAST 540D1 and EAST 540D2 are successfully completed in consecutive terms) Advanced study of Japanese, with emphasis on reading Japanese newspapers. Classes will be conducted entirely in Japanese.

**EAST 543 CLASSICAL JAPANESE 1.** (3) (Prerequisite (Undergraduate): EAST 440 or permission of instructor) The course will offer an introduction to the grammar and syntax of classical Japanese. Readings of well-known pre-modern writings.

**EAST 544 CLASSICAL JAPANESE 2.** (3) (Prerequisite (Undergraduate): EAST 543 or permission of instructor) The grammar and syntax of classical Japanese. Readings in well-known writings of pre-modern Japan.

**EAST 547 ADVANCED READING AND TRANSLATION IN JAPANESE.** (3) (Prerequisite (Undergraduate): EAST 440 or permission of the instructor) (Restriction: Departmental approval required) This course is designed to improve students' skills in reading and translating Japanese. Readings will be taken from various novels, short stories and articles. Translation from Japanese to English or French.

**EAST 550 CLASSICAL CHINESE POETRY THEMES AND GENRES.** (3) (Prerequisite (Undergraduate): EAST 433 or permission of instructor) A study of major themes and genres of classical Chinese poetry from its beginnings to the Yuan dynasty (14th century), with emphasis on critical analysis of text and context. Readings of poems in the original.

**EAST 551 TECHNOLOGIES OF SELF IN EARLY CHINA.** (3) (Prerequisite (Undergraduate): One advanced course in EAS or permission of the instructor) Readings on self-cultivation drawn from Confucian, Legalist, and Taoist philosophic texts of early China (5th-2nd centuries B.C.) in translation will be compared with historical and archaeological materials on the evolving construction of the "individual" in Chinese social structure, military organization, political and ritual codes.

**EAST 552 THE YIJING (BOOK OF CHANGES).** (3) (Prerequisite: Any 300-level or above EAST course or permission of instructor.) (Note: No prior knowledge of Chinese required.) In-depth examination of the Yijing, known in the West as the Book of Changes. The course will combine a close reading of this pivotal text and its numerous commentaries with a social and cultural analysis of the diverse functions it fulfilled through Chinese history - philosophical, political, religious, aesthetic and cosmological.

**EAST 559 ADVANCED TOPICS C**



The total thesis program requirement is 48 credits (18 credits of course work and 30 credits for t

**ECON 621 MACROECONOMIC THEORY 2.** (3) This is the second in a two-course sequence in macroeconomics. The course provides an in-depth analysis of selected issues in macroeconomic theory, extending and complementing the coverage provided in ECON 620.

**ECON 622 PUBLIC FINANCE.** (3) A survey of the role of government in the economy (excluding the macroeconomic side - stabilization, etc.). Topics include markets and market failure; public goods; externalities; the theory of the second-best and the study of collective choice, including voting; and the collection of revenue to finance government activity, including optimal taxation of commodities and income.

**ECON 623 MONEY AND BANKING.** (3) A rigorous analysis of the demand and supply of money and the role that it plays in the economy. Study of the ideas of the major schools of thought in monetary economics.

**ECON 624 INTERNATIONAL ECONOMICS.** (3) A detailed examination of theories and policies in international trade and finance.

**ECON 625 ECONOMICS OF NATURAL RESOURCES.** (3) The concept of optimal resource management and the associated rules, such as Hotelling's rule and Faustmann's rule. Implications of the need to sink capital for equilibrium in resource utilization under certainty and uncertainty. Conditions under which there is market failure and the merits of price and quantity instruments.

**ECON 634 ECONOMIC DEVELOPMENT.** (3) A systematic treatment of the characteristics and problems of economic development in underdeveloped countries.

**ECON 637 INDUSTRIAL ORGANIZATION AND REGULATION.** (3) An analysis of the nature of the firm, industrial structure and the effect of structure on firm and industry behaviour and performance.

**ECON 641 LABOUR ECONOMICS.** (3) A synthesis of theoretical developments in the area of labour economics with stress upon problems of empirical testing.

**ECON 650 RESEARCH 1.** (3) Preparation for work on M.A. thesis and M.A. research report.

**ECON 651 RESEARCH 2.** (3) Preparation for work on M.A. thesis and M.A. research report.

**ECON 652 RESEARCH 3.** (3) Preparation for work on M.A. thesis and M.A. research report.

**ECON 653 RESEARCH 4.** (3) Preparation for work on M.A. thesis and M.A. research report.

**ECON 660 HISTORY OF ECONOMIC THOUGHT.** (3) Selected topics in the history of economic thought.

**ECON 662 ECONOMETRICS.** (6) A broad treatment of econometric methods, with particular reference to time series processes. Estimation of linear and non-linear models, GLS, IV, Maximum Likelihood, parametric specification testing for linear and non-linear hypotheses, diagnostic testing (autocorrelation, heteroskedasticity, normality, parameter constancy, etc.), modelling technique, non-stationary data processes.

**ECON 662D1 (3), ECON 662D2 (3) ECONOMETRICS.** (Students must register for both ECON 662D1 and ECON 662D2) (No credit will be given for this course unless both ECON 662D1 and ECON 662D2 are successfully completed in consecutive terms) (ECON 662D1 and ECON 662D2 together are equivalent to ECON 662) A broad treatment of econometric methods, with particular reference to time series processes. Estimation of linear and non-linear models, GLS, IV, Maximum Likelihood, parametric specification testing for linear and non-linear hypotheses, diagnostic testing (autocorrelation, heteroskedasticity, normality, parameter constancy, etc.), modelling technique, non-stationary data processes.

**ECON 665 QUANTITATIVE METHODS.** (3) A survey of quantitative methods frequently used in economic research. Special emphasis will be placed upon the formulation and evaluation of econometric





Reisinger, Kieron Rogan, Christina Rudd, Caroline Zanni-Dansereau, Scott Waugh

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## 26.2 Programs Offered

The Department offers M.A. (Non-thesis), M.A. (Thesis), and Ph.D. programs in Counselling Psychology, School/Applied Child Psychology, Educational Psychology, as well as an M.Ed. in Educational Psychology.

Also offered is a Graduate Diploma in School/Applied Child Psychology (Ph.D. Respecialization).

For information about graduate programs, please contact the appropriate Program Coordinator:

**Cognition and Instruction and Professional Education**, including Adult Education, Applied Cognitive Science, Computer Applications in Education, Family Life Education, General Educational Psychology, Health Professions, Higher Education, Inclusive/Special Populations Education, Instructional Psychology, Psychology of Gender — Mrs. Geri Norton, (514) 398-4244.

**Professional Psychology**, including Counselling Psychology, School/Applied Child Psychology, and Applied Developmental Psychology — Ms. Diane Bernier, (514) 398-4245.

Graduate programs are organized under three degree designations, Counselling Psychology, School/Applied Child Psychology, and Educational Psychology. Within Educational Psychology, degrees are offered in three program groupings, each covering different specializations. Please refer to the detailed subsections following for each to verify which degrees are available and specific requirements.

Educational Psychology Ph.D. programs are organized around a Major and Minor; students may freely select the combination of Major and Minor across program groupings, according to availability. Some of the specializations listed below are available only as Minors.

### **Cognition and Instruction**

- Applied Cognitive Science
- Higher Education

formal program requirements, will be taken into account in the assessment of the students' overall academic standing in the program and, in the most serious instance, may result in a requirement to withdraw from the program.

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### **26.3 Admission Requirements**

Specific admission requirements vary across degrees and program options. Please see additional details with each detailed description below.

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### **26.4 Application Procedure**

McGill's online application form is available to all graduate program candidates at [www.mcgill.ca/applying/graduate](http://www.mcgill.ca/applying/graduate).

All applicants must supply:

1. A completed application form.
2. Official transcripts of post-secondary studies.
3. Letters of reference.
4. Application fee (\$80 Canadian – credit card, cheque or money order, payable in Canadian \$ to "McGill University").
5. TOEFL score (where applicable).

Additional specific requirements apply to particular degrees and program options. Please see additional details with each detailed description below.

Applications including the fee should be addressed to the Program Coordinator (Secretary) at the above address, clearly stating the Degree (M.Ed., M.A. with or without thesis, Ph.D., or Post-Ph.D. Graduate Diploma) and specialization of interest.

The deadline for applications to the M.A. (Thesis) and Ph.D. School Applied Child Psychology programs is January 10th, for September admissions. For all other programs is February 1 for September admission. Some programs will consider other admission dates — please consult the Program Coordinator (Secretary) beforehand if applying after February 1. Late applications in some programs may be considered if places have not been filled. The September starting date is normally firm in accredited professional programs.

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### **26.5 Program Requirements**

#### **26.5.1 Graduate Degrees in Counselling Psychology – M.A.(Non-thesis), M.A., Ph.D.**

(see also

internship/fieldwork only with approval of the program staff and if supervisory staff is available.

**Admission Requirements**

Same as for the M.A.(Non-thesis) Counselling Psychology. Admission to this program is limited.

**Program Requirements**

Credit for the thesis will be awarded upon satisfactory completion of the thesis components listed below. This degree requires a minimum of four semesters and one summer session of full-time study.

**M.A. Counselling Psychology (48 credits)**

**Required Courses (21 credits)**

4. Each applicant is required to take the Graduate Record Examination (General and Psychology Tests).
5. Three (3) letters of reference.
6. A current CV (format based on template provided).
7. Scores on the TOEFL if international student.
8. Letter of intent.
9. Statement of your

**Thesis Component – Required (24 credits)**

**Elective Course (3 credits)**

**Ph.D. IN COUNSELLING PSYCHOLOGY**

This program is built on the scientist-practitioner model and is accredited by the Canadian and American Psychological Associations. Its aims are:

1. To develop professionals who are able to contribute to the advancement of knowledge in the field of counselling psychology through research that studies social phenomena that may impinge upon the practice of psychology. This research may be a study of the practice of counselling psychology or it may be broader in that it has indirect implications for practice.
2. To develop professionals who are able to evaluate the merits and weaknesses of current research in the field and its implications for the practice of counselling psychology.
3. To develop professionals who are able to integrate a broad theoretical and practical knowledge base into the practice and supervision of counselling psychology, that is, to train professionals capable of addressing complex issues and applying that understanding to practice and supervision.
4. To develop professionals who are able to take a leadership role in the profession at a variety of levels including community, university and professional organizational levels.

Graduates of the program will be prepared to assume careers in education and community settings, including faculty positions, counselling and psychological positions on the staff of university and college mental health centres, and professional positions in psychological agencies offering preventative mental health services.

**Admission Requirements**

1. All Ph.D. applicants must have secured in writing a research supervision commitment from one of the counselling psychology staff members prior to candidacy.
2. Each applicant, in addition to having a Master's degree in counselling psychology or its equivalent, must present evidence of research capability such as a Master's thesis, an Honours thesis or, at the minimum, a well-developed proposal for a doctoral thesis.
3. All applicants who have not completed a Master's level internship will have their applications evaluated on a case-by-case basis.

practical contribution to teaching, such as (a) the application of the results of educational research, (b) evaluation of student learning, teaching, programs, and educational experimentation and innovation, (c) a greater understanding of human development, individual differences, and the learning process, and (d) a greater understanding of classroom processes and strategies for teaching diverse learners. Courses will be offered at times that enable part-time study. The program is directed toward the innovative teacher and/or professional at any level. Applicants may choose the general program or one of several concentrations.

The program offers six M.Ed. areas of concentration of studies:

- (a) Family Life Education,
- (b) General Educational Psychology,
- (c) Inclusive Education.
- (d) Adult Education (admission to this concentration has been suspended),
- (e) Computer Applications (admission to this concentration has been suspended),
- (f) Education of the Gifted, (admission to this concentration has been suspended).

#### Admission Requirements

1. An undergraduate degree in education, psychology, or another field relevant to the proposed studies in Educational Psychology.
2. Minimum CGPA of 3.0 out of 4.0 or higher in undergraduate studies.
3. Statements of academic and research experience, relevant professional training and experience.
4. Letters of reference from at least two professional colleagues, or from at least two former university instructors, and any others the applicant should be submitted.

#### Program Requirements

The program contains three main parts: (a) three required courses (9 credits), (b) two required courses (12 credits) constituting a Special Activity, the student's major project intended to demonstrate by performance that the student has succeeded in the program – the Special Activity may be one large project or two smaller ones, and (c) optional courses, totalling 27 credits that allow the student to design an individualized program or specialize in one or more areas of concentration.

Some courses are offered in alternating years. Students should take EDPE 602 early in their program. Pre- or corequisite to EDPE 602: EDPE 575 Educational Measurement or its equivalent; this course may be included as an elective within the 48 credits of the M.Ed. and should be taken first. The program director or advisor for the M.Ed. area of concentration should be consulted about the specific sequence to be followed.

#### Required Courses (21 credits)

#### Elective Courses (27 credits)

Optional courses may be selected in consultation with the Program Director for the M.Ed. area of concentration from among the Department's graduate courses and from other courses offered at the graduate level in the University. Optional courses are selected so as to provide students with a coherent program of study in their area of interest and tailored to their needs.

M.Ed. students who contemplate continuing to a Ph.D. (Educational Psychology) Major in the Cognition and Instruction Program Grouping should take EDPE 666 and, in addition, take EDPE 555 which may supplement or replace EDPE 600.

#### M.Ed. Concentrations

Students may select these as part of their 27 credits of elective courses. Some courses also have prerequisites or corequisites that should be heeded in program planning. Students are welcome to propose to their faculty advisors or the Associate Program Director adaptations of these M.Ed. Concentrations. Completion of the Family Life Education Concentration as described is essential for recM 1 T i t i o n b 9 - 1

Since 1997 the Quebec Ministry of Education no longer issues specialist certificates except in initial teacher education. Specialized certificates are not required to seek employment, but school boards will still seek suitably qualified applicants for teaching and consulting positions.

#### **PRE-DOCTORAL STUDIES**

M.Ed. students and graduates are eligible to apply to the Ph.D. in Educational Psychology if they have completed the following program elements. These may have been included within the M.Ed. program. Upon completion of the M.Ed., if the uncompleted requirements can be accomplished in one year of study or less, they may be taken in the Ph.D. 1 year. Any excess must be completed before Ph.D. studies can begin. The required elements are:

- studies within a Major area to be pursued within the Ph.D. (there is no required number of courses since Major sequences are calculated across Master's and Ph.D. studies),

the following general courses: (a) EDPE 602, (b) EDPE 603 (research methods) or EDEM 692, EDSL 630 or the equivalent (qualitative research methods), and (c) EDPE 676 (intermediate statistics).

- a research project in the manner of an M.A. thesis (though less extensive) within at least one of the Special Activities (EDPE 697 or EDPE 698).

In the Ph.D. 1 year for M.Ed. (Educational Psychology) graduates, students will normally complete any remaining Ph.D. required courses listed below, continue study in their Major and Minor sequences, and actively begin their doctoral research. The courses referred to are:

M.Ed. students who contemplate continuing to a Ph.D. (Educational Psychology) Major in the Cognition and Instruction Program Grouping should take EDPE 666 and, in addition, take EDPE 555 which may supplement or replace EDPE 600.

#### **M.A. (THESIS) EDUCATIONAL PSYCHOLOGY** (48 credits – or 78 credits for School/Applied Child Psychology)

Several streams of study lead to an M.A. with thesis in Educational Psychology. The stream for School/Applied Psychology requires 78 credits; all other streams require 48 credits.

The aim of the M.A. (with thesis) is to produce graduates who (a) are broadly trained in educ

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**(g) Special Populations of Learners/Gifted Education****(h) Family Life Education**

In addition, one of the Special Activities (EDPE 697 or EDPE 698) (6 credits each) must consist of the content of EDPI 536 and EDPI 537, Practicum Gifted Education 1 and 2 (3 credits each). Students may register either for the Practica or Special Activity.

**Minor Sequences in the Ph.D.(Educational Psychology)****(a) Applied Cognitive Science**

**Complementary Courses** (9 credits)

**(b) Applied Developmental Psychology****(c) Higher Education**

**Required Courses** (9 credits)

**(d) Instructional Psychology**

**Required Courses** (6 credits)

**Complementary Courses** (3 credits)

**(e) Psychology of Gender**

Students selecting the Psychology of Gender Minor are encouraged to take EDEM 692 or EDSL 301 or the equivalent (qualitative research methods).

**(f) Special Populations of Learners/Special Needs**

work) lacking only the content in educational psychology that can be acquired within one year of full-time study. The applicant's academic record must reflect high overall standing and evidence of research competence.

or

(b) Applicants should hold a Bachelor's degree in psychology, reflecting high academic standing in an Honours or Major program, and have completed an undergraduate thesis or the equivalent. (This option is rarely exercised.)

All applicants will also be expected to provide:

1. at least two letters of recommendation,
2. a 3-5-page summary proposal of the intended thesis research,
3. a statement of experience (curriculum vitae), career plans, and program appropriateness, and
4. a copy of a Master's thesis, Honours thesis, or research project (which will be returned after examination).

Additional Entrance Notes:

**School/Applied Child Psychology**

Applicants are required to supply results of the Graduate Record Examinations (Verbal, Quantitative, and Psychology) at the time

of application. The minimum scores are: Verbal (160), Quantitative (160), and Psychology (160). The maximum score for each section is 240. The total score for all three sections is 480. The minimum total score is 480. The maximum total score is 720. The minimum score for each section is 160. The maximum score for each section is 240. The minimum total score is 480. The maximum total score is 720.

**Complementary Courses – Field Placements** (12 credits)

(2 days per week, one semester each; students select 2 of these 3 field experiences; placement in a school covering all grades may be applied to either EDPE 721 or EDPE 722):

**Internship** (24 credits)

(1 year full-time or 2 years half-time)

Please see the description of the Ph.D. Educational Psychology Major in School Applied Child Psychology for the full list of requirements from which each student's Graduate Diploma program will be constructed.

**Language Requirement**

Students are not required to demonstrate knowledge of a second language within this program, but any student wishing to be licensed as a professional psychologist in Quebec must at that point have a working knowledge of French. Accreditation status may be confirmed by contacting the accrediting bodies:

**Professional Accreditation**

All elements of this Post-Ph.D. Graduate Diploma are selected from the professional components of the Ph.D. in School/Applied Child Psychology, which is accredited in the School Psychology category by the American Psychological Association (APA). Graduates of a respecialization program are normally accorded the same recognition as graduates of the accredited program.

The Ph.D. has also been approved by the Ordre des psychologues du Québec (OPQ) which has recommended the final stage of professional recognition to the Office des professions of the Government of Quebec. Once this accreditation is confirmed, however, graduates of the Post-Ph.D. Graduate Diploma

alcoholic, and those who are on drugs or experiencing emotional trauma, as well as other problems. Attention will be given to identification of referral sources and the writing of reports.

**EDPC 507 PRACTICUM: GROUP LEADERSHIP SKILLS.** (3) (Offered through Continuing Education.) (Prerequisite: EDPC 502) The practical aspects of group leadership, group design and planning. Candidates will set up groups, conduct such groups over a number of sessions, and assess these groups according to the theoretical models covered in the prerequisite course.

**EDPC 508 S**

articles. Special emphasis is given to the application of research findings to field settings and clinical process. Lecture, discussion, workshops, and student research presentations are used.

**EDPC 682 PRACTICUM: PSYCHOLOGICAL TESTING.** (6) Seminar and field practice in the administration and interpretation of educational and psychological tests including personality, within clinical





**EDPE 684 APPLIED MULTIVARIATE STATISTICS.** (3) (Prerequisite: EDPE 682 or equivalent.) Principal methods, models, and hypothesis-testing procedures for the prediction and analysis of patterns, structure, and relationships in multivariate data, e.g., discriminant, principal components, canonical correlation, profile analyses, measurement models, factor and path analysis, repeated measures. Applications oriented toward education and educational and counselling psychology. Experience with data-analysis tools.

**EDPE 687 ADVANCED QUALITATIVE METHODS.** (3) (Prerequisite: EDEM 692 or the equivalent.) Origins of qualitative methodologies in sociology, psychology, and education in relation to ideology, epistemology, and methodology. Focus on data reduction and field methods.

**EDPE 691 READING COURSE.** (3)

**EDPE 692 READING COURSE.** (6)

**EDPE 692D1 (3), EDPE 692D2 (3) READING COURSE.** (Students must register for both EDPE 692D1 and EDPE 692D2) (No credit will be given for this course unless both EDPE 692D1 and EDPE 692D2 are successfully completed in consecutive terms) (EDPE 692D1 and EDPE 692D2 together are equivalent to EDPE 692)

**EDPE 693 THESIS 3.** (3) Thesis



successfully completed in consecutive terms) (EDPE 722D1 and EDPE 722D2 together are equivalent to EDPE 722) Open only to Ph.D. students in School/Applied Child Psychology. Field experience. Two days or 16 hours per week supervised by faculty members and a field supervisor in a school providing secondary education. Weekly class meetings. Students must also register for either EDPE 721 or EDPE 723 in the same academic year.

**EDPE 723 SCHOOL PSYCHOLOGY: COMMUNITY. (6)** (Prerequisite: EDPE 626) Open only to Ph.D. students in School/Applied Child Psychology. Field experience. Two days or 16 hours per week supervised by faculty members and a field supervisor in an educationally relevant community or institutional setting. Weekly class meetings. Students must also register for either EDPE 721 or EDPE 722 in the same academic year.

**EDPE 723D1 (3), EDPE 723D2 (3) SCHOOL PSYCHOLOGY: COMMUNITY.** (Prerequisite: EDPE 626) (Students must register for both EDPE 723D1 and EDPE 723D2) (No credit will be given for this course unless both EDPE 723D1 and EDPE 723D2 are successfully completed in consecutive terms) (EDPE 723D1 and EDPE 723D2 together are equivalent to EDPE 723) Open only to Ph.D. students in School/Applied Child Psychology. Field experience. Two days or 16 hours per week supervised by faculty members and a field supervisor in a school providing secondary education. Weekly class meetings. Students must also register for either EDPE 721 or EDPE 723 in the same academic year.

**EDPE 725 INTERNSHIP 1 - SCHOOL PSYCHOLOGY. (12)** (Prerequisites: EDPE 708 and two of EDPE 721, EDPE 722 or EDPE 723) Open only to Ph.D. students in School/Applied Child Psychology. A 2 1/2 day, 10 to 12-month supervised internship (minimum 600 hours) including assessment and diagnosis normally in a school-based setting. This also includes group supervision to discuss cases that arise in internship settings. May be combined with EDPE 726 in a single full-time year long internship; this full-time pattern is typical in accredited sites.

**EDPE 725D1 (6), EDPE 725D2 (6) INTERNSHIP 1 - SCHOOL PSYCHOLOGY.** (Prerequisites: EDPE 708 and two of EDPE 721, EDPE 722 or EDPE 723) (Students must register for both EDPE 725D1 and EDPE 725D2) (No credit will be given for this course unless both EDPE 725D1 and EDPE 725D2 are successfully completed in consecutive terms) (EDPE 725D1 and EDPE 725D2 together are equivalent to EDPE 725) Open only to Ph.D. students in School/Applied Child Psychology. A 2 1/2 day, 10 to 12-month supervised internship (minimum 600 hours) including assessment and diagnosis normally in a school-based setting. This also includes group supervision to discuss cases that arise in internship settings. May be combined with EDPE 726 in a single full-time year long internship; this full-time pattern is typical in accredited sites.

**EDPE 726 INTERNSHIP 2 - SCHOOL PSYCHOLOGY. (12)** (Prerequisites: EDPE 708 and two of EDPE 721, EDPE 722 or EDPE 723) Open only to Ph.D. students in School/Applied Child Psychology. A 2 1/2 day, 10 to 12-month supervised internship (minimum 600 hours) including assessment and diagnosis normally in an educationally relevant community-based center (e.g., hospital, clinic), randypical in accredited sites.



James Clark; B.Sc., Ph.D.(Br.Col.)

Francisco D. Galiana; B.Eng.(McG.), S.M., Ph.D.(MIT), F.I.E.E.E.,  
Eng.

Geza Joos; B.Sc.(C'ida), M.Eng. Ph.D.(McG.)(*CRC Chair*)

Peter Kabal; B.A.Sc., M.A.Sc., Ph.D.(Tor.)













integrated filter technologies; active-RC, MOSFET-capacitor, transconductance-capacitor, switched-capacitor, switched-current; filter tuning methods. Phase-locked loops; signal conversion techniques.

**ECSE 648 VLSI DESIGN.** (4) (1-5-3) (Prerequisite: ECSE 548) (Limited enrolment) A project course with the opportunity to apply the knowledge acquired in 304-548 to the design of a complete digital IC of medium complexity. Completed designs will be submitted for fabrication to the Implementation Centre of the Canadian Microelectronics Corporation. The course includes lectures on advanced topics in VLSI design.

**ECSE 649 VLSI T**

M.W. Selkirk; B.A.(Alta), M.F.A.(Ill.)

*Assistant Professors*

S. Carney; B.A.(Man.), M.A.(Alta.), Ph.D.(York)

W. Folkerth; B.A.(Calif. St.), M.A., Ph.D.(McG.)

J. Fumo; B.A. (Mass-Amherst), M.A., Ph.D. (Princ.)

Y. Halevi-Wise; B.A. (Hebrew Univ. of Jerusalem), M.A.  
(Georgetown), Ph.D. (Princ.)

The course credit weight is given in parentheses after the title.

The following is a list of all courses in English approved for offering at the graduate level. Courses at the 500 level are also open to advanced undergraduates. A maximum of two courses at the 500 level may be taken by Masters students.

**ENGL 500 MIDDLE ENGLISH.**







sample size requirements, protocol development, trial management and analysis, reporting and interpretation of trial results.

**EPIB 637 INFECTIOUS AND PARASITIC DISEASE EPIDEMIOLOGY.** (3) (Offered only in Summer term.) (Prerequisite: EPIB 606 or equivalent) This course provides in-depth review of principles of infectious disease epidemiology and illustrates these using local and global infections of current importance. Students will gain an understanding of principles of infectious disease epidemiology and how they apply to infections in both temperate and tropical areas.

**EPIB 640 PRACTICUM.** (1) This course gives students the opportunity to integrate knowledge from and apply principles covered in courses EPIB 606 and EPIB 607.

**EPIB 641 SUBSTANTIVE EPIDEMIOLOGY 1.** (1) Designed to give students an overview of a major disease or health problem. Students will develop their knowledge of a topic regarding 1) key definitions, concepts and indicators useful in study of the problem; 2) epidemiology of problem, 3) major studies of interventions designed to address the problem. Topics currently offered include cancer, injury prevention and heart disease but not all are offered in each semester.

**EPIB 642 SUBSTANTIVE EPIDEMIOLOGY 2.** (1) Designed to give students an overview of a major disease or health problem. Students will develop their knowledge of a topic regarding 1) key definitions, concepts and indicators useful in study of the problem; 2) epidemiology of problem, 3) major studies of interventions designed to address the problem. Topics currently offered include cancer, injury prevention and heart disease but not all are offered in each semester.

**EPIB 643 SUBSTANTIVE EPIDEMIOLOGY 3.** (1) Designed to give students an overview of a major disease or health problem. Students will develop their knowledge of a topic regarding 1) key definitions, concepts and indicators useful in study of the problem; 2) epidemiology of problem, 3) major studies of interventions designed to address the problem. Topics currently offered include cancer, injury prevention and heart disease but not all are offered in each semester.

**EPIB 644 SUBSTANTIVE EPIDEMIOLOGY 4.** (1) Designed to give students an overview of a major disease or health problem. Students will develop their knowledge of a topic regarding 1) key definitions, concepts and indicators useful in study of the problem; 2) epidemiology of problem, 3) major studies of interventions designed to address the problem. Topics currently offered include cancer, injury prevention and heart disease but not all are offered in each semester.

**EPIB 645 SUBSTANTIVE EPIDEMIOLOGY 5.** (1) Designed to give students an overview of a major disease or health problem. Students will develop their knowledge of a topic regarding 1) key definitions, concepts and indicators useful in study of the problem; 2) epidemiology of problem, 3) major studies of interventions designed to address the problem. Topics currently offered include cancer, injury prevention and heart disease but not all are offered in each semester.

**EPIB 646 EVALUATION OF HEALTH SERVICES.** (3) (Course offered only in some years) (Prerequisites: EPIB 606, EPIB 607) This course will present methodologies for the evaluation of health services, and illustrate these approaches with a variety of clinical and community services. Topics will include: levels of evaluation, evaluation design, identification and measurement of key variables, and practical aspects of evaluation.

**EPIB 650 DIPLOMA DISSERTATION.** (9) A scholarly paper tailored to the student's interests and approved by the student's supervisor.

**EPIB 651 SELECTED TOPICS IN BIOSTATISTICS 1.** (1) The purpose of this 1-credit courses is to cover specific methodologic topics in more detail than is given in the main courses on statistical methods. The topics to be offered may vary from year to year. Topics currently offered include "Biometric Methods in Occupational Epidemiology" and "Practical Considerations of Statistical Power".

**EPIB 652 SELECTED TOPICS IN BIOSTATISTICS 2.** (1) The purpose of this 1-credit course is to cover specific methodologic topics in

more detail than is given in the main courses on statistical methods. The topics to be offered may vary from year to year. Topics currently offered include "Biometric Methods in Occupational Epidemiology" and "Practical Considerations of Statistical Power".

**EPIB 654 PHARMACOEPIDEMIOLOGY 4.** (2) (Offered only in Summer term.) (Prerequisites: EPIB 606, EPIB 607 or permission of instructor) The (ly )Tw[(EPcPI4iology" ~~57~~.6-009 T 607





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### 30.4 Application Procedures

Applicants for graduate studies must forward supporting documents to:

Department of Food Science and Agricultural Chemistry  
Macdonald Campus of McGill University  
21,111 Lakeshore  
Sainte-Anne-de-Bellevue, QC H9X 3V9  
Canada

Telephone: (514) 398-7898

Fax: (514) 398-7977

E-mail: [foodscience.macdonald@mcgill.ca](mailto:foodscience.macdonald@mcgill.ca)

Applications will be considered upon receipt of a completed application form, \$80 application fee, and the following supporting documents:

**Transcripts** - Two official copies of all university level transcripts with proof of degree(s) granted. Transcripts written in a language other than English or French must be accompanied by a certified translation. An explanation of the grading system used by the applicant's university is essential. It is the applicant's responsibility to arrange for transcripts to be sent.

It is desirable to submit a list of the titles of courses taken in the major subject, since transcripts often give code numbers only. Applicants must be graduates of a university of recognized reputation and hold a Bachelor's degree equivalent to a McGill Honours degree in a subject closely related to the one selected for graduate work. This implies that about one-third of all undergraduate courses should have been devoted to the subject itself and another third to cognate subjects.

**Letters of Recommendation** - Two letters of recommendation on letterhead (official paper) of originating institution or bearing the university seal and with original signatures from two instructors familiar with the applicant's work, preferably in the applicant's area of specialization. It is the applicant's responsibility to arrange for these letters to be sent.

**Competency in English** - Non-Canadian applicants whose mother tongue is not English and who have not completed an undergraduate degree using the English language are required to submit documented proof of competency in oral and written English, by appropriate exams, e.g., TOEFL (minimum score 550 on the paper-based test, 213 on the computer-based test or 86 on the Internet-based test with each component not less than 20) or IELTS (minimum overall band 6.5). The MCHE is not considered equivalent. Results must be submitted as part of the application. The University code is 0935 (McGill University, Montreal); please use Department code 31 (Graduate Schools), Biological Sciences-Agriculture, to ensure that your TOEFL reaches this office without delay.

**Graduate Record Exam (GRE)** - The GRE is not required, but it is highly recommended.

DOCUMENTS SUBMITTED WILL NOT BE RETURNED.

**Application Fee (non-refundable)** - A fee of \$80 Canadian must accompany each application (including McGill students), otherwise it cannot be considered. This sum must be remitted using one of the following methods:

1. Credit card (by completing the appropriate section of the application form). NB: online applications must be paid for by credit card.
2. Certified cheque in Cdn.\$ drawn on a Canadian bank.
3. Certified cheque in U.S.\$ drawn on a U.S. bank.
4. Canadian Money order in Cdn.\$.
5. U.S. Money Order in U.S.\$.
6. An international draft in Canadian funds drawn on a Canadian bank requested from the applicant's bank in his/her own country.

**Deadlines** – Applications, including all supporting documents

**Required Courses** (6 credits)

**Ph.D. in Food Science**

Candidates will be judged principally on their ability in research. Course work will be arranged in consultation with the departmental graduate advisory committee. Candidates should be prepared to take the Comprehensive Preliminary Examination by the end of the second year in which they are candidates for the Ph.D. degree.

**Required Courses** (6 credits)

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**30.6 Courses**

Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.

The course credit weight is given in parentheses after the title.

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Le choix des séminaires que fait l'étudiant doit être approuvé par le Directeur des études au moment de l'inscription. La Commission des admissions du Département peut accorder des dérogations au règlement des inscriptions à la Maîtrise en fonction du dossier de chaque étudiant.

Une partie de la scolarité (maximum de 6 crédits) peut être suivie dans un autre département de McGill qui offre des cours dans le domaine des Humanités de l'annuaire des Études supérieures et postdoctorales, ou dans une autre université, pourvu que les cours et séminaires y soient de même niveau que

**FREN 600 TRAVAUX DIRIGÉS 1. (3)**

**FREN 601 TRAVAUX DIRIGÉS 2. (3)**

**FREN 609 CRÉATION LITTÉRAIRE 1. (3)**

**FREN 611 CRÉATION LITTÉRAIRE 2. (3)**

**FREN 612 SÉMINAIRE DE RECHERCHE 1. (3)**

**FREN 613 SÉMINAIRE DE RECHERCHE 2. (3)**

**FREN 615 LITTÉRATURE ET SOCIÉTÉ 1. (3)**

**FREN 616 LITTÉRATURE ET LINGUISTIQUE. (3)**

**FREN 620 ÉVOLUTION - LANGUE FRANÇAISE AU CANADA. (3)**

**FREN 621 PROBLÈMES D'ESTHÈS 151.26 590.7709 Tmé 0 T.6590.7709 Tm-0.0001 Tc0.0039 Tw( 1. )Tj/TT2 1 Tf1.3852 0 TD-.0001 Tc0.Tw(((3)-83(8)**

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## 32.2 Programs Offered

M.A., M.Sc. and Ph.D.

### McGill Northern Research Stations

The McGill Subarctic Research Station is located at Schefferville, in the centre of Quebec-Labrador. Facilities exist for research in most areas of physical and some areas of human geography in the subarctic.

McGill University also operates a field station at Expedition Fiord on Axel Heiberg in the High Arctic. Facilities are limited to a small lab and dorm building and cookhouse. Research activities focus on the glacial and geological. For additional information on these stations, contact the Scientific Director, Wayne Pollard, Department of Geography.

### Centre for Climate and Global Change Research

The Department of Geography, with the McGill Departments of Atmospheric and Oceanic Sciences, Economics, Natural Resource Sciences; and several departments from the Université du Québec à Montréal and Université de Montréal developed a collaborative research centre that examines climate and global change. Through this Centre there are graduate opportunities.

For more information contact Professor Nigel Roulet, Director, Centre for Climate and Global Change, McGill University.

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## 32.3 Admission Requirements

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**Ph.D. Programs**

Students must pass the courses specified for their program, attend such additional courses as the Chair and the student's thesis supervisor think fit, and submit a thesis based on original research in an appropriate area.

**Ph.D. in Geography**

**Required Course** (6 credits)

**Ph.D. in Geography – Neotropical Environment  
Option/Concentration**

**Required Courses** (12 credits)

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**32.6 Courses**

Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.

Term(s) offered (Fall, Winter, Summer) may appear after the credit weight to indicate when a course would normally be taught. Please check Class Schedule to confirm this information.

**Note:** All undergraduate courses administered by the Faculty of Science (courses at the 100- to 500-level) have limited enrolment.

The course credit weight is given in parentheses after the title.

**GEOG 500 GEOGRAPHY OF REGIONAL IDENTITY.** (3) (Fall) (3 hours) (Restriction: Graduate students and final year undergraduates and/or those who have taken GEOG 408) The response of diverse regional groups in Europe to the centripetal tendencies of national institutions. The course draws upon examples from a variety of European regions. Contemporary regional issues will be contextualised within a spatial framework of historical geography.

**GEOG 501 MODELLING ENVIRONMENTAL SYSTEMS.** (3) (Fall) (1.15 hours lecture, 0.58 hours seminar, 0.69 hours project, 0.58 hours laboratory) (Restriction: open only to U2 or U3 students who have completed six or more credits from courses at the 300 level of Atmospheric and Oceanic Sciences)





month period) (GEOG 699N1 and GEOG 699N2 together are equivalent to GEOG 699) See GEOG 699N1 for course description.

**GEOG 700 COMPREHENSIVE EXAMINATION 1. (0)**

**GEOG 700D1 (0), GEOG 700D2 (0) COMPREHENSIVE EXAMINATION 1.** (Students must register for both GEOG 700D1 and GEOG 700D2) (No credit will be given for this course unless both GEOG 700D1 and GEOG 700D2 are successfully completed in consecutive terms) (GEOG 700D1 and GEOG 700D2 together are equivalent to GEOG 700)

**GEOG 701 COMPREHENSIVE EXAMINATION 2. (0)**

**GEOG 701D1 (0), GEOG 701D2 (0) COMPREHENSIVE EXAMINATION 2.** (Students must register for both GEOG 701D1 and GEOG 701D2) (No credit will be given for this course unless both GEOG 701D1 and GEOG 701D2 are successfully completed in consecutive terms) (GEOG 701D1 and GEOG 701D2 together are equivalent to GEOG 701)

**GEOG 702 COMPREHENSIVE EXAMINATION 3. (0)**

**GEOG 702D1 (0), GEOG 702D2 (0) COMPREHENSIVE EXAMINATION 3.** (Students must register for both GEOG 702D1 and GEOG 702D2) (No credit will be given for this course unless both GEOG 702D1 and GEOG 702D2 are successfully completed in consecutive terms) (GEOG 702D1 and GEOG 702D2 together are equivalent to GEOG 702)

**ENVR 540 ECOLOGY OF SPECIES INVASIONS. (3) (Winter) (3 hours lecture)** (Prerequisite: BIOL 308 or permission of instructor.)

(Restrictions: Not open to U1 or U2 students. Not open to students who are taking or have taken BIOL 540.) Causes and consequences of biological invasion, as well as risk assessment methods and management strategies for dealing with invasive species.

**ENVR 580 TOPICS IN ENVIRONMENT 3. (3)** (Prerequisite: Permission of instructor) Advanced-level seminars and discussion of interdisciplinary aspects of current problems in environment led by staff and/or special guests. This course is offered on an irregular basis.

**ENVR 585 READINGS IN ENVIRONMENT 2. (3)** (Prerequisites: ENVR 400 and ENVR 401, or permission of instructor) Interdisciplinary literature project/essays related to environment, enabling

5. Test results (GRE recommended, TOEFL required of all candidates whose mother tongue is not English and who have not completed an undergraduate degree using the English language. Proof of TOEFL must be presented at time of application or shortly thereafter);

6. Writing sample;

7. Statement of academic intent.

All information is to be submitted directly to the Graduate Coordinator in the Department of German Studies.

**Deadline:** February 1st.

McGill's online application form for graduate program candidates is available at [www.mcgill.ca/applying/graduate](http://www.mcgill.ca/applying/graduate).

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### 33.5 Program Requirements

**M.A. in German (Thesis)** (48 credits)

**Complementary Courses** (18 credits)

**M.A. in German (Non-Thesis)** (45 credits)

**Required Courses** (18 credits)

**Complementary Courses** (27 credits)

**Ph.D.**

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**34.1 Staff**

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*Emeritus Professor*

S. Lipp; M.S.(C.C.N.Y.), Ph.D.(Harv.)

*Professors*

J. Pérez-Magallón; Lic.Fil.(Barcelona), Ph.D.(Penn.)

K. Sibbald; M.A.(Cant.), M.A.(Liv.), Ph.D.(McG.)

*Associate Professor*





program is normally completed in three terms, or one calendar year (Fall, Winter and Summer).

#### **Ph.D. Degree in History**

**Examination Requirements:** Candidates are required to sit an oral comprehensive examination by May at the end of the 2nd term of the Ph.D. 2 year. The examination consists of:

HIST 702 Comprehensive Examination in Major Field.

HIST 703 Comprehensive Examination in First Minor Field.

HIST 704 Comprehensive Examination in Second Minor Field.

Candidates must consult with their Director of Studies at the beginning of their Ph.D. work in order to determine their fields.

**Thesis:** With the completion of the oral comprehensive examination, candidates may proceed with their doctoral dissertation. Each Ph.D. candidate will be expected to establish an advisory committee to assist in supervising the dissertation.

**Language Requirements:** Ph.D. Candidates must offer one foreign language for examination purposes. The Department expects that candidates will have successfully demonstrated competence in the one required language by the end of their Ph.D.3 year.

It is understood that candidates may need a reading knowledge of such other languages as are required for research purposes in their major field.

**Candidates in the field of Medical History** will prepare the major field for the Comprehensive Examination with a member of the Department of Social Studies of Medicine and the two minor fields with members of the Department of History. The thesis will normally be directed by the director of the major field. In all other respects, the same rules will apply to candidates in this area as apply to other Ph.D. students in History.

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### **35.6 Courses**

**Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.**

**Courses with numbers ending D1 and D2** are taught in two consecutive terms (most commonly Fall and Winter). Students must register for both the D1 and D2 components. No credit will be given unless both components (D1 and D2) are successfully completed in consecutive terms.

**Note:** All undergraduate courses administered by the Faculty of Arts (courses at the 100- to 500-level) have limited enrolment. The course credit weight is given in parentheses after the title.

**HIST 530 U.S. FOREIGN RELATIONS.** (3) (Prerequisite: one course in U.S. history or permission of instructor.) (Restriction: Enrollment limit 25.) The history and historiography, approaches and interpretations, of American foreign relations from the pre-Revolutionary era to the present.

**HIST 550 ROMAN**

**HIST 594D1 (3), HIST 594D2 (3) TOPICS: TUDOR AND STUART ENGLAND.** (Prerequisite: any university course in British history or consent of instructor) (Students must register for both HIST 594D1 and HIST 594D2.) (No credit will be given for this course unless both HIST 594D1 and HIST 594D2 are successfully completed in consecutive terms) Topic 06-07: Early Modern Media and Politics Topics will vary from year to year and may cover any aspect of early modern British history. Topics for the class presentation and seminar paper (also discussed in class) are assigned to each student according to student interest and availability of sources.

**HIST 595D1 (3), HIST 595D2 (3) SEMINAR: EARLY MODERN WESTERN EUROPE.** (Prerequisite (Undergraduate): permission of instructor) (Students must register for both HIST 595D1 and HIST 595D2.) (No credit will be given for this course unless both HIST 595D1 and HIST 595D2 are successfully completed in consecutive terms) Topic 06-07: Knowledge in the French Atlantic World - 1550-1800 This course is intended to offer advanced analytical and research training in a selected theme in western European history during the period from the Italian Renaissance to the French Revolution.

**HIST 604D1 (3), HIST 604D2 (3) COLONIAL AMERICA.** (Students must register for both HIST 604D1 and HIST 604D2) (No credit will be given for this course unless both HIST 604D1 and HIST 604D2 are successfully completed in consecutive terms).

**HIST 610D1 (3), HIST 610D2 (3) SEMINAR: TOPICS - MEDIEVAL HISTORY.** (Students must register for both HIST 610D1 and HIST 610D2) (No credit will be given for this course unless both HIST 610D1 and HIST 610D2 are successfully completed in consecutive terms).

3)

**HIST 612D1 (3), HIST 612D2 (3) GERMAN NATIONAL SOCIALISM.** (Students must register for both HIST 612D1 and HIST 612D2) (No credit will be given for this course unless both HIST 612D1 and HIST 612D2 are successfully completed in consecutive terms)

**HIST 613D1 (3), HIST 613D2 (3) TOPICS: CANADIAN SOCIAL HISTORY.** (Topic for 2006-07: TBA) (Students must register for both HIST 613D1 and HIST 613D2) (No credit will be given for this course unless both HIST 613D1 and HIST 613D2 are successfully completed in consecutive terms) A seminar covering topics in Canadian Social History which vary from year to year.

**HIST 614D1 (3), HIST 614D2 (3) TOPICS: LATIN AMERICAN HISTORY.** (Topic for 2006-07: TBA) (Students must register for both HIST 614D1 and HIST 614D2) (No credit will be given for this course unless both HIST 614D1 and HIST 614D2 are successfully completed in consecutive terms).

**HIST 615D1 (3), HIST 615D2 (3) TOPICS IN ITALIAN HISTORY.** (Students must register for both HIST 615D1 and HIST 615D2) (No credit will be given for this course unless both HIST 615D1 and HIST 615D2 are successfully completed in consecutive terms)

**HIST 618 READINGS IN EAST ASIAN HISTORY. (3)**

**HIST 628D1 (3), HIST 628D2 (3) TOPICS IN RUSSIAN HISTORY.** (Students must register for both HIST 628D1 and HIST 628D2) (No credit will be given for this course unless both HIST 628D1 and HIST 628D2 are successfully completed in consecutive terms) A seminar covering topics in Russian History which vary from year to year.

**HIST 631D1 (3), HIST 631D2 (3) TOPICS: U.S. SOCIAL HISTORY.** (Students must register for both HIST 631D1 and HIST 631D2) (No credit will be given for this course unless both HIST 631D1 and HIST 631D2 are successfully completed in consecutive terms).

**HIST 637 MEDIEVAL MEDICINE SEMINAR 2. (3)** (Prerequisite: HIST 638.) Research paper on a theme in the history of medicine 400 to 1500.

**HIST 640 MODERN MEDICINE SEMINAR 1. (3)** (Fall) Reading in and discussion of a theme in the history of Western European medicine since 1700.

**HIST 641 MODERN MEDICINE SEMINAR 2. (3)** (Winter) (Prerequisite: HIST 640) Research paper on a theme in the history of Western European medicine since 1700.

**HIST 655 TUTORIAL. (6)** If a seminar is not available in a field judged necessary to complete the program, candidates may (with the consent of their Director of Studies and that of the Chair of the Graduate Committee) do tutorial work to replace a seminar.

**HIST 655 TUTORIAL. (6)** If a seminar is not available in a field judged necessary to complete the program, candidates may (with the consent of their Director of Studies and that of the Chair of the Graduate Committee) do tutorial work to replace a seminar.

**HIST 655D1 (3), HIST 655D2 (3) TUTORIAL.** (Students must register for both HIST 655D1 and HIST 655D2) (No credit will be given for this course unless both HIST 655D1 and HIST 655D2 are successfully completed in consecutive terms) (HIST 655D1 and HIST 655D2 together are equivalent to HIST 655) If a seminar is not available in a field judged necessary to complete the program, candidates may (with the consent of their Director of Studies and that of the Chair of the Graduate Committee) do tutorial work to replace a seminar.

**HIST 656D1 (3), HIST 656D2 (3) TUTORIAL.** (Students must register for both HIST 656D1 and HIST 656D2) (No credit will be given for this course unless both HIST 656D1 and HIST 656D2 are successfully completed in consecutive terms)

**HIST 658D1 (3), HIST 658D2 (3) SEMINAR IN CHINESE HISTORY.** (Students must register for both HIST 658D1 and HIST 658D2) (No credit will be given for this course unless both HIST 658D1 and HIST 658D2 are successfully completed in consecutive terms)

**HIST 668D1 (3), HIST 668D2 (3) JAPANESE INTELLECTUAL HISTORY.** (No credit will be given for this course unless both HIST 668D1 and HIST 668D2 are successfully completed in consecutive terms)

HIST 668D1 (3), HIST 668D2 (3) Jn156D2)s of Twto





Most of the faculty of the Human Genetics Department are located in McGill teaching hospitals, reflecting the medically learned knowledge at the core of human genetic studies.

Faculty have a wide variety of research interests which embrace; cancer genetics, cytogenetics, reproductive biology, neurogenetics, genomic and genetic basis of human diseases. Detailed information regarding faculty research interest can be found on the Department Web page at [www.mcgill.ca/humangenetics](http://www.mcgill.ca/humangenetics).

Students accepted into the Human Genetics graduate program will be paid a minimum of \$13,000, plus tuition fees. Students who are thinking of applying for admission should realize that their chances of acceptance improve if they come with a studentship award. Deadlines for scholarship applications may be anywhere from October to February.

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### 36.3 Admission Requirements

#### M.Sc. in Genetic Counselling

**Prerequisites:** Bachelor's degree - 3.0/4.0 or 3.2/4.0 for omic and last two full-time academic years. Recent (5 years or less) university-level courses in omicBasic Sciences (basic biology, cell and molecular, biochemistry, principles of human genetics or basic genetics with a significant "human" component); and a *minimum* of two Social Sciences (social psychology, abnormal psychology).

**Prerequisites or corequisites:** Recent (5 years or less) university-level course in statistics.

Applicants must have obtained some experience (either paid or volunteer) working in a counselling or advisory capacity, ideally in a health care setting.

The Test of English as a Foreign Language (TOEFL) is required of students who have graduated from a non-English university outside of Canada. A score of 600 on omicTOEFL paper-based test (250 on omiccomputer-based test or 100 on omicInter-

### Ph.D. Requirements

**Length of Program** – Candidates entering Ph.D.1 must complete at least three years of full-time resident study (6 terms). The normal and expected duration of the Ph.D. program is 4-5 years. A student who has obtained a Master's degree at McGill, or at an approved institution elsewhere, and is proceeding in the same subject towards a Ph.D. degree may, upon the recommendation of the Graduate Training Committee, enter at the Ph.D.2 level.

**Course Requirements** – Students are required to take 12 course credits. These courses may be taken in Human Genetics or in other departments and must be numbered 500 or higher. Additional courses may be required if the student's background is insufficient. A graduate pass (B- or better) is mandatory for all courses required for the Ph.D. degree.

**Ph.D. Qualifying Examination** – The Qualifying exam is a format of evaluation of the student's ability to proceed to the attainment of the Ph.D. Students must pass the Qualifying Examination (HGEN 701) no later than 15 months from the date of registration in the program. Students who transfer from the Master's program must take the exam before doing so. Students who enter the Ph.D. program after completing an M.Sc. in Human Genetics at McGill must take the exam after 12 months.

### 36.6 Courses

**Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.**

**Courses with numbers ending D1 and D2** are taught in two consecutive terms (most commonly Fall and Winter). Students must register for both the D1 and D2 components. No credit will be given unless both components (D1 and D2) are successfully completed in consecutive terms.

The course credit weight is given in parentheses after the title.

**HGEN 600D1 (3), HGEN 600D2 (3) GENETIC COUNSELLING PRACTICUM.** (Students must register for both HGEN 600D1 and HGEN 600D2) (No credit will be given for this course unless both HGEN 600D1 and HGEN 600D2 are successfully completed in consecutive terms) (HGEN 600D1 and HGEN 600D2 together are equivalent to HGEN 600) Designed for students enrolled in the M.Sc. in Genetic Counselling. Students will be taught how to take family histories, read pedigrees and the basic skills required for interviewing patients. Discussions with example cases. Attendance at Genetics Rounds is compulsory.

**HGEN 601 GENETIC COUNSELLING PRINCIPLES.**(3) (Restriction: Restricted to students in the M.Sc. in Genetic Counselling Program.) Theoretical foundations for the contemporary practice of genetic counselling and the role of the genetic counsellor in the health care delivery system. Topics include counselling theory and psychosocial counselling techniques, the clinical genetics evaluation and case management, and professional ethics, conduct and development.

**HGEN 610 GENETIC COUNSELLING: INDEPENDENT STUDIES 1.** (3) Students enrolled in the M.Sc. in Genetic Counselling will become involved in an Independent Studies Project with a staff member. Students will also be responsible for specific assigned readings.

**HGEN 611 GENETIC COUNSELLING: INDEPENDENT STUDIES 2.** (3) Students enrolled in the two-year M.Sc. in Genetic Counselling program will complete an independent studies project with a staff member. Students will also be responsible for specific assigned readings.

**HGEN 620 INTRODUCTORY FIELD WORK ROTATIONS.** (9) Students are required to spend a minimum of 600 hours in field work. They will rotate through the various laboratories (cytogenetics, biochemical/molecular genetics) and clinical settings (prenatal diagnosis, screening, medical genetics) at the Montreal Children's Hospital.

**HGEN 620D1 (4.5), HGEN 620D2 (4.5) INTRODUCTORY FIELD WORK ROTATIONS.** (Students must register for both HGEN 620D1 and HGEN 620D2) (No credit will be given for this course unless both HGEN 620D1 and HGEN 620D2 are successfully completed in consecutive terms) (HGEN 620D1 and HGEN 620D2 together are equivalent to HGEN 620) Students are required to spend a minimum of 600 hours in field work. They will rotate through the various laboratories (cytogenetics, biochemical/molecular genetics) and clinical settings (prenatal diagnosis, screening, medical genetics) at the Montreal Children's Hospital.

**HGEN 630D1 (6), HGEN 630D2 (6) ADVANCED FIELD WORK ROTATIONS.**(Students must register for both HGEN 630D1 and HGEN 630D2) (No credit will be given for this course unless both HGEN 630D1 and HGEN 630D2 are successfully completed in consecutive terms) Students are required to spend a minimum of 600 hours in advanced clinical work. Students will rotate through the Division of Medical Genetics at the Montreal Children's Hospital, in some of its disease-oriented clinics and screening programs; at the Neurogenetics Unit of the Montreal Neurological Hospital; and the Medical Genetics Divisions at the adult hospitals (Montreal General Hospital, Royal Victoria Hospital and the Sir Mortimer B. Davis-Jewish General Hospital).

**HGEN 640 CLINICAL GENETICS 1.** (3) This course is designed for students in the M.Sc. in Genetic Counselling program. The lectures will cover current topics in human/medical genetics (cytogenetics, biochemical genetics, molecular genetics, population genetics, etc.) related to clinical cases.

**HGEN 641 CLINICAL GENETICS 2.**(3) This course is designed for students in the M.Sc. in Genetic Counselling program. The lectures will cover current topics in human/medical genetics (cytogenetics, biochemical genetics, molecular genetics, population genetics, etc.) related to clinical cases.

**HGEN 650 GENETIC COUNSELLING: READING PROJECT.**(3) Students in the M.Sc. in Genetic Counselling will be assigned a Reading/Literature Search project on various topics: Bereavement, Pregnancy Loss, etc. Students will prepare and present information in seminar/discussion format.

**HGEN 660 GENETICS AND BIOETHICS.**(3) This course will deal with ethical issues in the gathering,



Roy Lyster; B.A.(Regina), M.A.(Paris VII), B.Ed., M.Ed.,  
Ph.D.(Tor.)

Kevin McDonough; B.A., B.Ed., M.Ed.(Alta.), Ph.D.(Ill.)

Christopher S. Milligan; B.A.(Sir G.Wms.), M.Ed.(McG.),  
Ed.D.(Tor.)

Ronald Morris; B.Ed., M.A., Ph.D.(McG.)

Anthony Paré; B.Ed, M.Ed., Ph.D.(McG.)

Howard N. Riggs; B.Ed.(Alta.), M.A., Ph.D.(Minn.)

Shirley R. Steinberg; B.Ed., M.Ed.(Leth.), Ph.D.(Penn. St.)

Carolyn E. Turner; B.A.(Ariz.), M.Ed., Ph.D.(McG.)

Boyd White; B.A.(Sir G.Wms.), B.F.A.(C'dia), M.F.A.(Inst. Allende,  
Guanajuato), Ph.D.(C'dia)

Lise Winer; B.A.(Pitts.), M.A.(Minn..(Sir E-.0001 Tc-0.00397ts.),w9(((ajuatoD-ATq1 i 3 0 TD[(A.(C')5.4(d)]TJ9(.1(i)0(a))WI; B.A.(Py 3 0 ba7y)Tj11 ba7y)Ta

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**MASTER OF ARTS IN SECOND LANGUAGE EDUCATION (Thesis Option)** (45 credits)**Required Courses** (36 credits)

EDEM 609	(3)	Issues in Educational Studies
EDPE 575	(3)	Educational Measurement
EDSL 623	(3)	Second Language Learning
EDSL 664	(3)	Second Language Research Methods
EDSL 666	(6)	Thesis Research 1
EDSL 667	(6)	Thesis Research 2
EDSL 668	(6)	Thesis Research 3
EDSL 669	(6)	Thesis Research 4

**Complementary Courses** (9 credits)

9 credits chosen from the following:

EDSL 617	(3)	Special Topic in Second Language Education
EDSL 620	(3)	Critical Issues in Second Language Education
EDSL 624	(3)	Educational Sociolinguistics
EDSL 627	(3)	Classroom-Centred Second Language Research
EDSL 629	(3)	Second Language Assessment
EDSL 630	(3)	Qualitative/Ethnographic Methods
EDSL 631	(3)	Second Language Curriculum
EDSL 632	(3)	Second Language Literacy Development

**MASTER OF ARTS IN SECOND LANGUAGE EDUCATION (Non-Thesis)** (45 credits)**Required Courses** (12 credits)

EDEM 609	(3)	Issues in Educational Studies
EDPE 575	(3)	Educational Measurement
EDSL 623	(3)	Second Language Learning
EDSL 664	(3)	Second Language Research Methods

**Complementary Courses** (15 credits)

15 credits chosen from the following:

EDSL 617	(3)	Special Topic in Second Language Education
EDSL 620	(3)	Critical Issues in Second Language Education
EDSL 624	(3)	Educational Sociolinguistics
EDSL 627	(3)	Classroom-Centred Second Language Research
EDSL 629	(3)	Second Language Testing and Evaluation
EDSL 630	(3)	Qualitative/Ethnographic Methods
EDSL 631	(3)	Second Language Curriculum
EDSL 632	(3)	Second Language Literacy Development

**Elective Courses** (18 credits)

Elective courses, at the 500- or 600-level, are selected in consultation with the Graduate Program Director and may include complementary courses listed above. Up to 6 of the elective credits may include the following:

**37.5.3 M.A. in Curriculum Studies and Educational Leadership**

This program enables graduate students to explore areas of education with special concern for the relationship between curriculum and educational leadership. The program includes the social, cultural and ideological factors that influence formal and informal contexts for learning. Particular attention is paid to the content and activity of the curriculum and to the ways in which leadership at local, national, and international levels affects the nature and practice of education. There are two possible concentrations from which a student may choose: Curriculum or Leadership.

**MASTER OF ARTS CURRICULUM STUDIES (Thesis Option)** (45 credits)**Required Courses** (33 credits)**Complementary Courses** (6 credits)**Elective Courses** (6 credits)**MASTER OF ARTS CURRICULUM STUDIES (Non-Thesis Option)** (45 credits)**Required Courses** (24 credits)**Complementary Courses** (15 credits)**Elective Courses** (6 credits)**MASTER OF ARTS EDUCATIONAL LEADERSHIP (Thesis Option)** (45 credits)**Required Courses** (33 credits)**Complementary Courses** (6 credits)**Elective Courses** (6 credits)**MASTER OF ARTS EDUCATIONAL LEADERSHIP (Non-Thesis Option)** (45 credits)**Required Courses** (24 credits)**Complementary Courses** (15 credits)**Elective Courses** (6 credits)**37.5.4 Graduate Certificate in Educational Leadership 1**

This 15-credit program addresses the needs of experienced and aspiring school leaders who are taking increased responsibility for







**EDEM 637 MANAGING EDUCATIONAL CHANGE.** (3) Conceptual approaches to managing school improvement and reform with applications such as conflict management, action planning, coaching, shared vision-building and problem solving.

**EDEM 644 CURRICULUM DEVELOPMENT AND IMPLEMENTATION.** (3) Processes of planning, developing, implementing and adapting curricula in various learning systems.

**EDEM 646 PLANNING AND EVALUATION.** (3) Knowledge and skills development in educational planning and monitoring at the service delivery unit (school, non-governmental organization, adult education centre). Areas of study include strategic management, results-based management, log frame analysis, systems assessment, stakeholders analysis, and fourth generation evaluation.

**EDEM 659 PROGRAM EVALUATION.** (3) Models and procedures for assessing the relevance, coherence, quality and feasibility of curriculum policies and learning projects.

**EDEM 660 COMMUNITY RELATIONS**

completed in consecutive terms) Supervised fieldwork in a Jewish school or educational institution.

**EDER 614 SOCIOLOGY OF EDUCATION.**

cognitive development, socio-cultural implications and general achievements; comparisons with immersion programs in other countries, e.g. USA, Wales, Ireland, etc.

**EDSL 664 SECOND LANGUAGE RESEARCH**



**ISLA 552D1 (3), ISLA 552D2 (3) INTERMEDIATE URDU.** (Fall and Winter) (3 hours) (Prerequisite: ISLA 551 or equivalent) (Students must register for both ISLA 552D1 and ISLA 552D2.) (No credit will be given for this course unless both ISLA 552D1 and ISLA 552D2 are successfully completed in consecutive terms) Assuming a knowledge of basic grammar and vocabulary, this course continues with the study of more complex grammatical structures. Reading and composition exercises in Urdu script are designed to give intermediate competency in the language.

**ISLA 553 ADVANCED URDU 1.**

explore the nature of the nation and its making in relation to universalist ideas of Islam.

**ISLA 735 SPECIAL SEMINAR.** (3)

**ISLA 736 SPECIAL TOPICS 3.** (3)

**ISLA 739 SPECIAL SEMINAR.** (3)

**ISLA 740D1 (3), ISLA 740D2 (3) MYSTICAL TRADITION OF ISLAM.**

(Seminar 2 hours) (Students must register for both ISLA 740D1 and ISLA 740D2) (No credit will be given for this course unless both ISLA 740D1 and ISLA 740D2 are successfully completed in consecutive terms) The varieties of mystical thought in Islam, primarily as seen in Sufism, its historical development and its place in Islamic culture. Analytical study of major authors, their writings and their central problems. Reading of primary sources in Arabic and Persian.

**ISLA 745 SPECIAL SEMINAR.** (3)

**ISLA 749D1 (3), ISLA 749D2 (3) SPECIAL TOPICS 4.** (Students must register for both ISLA 749D1 and ISLA 749D2) (No credit will be given for this course unless both ISLA 749D1 and ISLA 749D2 are successfully completed in consecutive terms)

★ **ISLA 752D1 (3), ★ ISLA 752D2 (3) SOCIAL/ECONOMIC DEVELOPMENTS / MUSLIM COUNTRIES.** (Seminar, 2 hours) (Students must register for both ISLA 752D1 and ISLA 752D2) (No credit will be given for this course unless both ISLA 752D1 and ISLA 752D2 are successfully completed in consecutive terms) A study of development problems in the light of a historical survey of various reform policies in different countries; contemporary ideas of, and policy towards, development as shown in economic, technical, political and educational measures; with emphasis on the

A maximum of 6 credits of graduate courses may be taken outside the Italian Studies Department, upon the advice of the Supervisor and with the permission of the Graduate Studies Director.

In exceptional cases, when program requirements cannot be fulfilled otherwise, students may take ITAL 606 Individual Read-

*Assistant Professors*

Eric Caplan; B.A.(McG.), M.A.(Tor.), Ph.D.(McG.) (*joint appt. with Integrated Studies in Education*)

Carlos Fraenkel; B.A., M.A., Ph.D.(F.U. Berlin)

Yael Halevi-Wise; B.A.(Hebrew), M.A.(G'town), Ph.D.(Princ.) (*joint appt. with English*)

*Adjunct Professors*

Magdalena Opalski; MA (Warsaw), Ph.D. (Ott.)

Ruth Wisse; M.A.(Col.), Ph.D.(McG.)

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**40.2 Programs Offered**

M.A. in Jewish Studies. (An *Ad Hoc* Ph.D. in Jewish Studies may be offered. Please contact the Department.)

The Department of Jewish Studies offers both thesis and non-thesis M.A. Programs:

The **thesis** option is intended



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#### **40.6 Courses**

**Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes**

690D1 and JWST 690D2 together are equivalent to JWST 690) Normally done during the first semester of residence, this project entails original bibliographic research related to the history of Jewish Bible interpretation, usually the preparation of an extensive bibliography of one writer, text or theme. The choice may relate to the thesis topic.

**JWST 690N1 M.A. THESIS 1.** (1.5) (Students must also register for JWST 690N2) (No credit will be given for this course unless both JWST 690N1 and JWST 690N2 are successfully completed in a twelve month period) (JWST 690N1 and JWST 690N2 together are equivalent to JWST 690) Normally done during the first semester of residence, this project entails original bibliographic research related to the history of Jewish Bible interpretation, usually the preparation of an extensive bibliography of one writer, text or theme. The choice may relate to the thesis topic.

**JWST 690N2 M.A. THESIS 1.** (1.5) (Prerequisite: JWST 690N1) (No credit will be given for this course unless both JWST 690N1 and JWST 690N2 are successfully completed in a twelve month period) (JWST 690N1 and JWST 690N2 together are equivalent to JWST 6.48 111.06 oDeeJWST 690N1

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**41.3 Admission Requirements**

1. An undergraduate degree with a Major in Kinesiology or in a related biological science or behavioural science or in Physical Education or equivalent from a recognized university is required.
2. A minimum academic standing equivalent to a CGPA of 3.0 out of 4.0.

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**41.4 Application Procedure**

McGill's online application form is available to all graduate program candidates at [www.mcgill.ca/applying/graduate](http://www.mcgill.ca/applying/graduate).

Applications will be considered upon receipt of:

1. application form,
2. official transcripts from

**M.Sc. Kinesiology and Physical Education (Non-Thesis)**

45 credits)

Areas: Exercise Physiology and Biomechanics.

**Complementary Courses** (18 credits)

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**41.6 Courses (EDKP)**

Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click on Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.

**Single term and Multi-term Courses (D1/D2, N1/N2, J1/J2/J3)**

The same course may be available as a single term offering and also as a multi-term offering. The course content and credit weight is equivalent in all modes; the only difference being the scheduling.

**Courses with numbers ending in D1 and D2** are taught in two consecutive terms (most commonly Fall and Winter). Students must register for the same section of both the D1 and D2 components. When registering for a fall term D1 course the student will automatically be registered for the winter term D2 portion. No credit will be given unless both components (D1 and D2) are successfully completed in consecutive terms, e.g., Fall 2006 and Winter 2007.

**Courses with numbers ending in N1 and N2** are taught in two non-consecutive terms (Winter and Fall). Students must register for the same section of both the N1 and N2 components. No credit will be given unless both components (N1 and N2) are successfully completed within a twelve (12) month period.

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*Associate Professors*

R. Jakhru; B.A., LL.B., LL.M.(Panjab), LL.M., D.C.L.(McG.)  
R. Janda; B.A.(Tor.), LL.B., B.C.L.(McG.), LL.M.(Col.)

*Adjunct Professors*

D. Bunker, A. Harakas, S. Lessard, R. Margo, P. Nesgos, J. Saba,  
F. Schubert, P. van Fenema, L. Wilhelmy van Hasselt, L. Weber

**Faculty of Law***Emeritus Professors*

Paul A. Crépeau; C.C., O.Q., Q.C., B.A., L.Ph.(Ott.), LL.L.(Montr.),  
B.C.L.(Oxf.), Docteur de l'Université de Paris(Droit),  
LL.D.(h.c.)(Ott., York, Dalhousie, Strasbourg, Montréal, Paris II  
(Panthéon-Assas)(Laval), F.R.S.C.; *Emeritus Professor*  
Stephen A. Scott; B.A., B.C.L.(McG.), D.Phil(Oxf.)

*Professors*

G. Blaine Baker; B.A., LL.B.(W.Ont.), LL.M.(Col.)(*on leave*)  
Jean-Guy Belley; LL.L., LL.M.(Laval), Doctorat en sociologie  
juridique(Paris 2) (*Sir William C. Macdonald Professor of Law*)  
Madeleine Cantin-Cumyn; B.A., LL.L.(Laval)  
Irwin Cotler; O.C., B.A., B.C.L.(McG.), LL.M.(Yale),  
Ph.D.(Hebrew), LL.D. Hon. Causa (Bar-Ilan, York, S. Fraser,  
Haifa)(*on leave*)  
Armand L.C. DeMestral; A.B.(Harv.), B.C.L.(McG.), LL.M.(Harv.),  
LL.D.(Honoris Causa)(Lyon III; Kwansei) (Takuin)  
P.S. Dempsey; A.B.J., J.D.(Georgia), LL.M.(G. Wash.U.),  
D.C.L.(McG.) (*Tomlinson Professor of Global Governance*)  
William F. Foster; LL.B.(Auck.), LL.M.(Br.Col.) (*Sir William C.  
Macdonald Professor of Law*)(*on leave*)  
H. Patrick Glenn; B.A.(Br.Col.), LL.B.(Qu.), LL.M.(Harv.), D.E.S.,  
Docteur de l'Université de Strasbourg (Droit) (*Peter M. Laing  
Professor of Law*)  
Jane Matthews Glenn; B.A., (Hons.), LL.B.(Qu.), Docteur de  
l'Université de Strasbourg (Droit)  
Patrick Healy; B.A.(Hons.) (Vic., BC), B.C.L.(McG.), LL.M.(Tor.)  
Pierre-G. Jobin; B.A., B.Ph., LL.L.(Laval), Dipl. d'ét. sup. en dr. pr.,  
Docteur d'État en droit privé(Montpellier)  
Daniel Jutras; LL.B.(Montr.), LL.M.(Harv.)  
Nicholas Kasirer; B.A.(Tor.), B.C.L., LL.B.(McG.), D.E.A.(Paris)  
(*James McGill Professor*)  
Dennis R. Klinck; B.A., M.A.(Alta.), Ph.D.(Lon.), LL.B.(Sask.)  
Roderick A. Macdonald; B.A., LL.B.(York), LL.L.(Ott.), LL.M.(Tor.)  
F.R.S.C.(*F.R. Scott Professor of Public and Constitutional Law*)  
Desmond Manderson; B.A.(Hons.), LL.B.(Hons.)(A.N.U.),  
D.C.L.(McG.) (Canada Research Chair in Law and Discourse)  
Stephen A. Smith; B.A.(Qu.), LL.B.(Tor.), D.Phil.(Oxf.) (*William  
Dawson Scholar*)  
Margaret A. Somerville; A.M., A.U.A.(Pharm.) (Adel.), LL.B.(Syd.),  
D.C.L.(McG.), LL.D. Hon. Causa (Windsor, Macquarie, St.F.X.)  
F.R.S.C. (*Gale Professor of Law*) (*joint appt. with the Faculty of  
Medicine*)  
William Tetley; Q.C., B.A.(McG.); LL.L.(Laval)  
Catherine Walsh; B.A.(Dal.), LL.B.(New Br.), B.C.L.(Oxf.)(*on  
leave*)

*Associate Professors*

Payam Akhavan; LL.B. (York), LL.M., S.J.D.(Harv.)  
Adelle Blackett; B.A.(Qu.), LL.B., B.C.L.(McG.), LL.M.(Col.)(*on  
leave*)  
Fabien Gélinas; LL.B., LL.M.(Montr.), D.Phil.(Oxf.)  
Richard Gold; B.Sc.(McG.), LL.B.(Tor.), LL.M.,  
S.J.D.(Michigan)(*B.C.E. Professor of E-Governance*)(*on leave*)  
Ram Jakhru; B.A., LL.B., LL. M.(Panjab), LL.M., D.C.L.(McG.)  
Richard A. Janda; B.A.(Tor.), LL.B., B.C.L.(McG.), LL.M.(Col.)  
Rosalie Jukier; B.C.L., LL.B.(McG.), B.C.L.(Oxf.)  
David Lametti; B.A.(Tor.), LL.B., B.C.L.(McG.), LL.M.(Yale)  
D.Phil.(Oxf.)  
Marie-Claude Prémont, B.Eng.(Sher.), LL.M., Ph.D.(Laval)  
René Provost; LL.B.(Montr.), LL.M.(Calif., Berk.), D.Phil.(Oxf.)  
Geneviève Saumier, B.Com, B.C.L., LL.B.(McG.) Ph.D.(Cant.)  
Colleen Sheppard; B.A., LL.B.(Tor.), LL.M.(Harv.)  
Ronald B. Sklar; B.S.(NYU), LL.B.(Brooklyn), LL.M.(N'western),  
LL.M.(Yale)

Lionel Smith; B.Sc.(Tor.), LL.B.(W.Ont.), LL.M.(Cant.),  
D.Phil.(Oxf.) (*James McGill Professor*)  
Shauna van Praagh; B.Sc., LL.B.(Tor.), LL.M., J.S.D.(Col.)

*Assistant Professors*

Wendy Adams; J.D.(Tor.), LL.M.(Mich.)  
Kristen Anker; B.Sc., LL.B.(Syd.)  
Mark Antaki; B.C.L., LL.B.(McG.), M.A., Ph.D.(Calif.)  
Frédéric Bachand; LL.B., LL.D.(Montr.), LL.M.(Cant.), docteur en  
droit (Paris II)  
Angela Campbell; B.A., LL.B., B.C.L.(McG.), J.S.D., LL.M.(Harv.)  
Jaye Ellis; B.A.(Calg.), LL.B., B.C.L.(McG.), LL.M.(Br.Col.),  
D.C.L.(McG.)  
Yaëll Emerich; B.C.L.(Paris), docteur en droit (Mont.), docteur en  
droit (Jean Moulin, Lyon 3)  
Evan Fox-Decent; B.A., M.A.(Manit.), J.D., Ph.D.(Tor.)  
Lara Khoury; LL.B.(Sherb.), B.C.L., D.Phil.(Oxf.)  
Frédéric Mégret, LL.B. (King's College) Maîtrise de droit privé,  
D.E.A. (Paris), Ph. D. (Geneva/Paris), (Canada Research Chair  
in Human Rights and Legal Pluralism)  
Tina Piper; B.A., Sc.(Tor.), LL.B.(Dal.), B.C.L.(Oxf.)

**42.2 Programs Offered**

The Faculty of Law offers a range of programs in the graduate level. These include the degrees of Master of Laws (LL.M.) with thesis and non-thesis options, and Doctor of Civil law (D.C.L.), as well as Graduate Certificates.

Students may choose to pursue either the LL.M. or the D.C.L. with the Faculty of Law, the Institute of Air and Space Law (IASL), or the Institute of Comparative Law (ICL). Graduate Certificates may only be completed within either the IASL or the ICL. The Institute of Air & Space Law does not offer an LL.M. non-thesis option.

**The Faculty of Law** The Faculty promotes study and research in private, commercial, international, and public law, as well as legal theory, from the perspectives of diverse legal traditions. Students may pursue the LL.M. or the D.C.L. The LL.M. may be pursued as a thesis degree, or as a non-t

## 42.3 Admission Requirements

### General

The Faculty of Law Graduate Admissions Committee reviews applications and makes recommendations regarding admission to the Graduate and Postdoctoral Studies Office. Final admissions decisions are taken by the Graduate and Postdoctoral Studies Office.

For information and application forms please consult the Faculty Website or write to the Coordinator, Graduate Studies in Law, McGill University at the above address.

### Language Requirement

The language of instruction at McGill is predominantly English; therefore, all graduate students must have a very good knowledge of English. All compulsory graduate courses at the Faculty of Law are taught in English. Some 500 level courses may have compulsory readings in French.

Students have the choice of writing essays, examinations or research papers in either English or French irrespective of the language of instruction except in courses where knowledge of a language is one of the objectives of the course. Graduate students are encouraged to write their thesis in the language of their choice (English and French).

Non-Canadian applicants to graduate studies whose mother tongue is not English and who have not completed an undergraduate degree at a recognized institution where English is the language of instruction must submit documented proof of competency in oral and written English. **Before acceptance**, appropriate exam results must be submitted directly from the TOEFL or IELTS Office. An institutional version of the TOEFL is not acceptable.

Generally, applicants must achieve a minimum TOEFL score of 600 (250 on the computer-based test or 100 on the Internet-based test with each component score not less than 20) or 7.5 in the IELTS. There are, however, some exceptions:- in the IASL: applicants must achieve a minimum TOEFL score of 575 (233 on the computer-based test or 90 on the Internet-based test with each component score not less than 20) or 7.0 overall band in the IELTS.

In all programs, non-Canadian applicants whose mother tongue is French must achieve a minimum TOEFL score of 550 (213 computer-based or 86 on the Internet-based test, with each component score not less than 20) or an IELTS score of 6.5 overall band. This is because at McGill, students can write essays, examinations and theses in French, even where the course is taught in English. All students should be aware that the majority of courses in Graduate Programs in Law are taught in English.

For information about the TOEFL, and to register to take the test, see [www.toefl.org](http://www.toefl.org). For information about the IELTS, see [www.ielts.org](http://www.ielts.org). There may be a lengthy delay for registration, and the communication of results takes approximately 40 days. For both tests, the official results should be sent directly from the testing institution to Graduate Programs in Law. For the TOEFL, McGill's institutional code is **0935** and Law's departmental code is **03**. These codes must be provided to TOEFL when requesting a test report form. For the IELTS, applicants must ask for an official report to be sent to Graduate Programs in Law at the above address. For either test, the test must be taken at a center in Montreal. For results to reach McGill, the test must be taken at a center in Montreal.

teaches the core courses. Applicants must be accepted first by Law and then by the Bioethics Graduate Studies Advisory Committee.

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## **42.5 Program Requirements**

### **Graduate Certificate in Comparative Law**

The Graduate Certificate is awarded after at least one term of residence in the Faculty and upon completion of a minimum of 15 course credits. In every case, the program is structured to meet



submit a thesis, a student must have obtained at least B- (65%) in each of the courses taken.

Candidates for the Master's degree must spend three terms of full-time study and research in residence at the Institute.

**The Master of Laws (LL.M.); Law – Thesis** is a 45-credit program that requires some foundational course work, but its core is a substantial thesis (up to 100 pages) to be credited at 30 credits (or more in exceptional cases). Required courses are:

If approved by the Associate Dean (Graduate Studies), students may reduce their elective course work by up to 3 credits by com-



competition, anti-trust regulation. Status, negotiation, and implementation of international agreements on air services.

**ASPL 614 AIRLINE BUSINESS AND LAW.** (3) Interdisciplinary analysis of the legal issues confronting airlines in such areas as economics, finance, securities, bankruptcy, pricing, marketing, distribution, alliances, joint-ventures and competition.

**ASPL 632 COMPARATIVE AIR LAW.** (3) Comparative approaches to air law. Selected problems of private law not codified by international conventions including product liability; government liability for certification and inspection of aircraft; ATC liability; aviation insurance; fleet financing; leasing.

**ASPL 633 PUBLIC INTERNATIONAL AIR LAW.** (3) Sources of public international law relating to the air space and its aeronautical uses. International aviation organizations and their law-making functions. Legal responses to aviation terrorism.

**ASPL 636 PRIVATE INTERNATIONAL AIR LAW.** (3) Sources of private international air law. Conflicts of laws. Unification of law of liability. Liability for damage on the surface, liability of the ATC and CNS/ATM providers. Rights in aircraft and their international recognition.

**ASPL 637 SPACE LAW: GENERAL PRINCIPLES AND APPLICATIONS.** (3) The role of international law in the regulation of outer space activities.

**ASPL 638 LAW OF SPACE APPLICATIONS.** (3) The legal implications of various space applications, such as telecommunications and the role therein of various international organizations; remote sensing by satellites; space stations; commercial and military uses of outer space.

**ASPL 639 G**

International Monetary Fund and their role in financing development.

**CMPL 517 COMPARATIVE LEGAL INSTITUTIONS.** (3) The changing legal institutions in selected civil and common law jurisdictions of Europe and North America, with attention paid to the adequacy of institutional response to the growing role of law in western societies.

**CMPL 518 POLICIES, POLITICS AND LEGISLATIVE PROCESS.** (3) The administrative and political structures which generate legislation in the province of Quebec.

**CMPL 519 COMPARATIVE MODERN LEGAL HISTORY.** (3) Advanced seminar in contemporary methods of legal history, comparative theories of history, representative North Atlantic historiographical traditions, and especially select issues in modern legal history. Issues include professionalization, institutionalizing customary norms state formation, application of state law, and official normativity in popular culture.

**CMPL 521 TRADE REGULATION.** (3) (Prerequisite: CMPL 543 (Recommended)) (Restriction: Not open to first year students.) Historical contextualization of underlying trade principles; assessment of the interface between multilateral trade dispute resolution and domestic regulatory action in distinct public policy domains; consideration of internationalization claims, harmonization claims and the implications of trade regulation for democratic theory; particular attention to the WTO, selected regional agreements and the UN.

**CMPL 522 MEDICAL LIABILITY.** (3) (Restriction: Not open to students in first year of Law.) Trans-systemic and critical examination of medical liability issues, including doctor-hospital-patient relationship; medical duty of care; medical fault and causation; wrongful life, birth and conception; informed consent and refusal; lack of resources; defective products; nosocomial infections; contaminated blood transfusions; interaction between law and science; future of medical liability.

**CMPL 524 ENTERTAINMENT LAW.** (3) This course is designed to introduce students to the rules governing the Canadian entertainment industry in an international context with particular emphasis on the television, film production and distribution industries. There will also be limited coverage of the law relating to the music industry. The course will consider inter alia the contractual, tax, financial and insurance aspects of the law applicable to the entertainment industry.

**CMPL 533 RESOLUTION OF INTERNATIONAL**

**CMPL 580 ENVIRONMENT AND THE LAW.** (3) Environmental law, with emphasis on ecological, economic, political, and international dimensions.

**LAWG 500 COMPLEX LEGAL TRANSACTIONS 1.** (3) In-depth case studies of complex legal transactions, to allow students to learn how areas of law interact in a sophisticated, practical environment, and to permit them to develop their analytical and research skills. Transactions may include land development schemes, national and international issues of securities and complex non-commercial transactions.

**LAWG 501 COMPLEX LEGAL TRANSACTIONS 2.** (3) In-depth case studies of complex legal transactions, to allow students to learn how areas of law interact in a sophisticated, practical environment, and to permit them to develop their analytical and research skills. Transactions may include land development schemes, national and international issues of securities and complex non-commercial transactions.

**LAWG 511 SPECIALIZED TOPICS IN LAW 1.** (1) (Restriction: Must have completed first year Law.) An intensive study of a particular topic in public or private law.

**LAWG 512 SPECIALIZED TOPICS IN LAW 2.** (1) (Restriction: Must have completed first year Law.) An intensive study of a particular topic in public or private law.

**LAWG 513 SPECIALIZED TOPICS IN LAW 3.** (1) (Restriction: Must have completed first year Law.) An intensive study of a particular topic in public or private law.

**LAWG 514 SPECIALIZED TOPICS IN LAW 4.** (1) (Restriction: Must have completed first year Law.) An intensive study of a particular topic in public or private law.

**LAWG 515 SPECIALIZED TOPICS IN LAW 5.** (2) (Restriction: Must have completed first year Law.) An intensive study of a particular topic in public or private law.

**LAWG 516 SPECIALIZED TOPICS IN LAW 6.** (2) (Restriction: Must have completed first year Law.) An intensive study of a particular topic in public or private law.

**LAWG 517 SPECIALIZED TOPICS IN LAW 7.** (3) (Restriction: Must have completed first year Law.) An intensive study of a particular topic in public or private law.

**LAWG 518 SPECIALIZED TOPICS IN LAW 8.** (3) (Restriction: Must have completed first year Law.) An intensive study of a particular topic in public or private law.

**LAWG 521 STUDENT-INITIATED SEMINAR 1.** (3) (Restriction: Not open to first year Law students.) Supervised student-initiated seminar.

**LAWG 522 STUDENT-INITIATED SEMINAR 2.** (3) (Restriction: Not open to first year Law students.) Supervised student-initiated seminar.

**LAWG 525** (3) (Note: Open to undergraduate students who have completed four terms in the faculty and to graduate students.) A review of the aims, objectives, methods and techniques of legal education, including design and execution of the curriculum; an inquiry into law's ontology and legal epistemology; an examination of practical issues (attending graduate school, selecting a supervisor, types of legal research and employment as a law teacher).

**PUB2 500 LAW AND PSYCHIATRY.** (3) (Restriction: Open to a limited number of students in Law, Psychiatry and Psychology. Not open to students who have taken PUB2 419.) The roles of lawyers and psychiatrists in the handling of the mentally ill within the legal process. Consideration of the civil commitment and criminal commitment processes, insanity and "automatism" defences, the psychiatrist as expert witness, mental illness as a problem in relation to legal capacity. Some sessions will be conducted jointly with review of the graTD-0d0005 va9 TTD-0.0008 Tc0.j68Tw[80.8 Tw (Rcesses, isue-0.058I



The 30-credit program may be completed in one calendar year. The program may also be completed on a part-time basis to a maximum of five years.

#### 43.2.4 Ph.D. (*Ad Hoc*)

The Ph.D. program provides an opportunity for exceptional candidates to study interdisciplinary research topics within library and information studies at the doctoral level. The candidate is attached to the Graduate School of Library and Information Studies and develops the usual working relationships with research supervisors.

### 43.3 Admission Requirements

#### 43.3.1 Master of Library and Information Studies (M.L.I.S.)

- Applicants must have a bachelor's degree from a recognized university. Academic standing of at least B, or second class, upper division, or a CGPA of 3.0 out of 4.0 is required. The School will take into account the character of the applicants' undergraduate studies and their suitability for a career in library and information services. Courses in library and/or information studies taken before or as part of a B.A., or such courses taken in a school with a program not accredited by the American Library Association, cannot be accepted as credit toward the McGill M.L.I.S.
- Applicants with a Bachelor's degree completed solely or primarily in a language other than English or French are required to submit documented proof of competency in oral and written English prior to admission. Such proof normally comprises the Test of English as a Foreign Language (TOEFL) with a minimum score of 600 (paper-based test), 250 (computer-based test) with a written score of at least 5.0 for either test, 100 (IBT Internet based TOEFL) with a written score of at least 31 and a reading, speaking and listening score not less than 20, or the International English Language Testing System (IELTS) with a minimum overall band score of 7.5. Applicants whose mother tongue is not English may be asked to demonstrate an English-language competency beyond the submission of the TOEFL or IELTS scores.
- Competency in the use of computers is expected. Applicants should have a thorough knowledge of the Windows operating system, particularly file management and word processing, and presentation software such as PowerPoint.
- Previous library experience, while not essential, will be given consideration in assessing an application, but this experience cannot replace academic criteria.

#### 43.3.2 Graduate Certificate in Library and Information Studies

- Applicants should have a Master's degree in Library and Information Studies from a program accredited by the American Library Association (or equivalent). Candidates will normally have at least three years' professional experience following completion of the M.L.I.S.
- Applicants with a Bachelor's degree completed solely or primarily in a language other than English or French are required to submit documented proof of competency in oral and written English prior to admission. Such proof normally comprises the Test of English as a Foreign Language (TOEFL) with a minimum score of 600 (paper-based test), 250 (computer-based test) with a written score of at least 5.0 for either test, 100 (IBT Internet based TOEFL) with a written score of at least 31 and a reading, speaking and listening score not less than 20, or the International English Language Testing System (IELTS) with a minimum overall band score of 7.5. Applicants whose mother tongue is not English may be asked to demonstrate an English-language competency beyond the submission of the TOEFL or IELTS scores.

#### 43.3.3 Graduate Diploma in Library and Information Studies

- Applicants should have a Master's degree in Library and Information Studies from a program accredited by the American Library Association (or equivalent). Admission of students with overseas degrees will be guided by the M.L.I.S. equivalency standards of A.L.A. Applicants will normally have at least three years' professional experience following completion of the M.L.I.S.
- Applicants with a Bachelor's degree completed solely or primarily in a language other than English or French are required to submit documented proof of competency in oral and written English prior to admission. Such proof normally comprises the Test of English as a Foreign Language (TOEFL) with a minimum score of 600 (paper-based test), 250 (computer-based test) with a written score of at least 5.0 for either test, 100 (IBT Internet based TOEFL) with a written score of at least 31 and a reading, speaking and listening score not less than 20, or the International English Language Testing System (IELTS) with a minimum overall band score of 7.5. Applicants whose mother tongue is not English may be asked to demonstrate an English-language competency beyond the submission of the TOEFL or IELTS scores.

#### 43.3.4 Ph.D. (*Ad Hoc*)

- Applicants should normally have a Master's degree in Library and Information Studies (or equivalent). Master's degrees in other fields will be considered in relation to the proposed research. An applicant with a Master's degree in Library and Information Studies (or equivalent) will normally be admitted into Ph.D.2. An applicant with a Master's degree in another field may be considered for admission as a Ph.D. 2 but will need to register for courses to upgrade background knowledge in library and information studies.
- Applicants with a Bachelor's degree completed solely or primarily in a language other than English or French are required to submit documented proof of competency in oral and written English prior to admission. Such proof normally comprises the Test of English as a Foreign Language (TOEFL) with a minimum score of 600 (paper-based test), 250 (computer-based test) with a written score of at least 5.0 for either test, 100 (IBT Internet based TOEFL) with a written score of at least 31 and a reading, speaking and listening score not less than 20, or the International English Language Testing System (IELTS) with a minimum overall band score of 7.5. Applicants whose mother tongue is not English may be asked to demonstrate an English-language competency beyond the submission of the TOEFL or IELTS scores.

### 43.4 Application Procedures

Applicants to all programs must submit, or arrange for the submission of, the following documents, directly to the School. Additional requirements for each program are listed below.

- A completed application form, available on the Web at [www.mcgill.ca/applying/graduate](http://www.mcgill.ca/applying/graduate). If Internet access is not possible, the application form may be obtained from the School by mail or E-mail.
- Official transcripts of the applicant's university record showing degree(s) awarded.
- A non-refundable application fee of \$80 in Canadian funds, payable by credit card when applying online. Payment for a paper application may be made by credit card, bank draft, money order or certified cheque (payable to McGill University).
- A non-refundable deposit of \$200 is required for the M.L.I.S. program. Applicants must access Minerva within 30 days of the specified deadline to confirm acceptance and pay the deposit. Payment is to be made by credit card, or in certain





### **43.5.6 Categories of Students**

**Full-time M.L.I.S. students:**

Those students who are proceeding to the M.L.I.S. degree and who are registered in at least 12 credits per term.

**Part-time M.L.I.S. students:**

Those students who are proceeding to the M.L.I.S. degree and who are registered in fewer than 12 credits per term.

**Graduate Students in other McGill programs:**

Students enrolled in graduate programs at McGill other than the M.L.I.S. may register for M.L.I.S. courses with the approval of the course instructor.

**Special students:**

Individuals who already hold a graduate degree in library and information studies from an accredited program and who are not proceeding to a degree may register for up to 6 credits per term to a total maximum of 12 credits, for which they fulfill the necessary prerequisites. At the discretion of the Director, work experience may be substituted for such prerequisites. Enrolment is subject to the condition that regular students have priority in cases of class size restrictions.



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### 43.9 Courses

Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click on Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.

Not all courses can be offered in any academic year. In addition, courses which have a registration of fewer than five will not normally be taught. Some courses have a maximum enrolment.

The course credit weight is given in parentheses after the title.

For more information on Multi-term Courses, Course Terminology, Class Schedule and Course Catalog, see the *General Information, Regulations and Research Guidelines, Graduate and Postdoctoral Studies Calendar for 2006-07*.

**GLIS 601 INFORMATION AND SOCIETY.** (3) Introduction to our world of information, documents and information agencies with historical and social approach. A look at how information is generated and at the role played by libraries and of all kinds and other relevant agencies. This course should provide a broad framework within which other required or elective courses could be understood.

**GLIS 607 ORGANIZATION OF INFORMATION.** (3) Theory and techniques of bibliographic control for information. Basic cataloguing and indexing principles and practices incorporating the concepts of main entry, subject analysis, and classification according to standard codes. Introduction to ISBD and MARC formats for description and automated support applications. Practical assignments in the organization of materials laboratory.

#### GLIS 608 CLASSIFICATION

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candidates who do not satisfy all requirements may be required to take additional undergraduate courses or may be admitted to a Qualifying Program which permits them to make up the gaps in their background.

#### 44.4 Application Procedures

Applications will be considered upon receipt of:

1. application form;
2. transcripts;
3. letters of reference;
4. statement of purpose;
5. test results for international students: TOEFL;
6. application fee of \$80.00 (money order or certified cheque in Canadian funds).

Applications should be submitted to the Department of Linguistics not later than January 15th.

McGill's online application form for graduate program candidates is available at [www.mcgill.ca/applying/graduate](http://www.mcgill.ca/applying/graduate).

#### 44.5 Program Requirements

##### M.A. in Linguistics (Non-Thesis) (45 credits)

###### Required Courses (6 credits)

- LING 560 (3) Formal Methods in Linguistics  
LING 600 (3) M.A. Research Seminar 1

###### Complementary Courses (24 credits)

3 credits, one of:

- LING 531 (3) Phonology 2  
LING 631 (3) Phonology 3

3 credits, one of:

- LING 571 (3) Syntax 2  
LING 671 (3) Syntax 3

15 - 18 credits in linguistics, at the 500, 600 or 700 level

0 - 3 credits in a related field, at the 500, 600 or 700 level

###### Research Paper - Required (15 credits)

- LING 607 (15) M.A. Research Paper

##### Ph.D. Programs

###### Ph.D. in Linguistics

###### Required Courses (21 credits)

- LING 560 (3) Formal Methods in Linguistics  
LING 631 (3) Phonology 3  
LING 635 (3) Phonology 4  
LING 671 (3) Syntax 3  
LING 675 (3) Syntax 4  
LING 700 (3) Ph.D. Research Seminar 1  
LING 702 (3) Ph.D. Research Seminar 2

###### Comprehensive - Required

- LING 706 (0) Ph.D. Evaluation 1  
LING 707 (0) Ph.D. Evaluation 2

###### Complementary Courses (9 - 21 credits)

9 credits in linguistics at the 500, 600 or 700 level (all students). Courses must include at least one graduate level course in the student's intended research area and one course chosen from the following list. (For students who intend to conduct their thesis research in one of the areas listed below, these courses fulfil both requirements.)

- LING 520 (3) Sociolinguistics 2  
LING 521 (3) Dialectology  
LING 555 (3) Language Acquisition 2  
LING 590 (3) Language Acquisition & Breakdown  
LING 651 (3) Topics in Acquisition of Phonology  
LING 655 (3) Theory of L2 Acquisition  
LING 690 (3) Seminar in Neurolinguistics  
LING 720 (3) Advanced Seminar in Sociolinguistics  
LING 755 (3) Advanced Seminar: Language Acquisition

- LING 790 (3) Advanced Seminar in Neurolinguistics

Students who enter as Ph.D.1 must complete up to 12 additional credits as recommended by the Graduate Program Director.

##### Ph.D. in Linguistics – Language Acquisition Option/Concentration

Students must satisfy all program requirements for the Ph.D. in Linguistics. The Ph.D. thesis must be on a topic relating to language acquisition, approved by the LAP committee.

###### Required Courses for the Language Acquisition Option (8 credits)

- EDSL 711 (2) Language Acquisition Issues 3  
LING 710 (2) Language Acquisition Issues 2  
PSYC 709 (2) Language Acquisition Issues 1  
SCSD 712 (2) Language Acquisition Issues 4

###### Complementary Courses (9 credits)

3 credits of graduate-level statistics from courses such as: EDPE 676, EDPE 682, PSYC 650, PSYC 651; students who have taken an equivalent course in statistics, or are currently taking an equivalent course as part of their Ph.D. program requirements, will be deemed to have satisfied this requirement for the Language Acquisition Option.

at least 6 credits, two courses, selected from the following list, at least one course must be outside the Department of Linguistics:

- EDSL 620 (3) Critical Issues in Second Language Education  
EDSL 623 (3) Second Language Learning  
EDSL 624 (3) Educational Sociolinguistics  
EDSL 627 (3) Classroom-Centred Second Language Research  
EDSL 629 (3) Second Language Assessment  
EDSL 632 (3) Second Language Literacy Development  
EDSL 664 (3) Second Language Research Methods  
LING 555 (3) Language Acquisition 2  
LING 590 (3) Language Acquisition and Breakdown  
LING 651 (3) Topics in Acquisition of Phonology  
LING 655 (3) Theory of L2 Acquisition  
LING 755 (3) Advanced Seminar: Language Acquisition  
PSYC 561 (3) Methods: Developmental Psycholinguistics  
PSYC 734 (3) Developmental Psychology and Language  
PSYC 735 (3) Developmental Psychology and Language  
PSYC 736 (3) Developmental Psychology and Language  
PSYC 737 (3) Developmental Psychology and Language  
PSYC 738 (3) Developmental Psychology and Language  
PSYC 739 (3) Developmental Psychology and Language  
SCSD 619 (3) Phonological Development  
SCSD 632 (3) Phonological Disorders: Children  
SCSD 633 (3) Language Development  
SCSD 637 (3) Developmental Language Disorders 1  
SCSD 643 (3) Developmental Language Disorders 2  
SCSD 652 (3) Advanced Research Seminar 1  
SCSD 653 (3) Advanced Research Seminar 2

#### 44.6 Courses

**Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.**

Term(s) offered (Fall, Winter, Summer) may appear after the credit weight to indicate when a course would normally be taught. Please check Class Schedule to confirm this information.

**Courses with numbers ending D1 and D2** are taught in two consecutive terms (most commonly Fall and Winter). Students must register for both the D1 and D2 components. No credit will be given unless both components (D1 and D2) are successfully completed in consecutive terms.

**Note:** All undergraduate courses administered by the Faculty of Arts (courses at the 100- to 500-level) have limited enrolment.

The course credit weight is given in parentheses after the title.

★ Denotes courses taught only in alternate years.

**Undergraduate courses**

Students deficient in certain areas may be required to take some of the following undergraduate courses in addition to graduate courses.

LING 230 Phonetics

LING 331 Phonology 1

LING 370 Introduction to Semantics

LING 371 Syntax 1

LING 440 Morphology

**Graduate courses currently scheduled for 2006-07:**

★ **LING 520 SOCIOLINGUISTICS 2.** (3) (Fall) (Prerequisite: LING





M-S. Jo; B.Com.(Hankuyk U., Korea), M.B.A.(Mich.), M.S.(Ill.),  
Ph.D.(Colo.); Marketing  
S. Maguire; B.Sc.(Qu.), M.B.A.(Br.Col.); Strategy and  
Organization  
M. Mortensen; B.A. (Colby Coll.); M.Sc., Ph.D.,Stanford;  
Organizational Behaviour  
W. Oh; B.A.(SUNY), M.B.A.(Geo.Wash. U.). M.Phil(Stern);  
Information Systems  
P. Perez-Aleman; B.Sc.(Berkeley), Ph.D.(MIT); Strategy and  
Organization  
S. Ray; B.E.(Jadavpur), M.E.(Asian I.T.), Ph.D.(Wat.);  
Management Science  
S. Sarkissian; M.S.(Berkeley), Ph.D.(Wash.); Finance  
O. D. Vakratsas; B.Sc.(Aristotle U.) M.Sc., Ph.D.(Texas, Dallas);  
Marketing

*Assistant Professors (Special Category)*

A. Nain; B.A. (Delhi); M.Sc.(Warwick) ; Ph.D (Michigan-pending);  
Finance  
L. Zhou; B.A. (Tsinghua-Beijing); Ph.D. (Maryland-pending);  
Accounting

*Faculty Lecturers*

S. Banerji; B.A., M.A.(Calc.), Ph.D.(SUNY, Buffalo); Finance  
S. Basu; B.Sc.(Calc.), M.A.(Tufts), Ph.D.(Pitt.); General  
Management  
R. Cecere; B.Com., G.D.P.A.(McG.); Accounting  
M. Chaudhury; B.A., M.A.(Dhaka), M.A.(Wat.), Ph.D.(S. Fraser);  
Finance  
L. Chauvin; B.A.(Ott.), M.A.(C'dia); Strategy and Organization  
R. Donovan; B.Com.(McG.), GDIT(C'dia); Information Systems  
W. Elali; M.A.(Northeastern), M.B.A., Ph.D.(Belgrade); Finance  
S. Gagnon, B.A.(Br.Col.), M.Sc.(Oxf.)  
L. Gialloreto; B.A.(UWO), M.B.A.(McG.), B.A. Law(Car.),  
LL.M.(McG.); Marketing  
L. Goldsman; B.Com.

year of the program and will complete the remaining first year courses on a part-time basis.

**OPTION 2**

Candidates who have completed the entire first year of an M.B.A. program at another recognized institution may be exempt from the entire first year and required to take 15 second-year courses.

**Note:** In both options, candidates must submit a completed application and meet the competitive entrance requirements of the M.B.A. program.

In order to be awarded an M.B.A. from McGill, a minimum of 45 credits must be completed at McGill.

**45.3.4 M.B.A. Admission – Advanced Standing**

**OPTION 1**

Candidates who hold a Bachelor of Commerce degree from a recognized North American institution with a minimum cumulative

- Bank draft in U.S. dollars drawn on a U.S. Bank.

In all cases the cheque/money order should be made payable to McGill University.

**Please note that a file will not be opened until an official application with the \$100 fee is received.**

#### **45.4.4 GMAT and TOEFL Information**

##### **Graduate Management Admission Test (GMAT)**

The GMAT is administered by Pearson Vue. It is required of all M.B.A. applicants. GMAT Program code for the McGill MBA Program is 58 H-MN-22. Only a GMAT written within the last five years will be considered valid. GMAT test results must be sent to McGill directly from Pearson Vue; photocopies will not be accepted.

All inquiries concerning testing arrangements should be addressed to: Graduate Management Admission Council, [www.gmac.com](http://www.gmac.com).

##### **Test of English as a Foreign Language (TOEFL)**

The purpose of this test is to determine the English proficiency of

For further information, or if there is an emergency, contact International Student Services by telephone at (514) 398-4349 during regular office hours, 09:00 to 17:00, or by e-mail at [international.students@mcgill.ca](mailto:international.students@mcgill.ca).

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#### **45.7 M.B.A. Program Requirements**

Students studying on a full-time basis must complete this 60-credit program in three years; part-time students have a five-year time limit.

The first year of the program

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## 45.9 Additional M.B.A. Programs

The following special programs are also available:

- M.B.A. International Exchange, M.B.A. *Stage*, M.D./M.B.A.,
- M.B.A./Japan, M.B.A./Law.

### 45.9.1 M.B.A. International Exchange Program

Through the McGill M.B.A. Exchange Program there are exciting opportunities to study abroad.

Participation in the program gives McGill students the opportunity to spend part of the second year of the M.B.A. studying at a business school abroad. Students successfully completing the program's requirements receive both the Master's Degree from their home university and an International Management Certificate from the foreign institution which they attended. McGill is part of the Program in International Management (PIM), a consortium of the leading business schools in North America, South America, Europe, and Asia. There are exchanges with both PIM and non-PIM schools.

The following schools may exchange students with McGill in 2006-2007:

PIM members:

- Asian Institute of Management, Manila, Philippines
- CE IBS (China Europe International Business School)
- Copenhagen Business School, Denmark
- Erasmus University, Rotterdam, The Netherlands
- ESADE (Escuela Superior de Administracion y Direccion de Empresas), Barcelona, Spain
- Fundacao Getulio Vargas, Sao Paulo, Brazil
- HEC (Hautes Études Commerciales), Jouy-en-Josas, France
- Institut Supérieur des Affaires (I.S.A.), France
- ITAM, Mexico
- ITESM, Mexico
- Luigi Bocconi, Milan, Italy
- Manchester Business School, England
- Norwegian School of Economics, Norway
- Stockholm School of Economics, Sweden
- Thammasat University, Bangkok, Thailand
- University of Cologne, Germany
- University of Louvain, Louvain-La-Neuve, Belgium
- University of Melbourne, Australia
- University of St. Gallen, Switzerland
- University of Texas at Austin, U.S.A.
- University of Witwatersrand, South Africa

Non-PIM members:

- Bilkent University, Turkey
- Solvay Business School, Brussels, Belgium

### 45.9.2 M.B.A. *Stage* Program

The M.B.A. *Stage*





**45.11.2 M.B.A. II Course Descriptions****ACCT 618 FINANCIAL REPORTING: STRUCTURE & ANALYSIS.** (3)

An indepth analysis of corporate financial reporting principles and practices, with emphasis on developing the abilities of the student to discriminate between the form and substance of corporate financial reports. Analysis of all components of the financial statements with the effect of reference to alternative practices on financial reports.

**ACCT 619 FINANCIAL REPORTING: VALUATION.** (3) Analysis of financial statements and their uses. A financial statement analysis framework will be developed and applied to: (1) development of business and securities valuations, (2) the prediction of bankruptcy, (3) the strategic planning process, (4) the interpretation of consolidated financial statements.

**BUSA 625 ASIA/PACIFIC MANAGEMENT.** (3) An in-depth study of business relationships and management practices in the world's most dynamic region. Principal focus is on the dominant Asian economy, Japan, with discussion also of China, Korea and ASEAN countries. Emphasis is placed throughout on underlying cultural differences and how they influence the ways in which organizations are managed. The course is built on a variety of readings, case studies, reports and films in a seminar format emphasizing interaction between students, professor, and invited guest speakers.

**BUSA 626 INTERNATIONAL BUSINESS LAW.** (3) Introduction to the law regulating international business. The world's three main legal systems and procedure of civil trials before their courts. The main business organizations used in world trade. Forms and documentation of various types of foreign trade contracts. Conflict avoidance, arbitration and international transaction litigation. Specific analysis of trade terms, international commercial transactions (export sales, marketing through distributors, licensing) and international conventions (tax treaties, industrial and intellectual property, GATT, etc.).

**BUSA 627 NORTH AMERICA: GLOBAL MARKETS.** (3) As trade barriers diminish and worldwide communications expand, North America can no longer consider itself an isolated haven of prosperity. But it is still one of the current "triad" of economic powers, centered on the dominating strength of the United States. This course focuses on how the other two North American nations, Canada and Mexico, are adjusting to the realities of global competitiveness and to the often overwhelming regional role of the United States. The evolution of NAFTA and the possible next steps in trade accords are examined, as are continuing efforts to preserve elements of meaningful national autonomy in a rapidly changing global marketplace.

**BUSA 630 STAGE PAPER.** (1) After completing their stage, (minimum 80 hours in an organization) students in the M.B.A program must submit a paper which int



Carlo simulation, historical simulation and filtered historical simulation. Option pricing with time varying volatility and option risk management. Backtesting and Stress testing.

**FINE 639 DERIVATIVES AND RISK MANAGEMENT.** (3) (Prerequisite: FINE 646) This course studies the field of investments related to options and futures. The course will concentrate on trading strategies and analytical models for valuing options and futures contracts.

**FINE 645 MONEY AND CAPITAL MARKETS.** (3) (Prerequisite (Undergraduate): MGCR 341) Demand for and supply of money and other financial instruments by and to banks and near banks. Simple analytical models integrating the Canadian Institutional aspects. The role of the banking sector in the money creation process. International aspects of monetary policy.

**FINE 646 INVESTMENTS AND PORTFOLIO MANAGEMENT.** (3) The prime objective is to provide the student with a rational framework for investment. The portfolio and capital market theory of FINE 650 is extended and the empirical evidence supporting these and competing hypotheses is investigated for both individual securities and portfolios.

**FINE 648 APPLIED CORPORATE FINANCE.** (3) Concepts and techniques developed in earlier courses are extended and/or applied to problems faced by managers in Corporate Finance. Such problems include: working capital management, capital budgeting, capital structure, dividend policy, cost of capital and mergers and acquisitions. Stresses the application of theory and techniques and extensive use is made of case studies.

**FINE 652 MANAGEMENT FINANCE.** (3) (Restriction: for non-Finance Concentration) Designed as a second course in Finance for students not specializing in Finance. Topics include: short and long term asset and liability management, risk and diversification, and the nature of capital markets. The course format will be a mixture of cases, lectures, projects and discussions.

**FINE 660 GLOBAL INVESTMENT MANAGEMENT.** (3) Primary focus will be on global investments. The course will deal with the theoretical foundations of modern international portfolio theory and empirical evidence in a real world setting. It will span the developed markets of Europe and Japan, NICS of the Pacific rim and emerging markets. The primary objective is to prepare a new generation of managers who can operate effectively in the new global investment environment.

**FINE 665 INVESTMENT STRATEGIES AND BEHAVIOURAL FINANCE.** (3) (Prerequisite: MGCR 642.) (Restriction: MBA students only.) (Note: This course requires usage of various financial databases.) To gain understanding of the interrelation between fundamental

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companies can create wealth. The first part of the course covers topics in economic policy (what makes some countries, regions prosper and others fall behind), the second part covers financial, managerial and strategic topics companies face (what makes their market value increase and what makes this value diminish).

**INDR 690 TOPICS IN INDUSTRIAL RELATIONS.** (3) Current topics in Industrial Relations.

**INSY 533 INFORMATION SYSTEMS AUDITING AND S**



**MRKT 659 ADVANCED BUSINESS MARKETING.** (3) Advanced decision-making and management of the marketing effort in a business to business (b-to-b) context, including the b-to-b marketing system; segmentation; customer relationship management; products, services, price, distribution, selling and advertising decisions; strategies for business markets and both electronic and traditional approaches to each.

**MRKT 690 TOPICS IN MARKETING 2.** (3) Topic: Winning @ Brand Management. Current topics in marketing.

**MRKT 691 TOPICS IN MARKETING 3.** (3) Topic: New Products Current topics in marketing.

**MRKT 692 TOPICS IN MARKETING 4.** (3) Current topics in marketing.

**MRKT 698 INTERNATIONAL MARKETING MANAGEMENT.** (3) Marketing management considerations of a company seeking to extend beyond the confines of its domestic market. A review of product,

### Manufacturing and Supply Chain – Complementary Courses (12 credits)

### Industry – Required Courses (12 credits)

For more information, contact:  
Program Coordinator, Mechanical Engineering  
Telephone: (514) 398-7201  
E-mail: [mmm.mecheng@mcgill.ca](mailto:mmm.mecheng@mcgill.ca)  
Website: [www.mcgill.ca/mmm](http://www.mcgill.ca/mmm)

or the Masters Programs Office, Desautels Faculty of  
Management.  
Telephone: (514) 398-4648

### INTERNATIONAL MASTERS PROGRAMS IN PRACTISING MANAGEMENT (IMPM)

Functioning within an authentically international context, this cooperative venture of business schools located in five different countries allows mid-career executives to study topical international business problems on site at universities in France, England, India, Japan and Canada.

For more information visit our Website at [www.impm.org](http://www.impm.org).

#### Health

Applying an experience based approach to leadership development, the program will recruit practising managers and professionals throughout the health field, and from all parts of the world to learn from each other and gain a better understanding of their own leadership styles, the systems they work in, their organizational contexts, and the work relationships they must build in order to achieve change. For more information visit our Web site at [www.imhl.ca](http://www.imhl.ca).

### International Masters Programs in Practising Management Courses

#### BUSA 666 THE PRACTICE OF MANAGEMENT. (5)

Examination of the philosophy, the history, and the practice of management, with introduction to personal competences necessary to carry out the complex role of general manager effectively. Latest developments in management theory and practice will be examined, in the context of the history, role of managers, and personal competence.

#### BUSA 668 THE VENTURE. (5)

An introduction to the tools of the analytic disciplines such as managerial economics, accounting, statistics and finance. Students will apply tools to specific problems or activities within their organization, and complete an analysis that integrates these concepts and competences with a work situation.

#### BUSA 670 MANAGING ORGANIZATIONS. (5)

Provides a basic understanding of the key processes and configurations of organizing, alternate systems and structures. Examines practical and theoretical aspects of measurement, data

classification, reporting, practical analysis, cost accounting, performance measurement and forecasting.

#### BUSA 672 MANAGERIAL EXCHANGE. (3)

A field experience that exposes the student to critical managerial challenges faced by an organization other than his/her own. Requires application of concepts, and competences.

#### BUSA 675 MANAGING CONTEXT. (5)

Examination of the role of "outsiders," and review of the competences needed by general managers to effectively manage contextual relationships such as with government bodies, capital markets, customers and suppliers. Also, examination of cultures, emerging issues in global management, and perspectives on ethics and human rights.

#### BUSA 680 MANAGING PEOPLE. (5)

Examination of different models of individual behaviour and of similarities and differences among them. Review of interpersonal competences, including ability to communicate, lead individuals and groups, create commitment, develop trust for strategic alliances, and coaching employees rather than directing them.

#### BUSA 685 MANAGING CHANGE. (5)

Examination of major kinds of organizational transformations that managers must deal with including starting a new business, turning around a moribund company, restructuring, downsizing, and regrouping businesses around the world. Review of new product/service development, and development of competences that help create flexible organizations.

#### BUSA 689 INTEGRATIVE PROJECT. (12)

An examination of a major managerial issue facing their organization. Working with supervisors in weekly exchange, they will prepare a report that integrates the relevant concepts from the program to explain and/or evaluate the issue and recommend a course of action.

### 45.13.2 Diploma in Public Accountancy (Chartered Accountancy)

The Diploma in Public Accountancy Program is under the academic supervision of the Graduate and Postdoctoral Studies Office, and is offered by the De

Please note that obtaining the minimum requirements does not secure admission to program.

For more information, the Centre for Continuing Education can be contacted by telephone at (514) 398-6161, or by e-mail at [info.conted@mcgill.ca](mailto:info.conted@mcgill.ca).

**ADMISSION PROCEDURES**

Application forms are available online from our Web site. The

**ACCT 655 AUDITING 2.** (3) (Restriction: Entry to Program. Open only to students enrolled in the Graduate Diploma in Public Accountancy.) The role of the attest auditor. The topics covered include professional practice environment, engagement management, internal control, audit evidence, testing, reporting and general coverage of the professional services. Detailed study of the CICA Auditing recommendations, exposure drafts and guidelines. Research studies and current literature will be reviewed.

**ACCT 657 SYSTEMS AUDIT.** (3) (Restriction: Entry to Program. Open only to students enrolled in the Graduate Diploma in Public Accountancy.) Examining the contro





**FINE 708 MACRO INTERNATIONAL FINANCE.** (3)

**FINE 709 INTERNATIONAL FINANCE SEMINAR.** (3) Recent advances in international finance.

**FINE 710 FIXED INCOME SECURITIES THEORY.**

*Assistant Professors*

M. Asgharian; B.Sc.(Shahid Beheshti), M.Sc., Ph.D.(McG)

N. Nigam; B.Sc.(I.I.T. -Khalagpur, Bombay), M.S.,  
Ph.D.(Delaware)

R. Steele; B.S., M.S.(Carnegie Mellon), Ph.D.(Wash.)

**M.A. in Mathematics and Statistics (Thesis)** (46 credits)  
**or**  
**M.Sc. in Mathematics and Statistics (Thesis)** (46 credits)  
**Complementary Courses** (minimum 22 credits)

**M.Sc. in Mathematics and Statistics (Thesis) – Bioinformatics**  
 (48 credits)  
**Required Course** (3 credits)

**M.Sc. in Mathematics and Statistics (Thesis) – Computational  
 Science and Engineering (CSE)** (47 credits)  
**Required Course** (1 credit)  
**Complementary Courses** (minimum 22 credits)

**Ph.D. Degree**

To complete a Ph.D. program students must:

- a) pass twelve approved courses beyond the Bachelor's level;
- b) pass a Comprehensive Examination consisting of a written Part A (MATH 700) which is concerned with their general mathematical background, and an oral Part B (MATH 701) concerned with two topics at an advanced graduate level;
- c) demonstrate a reading knowledge of French;







*Professors*

J. Angeles; B.Sc., M.Sc.( UNAM Mexico), Ph.D.(Stan.), Eng.  
 F.A.S.M.E., F.C.S.M.E., F.R.S.C., (*James McGill Professor*)  
 (NSERC Design Engineering Chair)  
 B.R. Baliga; B.Tech.(I.I.T. Kanpur), M.Sc.(Case), Ph.D.(Minn.)  
 W.G. Habashi; B.Eng., M.Eng.(McG.), Ph.D.(C'nell), P.Eng.,  
 F.A.S.M.E., F.C.A.E.(NSERC-J. Armand Bombardier Industrial  
 Research Chair)  
 J.H.S. Lee; B.Eng.(McG.), M.Sc.(MIT), Ph.D.(McG.), P. Eng.,  
 F.R.S.C.  
 D.F. Mateescu; M.Eng.(Poli. U. Buch.), Ph.D.(Rom. Acad. Sci.),  
 Doctor Honoris Causa (Poli. U. Buch.), AFAIAA, FCASI  
 A.K. Misra; B.Tech.(I.I.T., Kgp.), Ph.D.(Br.Col.), P.Eng., F.A.A.S.,  
 A.F.A.I.A.A. (*Thomas Workman Professor of Mechanical  
 Engineering*)  
 C. Pierre; B.Eng. (École Cent. Paris), M.Sc. (Princ.), Ph.D.(Duke),  
 (*Canada Research Chair*)  
 S.J. Price; B.Sc., Ph.D.(Brist.), P.Eng.

*Associate Professors*

L. Cortelezzi; M.Sc., Ph.D.(Calif. Tech.)  
 D.L. Frost; B.A.Sc.(Br.Col.), M.S., Ph.D.(Calif.Tech.), P.Eng.  
 A.J. Higgins; B.Sc.(Ill.), M.S., Ph.D.(Wash.)  
 T. Lee; M.S.(Portland St.), Ph.D.(Idaho)  
 L. Lessard; B.Eng.(McG.), M.Sc., Ph.D.(Stan.), P.Eng.  
 L. Mydlarski; B.Sc.(Wat.), Ph.D.(C'nell)  
 M. Nahon; B.Sc.(Qu.), M.Sc.(Tor.), Ph.D.(McG.), Eng.  
 J.A. Nemes; B.Sc.(Maryland), M.Sc., D.Sc.(GWU), P.E., P.Eng.  
 (*William Dawson Scholar*)  
 P. Radziszewski; B.Sc.(U.B.C.), M.Sc., Ph.D.(Laval), Eng.  
 I. Sharf, B.A.Sc., Ph.D.(Tor.)  
 V. Thomson; B.Sc.(Windsor), Ph.D.(McM.), (*Werner Graupe  
 Professor of Manufacturing Automation*)  
 P.J. Zsombor-Murray; B.Eng., M.Eng., Ph.D.(McG.), Eng.,  
 F.C.S.M.E.

*Assistant Professors*

P. Hubert; B.Eng., M.A.Sc.(École Poly.), Ph.D.(U.B.C.), P. Eng.  
 (*Canada Research Chair*)  
 J. Kövecses; M.Sc. (U. Miskolc), Ph.D. (Hung. Acad. Sci.), P.Eng.  
 R. Mongrain; B.Sc., M.Sc.(Montr.), Ph.D.(École Poly.) Eng.  
 S. Nadarajah; B.Sc.(Kansas), M.S., Ph.D.(Stan.)  
 D. Pasini; M.Sc.(Pavia), Ph.D.(Bristol), P.Eng.

May 1 for Canadian and Permanent Resident candidates.

Winter Admission:

June 1 for International candidates;

September 1 for Canadian and Permanent Resident candidates.

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## **47.5 Program Requirements**

### **MASTER'S PROGRAMS**

The minimum residence requirement for the M.Eng. degree is three terms of full-time study, one of which may be a Summer term. In the case of M.Eng. (non-Thesis) a part-time program is available.

Applicants who hold an undergraduate degree in a non-engi-



École de Technologie Supérieure. Students registered at McGill are required to take two courses from two other institutions.

Depending on their background, students would specialize in one of the three areas:

1. Aeronautics and Space Engineering;
2. Avionics and Control;
3. Aerospace Materials and Structures.

**Required Courses** (9 credits)

**Industry – Required Courses** (12 credits)

**Complementary Courses** (36 credits)

For more information, contact:  
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**Master in Management (Manufacturing)** (56 credits)

The Master in Manufacturing Management program (MMM) is offered to students who wish to have a career as manufacturing managers. The curriculum is a balance between manufacturing and management subjects and provides exposure to industry through case studies, seminars, tours and a paid industry internship. The MMM program is a 12-month academic program starting in September followed by a 4-month industrial internship. The program is a collaboration between the Faculties of Engineering and Management, which jointly grant the Master of Management degree.

Students should hold an undergraduate degree in engineering or science. Two or more years of industrial experience is preferred, but not mandatory. Students with other academic backgrounds and appropriate industrial experience will be considered, but may have to take one or two qualifying courses. The program is intended for full-time as well as part-time students. Enrolment is limited.

The MMM program is a self-funded program. Tuition is \$25,000.

**General Business and Management – Required Courses**  
(11 credits)

**General Business and Management – Complementary Courses** (6 credits)

**Manufacturing and Supply Chain – Required Courses**  
(15 credits)

**Manufacturing and Supply Chain – Complementary Courses**  
(12 credits)

**MECH 522 PRODUCTION SYSTEMS.** (3) (3-0-6) Characteristics of production systems. System bound



**MECH 605 APPLIED MATHEMATICS 1.** (4) A brief treatment of tensor analysis. A review of complex variables. Analytical methods of solution for partial differential equations occurring with great frequency in engineering. Perturbation methods, integral methods, asymptotic methods and variational techniques. Numerical methods of solution.

**MECH 609 SEMINAR.** (1) All candidates for a Master's degree (except those in the Aerospace Program) are required to participate and to deliver one paper dealing with their particular area of research or interest.

**MECH 610 FUNDAMENTALS OF FLUID DYNAMICS.** (4) (Prerequisite: MECH 605 or permission of instructor) Conservation laws control volume analysis, Navier Stokes Equations and some exact solutions, dimensional analysis and limiting forms of Navier Stokes Equations. Vorticity, Potential flow and lift, boundary layer theory, drag, turbulence.

**MECH 616 VISCOUS FLOW AND BOUNDARY LAYER THEORY.** (4) (3-0-9) (Pre8.1.0011vp as9.3(US) 219.79I

formulation. Elements and interpolation functions. Classification of differential equation systems. Formulation and applications for incompressible, compressible and transonic inviscid and viscous flows.

**MECH 669 COMPUTATIONAL SCIENCE ENGINEERING SEMINAR.** (1) (Restriction: This seminar course is open only to students who were admitted to the CSE Program Option.) Techniques and applications in computational science and engineering.

**MECH 681 AERONAUTICS PROJECT 1.** (3) (Restriction: Open to students in the Aeronautical Option only) A continuation of MECH 681.

**MECH 682 AERONAUTICS PROJECT 2.** (3) (Restriction: Open to students in the Aeronautical Option only) A continuation of MECH 681.

**MECH 687 AEROSPACE CASE STUDIES.** (3) (Restriction: students in the Aerospace Engineering Option/Programs at McGill, Concordia, Ecole Polytechnique or Ecole de Technologie Superieure) This course covers topical case studies drawn from aerospace industrial experience. It is conducted in a modular form by experienced engineers from industry. It is given in collaboration with the other two institutions participating in this joint option/program, and may be conducted at any of the three locations in the language of

recommendation be sent by professors familiar with their work. Letters must be originals, must be dated within the last two years, and must be written on official university letterhead, otherwise they will not be accepted. The application fee of \$80 may be remitted in either Canadian or US funds. If using the preferred online application form, the application fee is remitted via a valid credit card; if using a paper application, the fee must be remitted in negotiable form payable to McGill University, such as a bank draft or money order, etc. - personal cheques are not accepted.

Non-Canadian applicants whose mother tongue is not English and who have not completed a degree using the English language must submit documented proof of competency in English by a TOEFL or IELTS. The original test report must be sent by the testing center, i.e., a photocopy sent by the applicant is not acceptable. The test must have been taken within the two years prior to date of application review, i.e. since May 2005.

All supporting application materials should be sent directly to the Administrative Coordinator, Medical Physics Unit, and should reach the department by March 1, 2007.

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## **48.5 Program Requirements**

**MDPH 616 SELECTED TOPICS IN MEDICAL PHYSICS. (1) This**

P. Laneuville; B.Sc.(McM.), M.D.(Ott.), F.R.C.P.(C)  
L. Larose; B.Sc., Ph.D.(Montr.)  
M. Laughrea; B.Sc.(Laval), M.Sc., M.Phil., Ph.D.(Yale)  
M. Lipman; M.D.,C.M.(McG.), F.R.C.P.(C)  
D. Malo; D.V.M., M.Sc.(Montr.), Ph.D.(McG.)  
M. Newkirk; B.Sc., M.Sc.(Qu.), Ph.D.(Tor.)  
R. Palfree; B.Sc., M.Sc.(Lond.), Ph.D.(McG.)  
K. Pantopoulos; B.Sc., Ph.D.(Aristotelian, Greece)  
B.J. Petrof; M.D.(Laval)  
J. Rauch; B.Sc., Ph.D.(McG.)  
S. Richard; B.Sc., Ph.D.(McG.)  
C.P. Rose; B.Sc.(Qu.), M.D., C.M., Ph.D.(McG.)  
E. Schurr; Diplom., Ph.D.(Al. Ludwigs U., Freiburg)  
G. Spurlf; B.Sc.(Med.), M.D.(Man.)  
P. Tonin; B.Sc., M.Sc., Ph.D.(Tor.)  
M. Trifiro; B.Sc., M.D.,C.M.(McG.)  
B. Turcotte; B.Sc., Ph.D.(Laval)  
B.J. Ward; M.D.,C.M.(McG.), M.Sc.(Oxf.), F.R.C.P.(C)  
S. Wing; B.Sc., M.Sc.(McG.)  
X.-J. Yang; B.Sc.(Zhejiang), Ph.D.(Shanghai)

*Assistant Professors*

M. Behr; B.Sc.(Tor.), M.D.(Qu.), M.Sc.(McG.)

V. Blank; B.Sc., M.Sc.(KonstanTc0.003 nt Pr, M.Sc1orsM.D.u56P0.00te.5(), )JT, M.M nlns.,Luastin;M Tc0.0035 Tw[(B. )-7.4(T5 )-7.4(M)5-9.2661Ain9.8





**EXMD 506 ADVANCED APPLIED CARDIOVASCULAR PHYSIOLOGY.**





Other courses may be required to strengthen the student's background.

**Note: The M.Sc.A. program below is presently under review by the department.**

**M.Sc.A. in Microbiology and Immunology (Non-Thesis)**  
(45 credits)

**MIMM 701D1 (0), MIMM 701D2 (0) COMPREHENSIVE EXAMINATION-PH.D. CANDIDATE.** (Students must also register for MIMM 701D2) (No credit will be given for this course unless both MIMM 701D1 and MIMM 701D2 are successfully completed in consecutive terms) (MIMM 701D1 and MIMM 701D2 together are equivalent to MIMM 701)

**MIMM 704 READING AND CONFERENCE.**

*Professors*

G.P. Demopoulos; Dipl.Eng.(NTU Athens), M.Sc., Ph.D.(McG.),  
Eng.

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manufacturing and repair; materials and selection criteria for air-frame, engines and coatings; repair concepts and technologies; application of new and emerging manufacturing technologies for the forming, joining and repair of aerospace products.

**MIME 566 TEXTURE, STRUCTURE & PROPERTIES OF POLYCRYSTALLINE MATERIALS.** (3) (2-3-4) (Prerequisite: MIME 317) Concepts and quantitative methods for the description of the structure of minerals and materials are discussed. Special emphasis is placed on experimental techniques of texture measurement. Procedures are demonstrated for the control of deformation and recrystallization textures in order to obtain the properties required for industrial products. Finally, the correlation between texture and the anisotropy of elastic, plastic and magnetic properties of engineering materials is described and analyzed.

**MIME 567 ALUMINUM CASTING ALLOYS.** (3) (3-0-6) (Prerequisite: MIME 361 or equivalent) The family of aluminum foundry alloys; alloy systems, intermetallic phases and their formation, heat treatment processes, mechanical and physical properties of aluminum casting alloys, foundry properties, eutectic modification, porosity formation, gassing and degassing, refinement of hypereutectic alloys, grain refinement, filtration; non destructive control of microstructure.

**MIME 568 TOPICS IN ADVANCED MATERIALS.** (3) (3-0-6) (Prerequisite: MIME 362 or equivalent) New and emerging materials. Composites. Coatings. Electronic materials. Current and future technologies. Specialized property requirements. Novel processing and fabrication techniques. Future developments.

**MIME 569 ELECTRON BEAM ANALYSIS OF MATERIALS.** (3) (2-3-4) (Prerequisite: MIME 317) Emphasis on operation of scanning and transmission electron microscopes. Topics covered are electron/specimen interactions, hardware description; image contrast description; qualitative and quantitative (ZAF) x-ray analysis; electron diffraction pattern analysis.

**MIME 606 MINERAL/METAL PRODUCTION AND MARKETING 1.** (3) (Prerequisite: permission of instructor) Introduction of new topics in Mining, Metals and Materials Engineering.

**MIME 608 MINERAL/METAL PRODUCTION AND MARKETING 2.** (3) (Prerequisite: permission of instructor) Introduction of new topics in Mining, Metals and Materials Engineering.

**MIME 620 ROCK MECHANICS 1.** (3) A study of the effects of rock properties and ground stresses on problems in mine design.

**MIME 621 ROCK MECHANICS 2.** (3) The application of the principles of strength of materials to the analysis of problems in ground control.

**MIME 623 GROUND FRAGMENTATION.** (3) (Prerequisite: permission of instructor) (Course given once per academic year) A comprehensive review of principles and theory of explosives; rock information systems, cratering concepts and applications to mining.

**MIME 624D1 (3), MIME 624D2 (3) MATERIALS HANDLING IN MINES.** (Prerequisite: permission of instructor) (Students must register for both MIME 624D1 and MIME 624D2) (No credit will be given for this course unless both MIME 624D1 and MIME 624D2 are successfully completed in consecutive terms) A comprehensive review of materials handling systems used in open pit and underground mines. Review of system selection criteria, and analysis of

**MIME 634D1 (1.5), MIME 634D2 (1.5) MINERAL ENGINEERING PROJECT 3.** (Students must register for both MIME 634D1 and MIME 634D2) (No credit will be given for this course unless both MIME 634D1 and MIME 634D2 are successfully completed in consecutive terms) (MIME 634D1 and MIME 634D2 together are

**MIME 690 THESIS RESEARCH 1.** (6) (Restriction: For Master's students only.)

**MIME 690D1 (3), MIME 690D2 (3) THESIS RESEARCH 1.** (Restriction: For Master's students only.) (Students must register for both MIME 690D1 and MIME 690D2) (No credit will be given for this course unless both MIME 690D1 and MIME 690D2 are successfully completed in consecutive terms) (MIME 690D1 and MIME 690D2 together are equivalent to MIME 690)

**MIME 690N1 THESIS RESEARCH 1.** (3) (Students must also register for MIME 690N2) (No credit will be given for this course unless both MIME 690N1 and MIME 690N2 are successfully completed in a twelve month period) (MIME 690N1 and MIME 690N2 together are equivalent to MIME 690)

**MIME 690N2 THESIS RESEARCH 1.** (3) (Prerequisite: MIME 690N1) (No credit will be given for this course unless both MIME 690N1 and MIME 690N2 are successfully completed in a twelve month period) (MIME 690N1 and MIME 690N2 together are equivalent to MIME 690) See MIME 690N1 for course description.

**MIME 691 THESIS RESEARCH 2.** (3) (Restriction: For Master's students only.)

**MIME 692 THESIS RESEARCH 3.** (6) (Restriction: For Master's students only.)

**MIME 692D1 (3), MIME 692D2 (3) THESIS RESEARCH 3.** (Restriction: For Master's students only.) (Students must register for both MIME 692D1 and MIME 692D2) (No credit will be given for this course unless both MIME 692D1 and MIME 692D2 are successfully completed in consecutive terms) (MIME 692D1 and MIME 692D2 together are equivalent to MIME 692)

**MIME 692N1 THESIS RESEARCH 3.** (3) (Restriction: For Master's students only.) (Students must also register for MIME 692N2) (No credit will be given for this course unless both MIME 692N1 and MIME 692N2 are successfully completed in a twelve month period) (MIME 692N1 and MIME 692N2 together are equivalent to MIME 692)

**MIME 692N2 THESIS RESEARCH 3.** (3) (Restriction: For Master's students only.) (Prerequisite: MIME 692N1) (No credit will be given for this course unless both MIME 692N1 and MIME 692N2 are successfully completed in a twelve month period) (MIME 692N1 and MIME 692N2 together are equivalent to MIME 692) See MIME 692N1 for course description.

**MIME 693 THESIS RESEARCH 4.** (3) (Restriction: For Master's students only.)

**MIME 693D1 (1.5), MIME 693D2 (1.5) THESIS RESEARCH 4.** (Restriction: For Master's students only.) (Students must register for both MIME 693D1 and MIME 693D2) (No credit will be given for this course unless both MIME 693D1 and MIME 693D2 are successfully completed in consecutive terms) (MIME 693D1 and MIME 693D2 together are equivalent to MIME 693)

**MIME 694 THESIS RESEARCH 5.** (6) (Restriction: For Master's students only.)

**MIME 694D1 (3), MIME 694D2 (3) THESIS RESEARCH 5.** (Restriction: For Master's students only.) (Students must register for both MIME 694D1 and MIME 694D2) (No credit will be given for this course unless both MIME 694D1 and MIME 694D2 are success-

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**Voice (Vocal Opera Coach, Opera Performance,  
Vocal Pedagogy and Vocal Performance)**

MUHL 570 Research Methods in Music

MUPG 210 Italian Diction

MUPG 211 French Diction

MUPG 212 English Diction

MUPG 213 German Diction

Two of:

MUHL 372 Solo Song outside Germany and Austria

MUHL 377 Baroque Opera

MUHL 387 Opera from Mozart to Puccini

MUHL 388 Twentieth-Century Opera

MUHL 390 The German Lied

For students in the Theory Area, one of the courses must be MUTH 658 History of Music Theory 1 or MUTH 659 History of Music Theory 2.

For students in Music Education, and with the approval of the Music Education Area, two of the seven 3-credit courses may be taken in the Faculty of Education.

MUGS 614 Reading Course 1 and MUGS 615 Reading Course 2.  
MUGS 635 Research Paper 1 and MUGS 636 Research Paper 2.

**Master of Music – Performance: Solo – Guitar, Orchestral Instruments, Organ, Conducting** (45 credits)

MUPG 620, MUPG 621, MUPG 622 Performance Tutorials.

**One** of



**One** of MUPP 690, MUPP 691, MUPP 692, MUPP 693, MUPP 694, or MUPP 695 Performance Practice Seminar, or MUPG 690 Vocal Styles and Conventions

Electives:

**One** approved graduate 3-credit seminar with the prefix MUCO, MUGS, MUGT, MUHL, MUPP, MUTH.

**One** additional graduate 3-credit seminar (this must be one of MUPG 690, MUPG 691, MUPG 692, MUPG 693, or MUPG 694).

Recitals:

MUPG 653 Opera Coach Project  
MUPG 654 Opera Coach Performance  
MUPG 655 Opera Coach Quick Study

**Master of Music – Performance: Vocal Performance**  
(49 credits)

MUPG 620, MUPG 621 and MUPG 622 Performance Tutorials.  
MUIN 600 and MUIN 601 Vocal Repertoire Coaching.

**One** of MUPP 690, MUPP 691, MUPP 692, MUPP 693, MUPP 694, or MUPP 695 Performance Practice Seminar, or MUPG 690 Vocal Styles and Conventions.

Electives:

**One** approved graduate 3-credit seminar with the prefix MUCO, MUGS, MUGT, MUHL, MUPP, MUTH.

**One** additional graduate 3-credit seminar (this must be one of MUPG 690, MUPG 691, MUPG 692, MUPG 693, or MUPG 694).

Recitals:

MUPG 660 Solo Recital Project 1\*  
MUPG 667 Solo Recital 2\*  
\* **One** of MUPG 660 or MUPG 667 may be replaced by MUPG 657 Opera Performance Project or MUPG 658 Opera Performance and MUPG 656 Vocal Quick Study.

**Master of Music – Performance: Vocal Pedagogy** (47 credits)  
**Required Courses (39 credits)**

MUPG 620, MUPG 621, MUPG 622 Performance Tutorials

MUPG 611 Directed Voice Teaching 1

MUPG 612 Directed Voice Teaching 2

MUPG 650 Voice lecture - Demonstration

MUPG 660 Solo Recital Project 1

MUPG 693 Vocal Treatises and Methods

MUPG 694 Vocal Physiology for Singers

Complementary Courses (8 credits)

**One** of MUPP 690, MUPP 691, MUPP 692, MUPP 693, MUPP 694 or MUPP 695 Performance Practice Seminar or MUPG 690 Vocal Styles and Conventions.

**One** approved graduate 3-credit seminar with the prefix MUCO, MUGS, MUGT, MUHL, MUPP, MUTH.

**One** of MUIN 600 or MUIN 601 Vocal Repertoire Coaching.

**Master of Music – Performance: Early Music** (48 credits)

(Voice, baroque flute, recorder, baroque oboe, baroque violin, baroque viola, baroque cello, viola da gamba, harpsichord)

MUPG 620, MUPG 621, MUPG 622 Performance Tutorials.

**One** of MUPP 690, MUPP 691, MUPP 692, MUPP 693, MUPP 694 or MUPP 695 Performance Practice Seminar.

Electives:

**One** approved graduate 3-credit seminar with the prefix MUCO, MUGS, MUGT, MUHL, MUPP, MUTH.

**One** additional graduate 3-credit seminar, approved by the Department.

Recitals:

MUPG 660 Solo Recital Project 1 and MUPG 662 Solo and Chamber Music Recital.

Ensembles:

**Three terms** of MUEN 661 Early Chamber Music Ensemble (harpsichord players must satisfy the corequisite of MUPG 372D1/MUPG 372D2 Continuo).

**Master of Music – Performance: Church Music - Organ**  
(45 credits)

MUPG 620, MUPG 621, MUPG 622 Performance Tutorials.

**One** of MUPP 690, MUPP 691, MUPP 692, MUPP 693, MUPP 694 or MUPP 695 Performance Practice Seminar.

Electives:

**One** approved graduate 3-credit seminar with the prefix MUCO, MUGS, MUGT, MUHL, MUPP, MUTH.

**One** additional graduate 3-credit seminar, approved by the Department.

Recital:

MUPG 660 Solo Recital Project 1.

Courses:

MUPG 676D1/MUPG 676D2 Special Project in Performance 2

Ensembles:

**Three terms** of MUEN 693 Choral Ensemble.

**Master of Music – Performance: Jazz Performance**

(47 credits) (Saxoph2ditional grTj/Tt2 Continuo) MUPG 660 Solo Recital Som

**Doctor of Music (D.Mus.) Degree Requirements - Composition**

A minimum of two years' residence is required beyond the M.Mus. in Composition, or its equivalent.

MUCO 722D1/MUCO 722D2 Doctoral Composition Tutorial (for two years).

Four approved 3-credit graduate electives or the equivalent.

MUGS 701 Comprehensive Examination Part 1 and MUGS 702 Comprehensive Examination Part 2.

Composition Performance. The candidate must present a concert of his/her compositions. With

MUPP 690 Performance Practice Seminar 1. (3) (3 hours)  
 MUPP 691 Performance Practice Seminar 2. (3) (3 hours)  
 MUPP 692 Performance Practice Seminar 3. (3) (3 hours)  
 MUPP 693 Performance Practice Seminar 4. (3) (3 hours)  
 MUPP 694 Performance Practice Seminar 5. (3) (3 hours)  
 MUPP 695 Performance Practice Seminar 6. (3) (3 hours)  
 MUSR 690 Media Theory and Practice Seminar 1. (3) (3 hours)  
 MUSR 691 Media Theory and Practice Seminar 2. (3) (3 hours)  
 MUSR 692 Media Theory and Practice Seminar 3. (3) (3 hours)  
 MUSR 693 Media Theory and Practice Seminar 4. (3) (3 hours)  
 MUSR 694 Media Theory and Practice Seminar 5. (3) (3 hours)  
 MUSR 695 Media Theory and Practice Seminar 6. (3) (3 hours)  
 MUTH 652 Seminar in Music Theory 1. (3) (3 hours)  
 MUTH 653 Seminar in Music Theory 2. (3) (3 hours)  
 MUTH 654 Seminar in Music Theory 3. (3) (3 hours)  
 MUTH 655 Seminar in Music Theory 4. (3) (3 hours)  
 MUTH 656 Seminar in Music Theory 5. (3) (3 hours)  
 MUTH 657 Seminar in Music Theory 6. (3) (3 hours)

Topics for graduate seminars vary from year to year and are normally chosen according to the individual instructor's areas of research expertise. A list of detailed seminar descriptions can be found on the Schulich School of Music Website prior to Fall registration. The following indicates the scope of offerings with some sample topics. **Note: Topics listed will not necessarily be offered in the upcoming year.**

*Composition Seminar:* Music After 1945; The Symphony in the Twentieth Century; The Music of Olivier Messiaen.

*Computer Music Seminar:* Advanced topics in computer applications in music will be examined. Students will be expected to 1) present critical analyses of current research and 2) develop and implement software demonstrations.

*Media Theory and Practice Seminar:* Media Technology, Digital Restoration of Archival Recordings, Communications Systems and Standards, Audio Aesthetics of Video Musicals, Classical Music and the Television Medium.

*Music Education Seminar:* Music Criticism and Music Education; Musical Ability; Aesthetics, Music, and Music Education.

*Music Literature Seminar:* The Music of Bela Bartok; The Symphonies of Beethoven; The Nineteenth-century French Symphony; The Choral Music of Johannes Brahms; French opera from Carmen to Pelléas; The Music of Ockeghem and Busnoys.

*Musicology Seminar:* Beethoven Style Periods; The "Roman de Fauvel"; The German Lied; Problems in Verdi Studies; Studies in the Wagner Operas.

*Music Theory Seminar:* Theory and Analysis of Classical Form; Mathematical Set and Group Theory Models; Theories of Musical Rhythm and Meter; The Late Music of Igor Stravinsky.

*Performance Practice Seminar:* Performance Practice of the Beethoven Piano Sonatas; Performance Practice and the Standard Repertoire (18th and early 19th century); 20th-century Per-



**MUIN 600 VOCAL REPERTOIRE COACHING 1.** (2) (1 hour) A course in which the performer will have individual coaching sessions on repertoire, with emphasis on musical and linguistic nuance.

**MUIN 601 VOCAL REPERTOIRE COACHING 2.** (2) (1 hour)

**MUIN 602 VOCAL REPERTOIRE COACHING 3.** (2) Individual coaching sessions on advanced vocal repertoire, with emphasis on musical and linguistic nuance.

**MUIN 700 DOCTORAL REPERTOIRE COACHING 1.** (2) Individual tutorial coaching sessions in repertoire, with emphasis on musical and linguistic nuance.

**MUIN 701 DOCTORAL REPERTOIRE COACHING 2.** (2) Individual tutorial coaching sessions in repertoire, with emphasis on musical and linguistic nuance.

**MUIN 702 DOCTORAL REPERTOIRE COACHING 3.** (2) Individual tutorial coaching sessions in repertoire, with emphasis on musical and linguistic nuance.

**MUIN 703 DOCTORAL REPERTOIRE COACHING 4.** (2) Individual tutorial coaching sessions in repertoire, with emphasis on musical and linguistic nuance.

**MUJZ 601 JAZZ PEDAGOGY**

MUPG 658D2 are successfully completed in consecutive terms)  
(MUPG 658D1 and MUPG 658D2 together are equivalent to  
MUPG 658) Performance of a complete operatic role from the spe-  
cialized repertoire.

**MUPG 659 PERFORMANCE IN RECORDING MEDIA.** (12) The candi-  
date must submit a 60-75 minu

discuss and present musical selections utilizing modern performance standards yet remaining true to stylistic demands of each period.

**MUPG 691 VOCAL SEMINAR 1.** (3) (3 hours) (Restriction: Open to singers, pianists, and conductors with permission of instructor.)

**MUPG 692 VOCAL SEMINAR 2.** (3) (3 hours) (Restriction: Open to singers, pianists, and conductors with permission of instructor.)

**MUPG 693 VOCAL TREATISES AND METHODS.** (3) (3 hours)

**MUPG 694 VOCAL PHYSIOLOGY FOR SINGERS.** (3) (3 hours) An anatomical study of the entire vocal mechanism; how to keep it functioning in a healthy manner, the various possible dysfunctions and how to diagnose and treat them.

**MUPG 720 D.MUS. PERFORMANCE TUTORIAL 1.** (4) Individual instrumental or vocal tutorial. Advanced technical and interpretive training as well as recital preparation.

**MUPG 721 D.MUS. PERFORMANCE TUTORIAL 2.** (4) Individual instrumental or vocal tutorial. Advanced technical and interpretive training as well as recital preparation.

**MUPG 722 D.MUS. PERFORMANCE TUTORIAL 3.** (4) Individual instrumental or vocal tutorial. Advanced technical and interpretive training as well as recital preparation.

**MUPG 723 D.MUS. PERFORMANCE TUTORIAL 4.** (4) Individual instrumental or vocal tutorial. Advanced technical and interpretive training as well as recital preparation.

**MUPG 724 D.MUS. PERFORMANCE TUTORIAL 5.** (4) Individual instrumental or vocal tutorial. Advanced technical and interpretive training as well as recital preparation.

**MUPG 725 D.MUS. PERFORMANCE TUTORIAL 6.** (4) Individual instrumental or vocal tutorial. Advanced technical and interpretive training as well as recital preparation.

**MUPG 726 D.MUS. PERFORMANCE TUTORIAL 7.** (4) Individual instrumental or vocal tutorial. Advanced technical and interpretive training as well as recital preparation.

**MUPG 730 D.MUS. PERFORMANCE TUTORIAL 8.** (6) Individual instrumental or vocal tutorial. Advanced technical and interpretive training as well as recital preparation.

**MUPG 731 D.MUS. PERFORMANCE TUTORIAL 9.** (6) Individual instrumental or vocal tutorial. Advanced technical or interpretive training as well as recital preparation.

**MUPG 732 D.MUS. PERFORMANCE TUTORIAL 10.** (6) Individual instrumental or vocal tutorial. Advanced technical and interpretive training as well as recital preparation.

**MUPG 733 D.MUS. PERFORMANCE TUTORIAL 11.** (6) Individual instrumental or vocal tutorial. Advanced technical and interpretive training as well as recital preparation.

**MUPG 760 DOCTORAL RECITAL 1.** (12) A full-length public recital which includes a minimum of 60 minutes of music.

**MUPG 767 DOCTORAL RECITAL 2.** (12) A full-length public recital which includes a minimum of 60 minutes of music.

**MUPG 770 DOCTORAL LECTURE - RECITAL PROJECT.** (12) The lecture-recital comprises a minimum of 35 minutes of music and 25 to 35 minutes of oral presentation. The examiners and audience may question the candidate following the lecture-recital. The subject and repertoire will also be treated in a project paper, submitted within two months of the lecture-recital.

**MUPP 690 PERFORMANCE PRACTICE SEMINAR 1.** (3) (3 hours)

**MUPP 691 PERFORMANCE PRACTICE SEMINAR 2.** (3) (3 hours)

**MUPP 692 PERFORMANCE PRACTICE SEMINAR 3.** (3) (3 hours)

**MUPP 693 PERFORMANCE PRACTICE SEMINAR 4.** (3) (3 hours)

**MUPP 694 PERFORMANCE PRACTICE SEMINAR 5.** (3) (3 hours)

**MUPP 695 PERFORMANCE PRACTICE SEMINAR 6.** (3) (3 hours)

**MUSR 629D1 (2), MUSR 629D2 (2) TECHNICAL EAR TRAINING.** (1 hour tutorial, 2 hours laboratory.) (Students must register for both MUSR 629D1 and MUSR 629D2.) (No credit will be given for this course unless both MUSR 629D1 and MUSR 629D2 are

successfully completed in consecutive terms.) (Restriction: Not open to students who have taken MUMT 629D1/D2.) This course will, through a sequence of specific auditory exercises, develop and improve students' aural sensitivity to small changes in sound quality. Students train to identify spectral variables in sound,

will also concentrate on expanded multi-track procedures: signal processing, overdubbing, mixing, editing, and producing.

**MUSR 672D1 (3), MUSR 672D2 (3) ANALYSIS OF RECORDINGS.**



**MUTH 657 SEMINAR IN MUSIC THEORY 6.** (3) (3 hours)

**MUTH 658 HISTORY OF MUSIC THEORY 1.** (3) (3 hours) Selected topics in the history of music theory from Greek antiquity to 1700

**IST 600** (3) (3 hours) Selected



*Chair* — B. Côté

*Graduate Program Director* — R.D. Titman

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**53.1 Staff**

DOCUMENTS SUBMITTED WILL NOT BE RETURNED.

**Application Fee (non-refundable)** - A fee of \$80 Canadian must accompany each application (including McGill students), otherwise it cannot be considered. This sum must be remitted using one of the following methods:

1. Credit card (by completing the appropriate section of the application form). NB: online applications must be paid for by credit

- NRSC 643 (1) Graduate Seminar 1  
 NRSC 644 (1) Graduate Seminar 2  
 NRSC 651 (1) Graduate Seminar 3

**Complementary Course** (3 credits)

3 credits, one of the following courses:

- AGRI 550 (3) Sustained Tropical Agriculture  
 BIOL 553 (3) Neotropical Environments  
 BIOL 641 (3) Issues in Tropical Biology  
 ENVR 611 (3) The Economy of Nature  
 ENVR 612 (3) Tropical Environmental Issues  
 ENVR 680 (3) Topics in Environment 4  
 POLI 644 (3) Tropical Environmental Politics  
 SOCI 565 (3) Social Change in Panama

**Thesis** (36 credits)

- NRSC 691 (12) M.Sc. Thesis Research 1  
 NRSC 692 (12) M.Sc. Thesis Research 2  
 NRSC 693 (12) M.Sc. Thesis Research 3

Participation in the MSE-Panama Symposium presentation in Montreal is also required.

**Ph.D. in Entomology, Microbiology, or Renewable Resources (which includes Agrometeorology, Forest Science, Soil Science and Wildlife Biology)**

Course requirements are specified by the staff in the discipline but are flexible and depend largely on the student's background, immediate interests, and ultimate objectives. Students are required to register for four one-term seminar courses (NRSC 751, NRSC 752, NRSC 753, NRSC 754).

Also required are satisfactory performance in the Ph.D. Comprehensive Examination (NRSC 701) and the presentation, and subsequent defence, of a satisfactory thesis based on the student's research.

**Ph.D. in Entomology – Neotropical Environment Option/Concentration****Required Courses** (6 credits)

- BIOL 640 (3) Tropical Biology and Conservation  
 ENVR 610 (3) Foundations of Environmental Policy  
 NRSC 751 (0) Graduate Seminar 4  
 NRSC 752 (0) Graduate Seminar 5  
 NRSC 753 (0) Graduate Seminar 6  
 NRSC 754 (0) Graduate Seminar 7

**Complementary Course** (3 credits)

3 credits, one of the following courses:

- AGRI 550 (3) Sustained Tropical Agriculture  
 BIOL 553 (3) Neotropical Environments  
 BIOL 641 (3) Issues in Tropical Biology  
 ENVR 611 (3) The Economy of Nature  
 ENVR 612 (3) Tropical Environmental Issues  
 ENVR 680 (3) Topics in Environment 4  
 POLI 644 (3) Tropical Environmental Politics  
 SOCI 565 (3) Social Change in Panama

**Ph.D. Comprehensive - Required** (0 credits)

- NRSC 701 (0) Ph.D. Comprehensive Examination

Participation in the MSE-Panama Symposium presentation in Montreal is also required.

Presentation and subsequent defence of a satisfactory thesis based on the student's research.

**Ph.D. in Renewable Resources – Neotropical Environment Option/Concentration****Required Courses** (6 credits)

- BIOL 640 (3) Tropical Biology and Conservation  
 ENVR 610 (3) Foundations of Environmental Policy  
 NRSC 751 (0) Graduate Seminar 4  
 NRSC 752 (0) Graduate Seminar 5  
 NRSC 753 (0) Graduate Seminar 6

- NRSC 754 (0) Graduate Seminar 7

**Complementary Course** (3 credits)

3 credits, one of the following courses:

- AGRI 550 (3) Sustained Tropical Agriculture  
 BIOL 553 (3) Neotropical Environments  
 BIOL 641 (3) Issues in Tropical Biology  
 ENVR 611 (3) The Economy of Nature  
 ENVR 612 (3) Tropical Environmental Issues  
 ENVR 680 (3) Topics in Environment 4  
 POLI 644 (3) Tropical Environmental Politics  
 SOCI 565 (3) Social Change in Panama

**Ph.D. Comprehensive - Required** (0 credits)

- NRSC 701 (0) Ph.D. Comprehensive Examination

Participation in the MSE-Panama Symposium presentation in Montreal is also required.

Presentation and subsequent defence of a satisfactory thesis based on the student's research.

**Ph.D. in Microbiology – Bioinformatics Option/Concentration****Required Courses** (3 credits)

- COMP 616 (3) Bioinformatics Seminar  
 NRSC 751 (0) Graduate Seminar 4  
 NRSC 752 (0) Graduate Seminar 5  
 NRSC 753 (0) Graduate Seminar 6  
 NRSC 754 (0) Graduate Seminar 7

**Complementary Courses** (6 credits)

6 credits from the following courses:

- BINF 621 (3) Bioinformatics: Molecular Biology  
 COMP 618 (3) Bioinformatics: Functional Genomics

**53.6 Courses**

**Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.**

The course credit weight is given in parentheses after the title.

★ Denotes courses taught only in alternate years.

★ **ENTO 515 PARASITOID BEHAVIOURAL ECOLOGY.** (3) (Winter) (Prerequisite: ENTO 330 (formerly NRSC 330) or equivalent) (Restriction: Not open to students who have taken NRSC 515) The origin and diversity of parasitoid species will be presented. Aspects of behavioural ecology that pertain to host selection, optimal allocation of progeny and sex and host-parasitoid interactions are examined. The importance of these processes is discussed in a biological control perspective.

**ENTO 520 INSECT PHYSIOLOGY.** (3) (Winter) (Prerequisite: Permission of instructor) (Restriction: Not open to students who have taken NRSC 520) Organismal approach to insects, emphasizing the physiology and development, and the physiological relations of insects to their environment.

★ **ENTO 535 AQUATIC ENTOMOLOGY.** (3) (Winter) Diversity, biology, ecology and recognition of the main groups of aquatic insects.



**NRSC 691 M.Sc. THESIS RESEARCH 1.** (12) Independent research under the direction of a supervisor towards the completion of the M.Sc. degree.

**NRSC 692 M.Sc. THESIS RESEARCH 2.** (12) Independent research under the direction of a supervisor towards the completion of the M.Sc. degree.

**NRSC 693 M.Sc. THESIS RESEARCH 3.** (12) Completion of the M.Sc. thesis, its approval by reviewers and acceptance by the Graduate and Postdoctoral Studies Office all required for a pass to be granted.

**NRSC 701 PH.D. COMPREHENSIVE EXAMINATION.** (0)

**NRSC 701D1 (0), NRSC 701D2 (0) PH.D. COMPREHENSIVE EXAMINATION.** (Students must register for both NRSC 701D1 and NRSC 701D2) (No credit will be given for this course unless both NRSC 701D1 and NRSC 701D2 are successfully completed in consecutive terms) (NRSC 701D1 and NRSC 701D2 together are equivalent to NRSC 701)

**NRSC 701N1 PH.D. COMPREHENSIVE EXAMINATION.** (0) (Students must also register for NRSC 701N2) (No credit will be given for this course unless both NRSC 701N1 and NRSC 701N2 are successfully completed in a twelve month period) (NRSC 701N1 and NRSC 701N2 together are equivalent to NRSC 701)

**NRSC 701N2 PH.D. COMPREHENSIVE EXAMINATION.** (0) (Prerequisite: NRSC 701N1) (No credit will be given for this course unless both NRSC 701N1 and NRSC 701N2 are successfully completed in a twelve month period) (NRSC 701N1 and NRSC 701N2 together are equivalent to NRSC 701) See NRSC 701N1 for course description.

**NRSC 751 GRADUATE SEMINAR 4.** (0) (Restriction: Open to students in the Ph.D. Program) (Section 001 Agrometeorology, Forest Science and Soil Science students) (Section 002 Entomology and Wildlife Biology students) (Section 003 Microbiology students) Presentation on a selected topic, research proposal or research results based on progress in the Ph.D. degree.

**NRSC 752 GRADUATE SEMINAR 5.** (0) (Restriction: Open to students in the Ph.D. Program) (Section 001 Agrometeorology, Forest Science and Soil Science students) (Section 002 Entomology and Wildlife Biology students) (Section 003 Microbiology students) Presentation on a selected topic, research proposal or research results based on progress in the Ph.D. degree.

**NRSC 753 GRADUATE SEMINAR 6.** (0) (Restriction: Open to students in the Ph.D. Program) (Section 001 Agrometeorology, Forest Science and Soil Science students) (Section 002 Entomology and Wildlife Biology students) (Section 003 Microbiology students) Presentation on a selected topic, research proposal or research results based on progress in the Ph.D. degree.

**NRSC 754 GRADUATE SEMINAR 7.** (0) (Restriction: Open to students in the Ph.D. Program) (Section 001 Agrometeorology, Forest Science and Soil Science students) (Section 002 Entomology and Wildlife Biology students) (Section 003 Microbiology students) Presentation on a selected topic, research proposal or research results based on progress in the Ph.D. degree.

**SOIL 521 SOIL MICROBIOLOGY AND BIOCHEMISTRY.** (3) (Winter) (Restriction: Not open to students who have taken NRSC 521) Soil environments, soil microorganisms and their function in the biogeochemical cycles of C, N, P and S. Basics of soil bioremediation.

**SOIL 602 ADVANCED SOIL ECOLOGY 1.** (3) Discussion of significant research in soil ecology including transformations of soil organic matter and nutrients, ecological and pedological functions of soil organisms, soil food webs, plant-soil biota interactions, and analytical techniques for monitoring soil organisms.

**SOIL 603 ADVANCED SOIL ECOLOGY 2.** (3) Discussion of significant research in soil ecology including the occurrence and activity of soil organisms, methods of monitoring and manipulating soil biota for soil fertility management, and human impacts on soil biota at different scales in the environment.

★ **SOIL 610 PEDOLOGY.** (3) Processes of profile development, principles of classification, comparative taxonomy, U.S. and Canadian systems.

★ **SOIL 630 SOIL MINERALOGY.** (3) (2 lectures per week, one term) Structure and identification of minerals, weathering, properties of clay surfaces, adsorption on clays, ion exchange.

**SOIL 631 ADVANCED SOIL PHYSICS.** (3) (2 lectures per week, one term) State and fluxes of matter and energy in the soil. Applications to movement of water, salts, nutrients; diffusion of gases; heat transfer. Discussion of significant research in soil physics.

**WILD 605 WILDLIFE ECOLOGY.** (3) (2 class hours per week) Discussion of current topics in wildlife ecology with special reference to the research interests of staff and students involved.

**WILD 610 FISH ECOLOGY.** (3) (3 class hours per week) A critical examination of current topics in fish ecology; discussion of migration, reproductive strategies, sex determination mechanisms, competition, communication and predator-prey relationships.

**WOOD 640 RECENT ADVANCES: TREE ECOPHYSIOLOGY.** (3) (3 lectures per week) Discussion of the effects of environmental factors on the physiology of trees. Both anthropogenic and natural factors will be discussed.

**WOOD 660 RECENT ADVANCES: FOREST ECOLOGY.** (3) (2 hours seminar) Review and discussion of current literature in forest ecology. Topics covered will depend on the research interests of students and may include population biology of forest plants, 9t , TD-0.5 Tc0.r









seminar will be attended by the Graduate Studies Committee, the student's Advisory Committee, and interested observers.

**NEUR 699 MASTER'S T**









of the instructor.) This seminar focuses on evidence-based research developments in psychosocial oncology. Students will explore state-of-the-art theory, research methods, findings, and intervention programs from a variety of disciplines including nursing, psychology, medicine, health services management and social work that have contributed to the emergent field of psychosocial oncology.

## 56 Occupational Health

Department of Epidemiology, Biostatistics and Occupational Health  
Purvis Hall  
1020 Pine Avenue West  
Montreal, QC H3A 1A2  
Canada

Website: [www.mcgill.ca/occh](http://www.mcgill.ca/occh)

Chair — R. Fuhrer

M.Sc. (Resident) and Ph.D. programs:  
Telephone: (514) 398-6258  
Fax: (514) 398-8851  
E-mail: [graduate.occh@mcgill.ca](mailto:graduate.occh@mcgill.ca)

M.Sc. (Distance Education) program:  
Telephone: (514) 398-6989  
Fax: (514) 398-7153  
E-mail: [dist.occh@mcgill.ca](mailto:dist.occh@mcgill.ca)  
Website: [www.mcgill.ca/occh/programs/distance](http://www.mcgill.ca/occh/programs/distance)

### 56.1 Staff

#### Emeritus Professors

M.R. Becklake; M.B.B.Ch., M.D.(Witw.), F.R.C.P.  
J.C. McDonald; M.D., B.S.(Lond.), M.Sc.(Harv.), F.R.C.P.(C)  
W.O. Spitzer; M.D.(Tor.), M.H.A.(Mich.), M.P.H.(Yale), F.R.C.P.(C)

#### Professors

L. Abenheim; M.D.(Paris), M.Sc.(McG.) (PT)  
M. Abrahamowicz; Ph.D.(Craçow) (*James McGill Professor*)  
J.F. Boivin; M.D.(Laval), S.M., Sc.D.(Harv.)  
J.P. Collet; M.D.(C.B., Lyon), Ph.D.(McG.)  
E.L.F. Franco; M.P.H., Dr.P.H.(Chapel Hill) (*James McGill Professor*)  
R. Fuhrer; B.A. (CUNY (Brooklyn College)), M.Sc., Ph.D.(UCSF) (*Canada Research Chair*)  
J.A. Hanley; B.Sc., M.Sc.(N.U.I.), Ph.D.(Wat.)  
T. Hutchinson; M.B., B.Ch., B.A.O.(Dub.) (*joint appt. with Medicine*)  
J. Heymann; B.A. (Yale), M.P.H., M.D., Ph.D. (Harv.) (*joint appt. with Political Science*) (*Canada Research Chair*)  
C. Infante-Rivard; M.D.(Montr.), M.P.H.(UCLA), Ph.D.(McG.), F.R.C.P.(C) (*James McGill Professor*)  
M.S. Kramer; B.A.(Chic.), M.D.(Yale) (*joint appt. with Pediatrics*) (*James McGill Professor*)  
A. Lippman; B.A.(C'nell) Ph.D.(McG.)  
J. Lynch; B.A., B.H.M.S. (Q'ld.), M.Ed. (W. Aust.), M.P.H., Ph.D. (Calif., Berk.) (*Canada Research Chair*)  
J. McCusker; M.D., C.M.(McG.), M.P.H., Ph.D.(Col.)  
R. Menzies; M.D., C.M., M.Sc.(McG.) (*joint appt. with Medicine*)  
O.S. Miettinen; M.D.(Helsinki), M.P.H., M.S., Ph.D.(Minn.)  
G. Paradis; M.D., M.Sc.(McG.)  
I.B. Pless; B.A., M.D.(W.Ont.) (*joint appt. with Pediatrics*)  
S.H. Shapiro B.S.(Bucknell), M.S., Ph.D.(Stan.)  
S. Suissa; M.Sc.(McG.), Ph.D.(Flor.) (*joint appt. with Medicine*) (*James McGill Professor*)  
R. Tamblyn; M.Sc.(McM.), Ph.D.(McG.) (*joint appt. with Medicine*) (*William Dawson Scholar*)  
G. Thériault; M.D.(Laval), M.I.H., Dr. P.H.(Harv.)  
C. Wolfson; B.Sc., M.Sc., Ph.D.(McG.) (*joint appt. with Medicine*)

S. Wood-Dauphinee; B.Sc.(Phys.Ther.), Dip. Ed., M.Sc.A., Ph.D.(McG.) (*joint appt. with Physical and Occupational Therapy*)

#### Associate Professors

E. Beck; M.B.B.S., B.Med.Sci.(Monash); M.Sc., Ph.D.(Lond.)  
J. Carsley; B.A.(Yale), M.Sc., M.D., C.M.(McG.)  
A. Ciampi; M.Sc., Ph.D.(Qu.), Ph.D.(Rome)  
G. Dougherty; M.D., M.Sc.(McG.) (*joint appt. with Pediatrics*)  
A. Dufresne; B.Sc., M.Sc.(Que.), Ph.D.(McG.)  
T.W. Gyorkos; B.Sc.(McG.), M.Sc.(Bishop's), Ph.D.(McG.)  
P. Héroux; B.Sc.(Laval), M.Sc., Ph.D.(I.N.R.S.)  
L. Joseph; M.Sc., Ph.D.(McG.)  
C.P. Larson; M.D., C.M., M.Sc.(McG.) (*joint appt. with Pediatrics*) (*on leave*)  
J. O'Loughlin; B.Sc.(Qu.), M.Sc., Ph.D.(McG.) (*Canada Research Chair*)  
J. Pickering; B.A.(Tor.), M.D., M.Sc.(McG.) (*joint appt. with Medicine*)  
R.W. Platt; M.Sc.(Man.), Ph.D.(Wash.) (*joint appt. with Pediatrics*)  
M. Rossignol; B.Sc., M.D.(Sher.), M.Sc.(McG.), F.R.C.P.(C)  
N. Steinmetz; B.Sc., M.D., C.M.(McG.), M.P.H.(Mich.), F.R.C.P.(C)  
P. Tousignant; B.A., M.D.(Laval), M.Sc.(McG.), F.R.C.P.(C) (PT)

#### Assistant Professors

A. Adrien; M.D., M.Sc.(McG.)  
S. Arnold; B.A. (W.Ont.); M.Ed., (Tor.) (PT)  
D. Buckridge; MD (Qu.), M.Sc. (Tor.), Ph.D. (Stan.) (*Canada Research Chair*)  
N. Dendukuri; M.Sc.(Indian I.T.), Ph.D.(McG) (PT)  
A. Manges; B.A. (Col.), M.P.H., Ph.D. (Calif., Berk.)  
M. Pai; MBBS (Stanley Medical College), MD (Christian Medical College), Ph.D.(Calif., Berk.)  
L. Patry, B.Sc., M.D.(Laval), F.R.C.P.(C) (PT)  
A. Quesnel-Vallee; B.A., M.Sc. (Montr.), M.A., Ph.D. (Duke) (*joint with Sociology*)  
Y. Robitaille B.Sc.(Montr.), Ph.D.(McG.) (PT)  
G. Tan; D.Phil.(Oxf.) (PT)

#### Associate Members

*Dentistry*: P. Allison, J. Feine; *Pediatrics*: G. Pেকেles; *Family Medicine*: J. Cox, T. Tannenbaum; *Dietetics and Human Nutrition*: K. Gray-Donald; *Geography*: N. Ross; *Medicine*: A. Barkun, M. Behr, T. Brewer, J. Bourbeau, P. Brassard, J. Brophy, A. Clarke, P. Dobkin, M. Eisenberg, P. Ernst, M. Goldberg, S. Grover, S. Kahn, E. Latimer, J.D. MacLean, N. Mayo, L. Pilote, E. Rahme, K. Schwartzman, I. Shrier; *Pathology*: B. Case; *Psychiatry*: G. Galbaud du Fort; *Oncology*: R. Rajan

#### Lecturers

P. Dubé, J.P. Gauvin, M. Malowany, B. Pathak, G. Perrault, W. Wood

#### Adjunct Professors

*Direction régionale de la santé publique*: R. Allard, M. Baillargeon, Y. Bonnier-Viger, L. Drouin, R. Lessard, P. Robillard, E. Robinson, E. Roy, S. Stock; *Hôpital Hôtel-Dieu*: J. Leloir; *Hôpital Sacre-Cœur*: D. Gauthrin; *Statistics Canada*: J. Berthelot; *U. Liege*: F-A. Allaert; *U. de Montréal*: Y. Moride; J. Siemiatycki; *Cree Council of Quebec*: F. Richer; *Caro Research*: J. Caro; *Alcan*: I. Arnold, S. Martin; *Stabilis*: P. Simon; *Univ. Massachusetts*: A. Dembe; *Mount Sinai*: M. Baltzan; *INSPQ*: R. Masse; P. Robillard, Y. Robitaille, S. Stock; *Univ. of Sherbrooke*: E. Roy

### 56.2 Programs Offered

The Department of Occupational Health offers two graduate degree programs: a doctorate (Ph.D.) and Master (M.Sc.A) in occupational health sciences. The Master's program is available on campus or in distance education format.

#### M.Sc. Applied Program (Full-time) (Resident) (on campus)

The objective of this program is to train and enable competent health and hygiene professionals to work in occupational health



programs by evaluating the work environment and work hazards and by proposing appropriate methods of prevention and control.

**M.Sc. Applied Program (Distance Education)**

A three and one-half year program leading to the degree of Master of Science Applied in Occupational Health Sciences – M.Sc.(A). This program is also offered for professional interest, for details please contact the Coordinator.

**Ph.D. Program**

The objective of this program is to train independent researchers in the field of work environment and health.

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**56.3 Admission Requirements**

Non-Canadian applicants whose mother tongue is not English and who have not completed an undergraduate degree using the English language are required to submit documented proof of competency in oral and written English, by appropriate exams e.g., TOEFL (Test of English as a Foreign Language) with a minimum score of 550, or 213 on the computer-based test, or 86 on the Internet-based test with each component score not less than 20.

**M.Sc. Applied Program (Full-time) (Resident) (on campus)**

Candidates should have completed, with high academic standing, a bachelor of science degree or its equivalent in a discipline relevant to occupational health or hygiene such as: chemistry, engineering, environmental sciences, physics; medicine, nursing and other health sciences with a standing equivalent to a minimum Cumulative Grade Point Average (CGPA) of 3.0 out of 4. High grades are expected in courses considered by the Department to be preparatory to the graduate program.

**M.Sc. Applied Program (Distance Education)**

Candidates must hold an M.D., a bachelor's degree in nursing, or a B.Sc. (any major). They must have maintained at least a 3.0 on 4.0 grade point average.

Candidates must hold a B.Sc. in related fields with at least three years of experience in industrial hygiene and/or in safety. In the case of medical doctors and nurses, priority will be given to candidates with two or more years of experience in occupational health.

**Ph.D. Program**

Candidates must hold a M.Sc. degree or its equivalent in occupational health sciences, or in a relevant discipline, such as: community health, environmental health, epidemiology, chemistry, engineering, physics, or health sciences (medicine, nursing, etc.).

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**56.4 Application Procedures**

Application forms are available online at [www.mcgill.ca/applying/graduate](http://www.mcgill.ca/applying/graduate).

**M.Sc. Applied Program (Full-time) (Resident) (on campus)**

Candidates must submit with their application two official copies of their university transcripts, two

## Courses

Each course has a final examination at the end of the term. Students must obtain at least B- (65%) in each course in the program. Students who fail one course will be invited to withdraw from the program. Special circumstances can be examined.

**Project Component – Required** (15 credits)

### PH.D. PROGRAM

Three years of resident study are required for this program.

Students are required to take course OCCH 706 Ph.D Seminar on Occupational Health and Hygiene (2 credits) and are encouraged to take up to 12 credits in areas pertinent to their specialty or in areas necessary to complete their knowledge of occupational health.

All Ph.D. students must take a comprehensive examination (OCCH 700) within 18 months of registration.

A thesis committee will be established to ensure proper supervision and coverage of the different fields of expertise as required.

### 56.6 Courses

Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.

The course credit weight is given in parentheses after the title.

Denotes limited enrolment

**OCCH 550 ENABLING HUMAN OCCUPATION.** (3) (4 hrs/week) (4 hrs/week) (U3 and M1 OT students only) Occupational performance (productivity, self-care, leisure) is examined through the Canadian Occupational Performance Model and the Model of Human Occupation, both of which focus on the interaction of the individual with the environment. Human performance is analyzed focusing on prevention of disability and/or restoration of function.

**OCCH 600 COMPREHENSIVE EXAMINATION.** (0)

**OCCH 602 OCCUPATIONAL HEALTH PRACTICE.** (3) This course analyzes the functions, structure and organization of occupational health programs and services.

**OCCH 603 WORK AND ENVIRONMENT EPIDEMIOLOGY 1.** (3) This course provides students with basic knowledge of epidemiology and statistics as applied to occupational health.

**OCCH 604 MONITORING OCCUPATIONAL ENVIRONMENT.** (3) Principles and practices of environmental and biological monitoring of workplace hazards are addressed. Familiarization with instrumentation and calibration procedures is undertaken. Students learn to identify workplace health hazards, develop effective sampling strategies, use industrial hygiene equipment and interpret results of exposure measurements.

**OCCH 605D1 (3), OCCH 605D2 (3) PHYSICAL HEALTH HAZARDS.** (Students must register for both OCCH 605D1 and OCCH 605D2) (No credit will be given for this course unless both OCCH 605D1 and OCCH 605D2 are successfully completed in consecutive terms) Properties, mechanisms of action and health effects of physical agents in the workplace and in the general environment: electromagnetic risks, noise and vibration, ionizing radiation, ventilation and thermal environment. Administrative, engineering and medical control methods, exposure standards and safety measures for these agents.

**OCCH 608 BIOLOGICAL AND CHEMICAL HAZARDS.** (3) This course will acquaint the student with the physical, chemical, and toxicological properties of common industrial products, important industrial processes and their associated health and safety hazards and the control measures.

**OCCH 612 PRINCIPLES OF TOXICOLOGY.** (3) Selected topics, including acute, subacute and chronic toxicity assessment, pharmacokinetics and pharmacodynamics, mutagenicity, carcinogenicity and teratogenicity.

**OCCH 614 TOPICS IN OCCUPATIONAL HEALTH.** (3) Using a problem oriented approach, this course aims at integrating all notions seen previously in the program. Advanced learning, lectures, readings, student presentations, written assignments.

**OCCH 615 OCCUPATIONAL SAFETY PRACTICE.** (3) Principles of safety and loss prevention; incident investigations and analyses, occupational safety management tools; loss recognition; safety standards, guidelines and legislation. Selected topics include: fire prevention; workshop, tool and machine safety; fall protection; laboratory safety; confined space entry; safe work permit systems; and materials handling.

**OCCH 616 OCCUPATIONAL HYGIENE.** (3) An introduction to the principles and practices of industrial hygiene designed to provide the students with the knowledge required to identify health and safety hazards in the workplace.

**OCCH 617 OCCUPATIONAL DISEASES.** (3) Review of occupational health problems structured around target organs: respiratory, musculo-skeletal, skin, cardiovascular, mental disorders and aggressive agents: trauma, physical agents, solvents and metals and infectious agents. Also covered are occupational cancer, conditions associated with hypo- and hyperbaric environments, mutagenicity, teratogenicity and reproduction disorders, pre-employment, period examination and medical activities in the workplace.

**OCCH 624 SOCIAL AND BEHAVIOURAL ASPECTS - OCCUPATIONAL HEALTH.** (3) This course explores the social science of occupational health practice, and describes influences on that practice of recent political, social and economic changes in the workforce and at the workplace;

nurses, it examines potential pathologies in the workplace, and subsequent disease outcomes. Focus is on an evidence-based approach to assessment, nursing diagnosis, appropriate interventions in the identification, management of occupational diseases. Worker screening strategies and disease prevention activities are introduced.

**OCCH 635 ENVIRONMENTAL RISKS TO HEALTH.** (3) Focuses on pathways of exposure from industry to non working populations, on measurement of exposure and observation of effects, modelling and prediction of effects. Identifying, assessing and adapting





## **58.5 Program Requirements**

### **PARASITOLOGY PROGRAMS**

#### **M.Sc. in Parasitology (Thesis) (46 credits)**

Although emphasis in the graduate program is on research, satisfactory completion of PARA 635 and PARA 655 is required in the first year of study. Other course work in related subjects may be required, depending upon the candidates' background and research orientation. The minimum requirement of the M.Sc. degree is 46 credits.

Candidates are required to write a research proposal in the second term of their registration to fulfill the requirements of PARA 600. While in the Institute, all students are required to register and participate in the seminar courses PARA 606 and PARA 607. Seminar speakers include students, professors and invited guests.

#### **Required Courses (14 credits)**

#### **M.Sc. in Parasitology (Thesis) – Bioinformatics Option/Concentration (47 credits)**

#### **Required Courses (17 credits)(46 cr0 Courses**



**PARA 600D1 (2), PARA 600D2 (2) THESIS PROPOSAL FOR M.Sc.**  
(Students must register for both PARA 600D1 and PARA 600D2)  
(No credit will be given for this course unless both PARA 600D1  
and PARA 600D2 are successfully completed in consecutive  
terms) (PARA 600D1 and PARA 600D2 together are equivalent to



those candidates showing exceptional ability may be permitted to transfer into the Ph.D. program after one year of training.

Applicants who already possess an additional degree (M.Sc., M.D.) and have some research experience may be allowed to register in the Ph.D. program directly.

Prospective students are encouraged to apply online at [www.mcgill.ca/applying/graduate](http://www.mcgill.ca/applying/graduate). For further information, applicants may contact the Teaching Office, Department of Pathology.

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#### 59.4 Application Procedures

Applications will be considered upon receipt of:

1. application;
2. transcripts;
3. letters of reference;
4. \$80 application fee;
5. test results (GRE, TOEFL).

All information is to be submitted directly to the Pathology Teaching Office.

All applications will be evaluated by the Graduate Students Committee. Candidates found suitable must then be accepted by a research director, and adequate funding must be obtained for both personal support and research expenses.

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#### 59.5 Program Requirements

All students must take PATH 300 plus a course in statistics if they have not completed these requirements before admission.

Candidates with insufficient background in one of the biomedical sciences will be required to take specific courses to remedy the deficiency. These and additional courses which are relevant to the student's area of research will be chosen in consultation with the research director and Graduate Students Committee.

##### **M.Sc. in Pathology (Thesis)** (45 credits)

Candidates must complete the courses listed below and any additional courses considered necessary by the research director or the Graduate Students Committee.

##### **Required Courses** (6 credits)

##### **Ph.D. in Pathology**

Candidates will be evaluated primarily on their ability to conduct independent research and submit a thesis, which must be defended orally. They must also complete the courses listed below and any additional courses considered necessary by the research director or the Graduate Students Committee.

##### **Required Courses** (12 credits)

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#### 59.6 Courses

Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.

**Note:** All undergraduate courses administered by the Faculty of Science (courses at the 100- to 500-level) have limited enrolment.

The course credit weight is given in parentheses after the title.

##### **PATH 607 B**





interpret scientific data, to write a paper and/or participate in small group discussions.

**PHAR 563 GENERAL PHARMACOLOGY 2.** (3) (Winter) (Prerequisites: PHGY 209 and PHGY 210, BIOL 200 and BIOL 201 or BIOC 311 and BIOC 312 or equivalent) (Restrictions: Open to U3 students with permission of instructors, and students registered in the Minor in Pharmacology Program) Selected topics of basic interactions between chemicals and biological systems. Actions of drugs at the molecular and cellular levels. Principles of drug development. Chemotherapy of infections and of cancer. Toxicology and pharmacokinetics/dynamics. Drug metabolism.

**PHAR 599 RESEARCH PROJECTS IN PHARMACOLOGY.** (6) (Minimum of 12 hours per week to be spent in the lab and/or library.) (Pre-/co-requisite PHAR 562 and PHAR 563 or PHAR 300 and PHAR 301) (Restrictions: Open to U3 students with permission of instructors, and students registered in the Minor Pharmacology Program. Students should consult instructors 3 - 4 weeks before registration. Students may not register without prior approval of the course co-ordinator(s)) (Please see regulations concerning Project Courses) This course involves individual research work. Students select a project under the supervision of a staff member. Areas of interest include toxicology, endocrine, developmental, cardiovascular, reproductive and neuropharmacology. This course requires a minimum of 6 hours per week for the full year course (PHAR 599D1/PHAR 599D2), and a minimum of 12 hours per week for the half year (PHAR 599) course to be spent in the laboratory and/or library.

**PHAR 599D1 (3), PHAR 599D2 (3) RESEARCH PROJECTS IN PHARMACOLOGY.** (Fall) (Minimum of 6 hours per week to be spent in the lab and/or library.) (Students must register for both PHAR 599D1 and PHAR 599D2.) (No credit will be given for this course unless both PHAR 599D1 and PHAR 599D2 are successfully completed in consecutive terms) (PHAR 599D1 and PHAR 599D2 together are equivalent to PHAR 599) This course involves individual research work. Students select a project under the supervision of a staff member. Areas of interest include toxicology, endocrine, developmental, cardiovascular, reproductive and neuropharmacology. This course requires a minimum of 6 hours per week for the full year course (PHAR 599 D1/PHAR 599D2), and a minimum of 12 hours per week for the half year (PHAR 599) course to be spent in the laboratory and/or library.

**PHAR 601D1 (3), PHAR 601D2 (3) COMPREHENSIVE.** (Students must register for both PHAR 601D1 and PHAR 601D2) (No credit will be given for this course unless both PHAR 601D1 and PHAR 601D2 are successfully completed in consecutive terms).

**PHAR 601N1 COMPREHENSIVE.** (3) (Students must also register for PHAR 601N2) (No credit will be given for this course unless both PHAR 601N1 and PHAR 601N2 are successfully completed in a twelve month period) See PHAR 601D1 for course description.

**PHAR 601N2 COMPREHENSIVE.** (3) (Prerequisite: PHAR 601N1) (No credit will be given for this course unless both PHAR 601N1 and PHAR 601N2 are successfully completed in a twelve month period) See PHAR 601D1 for course description.

**PHAR 696 THESIS PREPARATION.** (3)

**PHAR 697 THESIS PREPARATION 1.** (6)

**PHAR 698 THESIS PREPARATION 2.** (9)

**PHAR 699 THESIS PREPARATION 3.** (12)

**PHAR 702 TOPICS IN PHARMACOLOGY 1.** (3) (Prerequisite: Permission of the Instructor.) Topics in pharmacology.

**PHAR 703 TOPICS IN PHARMACOLOGY 2.** (3) (Prerequisite: Permission of the Instructor.) Topics in pharmacology.

**PHAR 704 TOPICS IN PHARMACOLOGY 3.** (3) (Prerequisite: Permission of the Instructor.) Topics in pharmacology.

**PHAR 705 TOPICS IN PHARMACOLOGY 4.** (3) (Prerequisite: Permission of the Instructor.) Topics in pharmacology.

**PHAR 706 TOPICS IN PHARMACOLOGY 5.** (3) (Prerequisite: Permission of the Instructor.) Topics in pharmacology.

**PHAR 707 TOPICS IN PHARMACOLOGY 6.** (3) (Prerequisite: Permission of the Instructor.) Topics in pharmacology.

**PHAR 712 STATISTICS FOR PHARMACOLOGISTS.** (3) Basic theoretical and practical aspects of statistics for pharmacologists.

## 61 Philosophy

Department of Philosophy  
Leacock Building, Room 908  
855 Sherbrooke Street West  
Montreal, QC H3A 2T7  
Canada

Telephone: (514) 398-6060

Fax: (514) 398-7148

E-mail: [info.philosophy@mcgill.ca](mailto:info.philosophy@mcgill.ca)

Website: [www.mcgill.ca/philosophy](http://www.mcgill.ca/philosophy)

Chair — R.P. Buckley

### 61.1 Staff

#### *Emeritus Professors*

A.T. McKinnon; M.A.(Tor.), Ph.D.(Edin.), B.D.(McG.), F.R.S.C., R.D., D.H.L.(St. Olaf) (*William C. Macdonald Emeritus Professor of Moral Philosophy*)

D. Norton; M.A.(Claremont), Ph.D.(Calif.), F.R.S.C.

C. Taylor; M.A., D.Phil.(Oxf.), F.R.S.C.

#### *Professors*

M.A. Bunge; Ph.D.(LaPlata), F.R.S.C. (*John Frothingham Professor of Logic and Metaphysics*)

G. DiGiovanni; B.A., M.A., S.T.B., Ph.D.(Tor.)

S. McCall; B.A.(McG.), B.Phil., D.Phil.(Oxf.)

#### *Associate Professors*

R.P. Buckley; Ph.D.(Louvain)

D. Davies; B.A.(Oxf.), M.A.(Man.), Ph.D.(W.Ont.)

M. Deslauriers; B.A.(McG.), M.A., Ph.D.(Tor.)

I. Gold; B.A., M.A. (McG.), Ph.D. (Princ.)

M. Hallett; B.Sc., Ph.D.(Lond.)

A. Laywine; B.A.(Ott.), M.A.(Montr.), Ph.D.(Chic.)

E. Lewis; B.A.(C'nell), Ph.D.(Ill. at Chic.)

J. McGilvray; B.A.(Carleton College), Ph.D.(Yale)

S. Menn; M.A., Ph.D.(Chic.), M.A., Ph.D.(Johns Hop.)

N. Stoljar; B.A., LLB(Sydney), Ph.D.(Princ.)

S. Stroud; A.B.(Harv.), Ph.D.(Princ.)

#### *Assistant Professors*

A. Al-Saji; M.A.(Louvain), Ph.D.(Emory)

E. Carson; M.A.(McG.), Ph.D.(Harv.)

G. Fiasse; B.A., M.A., Ph.D. (Louvain) (*joint appoint. with Religious Studies*)

C. Fraenkel; B.A., M.A., Ph.D. (FU, Berlin)

G. Mikkelson; M.S., Ph.D.(Chic.) (*joint apt. with McGill School of Environment*)

A. Reisner; M.A. (Bristol), D.Phil.(Oxf.)

H. Sharp; M.A.(SUNY), Ph.D.(Penn.)

J. Speaks; B.A. (Notre Dame), Ph.D. (Princ.)

#### *Associate Professor (part-time)*

K. Arvanitakis

#### *Associate Members*

L. Kaplan (Jewish Studies)

#### *Adjunct Professor*

S. Davis (Car.)

### 61.2 Programs Offered

The Department offers courses of study leading to the Ph.D. in Philosophy. It also offers, in conjunction with the Biomedical Ethics Unit, a course of study leading to the M.A. degree in Bioethics.



degree, for a total of 18 to 21 credits. A minimum of 45 credits is required including the thesis. For further information refer to the Bioethics entry.

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### **61.6 Courses**

**Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes**







**Required Courses** (9 credits)

**Complementary Courses** (36 credits)

**Doctorate in Rehabi**

pathological human movement will be used to demonstrate the application of theory and techniques for quantitative analysis of human performance. Recording, reduction and analysis of electro-myographic, kinetic and kinematic data included.

**POTH 630 MEASUREMENT: REHABILITATION 2.** (3) (Prerequisite: EPIB 607 or PSYC 305 or equivalent.) Theoretical and practical basis for measurement in rehabilitation research. Introduction to measurement theory, scale development and related statistics, approaches and instruments used to assess outcomes in patients with musculoskeletal, neurological, cardiovascular, respiratory, psychiatric or psychologic conditions.

**POTH 631 RESEARCH PROPOSAL.** (3) The course covers issues involved in the development of a research protocol. The presentation of a written thesis propESEApmerate th

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J. Vinals; B.Sc., M.Sc., Ph.D.(Barcelona) (*Canada Research Chair*)

*Associate Professors*

J. Cline; B.Sc.(Calif.), M.Sc., Ph.D.(Cal. Tech.)

V. Kaspi; B.Sc.(McG.), M.A., Ph.D.(Princ.) (*Canada Research Chair*)

*Assistant Professors*

R. Bennewitz; Diploma, Ph.D.(Berlin) (*Canada Research Chair*)

A. Clerk; B.Sc.(Tor.), Ph.D.(C'nell) (*Canada Research Chair*)

A. Cumming; B.A.(Camb.), Ph.D.(Calif.)

K. Dasgupta; M.Sc., Ph.D.(India)

M. Dobbs; B.Sc., (McG.), Ph.D.(Vic.,BC) (*Canada Research Chair*)

G. Gervais; B.Sc.(Sher.), M.Sc.(McM.), Ph.D.(N'western)

M. Hilke; B.Sc., M.Sc., Ph.D.(Geneva)

G. Holder; M.Sc.(Qu.), Ph.D.(Chic.) (*Canada Research Chair*)

S. Jeon; B.Sc.(Korea), M.Sc., Ph.D.(Wash.)

M. Kilfoil; B.Sc.(New Br.), M.Sc., Ph.D.(Nfld.)

G. Moore; Ph.D.(Princ.)

S. Robertson; B.Sc.(Calg.), M.Sc., Ph.D.(Victoria)

R. Rutledge; B.Sc.(S.Calif.), Ph.D.(MIT)

B. Siwick; B.Sc., M.Sc., Ph.D.(Tor.)

B. Vachon; B.Sc.(McG.), Ph.D.(Vic.,BC) (*Canada Research Chair*)

A. Warburton; B.Sc.(Vic.,BC), Ph.D.(Tor.)

P. Wiseman; B.Sc.(St. F.X.), Ph.D.(W. Ont.)

T. Webb; B.Sc.(Tor.), M.Sc.(McM), Ph.D.(Tor.)

*Lecturers*

Z. Altounian, F. Buchinger

*Associate Members*

M. Mackey (Physiology), E. Podgorsak (Radiation Physics),

D. Ronis (Chemistry)

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## 63.2 Programs Offered

M.Sc. and Ph.D.

### FIELDS OF RESEARCH

#### High-Energy Physics

**Theoretical:** The McGill high energy theorists have interests in a wide range of problems pertaining to all fundamental interactions: strong, electromagnetic, and neutrino.

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### **63.3 Admission Requirements**

#### **M.Sc.**

Normal requirement is a B.Sc. in Physics, or equivalent, with high standing.

#### **Ph.D.**

Normal requirement is a M.Sc.

**PHYS 614 ADVANCED ASTROPHYSICS 1. (3) (Prerequisites: PHYS**



**M.Sc. in Physiology – Bioinformatics Option/Concentration**

(49 credits)

**Required Courses** (16 credits)**Ph.D. in Physiology**

Each student will have a supervisory committee which will monitor the progress of the studies.

All students must submit a Ph.D. thesis and defend it orally.

**Required Courses** (9 credits)**64.6 Courses**

Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.

Term(s) offered (Fall, Winter, Summer) may appear after the credit weight to indicate when a course would normally be taught. Please check Class Schedule to confirm this information.

**Note:** All undergraduate courses administered by the Faculty of Science (courses at the 100- to 500-level) have limited enrolment. The course credit weight is given in parentheses after the title.

**PHGY 502 EXERCISE PHYSIOLOGY.** (3) (Winter) (Prerequisites: PHGY 311, PHGY 312, and PHGY 313) Behaviour of physiological processes in response to physical effort, in areas such as structural basis of muscle contraction, thermoregulation during exercise, mechanics and energetics of muscle contraction, fuel utilization, fatigue, physiological adjustments during exercise and influence of training.

**PHGY 508 ADVANCED RENAL PHYSIOLOGY.** (3) (Fall) (Prerequisite

**Ph.D. in Physiology – Bioinformatics Option/Concentration****Required Courses** (15 credits)

in which experts in immunologic mechanisms of resistance against a variety of infectious diseases, including AIDS, malaria, and tuberculosis oversee student moderators in their presentation of recent scientific literature in the field.

**PHGY 550 MOLECULAR PHYSIOLOGY OF BONE.** (3) (Fall) (1 hour of lecture, 2 hours of seminar per week) (Prerequisites: PHGY 311, and BIOL 202 or equivalent) (Restriction: U3 Physiology students, and graduate students in biomedical departments; others by permission of the instructor) Students will develop a working knowledge of cartilage and bone. Discussion topics will include: molecular and cellular environment of bone; heritable and acquired skeletal defects; research models used to study metabolic bone disease.

**PHGY 552 CELLULAR AND MOLECULAR PHYSIOLOGY.** (3) (Winter) (1 hour lecture, 2 hours seminar weekly) (Prerequisite: PHGY 311) (Preference will be given to Physiology Honours and Graduate students) Discussions of recent significant advances in our understanding of the gene products involved in diverse cellular signaling pathways. Topics will include cell-surface hormone receptors, nuclear steroid hormone receptors, and ion channels and transporters. Students will present and critically evaluate experimental approaches, results and interpretations of selected research publications.

**PHGY 556 TOPICS IN SYSTEMS NEUROSCIENCE.** (3) (Winter) (Restriction: Permission of the instructor required.) (Restriction: Not open to students who have taken PHGY 456) Topics of current interest in systems neurophysiology and behavioural neuroscience including: the neural representation of sensory information and motor behaviours, models of sensory motor integration, and the computational analysis of problems in motor control and perception. Students will be expected to present and critically discuss journal articles in class.

**PHGY 601 M.Sc. PROPOSAL SEMINAR.** (1)

**PHGY 602 LITERATURE SEARCH AND RESEARCH PROPOSAL.** (3)

**PHGY 603 SYSTEMS BIOLOGY AND BIOPHYSICS.** (3) (Prerequisite: Knowledge of differential equations at the MATH 315 level or equivalent.) (Notes: Enrolment is limited to 20 students per semester. The course is 1.5 hours of lecture and 1.5 hours of seminar per week. Readings will focus on classic and current journal articles.) Introduction to classical and current topics in biophysics and systems biology in order to model the control of gene expression and intracellular signal transduction, as well as gene spread in populations.

**PHGY 607 LABORATORY RESEARCH 1.** (3)

**PHGY 608 LABORATORY RESEARCH 2.** (3)

**PHGY 610 BIOPHYSICS.** (3) (Prerequisite: permission of the instructor.) A series of seminars in selected topics in theoretical biology and biomathematics.

**PHGY 620 PROGRESS IN RESEARCH.** (3)

**PHGY 621 THESIS 1.** (12)

**PHGY 622 THESIS 2.** (15)

**PHGY 623 M.Sc. SEMINAR.** (3)

**PHGY 701 Ph.D. COMPREHENSIVE EXAMINATION.** (0).

**PHGY 702 Ph.D. PROPOSAL.** (1)

**PHGY 703 Ph.D. PROGRESS SEMINAR 1.** (1)

**PHGY 704 Ph.D. PROGRESS SEMINAR 2.** (1)

**PHGY 720 Ph.D. SEMINAR COURSE 1.** (1) Required for Ph.D. students. Coordinated in conjunction with the weekly Departmental seminar series, students will meet for one hour before each seminar to critically discuss papers on the subject of the weekly seminar. Students will take turns introducing the papers and leading discussions on an overview of the research topic, some of the methodologies, results and conclusions.

**PHGY 721 Ph.D. SEMINAR COURSE 2.** (1) Required for Ph.D. students. Coordinated in conjunction with the weekly Departmental seminar series, students will meet for one hour before each seminar to critically discuss papers on the subject of the weekly

seminar. Students will take turns introducing the papers and leading discussions on an overview of the research topic, some of the methodologies, results and conclusions.

**PHGY 722 Ph.D. SEMINAR COURSE 3.** (1) Required for Ph.D. students. Coordinated in conjunction with the weekly Departmental seminar series, students will meet for one hour before each seminar to critically discuss papers on the subject of the weekly seminar. Students will take turns introducing the papers and leading discussions on an overview of the research topic, some of the methodologies, results and conclusions.

**PHGY 723 Ph.D. SEMINAR COURSE 4.** (1) Required for Ph.D. students. Coordinated in conjunction with the weekly Departmental seminar series, students will meet for one hour before each seminar to critically discuss papers on the subject of the weekly seminar. Students will take turns introducing the papers and leading discussions on an overview of the research topic, some of the methodologies, results and conclusions.

**PHGY 724 Ph.D. SEMINAR COURSE 5.** (1) Required for Ph.D. students. Coordinated in conjunction with the weekly Departmental seminar series, students will meet for one hour before each seminar to critically discuss papers on the subject of the weekly seminar. Students will take turns introducing the papers and leading discussions on an overview of the research topic, some of the methodologies, results and conclusions.

**PHGY 725 Ph.D. SEMINAR COURSE 6.** (1) Required for Ph.D. students. Coordinated in conjunction with the weekly Departmental seminar series, students will meet for one hour before each seminar to critically discuss papers on the subject of the weekly seminar. Students will take turns introducing the papers and leading discussions on an overview of the research topic, some of the methodologies, results and conclusions.

#### COURSES OFFERED BY OTHER UNITS

Department of Medicine, Division of Experimental Medicine:

**EXMD 502 ADVANCED ENDOCRINOLOGY.** (3) (Fall) (Prerequisite (Undergraduate): EXMD 301 or an equivalent course) This course is designed for U3 students who are in a major or honours program in anatomy, biology, biochemistry or physiology and for graduate students. A multidisciplinary approach will be used to teach biosynthesis and processing of hormones, their regulation, function and mechanism of action. The material will cover hypothalamic, pituitary, thyroid, atrial and adrenal hormones as well as prostaglandins and related substances.

**EXMD 503 ADVANCED ENDOCRINOLOGY.** (3) (Winter) Study of the parathyroids, gut and pancreatic hormones and growth factors. In addition, the role of hormones and growth factors in reproduction and fetal maturation will be discussed.

**EXMD 504 BIOLOGY OF CANCER.** (3) (Fall) (Prerequisite (Undergraduate): A good knowledge of biology at the cellular and molecular level. Open to U3 and graduate students only) An introduction to the biology of malignancy. A multidisciplinary approach dealing with the etiology of cancer, the biological properties of malignant cells, the host response to tumour cell growth and the principles of cancer therapy.

**EXMD 506 ADVANCED APPLIED CARDIOVASCULAR PHYSIOLOGY.**



mechanisms. This course is aimed at providing a solid grounding in pulmonary biology and its research applications.

**EXMD 508 ADVANCED TOPICS IN RESPIRATION.** (3) (Winter) (Prerequisite: EXMD 507) Offered in conjunction with the Department of Physiology. In depth coverage of developmental physiology, pulmonary vascular physiology, biology of airway smooth muscle, respiratory epithelium and molecular biology of respiratory muscles. Dyspnea, mechanical ventilation and respiratory failure will also be covered. This course emphasizes application of respiratory biology to basic and applied research and touches on pulmonary pathophysiology.

**EXMD 509 GASTROINTESTINAL PHYSIOLOGY AND PATHOLOGY.** (3) (Fall and Winter) (Prerequisite: Graduate students, U3 undergraduates) Course deals with various aspects of gastrointestinal and hepatic function in health and altered physiological states. The principal focus is on the recent literature pertaining to cell and molecular mechanisms underlying the motility secretory process, absorption and secretion. The molecular biology of the hepatic viruses and various aspects of colonic neoplasia will also be considered.

**EXMD 615 MEMBRANE CARBOHYDRATES.** (3) (Winter) The structure, function and biosynthesis (rtscover0.0 of 3(ace.) )--0.0008 Tc02.2296ruses and

applicant's university is essential. It is the applicant's responsibility to arrange for transcripts to be sent.

It is desirable to submit a list of the titles of courses taken in the major subject, since transcripts often give code numbers only. Applicants must be graduates of a university of recognized reputation and hold a Bachelor's degree equivalent to a McGill Honours degree in a subject closely related to the one selected for graduate work. This implies that about one-third of all undergraduate courses should have been devoted to the subject itself and another third to cognate subjects.

**Letters of Recommendation** - Two letters of recommendation on letterhead (official paper) of originating institution or bearing the university seal and with original signatures from two instructors familiar with the applicant's work, preferably in the applicant's area of specialization. It is the applicant's responsibility to arrange for these letters to be sent.

**Competency in English** - Non-Canadian applicants whose mother tongue is not English and who have not completed an undergraduate degree using the English language are required to submit documented proof of competency in oral and written English, by appropriate exams, e.g., TOEFL (minimum score 550 on the paper-based test, 213 on the computer-based test, 86 on the Internet-based test, with a minimum score of 20 on each, or IELTS (minimum overall band 6.5). The MCHE is not considered equivalent. Results must be submitted as part of the application. The University code is 0935 (McGill University, Montreal); please use Department code 31 (Graduate Schools), Biological Sciences - Agriculture, to ensure that your TOEFL reaches this office without delay.

**Graduate Record Exam (GRE)** - The GRE is not required, but it is highly recommended.

**Application Fee (non-refundable)** - A fee of \$80 Canadian must accompany each application (including McGill students), otherwise it cannot be considered. This sum must be remitted using one of the following methods:

1. Credit card (by completing the appropriate section of the application form). NB: online applications must be paid for by credit card.
2. Certified cheque in Cdn.\$ drawn on a Canadian bank.
3. Certified cheque in U.S.\$ drawn on a U.S. bank.
4. Canadian Money order in Cdn.\$.
5. U.S. Money Order in U.S.\$.
6. An international draft in Canadian funds drawn on a Canadian bank requested from the applicant's bank in his/her own country.

**Deadlines** – Applications, including all supporting documents must reach the Department no later than May 15 (March 1 for International) for the *Fall Term (September)*; October 15 (July 1 for International) for the *Winter Term (January)*; February 15 (November 1 for International) for the *Summer Term (May)*. It may be necessary to delay review of the applicant's file until the following admittance period if application materials including supporting documents are received after these dates. International applicants are advised to apply well in advance of the deadline because immigration procedures may be lengthy. Applicants are encouraged to make use of the online application form available on the Web at [www.mcgill.ca/applying/graduate](http://www.mcgill.ca/applying/graduate).

**Financial aid is very limited and highly competitive. It is suggested that students give serious consideration to their financial planning before submitting an application.**

Acceptance to all programs depends on a staff member agreeing to serve as the student's supervisor and the student obtaining financial support. Normally, a student will not be accepted suggested that90356 Tc-0e Norm(y)-2.





*Professors*

Mark R. Brawley; B.A., M.A., Ph.D.(Calif.-LA)



Candidates for the M.A. degree follow a program approved on an individual basis by the Department. All students who wish to be considered for the Ph.D. program are evaluated on the basis of their M.A. program. Only a small number of students are permitted to go on for their doctorate and students currently enrolled in the M.A. program must formally replay for admission into the Ph.D. program. A pass for the M.A. degree does not necessarily imply permission to proceed to the doctorate.

**Requirements for the Ph.D. Degree**

Superior applicants, normally understood as students who are at least in the top 10 percent of their graduating class or who have a CPGA of at least 3.5 or its equivalent, will be eligible for admission into the Ph.D. track and receive a Ph.D. degree after successfully completing the requirements of the Ph.D. track. These are:

A. Successful completion of up to thirteen 3-credit courses. A maximum of 18 credits completed at

depth, to present their papers to the seminar, and to engage in and profit from discussion and debate.

**POLI 575 SEMINAR: INTERNATIONAL POLITICS.** (3) (Restriction: Open to graduate students and final year Honours students only) (Note: The field is International Politics.) A research seminar dealing with topics in the field of international politics.

**POLI 599 INTERNSHIP: POLITICAL SCIENCE.** (3) (Fall and Winter) (Restriction: Open, with permission, to final year Honours and Joint Honours students, and graduate students. This course does not count as a 500-level seminar under the Honours requirements) The internship shall consist of a minimum of 150 hours of work over a period of 12 weeks, plus a major research project based on the internship. The major project will ordinarily consist of a major research paper, plus a substantial written record of the work conducted during the internship.

**POLI 603 HISTORY OF POLITICAL THOUGHT 1.** (3) (There will be 2 lectures per week (taken with undergraduates enrolled in POLI 433) and one graduate-student-only tutorial per week.) (Note: The field is Political Theory.) A graduate level introduction to key early-modern and modern political theories.

**POLI 604 HISTORY OF POLITICAL THOUGHT 2.** (3) (Note: The field is Political Theory.) A graduate level introduction to key modern political theories. Among the theorists to be covered are: Hegel, Marx, Nietzsche, Mill, Tocqueville.

**POLI 612 EMPIRICAL METHODS.** (3) Fundamental principles of empirical research, in which the emphasis will be placed on acquainting the student with the techniques most commonly used by political scientists. The topics include the design of research projects, procedure in carrying out research, problems of measurement, survey research, scaling, data processing, and data analysis.

**POLI 613 SELECTED THEMES: POLITICAL THEORY.** (3) (Note: The field is Political Theory.) A seminar on a theme in contemporary political theory or in the history of political theory.

**POLI 616 MODERN POLITICAL ANALYSIS.** (3) (Note: The field is Political Theory.) An introduction to the concepts underlying modern approaches to the study of politics. The scope of the discipline will be delineated and the foundations of empirical research, including the philosophy and methodology of science especially as these apply to social science, will be considered. Various alternatives and critiques will be presented and evaluated.

**POLI 617 PROBLEMS IN POLITICAL THEORY.** (3) (Note: The field is Political Theory.) An introduction to central normative issues in the study of politics. The seminar consists of lectures, oral presentations, discussion and research papers.

**POLI 618 ADVANCED EMPIRICAL METHODS.** (3) (Prerequisite: POLI 612 or equivalent.) An introduction to regression techniques common in political science, including applied multiple regression techniques, beginning with basic linear models and ending with models for binary or ordinal dependent variables. Methodological issues are taught using substantive issues and debates in the discipline.

**POLI 619 IMMIGRANTS / REFUGEES / MINORITIES.** (3) (Note: The field is Comparative Politics in Developed Areas and Canadian Politics.) A consideration of the different dimensions of politics associated with immigration and ethnoracial diversity. The course will emphasize the Canadian case in comparative perspective.

**POLI 621 INTERPRETING CANADIAN POLITICAL PROCESS.** (3) (Note: The field is Canadian Politics.) Strategies for studying the Canadian political process. Pluralist, Marxian and state autonomist approaches for analysing the relative significance and inter-relationships of basic components of the Canadian political system. Although one purpose of the course is to survey the literature on individual topics, a broader purpose is to employ individual research strategies to develop conclusions about the nature, distribution, and exercise of power in Canada.

**POLI 622 ADVANCED TOPICS CANADIAN POLITICS.** (3) (Note: The field is Canadian Politics.) A specific problem area in Canadian Politics.

**POLI 628 COMPARATIVE POLITICS.** (3) (Note: The field is Comparative Politics in Developed Areas.) An introduction for graduate students to the sub-discipline of comparative politics. The logic of comparative analysis as well as a number of alternative paradigms for analyzing and comparing political systems and processes.

**POLI 629 POST-COMMUNIST TRANSFORMATIONS.** (3) (Note: The field is Comparative Politics in Developed Areas.) This course will incorporate discussions of concrete political processes and events, but will focus primarily on theories in comparative politics that might help us understand changes currently underway in the former Soviet Union. Students will continuously assess the value of these theories as methods of understanding change in the former Soviet Union.

**POLI 630 TOPICS IN EUROPEAN POLITICS.** (3) (Note: The field is Comparative Politics in Developed Areas.) Examination of recent trends and current debates in the el



**POLI 643 POLITICS OF IDENTITY.** (3) (Note: The field is Comparative Politics in Developing Areas.) Theoretical approaches to the politics of identity with reference to experiences in different world regions. The politics of nationalism, ethnicity, religion, race and gender, and the relationship of such forms of identity politics to democracy, tolerance, pluralism, violence, socio-economic change and equality.

**POLI 646 POLITICS OF DEVELOPING AREAS.** (3) (Note: The field is Comparative Politics in Developing Areas.) A specific problem area in the Comparative Politics of Developing Areas.

**POLI 647 DEVELOPMENT POLITICAL ECONOMY.** (3) (Note: The field is Comparative Politics in Developing Areas.) Incorporation of subordinate groups into national systems in the developing countries of Africa, Asia, and Latin America. Specific topics include state formation, the emergence of civil society, modernization and dependency theories, alternative development models, democracy, authoritarianism, sustainable development and gender.

**POLI 648 LATIN AMERICAN POLITICS.** (3) (Note: The field is Comparative Politics in Developing Areas.) This course explores changing patterns of social, economic and political relations in Latin America, especially at the level of civil society. It examines such topics as state formation, institutional development, regime transformation and the insertion of Latin American countries in both the international capitalist economy and the inter-state system.

**POLI 649 MASS APPROACH POLITICAL DEVELOPMENT: CHINA.** (3) (Note: The field is Comparative Politics in Developing Areas.) The strategy of political and socio-economic development in contemporary China. Topics include: cultural and ideological foundations of socialization. The consequences of the disintegration of the USSR and the socialist countries of Europe, and the balance sheet of the post-1978 reform.

**POLI 650 SEMINAR IN PEACEBUILDING.** (3) (Note: The field is Comparative Politics in Developing Areas and International Politics.) An examination of transitions from civil war to peace, and the role of external actors (international organizations, bilateral donors, non-governmental organizations) in support of such transitions. Topics will include the dilemmas of hum[



G. Turecki; M.D.(Brazil), Ph.D.(McG.)

S. Williams; Ph.D.(Montr.)

*Associate Member*

R.O. Pihl (Psychology)

*Adjunct Professors*

P. Blier, L. Gaston, C. Mercier, S. Welner

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## **67.2 Programs Offered**

Master of Science (M.Sc).

The M.Sc. program in Psychiatry is designed (1) to provide a mechanism for the training of medical scientists who intend to pursue a research career in psychiatry and (2) to provide a focus for basic science or social science students wishing to obtain advanced training in areas particularly relevant to psychiatric research. Students in this program receive no clinical training in psychiatry.

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## **67.3 Admission Requirements**

A B.Sc., B.A., B.N. or M.D. degree.

A strong background in science and/or social science, as demonstrated by academic achievement equivalent to a GPA of 3.3 (on a 4 point scale) or 3.5 in the last two years.

A written agreement from the proposed research supervisor, and student's statement of purpose for seeking an M.Sc.

An outline of the proposed thesis research, to be written by the prospective student in collaboration with an appropriate research supervisor.

Two letters of reference.

Certified proficiency in written English or French.

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## **67.4 Application Procedures**

Applications will be considered upon delivery of the following to the Graduate Program Coordinator:

1. A completed application form;
2. Cdn \$80.00 application fee;
3. Two official transcripts



and research as a psychologist. Course work and other requirements are at a minimum. Success in the program depends on the student's ability to organize unscheduled time for self education. Continuous involvement in research planning and execution is considered a very important component of the student's activities. Students are normally expected to do both Master's and Doctoral study.

The Clinical program adheres to the scientist practitioner model and as such is designed to train students for careers in university teaching or clinical research, and for service careers – working with children or adults in a hospital, clinical, or educational setting. Most of our clinical graduates combine service and research roles. While there are necessarily many more course requirements than in the experimental program, the emphasis is again on research training. There is no Masters program in Clinical Psychology; students are expected to complete the full program leading to a doctoral degree.

Research interests of members of the Psychology Department include animal learning, behavioural neuroscience, clinical, child development, cognitive science, health psychology, psychology

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All Ph.D. 2 and 3 students must register for at least one graduate seminar each term (see course numbers PSYC 710 to PSYC 758); the seminars are conducted by different staff members each year and their content changes accordingly.

A special (doctoral) comprehensive examination is written in one of the following areas of psychology: clinical, behavioural

testing data. Testing situations discussed will range from one-shot classroom tests through special purpose scales to the highly refined large scale tests such as the SAT.

**PSYC 511 INFANT COMPETENCE.** (3) (1, 3 hour seminar) (Prerequisites: PSYC 351 or PSYC 352 or PSYC 353 or PSYC 380 or PSYC 450 and permission of instructor) Basic research on the nature of infant competence - both the development of mental representations/operations and expressive/communicative ability - will be examined. Implications for clinical assessment and intervention including information processing procedures as an alternative to conventional tests and treatment procedures for developmental delays will be covered.

**PSYC 522 NEUROCHEMISTRY AND BEHAVIOUR.** (3) (2 lectures) (Prerequisites: any two of the following PSYC 308, PSYC 311, PSYC 318, ANAT 321, PHGY 314, BIOL 306) (Restrictions: Not open to students who have taken or are taking PHAR 562) Anatomical, biochemical and physiological aspects of neurotransmitter systems in the brain, current theories of the function of these systems in normal and abnormal behaviour, and the actions of psychotropic drugs.

**PSYC 526 ADVANCES IN VISUAL PERCEPTION.** (3) (Fall) (2 lectures) We examine in detail the st

616D1 and PSYC 616D2 are successfully completed in consecutive terms)

**PSYC 617D1 (1.5), PSYC 617D2 (1.5) DIAGNOSTIC METHODS**

**(ADULTS).** (Students must register for both PSYC 617D1 and PSYC 617D2) (No credit will be given for this course unless both PSYC 617D1 and PSYC 617D2 are successfully completed in consecutive terms) (PSYC 617D1 and PSYC 617D2 together are equivalent to PSYC 617)

**PSYC 618D1 (1.5), PSYC 618D2 (1.5) PRACTICUM - ADULT DIAG-**

**NOSTICS.** (Students must register for both PSYC 618D1 and PSYC 618D2) (No credit will be given for this course unless both PSYC 618D1 and PSYC 618D2 are successfully completed in consecutive terms)

**PSYC 620** (6) A professional training course including dealing with patients under supervision, and a "case conference" seminar.

**PSYC 625 RESEARCH: CLINICAL PSYCHOLOGY.** (3) (Summer)



devoted to research on Quebec and French Canada. In 1992, the name of the program was changed to Quebec Studies to reflect its central focus.

The program is offered at the undergraduate level. Should their main field of study be Quebec, graduate students must apply to the relevant departments.

Graduate students taking courses dealing in whole or in part with Quebec, or who are studying Quebec as their special field of study, are welcome to make use of the facilities of the Quebec Studies Program.

En 1963, le Programme d'études canadiennes-françaises fut créé à l'Université McGill. En collaboration avec les autres départements de l'Université, le programme a notamment pour but de développer la recherche sur divers aspects du Québec et du Canada français. Depuis 1992, l'appellation du programme a été modifiée pour celle de programme d'études sur le Québec afin de refléter clairement les objectifs poursuivis.

Les activités du programme se concentrent au premier cycle. Les étudiants qui désirent poursuivre des études en vue de l'obtention d'une maîtrise ou d'un doctorat portant sur le Québec ou le Canada français doivent s'adresser aux départements concernés.

Les étudiants dont les cours portent, en tout ou en partie, sur le Canada français ou qui se spécialisent dans ce domaine, sont toutefois invités à se prévaloir des services du Programme d'études sur le Québec.

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*Associate Professors*

E.B. Aitken; A.B.(Harv.), M.Div.(Univ. of the South), Th.D.(Harv.)  
D.B. Farrow; B.R.E.(Providence), M.Div.(Grace), M.Th.(Regent),  
Ph.D.(Lond.)  
I.H. Henderson; B.A.(Man.), B.D.(St. Andrews), M.A.(McM.),  
D.Phil.(Oxf.)  
G.V. Hori; B.A.(York), M.A.(Tor.), Ph.D.(Stan.)  
T. Kirby; B.A.(King's, Halifax); M.A.(Dal.); D.Phil.(Oxf.)  
P.G. Kirkpatrick; B.A.(McG.), M.Th.(Lond.), D.Phil.(Oxf.)  
G.S. Oegema; B.A., Th.D.(Vrije Universiteit, Amsterdam); M.A.,  
Ph.D.(Freie Universität, Berlin), Dr. Theol. Habil (Tübingen)

*Assistant Professors*

L.Braitstein; B.A.,M.A., Ph.D.(McG.)  
G. Fiasse; B.A., M.A., Ph.D. (Louvain) (*joint appt. with Department  
of Philosophy*)  
D. Soneji; B.A. (Man.), Ph.D. (McG.)

*Visiting Numata Professor*

Robert Kritzer; B.A., M.L.S., M.A., Ph.D.(Calif., Berk.)

*Adjunct Professor*

T. Jinpa Langri

*Associate Member*

L. Turner (*Bioethics*)

*Faculty Lecturer*

J. Kanaris

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## 71.2 Programs Offered

The Faculty of Religious Studies offers programs leading to the  
degrees of Master of Sacred Theology (S.T.M.), Master of Arts  
(M.A.) (thesis) and (non-thesis), T(, M.Aev daq 2 -1.1259 TD-0.00 M. 1 Tf9.ys9.5509 00 M)5hr(5 Tw(J.i85 -1.ct), )7.56.5(ent), )thesis-7.580. dD.(L30.0e is

The application deadline for September admission is February 1 for funding consideration and March 1 for general admission. The deadline for January admission is September 1 for International students and October 1 for Canadian/Permanent Residents.

N.B. There is no January admission for the M.A. Bioethics option.

## 71.5 Program Requirements

### Language Requirements

The Faculty of Religious Studies offers courses in primary text source languages, such as Biblical Hebrew, Aramaic, Biblical Greek, Sanskrit, Pali, Tamil and classical literary Tibetan. The Faculty does not guarantee instruction in any languages other than those mentioned above. Therefore, if a student wishes to have a language such as French, German or Japanese counted as a second language, instruction may have to be sought outside the Faculty. The successful completion of at least twelve credits at the post-secondary level in a language course, or successful completion of a language examination administered by the appropriate member of the Faculty, will constitute evidence of the student's having the required reading knowledge of the language in question.

#### M.A.

Students are required to give their area committee evidence of reading knowledge of a scholarly language other than English. This language may be either a modern language in which there is a significant amount of scholarship relevant to the student's area of research, or a classical language relevant to the student's area of research. If a classical language is chosen, it must be in addition to any prerequisite language for the area in question.

#### Ph.D.

Students are required to give their area committee evidence of reading knowledge of two languages other than English. These

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**Required Courses** (15 credits)

**Complementary Courses** (30 credits)

10 courses selected from the 500- or 600-level courses accepted by the Faculty of Religious Studies for the granting of a Master's degree.

**MASTER OF SACRED THEOLOGY (S.T.M.)** (48 credits)

**RELG 606 STUDIES IN BIBLICAL POETRY.** (3) Based on English translations.

**RELG 607 STUDIES: BIBLICAL NARRATIVE TRADITIONS.** (3).

**RELG 611 PAULINE THEOLOGY.**

**RELG 552 ADVAITA VEDANTA.** (3) (Fall) (Prerequisites: 6 credits in Indian religions) The relation of Nyaya-Vaisesika and Mimamsa to Kevaladvaita with concentration on Sankara's Brahmasutrabhasya, Pada 1 and 2.

**RELG 553 RELIGIONS OF SOUTH INDIA 1.** (3) (Winter) (Prerequisite: 6 credits in Indian religions) Topics include: definitions of Tamil identity, the relation of akam to bhakti poetry, the theology of the Alvars and Nayanmars, inter-religious and sectarian competition, the motif of pilgrimage, questions of caste and women.

★ **RELG 554 RELIGIONS OF SOUTH INDIA 2.** (3) (Winter) (Prerequisite: RELG 553) (Course will be held in India. Please contact Prof. Soneji, daves.soneji@mcgill.ca, for more information.) Analysis of the following: sampradaya; ubhayavedanta; comparison of Visistadvaita and Saiva Siddhanta with reference to selected themes that illustrate the Tamil contribution; the relationship of theology to the sociology of knowledge in Tamilnad.

**RELG 555 HONOURS SEMINAR.** (3) (Winter) (Restriction: For Religious Studies Honours students or with permission of the Chair of the Religious Studies B.A. Committee) Current trends in the study of religion, including the approaches of critical theory, feminism, post-modernism, and post-colonialism.

**RELG 556 ISSUES IN BUDDHIST STUDIES.** (3) (Fall and Winter) (Prerequisite: permission of instructor) A graduate seminar taught by the Numata Visiting Professor on critical issues in contemporary Buddhist Studies. Emphasis will be placed on the intensive application of different methods - philological, philosophical or social scientific - to some area of modern Buddhist research.

**RELG 557 ASIAN ETHICAL SYSTEMS.** (3) (Fall) (Prerequisites: RELG 252, RELG 253, or permission of instructor) An examination of the ethical ideals that have evolved in Asia with reference to Hinduism, Buddhism, Confucianism, and Taoism. Issues to be explored include competing views of the individual's duties to social and political institutions, the individual's right to non-conformity, the relationship between morality and metaphysics, and a comparison of moral principles in theistic and atheistic contexts.

**RELG 558 INDIAN TANTRIC TRADITIONS.** (3) (Winter) (Prerequisites: Any two 300-level courses in Hinduism or Buddhism.) Study of esoteric Tantric culture (philosophy, ritual, pilgrimage, art, and iconography) with focus on either Hindi or Buddhist Tantric traditions.

**RELG 571 RELIGION AND MEDICINE.** (3) (Fall) A study of the resources of major world religions (Judaism, Christianity, Islam, Hinduism, Buddhism, Taoism and Shinto) for thinking about ethical issues related to modern medicine, e.g., health, illness, suffering; new reproductive technologies; genetic engineering; euthanasia; palliative care; animal research; transplants.

**RELG 621 PATRISTIC STUDIES.** (3) (Restrictions: M.A., STM, or Ph.D. students only.) Selected texts of patristic theology and history of the early Christian Church from Irenaeus to Boethius.

**RELG 622 MEDIEVAL STUDIES.** (3) (Restrictions: M.A., STM, Ph.D students only. Not open to students who have taken RELG 731.) Selected religious and theological texts from Boethius to Nicholas of Cusa.

**RELG 624 REFORMATION STUDIES.** (3) (Restrictions: M.A., STM, Ph.D students only. Not open to students who have taken RELG 732) Selected texts of Reformation and Counter-Reformation theology and history.

**RELG 640 PRIMARY TEXT: BIBLICAL HEBREW.** (3) (Prerequisite: Basic reading knowledge of Biblical Hebrew or permission of instructor.) Religious texts in Biblical Hebrew, with particular atten-

**RELG 694 (6)**

**RELG 696 RESEARCH: RELIGIOUS PSYCHOLOGY. (6)**

**RELG 696D1 (3), RELG 696D2 (3) RESEARCH: RELIGIOUS PSYCHOLOGY.** (Students must register for both RELG 696D1 and RELG 696D2) (No credit will be given for this course unless both

## 72.4 Application Procedures

Applications will be considered upon receipt of:

1. application form;
2. two certified copies of all university transcripts; (All transcripts not in English or French **must** be accompanied by a **certified** English or French translation);
3. two letters of recommendation (in English or French);
4. \$80 application fee;
5. test results - GRE (recommended); TOEFL (required of all candidates whose mother tongue is not English and who have not completed an undergraduate degree using the English language. Proof of TOEFL must be presented at time of application or shortly thereafter);
6. a sample of written work;
7. statement of academic intent.
8. interview, where appropriate, if necessary by telephone, with members of the Department Graduate Committee.

All information must be submitted to the Graduate Coordinator, Department of Russian and Slavic Studies.

Deadline: February 1.

McGill's online application form for graduate program candidates is available at [www.mcgill.ca/applying/graduate](http://www.mcgill.ca/applying/graduate).

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## 72.5 Program Requirements

Original research work and the scholarly qualities of the thesis are the principal criteria for conferring a graduate degree in Russian.

### **M.A. in Russian (Thesis)** (48 credits)

The Thesis Proposal is normally submitted for review by the Department Graduate Committee at the end of the second term of residency. Candidates should consult the Department Thesis Proposal Guidelines.

### **Complementary Courses** (18 credits)

### **Ph.D.**

The Ph.D. requirements include:  
RUSS 700, RUSS 701, and RUSS 702;  
French Language Examination;  
Thesis and Thesis Defence.

Depending on their individual background, students may be asked to take additional coursework as approved by the Department Graduate Committee. Students must complete two of the following guided research projects: RUSS 750, RUSS 760 or RUSS 770.

Ph.D. language requirements include proficiency in Russian, functional ability in English and in French, and proficiency in a second Slavic language, if relevant to the research topic and where deemed appropriate by the Department Graduate Committee.

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## 72.6 Courses

**Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.**

The course credit weight is given in parentheses after the title.

**RUSS 500 SPECIAL TOPICS.** (3) (Prerequisite: Permission of Department.) Focus on a critical theme, author or work, as determined by the current research inte





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Fax: (514) 398-4193

E-mail: [admissions@mcgill.ca](mailto:admissions@mcgill.ca)

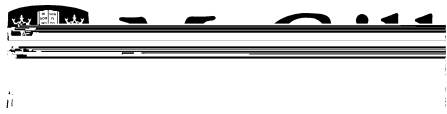
Websites: [www.mcgill.ca/applying](http://www.mcgill.ca/applying) and [www.mcgill.ca/gps/fellowships](http://www.mcgill.ca/gps/fellowships)

Published May, 2006

**Please Note:** Not all courses are offered every year, and changes can be made after this calendar is printed. Always check the Class Schedule link at [www.mcgill.ca/courses](http://www.mcgill.ca/courses) for the most up-to-date information on whether a course is offered.

McGill University reserves the right to make changes to the information contained in this publication – including correcting errors, altering fees, schedules of admission and credit requirements and revising or cancelling particular courses or programs – without prior notification.

The Web version of the Calendar at [www.mcgill.ca/courses](http://www.mcgill.ca/courses) is the most current edition of this document, and is updated at various times of the year.



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McGill University:  
[www.mcgill.ca](http://www.mcgill.ca)

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## 1 Graduate and Postdoctoral Studies Office, Fellowships and Awards Section

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### 1.1 Location

Graduate and Postdoctoral Studies Office  
Fellowships and Awards Section  
James Administration Building, Room 400  
845 Sherbrooke Street West  
Montreal, Quebec H3A 2T5 Canada  
Telephone: (514) 398-3990  
Fax: (514) 398-2626  
E-mail: [graduate.fellowships@mcgill.ca](mailto:graduate.fellowships@mcgill.ca)  
Web: [www.mcgill.ca/gps](http://www.mcgill.ca/gps)

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### 1.2 Administrative Officers

James A. Nemes; B.Sc.(Maryland), M.Sc., D.Sc.(GWU) (*William Dawson Scholar*) **Interim Dean (Graduate and Postdoctoral Studies)**

Jane Everett; M.A.(Car.), Ph.D.(McG.) **Associate Dean (Graduate and Postdoctoral Studies)**

Charlotte E. Légaré; B.Sc.(Montr.), M.Sc.(Sher.), M.B.A.(McG.) **Director (Graduate and Postdoctoral Studies)**

Claude Lalande, B.Sc.(Montr.), M.B.A.(McG.) **Manager (Fellowships and Awards)**

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### 1.3 A Message from the Dean

Dear Graduate Students and Postdocs,

Let me begin by welcoming you to McGill University and by letting you know how pleased we are that you have chosen McGill to pursue your graduate studies or postdoctoral training. We hope that your time here is both productive and enjoyable and we will do whatever we can to ensure your success.

These are exciting times; not only for you as you take on new endeavours, but for the University as well. McGill again has been named as Canada's most intensive research university and among the world's top 25 universities. We recognize that these successes come not only from our talented faculty members, but also from the



year's stay in Canada as well as return fare home. McGill's International Student Advisor suggests that single students have a minimum of \$22,000 for living expenses, in addition to tuition and ancillary fees, for every twelve months of study in Canada.

Non-Canadian students can, nonetheless, draw on a considerable variety of fellowships and other forms of assistance. There are several large, multi-disciplinary programs specifically aimed at funding students from abroad who are studying in Canada. These include: the Canadian Commonwealth Scholarship and Fellowship Program, the Government of Canada Awards to Foreign Nationals, the Technical Assistance Scholarships and Fellowships and the Canadian Fellowship Program for French-Speaking Countries, funded by the Canadian International Development Agency (CIDA). Applications for all these programs must be made through the government of the applicant's home country, usually via the Ministry of Education. Applications sent by individuals directly to Canada cannot be considered.

In addition, many of McGill's Graduate Fellowships, as well as many of the fellowships and prizes offered by various McGill departments and faculties, are offered without any restrictions concerning nationality. Unless otherwise specified in the description, fellowships listed in this brochure are open to students from all countries. International students should also note that the Graduate and Postdoctoral Studies Office grants some differential fee waivers making it possible for some non-Canadian students to pay reduced foreign fees. Some students may also qualify for differential fee waivers accorded as a result of bilateral agreements between Canada and their home country. See [section 4.6, "Differential Fee Waivers"](#), as well as [section 8, "Exchange and Traveling Fellowships"](#).

Additional information on opportunities for financial assistance available to international graduate students and fellows can be found in the UNESCO publication

current year. If the application form for the current year is not available in August, the student should nevertheless proceed to draft a proposed plan of study and research and discuss it with two faculty members, who can later serve as referees.

The following alphabetical listing of external fellowships indicates deadlines, application requirements and values as known to the GPSO Fellowships and Awards Section at the time of publication of this Calendar. It is the responsibility of the applicant to verify directly with the agency all application procedures and deadlines. In cases where the GPSO Fellowships and Awards Section maintains an information file on a particular external fellowship, an "OFA" file number has been given. Please refer to this number when requesting information from the Office.

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#### **ALCAN RESEARCH FELLOWSHIPS**

**Eligibility:** Applicants must be enrolled or accepted for full-time graduate studies, in a field of pure or applied science related to Alcan's activities. Preference is given to Canadian citizens or permanent residents. Each recipient of an Alcan Research Fellowship will be linked with a researcher in one of Alcan's Canadian laboratories.

**Value:** \$18,000 for Master's, renewable once; \$20,000 for Ph.D.s, renewable twice. One fellowship per university per year.





hold an NSERC postgraduate scholarship or a Canada Graduate Scholarship and continue to conduct research in the atmospheric or meteorological sciences.

**Deadline:** June 1 of the year in which you are awarded your post-



additional restrictive eligibility criteria, please read these on the website before considering application ([www.worldbank.org/wbi/scholarships/scholarshipsEnglish/about/eligibility.html](http://www.worldbank.org/wbi/scholarships/scholarshipsEnglish/about/eligibility.html)).

**Value:** Approximately \$30,000 (US), including travel, tuition, medical insurance; renewable once.

**Deadline:** March 31.

**Application:** Information and application forms available from Joint Japan/World Bank Graduate Scholarships Program, 1818 H Street NW, Washington, DC 20433 USA. Tel: (202) 473-6849. E-mail: [jjwbgsp@worldbank.org](mailto:jjwbgsp@worldbank.org). Website: [www.worldbank.org/wbi/scholarships](http://www.worldbank.org/wbi/scholarships). The application form is available as a PDF at: [www.worldbank.org/wbi/scholarships/scholarshipsEnglish/about/how\\_to\\_apply.html#pdf\\_appl](http://www.worldbank.org/wbi/scholarships/scholarshipsEnglish/about/how_to_apply.html#pdf_appl)

**OFA # 448**

#### **KREBS MEMORIAL SCHOLARSHIP**

**Eligibility:** The scholarship is primarily intended to help candidates who wish to study for a Ph.D., in Biochemistry or an allied biomedical science, but whose careers have been interrupted for non-academic reasons beyond their control. Tenable at any British university.

**Value:** A personal maintenance grant at an appropriate level and all necessary fees (equivalent to a Canadian Institutes of Health Research Studentship). Awarded for one year, but may be renewed up to a maximum tenure of three years. Offered in alternate years.

**Deadline:** April 1 (alternate years)

**Application:** Through the university department concerned. Forms may be obtained from the GPSO Fellowships and Awards Section; from the Administration Manager, The Biochemical Society, 59 Portland Place, London, England, W1B 1QW. E-mail: [alison.mcwhinnie@biochemistry.org](mailto:alison.mcwhinnie@biochemistry.org) or Telephone: 020 7299 4439, Fax: 020 7637 3626 Website: [www.biochemistry.org](http://www.biochemistry.org)

**OFA # 475**

#### **MACKENZIE KING OPEN SCHOLARSHIP**

**Eligibility:** Open to graduates of any Canadian university for full-time postgraduate studies in Canada or elsewhere and, in any field. McGill only considers undergraduate applicants with First Class Honours Standing (CGPA of 3.7 or higher) and graduate applicants with cumulative "straight A" records. Applicants who hold undergraduate degrees from McGill and who apply through McGill are automatically considered for the Delta Upsilon and Peacock Memorial Scholarships. Applicants considering study abroad in the U.S. or U.K. in international or industrial relations (including international or industrial aspects of law, history, politics, economics) should see the Mackenzie King Travelling

## EXTERNAL FELLOWSHIPS

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**Value:** Master's: from \$17,300 up to \$17,500 for one year.

Doctoral: from \$21,000 to \$35,000 for up to three years

**Deadline:**





**DALBIR BINDRA FELLOWSHIP\***

Established in recognition of the late Professor Dalbir Bindra's contribution to teaching and research during his thirty years in the Department of Psychology at McGill.

**Eligibility:** Open to students registered in any program of the Graduate Studies, with a preference to those from developing countries.

**Value:** \$10,000; renewable once.

**DAVID STEWART MEMORIAL FELLOWSHIP\***

Established through a bequest by the late Agnes Stewart in memory of her father, David Stewart.

**Eligibility:** Offered to graduate students in the physical and biological sciences who demonstrate high ability and who are likely to enter a career of university teaching. No citizenship restrictions.

**Value:** \$10,000; non-renewable.

**EILEEN PETERS FELLOWSHIP\***

Established in 1993 with an endowment from the N.E. Peters Foundation.

**Eligibility:** Awarded by the GPSO with preference being given to women. Consideration, if appropriate, will be given to students pursuing graduate studies in the Faculty of Medicine or the School of Nursing. No citizenship restrictions.

**Value:** \$12,000, renewable twice.

**ESTERINA AND GAETANO LIBERATORE FELLOWSHIP\***

Established in 1995 through the generous gift of Luigi Liberatore.

**Eligibility:** The fellowships may be held by students registered in any graduate program at McGill. No citizenship restrictions.

**Value:** \$10,000; renewable twice.

**FRIENDS OF MCGILL FELLOWSHIP\***

The fellowship is made available through the McGill Development program by the Friends of McGill Inc., New York.

**Eligibility:** Open to graduate students in any discipline who are citizens of the United States of America.

**Value:** \$10,000; renewable once.

**GREVILLE SMITH RESEARCH FELLOWSHIP\***

**Eligibility:** Three fellowships are endowed Open

to  
the 74 degree .0006 Tc 111143 Tlue:





**Eligibility:** This fellowship is awarded to an outstanding doctoral student in Health Sciences who will complete their dissertation in the coming academic year and who are not receiving other fellowship funding.

**Value:** Minimum \$6,000.

**Deadline:** Normally early April.

**Application:** See the GPSO website for details on application/nomination procedures: [www.mcgill.ca/gps/fellowships/grad/dissertation](http://www.mcgill.ca/gps/fellowships/grad/dissertation).

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## 4.6 Differential Fee Waivers

### Internal DFWs

The Graduate and Postdoctoral Studies Office awards approximately 130 Differential Fee Waivers per term to international students, approximate value: \$3,705 in a Ph.D., \$4,200 in a Masters.

### Eligibility and Nomination Procedures

These differential fee waivers are restricted to international graduate students at McGill whose visa status requires them to pay full international tuition fees. Recipients must be registered full-time. (See explanation of residency in the *Program Requirements* section of the *Graduate and Postdoctoral Studies Calendar*.) Students in a qualifying year or additional session are not eligible. Students in "privatized" programs are not eligible. All eligible international students are automatically considered by departments for differential fee waivers, if the unit has them to offer. Since these differential fee waivers are awarded based exclusively on departmental nomination, there are no application forms. Interested students who cannot otherwise qualify for an external differential fee waiver (see below) should contact the department to which they are applying.

### External DFWs

Differential fee waivers are also available from a number of external sources, including the Ministère de l'Éducation, du Loisir et du Sport du Québec. Please note that the Quebec government grants differential fee waivers to staff and dependants of consulates, foreign government offices, international governmental organizations, non-governmental organizations, refugees, immigrants with post-4(stesecondary. .0106()7te )e2ts.verw[( govp-0.0004 1778ii r-, non849(du Lo)etis,[17eais6gf )],eaone1s1s,0.er -.00ati6(1778i-7.4(that)]TJ14M5

outstanding among all those who graduate during the academic year.

**Value:** \$1,000 plus an engraved plaque.

**Deadline:** March 31, for departmental nomination in the GPSO Fellowships and Awards Section.

#### **GORDON A. MACLACHLAN PRIZE**

Established in 1990, with gifts from individuals and faculties, in recognition and appreciation of Professor Gordon A. MacLachlan's ten years of service to McGill as Dean of the Faculty of Graduate Studies and Research and Vice-Principal (Research).

**Eligibility:** Awarded annually by the GPSO to the most outstanding graduate receiving a Ph.D. degree during the academic year in any discipline of the Biological Sciences or Health Sciences. The winner will be selected from candidates nominated by eligible departments, based on the quality of their academic records, the scholarly significance of their research and the excellence of their theses and other publications.

**Value:** \$1,000.

**Deadline:** March 31, for departmental nomination to the GPSO Fellowships and Awards Section.

#### **K.B. JENCKES PRIZE**

Established in 1990 by an endowment from the estate of the late K.B. Jenckes.

**Eligibility:** Awarded annually by the GPSO to the most outstanding graduate receiving a Ph.D. degree during the academic year in any discipline in the social sciences and humanities. The winner will be chosen from among candidates nominated by eligible departments and faculties, assessed by the quality of their academic records, the scholarly significance of their research and the stylistic and substantive excellence of their theses and other publications.

**Value:** \$900.

**Deadline:** March 31, for departmental nomination to the GPSO Fellowships and Awards Section.

#### **MCGILL ALUMNI ASSOCIATION GRADUATE AWARD**

Established in 2005, by the McGill Alumni Association.

**Eligibility:** To be awarded by the Graduate and Postdoctoral Studies Office to an outstanding graduate receiving the Governor General's Gold Medal.

**Value:** \$1,500.

**Deadline:** March 31, for departmental nomination to the GPSO Fellowships and Awards Section.

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## **5 Fellowships awarded by Departments and Faculties**

The following pages list over 200 fellowships, awards and bursaries, according to specific discipline, which are administered directly by departments or faculties at McGill University, or are externally funded. Unless otherwise indicated, students should contact the McGill department or faculty office concerned for additional information and application or nomination procedures.

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### **5.1 Multidisciplinary**

#### **ARTS AND SCIENCE CLASS OF 1966 AWARD**

Established by the Arts and Science Class of 1966 on the occasion of its 25th anniversary of graduation.

**Eligibility:** Open to graduate students in Arts or Science to pursue research at the Redpath or McCord Museum. Candidates are selected on the basis of academic merit by a committee named by the Deans of Arts and Science.

**Value:** \$4,000 for one year only.

**Application:** There are no application procedures. Further information can be obtained from the Offices of the Dean of Arts and Dean of Science, from the Faculty of Arts website at [www.mcgill.ca/arts](http://www.mcgill.ca/arts), or from Josie D'Amico at 398-4215.





graduate students in the Faculty of Medicine who are in Financial need.

### **5.2.2 Faculty of Medicine: Internal Studentships**

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The following studentships are open to full-time graduate students at McGill who have completed six months of research and study towards their degree. They are awarded upon recommendation of the Postgraduate Awards Committee of the Faculty. Information regarding these studentships is sent to departmental chairs by January of each year. Deadline for submission of applications is generally the first week in March. Further information can be obtained from the office of the Associate Dean, Graduate Studies and Research, Faculty of Medicine.

#### **CHARLES JAMES PATTON, M.D., AND ELIZABETH ROSS PATTON MEMORIAL PRIZE**

**Eligibility:** Established in 2003 by a bequest from Charles Francis Patton in memory of his parents, Charles James Patton, M.D., and Elizabeth Ross Patton, awarded by the postgraduate awards committee to an outstanding graduate student for excellence in medical research.

**Value:** Minimum \$400.

#### **CLAUDE J.P. GIROUD BURSARY IN ENDOCRINOLOGY**

**Eligibility:** Established by a bequest from Alix Auzolle Giroud in memory of her son, Dr. Claude J.P. Giroud, former professor of Experimental Medicine at McGill. Awarded on a competitive



**ORDER OF NURSES OF QUEBEC BURSARIES**

**Value:** Eight bursaries of \$10,000 are awarded each year to nurses for studies leading to a Master's degree or to a doctorate degree in nursing.

**Deadline:**

#### **AMY WONG BIOTECHNOLOGY AWARD**

Established in 1998 by a generous gift from a McGill graduate of Chemical Engineering (Class of 1959) from Hong Kong.

**Eligibility:** Awarded by the Institute of Parasitology to a qualified student from China, including Hong Kong, who is an outstanding student entering the Biotechnology Graduate Certificate Program or M.Sc. (A) in Biotechnology, renewable once at the Master's level. Preference will be given to students entering at the certificate level. The recipients are expected to return to their home country after the completion of their studies.

**Value:** Minimum \$10,000.

#### **AMY WONG FELLOWSHIP**

Established in 1998 by a generous gift from a McGill graduate of Chemical Engineering (Class of 1959) from Hong Kong.

**Eligibility:** Awarded to a qualified student from China, including Hong Kong, who is an entering postdoctoral fellow, Ph.D. or M.Sc. student conducting agricultural production/food related research in the Faculty of Agricultural and Environmental Sciences. Awarded by the Dean of the Faculty in consultation with the departments. The recipients are expected to return to their home country after the completion of their studies.

**Value:** Minimum \$20,000. Renewable once at the master's level and twice at the doctoral or postdoctoral levels.



**Value:** Approximately \$4,000.

**Application:** By departmental recommendation to the Faculty of Agricultural and Environmental Sciences Scholarships Committee.

#### **ROBERT P. HARPER FELLOWSHIP IN PARASITOLOGY**

Established in 2005 by a bequest from Robert P. Harper. M.Sc. 1947, Ph.D. 1949, a former faculty member at the Institute of Parasitology.

**Eligibility:** Awarded by the Graduate and Postdoctoral Studies Office upon the recommendation from the Fellowships committee of the Institute of Parasitology in the Faculty of Agricultural and Environmental Sciences, to a newly admitted international student for doctoral studies Parasitology. The fellowship will be awarded on the basis of academic excellence and research potential.

**Value:** Minimum \$11,000, renewable twice, plus a mandatory contribution from the supervisor's research funds to provide a minimum annual income of \$16,000.

#### **HUGH BAILY AWARD**

Established through a legacy by Philip Pendlebury Baily (B.Sc. 1913, M.Sc. 1914) in memory of his brother, Hugh Reginald Dowson Baily (Agriculture 1916), the first member of the University to give his life in the war of 1914-18.

**Eligibility:** Awarded to a graduate student in an agriculture-related field through the Faculty of Agricultural and Environmental Sciences. Preference will be given to students completing their dissertation who require less than one year of support.

**Value:** \$750.

**Application:** By departmental recommendation to the Faculty of Agricultural and Environmental Sciences Scholarships Committee.

**JOHN AND ETHELENE GAREAU FELLOWSHIP**1.J-12.0444 -,2.0444 -,2.0444 -, ( 0 TD-0.0n( FEL)-7.iIENC)-6.9(RE-0.0001 Tc-0.0037 w[Agri]6.6



**COLL MCFEE MEMORIAL SCHOLARSHIP**

Established in 1968 from a bequest of the late Miss Julia Beatrice Anderson McFee in honour of her father, Coll McFee and her brother, Malcolm Charles Coll McFee, B.A. (1905), B.Sc. (1908), M.Sc.

**Eligibility:** To a student proceeding to the M.Ed. (Secondary Education) degree in Chemistry or a graduate of the McGill Chemistry Department who is proceeding to a M.Sc. or Ph.D. degree.

**Value:** Varies.

**Deadline:** June 1.

**Application:** Apply to the Chair, Department of Chemistry.

**DAVID J. SIMKIN AWARD IN PHYSICAL CHEMISTRY**

Established in 1998 in honour of D.J. Simkin, physical chemistry professor in the Department of Chemistry from 1969-1997.

**Value:** \$500.

**Application:** Awarded by the Department of Chemistry to a doctoral student at the beginning of the student's third year of doctoral studies in physical chemistry research on the basis of excellence in graduate course work and research.

**PALL DISSERTATION AWARD**

Established in 1997 by Dr. David Pall.

**Value:** \$6,000.

**Application:** No application necessary. Awarded by the Department of Chemistry to a9oine:outsnt

**Application:** Awarded by the GPSO on the recommendation of the Chair of the Department of Mining, Metals and Materials Engineering.

**J.M. BISHOP AWARD FOR**





the research, site analysis and program preparation for the final design project of the M. Arch. I Program.

**Value:** Minimum \$500.

#### **RAY (RAYMOND TAIT) AFFLECK PRIZE IN DESIGN**

Established in 1989 in memory of Raymond Tait Affleck (FRAIC, RCA), B. Arch. 1947, by his family, colleagues and friends. Awarded to a student in the School of Architecture for distinction in Design in the M. Arch. 1 final design project. The winner will be selected by a jury of three members, at least one of whom is a professional architect who is not a member of the staff of the School of Architecture.

**Value:** \$1,000.

#### **R.M. FOWLER MEMORIAL FELLOWSHIP**

Donated by the Pulp and Paper Industry of Canada in memory of Robert M. Fowler, president of the Canadian Pulp and Paper Association from 1945 to 1972.

**Eligibility:** Offered annually for competition among full-time students in the Master of Engineering (without thesis) Pulp and Paper option. Applicants must be Canadian citizens or Permanent Residents. Candidates will be judged on both their academic achievement and their demonstrated interest in a career in the Canadian pulp and paper industry.

**Value:** A fellowship of at least \$21,000.

**Application:** For information apply to the Chair, Graduate Admissions Committee, Department of Chemical Engineering.

#### **RON RICE MEMORIAL AWARD**

Established by family, friends, associates, students and graduates to honour the memory of Professor Ron Rice of the School of Urban Planning and the Department of Civil Engineering and Applied Mechanics, who passed away on August 20th, 2000.

**Eligibility:** Awarded to a student pursuing graduate studies in the field of Transportation Planning and/or Engineering, based on academic merit, by the GPSO on the recommendation of the School of Urban Planning and the Department of Civil Engineering and Applied Mechanics.

**Value:** \$1,000.

#### **SCHOOL OF ARCHIT**

**Application:** Through the Departments of Economics and Political Science.

**ALLIANCE ATLANTIS FELLOWSHIPS IN COMMUNICATIONS**

Established in 2000 through a generous gift from Alliance Atlantis Communications.

**Eligibility:** Awarded annually, by the Department of Art History and Communication Studies, to two students who have completed one year of study in the graduate program in Communications.

**Value:** \$12,500 each; non-renewable.

**ANTONIO D'ANDREA MEMORIAL FUND**

Established in 1999 in memory of Professor Antonio D'Andrea, Professor Emeritus, Department of Italian Studies.

**Eligibility:** Awarded by the Department of Italian Studies to provide financial support to graduate students of the Department to attend scholarly conferences.

**Value:** \$500.

**ANNE DUDLEY NOAD AWARD**

Established in 1983 in memory of Anne Dudley Noad, a long-time teacher of evening courses in Italian.

**Eligibility:** On the basis of academic standing, awarded by the Department of Italian Studies to a student entering a graduate program in Italian.

**Value:** \$300.

**BANQUE NATIONALE FELLOWSHIP IN THE MCGILL INSTITUTE FOR THE STUDY OF CANADA**

**Eligibility:** Awarded by the McGill Institute for the Study of Canada to an outstanding candidate for admission to a graduate program at any level, whose research interest will focus on some aspect of the study of Canada.

**Value:** \$12,000.

**Deadline:** February 15.

**Application:** Forms and additional information are available on the web at [www.mcgill.ca/gps](http://www.mcgill.ca/gps) under "Graduate Studies", "Fellowships and Awards", "Winter Competitions", or from the McGill Institute for the Study of Canada.





**JEAN DE GRANDPRÉ PRIZE**

Established by the Chancellor of McGill University, Jean de Grandpré; the Chrysler Corporation and Bell Canada.

**Eligibility:** Awarded by the Department of Art History and Communication Studies to a graduate student in Communications who has done outstanding work in the field.

**Value:** \$500.

**J. JEFFERY SEMAAN PRIZE**

Established in 1989 by Dr. Khalil Semaan in honour of his son, a McGill graduate in medicine.

**Eligibility:** Awarded to the student demonstrating the greatest accomplishment in first or second-year Arabic. Open to both graduate and undergraduate students.

**Value:** \$100.

**Application:** The award will be made on the recommendation of the Director of the Institute of Islamic Studies if the recipient is a graduate student or by the Faculty of Arts if the recipient is an undergraduate student.

**JOSEPH AND SANDRA ROTMAN PRIZE FOR STUDENT EXCELLENCE IN PUBLIC POLICY INNOVATION**

Established in 2003 by Heather Monroe-Blum and Leonard Solomon Blum and by the University, in honour of Joseph and Sandra Rotman.

**Eligibility:** Awarded by the McGill Institute for the Study of Canada to a graduate student in the Faculty of Arts whose Master's or Doctoral thesis is judged to have made a distinctive contribution to the understanding or conduct of public policy in Canada.

**Value:** Minimum \$500.



**Eligibility:**

**Application:** Forms are available from the Executive Secretary,  
Beta Phi Mu, Graduate School of Library and Information Sci-  
ences, University of Pittsburgh, Pittsburgh, Pennsylvania 15260.

**VIRGINIA MURRAY PRIZE FOR CATALOGUING**

**Eligibility:** Awarded to the student in M.L.I.S. I who obtains the highest grade in course GLIS 607.

**Value:** Varies.

**WENDY PATRICK AWARD**

Established by the McGill Medical and Health Libraries Association (MMAHLA) in 1989.

**Eligibility:**

**M.B.A. INTERNATIONAL STUDENT AWARD**

All international students are considered for renewable awards. The number and size of these awards vary from year to year. The selection is based on academic excellence. All applicants to the M.B.A. program will be considered. Recipient will be notified at the time of admission.

**MCGILL ASSOCIATES MEDAL FOR GREAT DISTINCTION IN THE M.B.A. PROGRAM**

**Eligibility:** Established by the McGill Associates, a sterling silver medal will be awarded each Spring by the Scholarships Committee of the Faculty of Management to the leading student in the full-time M.B.A. program.

**NORMAN STRAUSS DOCTORAL FELLOWSHIP IN PROFESSIONAL ETHICS IN BUSINESS**

Endowed in 1992 by Edith Strauss in memory of her husband, this fellowship is intended to commemorate the integrity and character of Norman Strauss.

**Eligibility:** Awarded by the Faculty of Management to support outstanding doctoral students in Management who have demonstrated an interest in researching, studying and promoting business ethics. Consideration may be given to students pursu-





**Eligibility:** Awarded by the Faculty of Music to talented students studying in an undergraduate or graduate program in the Faculty of Music. Preference will be given to instrumentalists in the McGill Symphony Orchestra.

**Value:** Minimum \$1,800 each.

#### **WIRTH FAMILY FELLOWSHIP IN MUSIC**

Established in 2004 by Elizabeth Wirth and friends in memory of her parents, Lisl and Manfred Wirth.

**Eligibility:** Awarded by the Faculty of Music Graduate Committee to graduate or diploma students in Opera/voice Performance.

**Value:** Minimum \$5,000; renewable.

#### **5.4.6 Religious Studies**

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##### **A.R. GORDON AWARDS**

Established in 1998 by a bequest from Janette R. Gordon in memory of her father, Rev. Alexander Reid Gordon, who was a Professor of Hebrew and Old Testament Literature at McGill University from 1907-1930.

**Eligibility:** Awarded on the basis of academic merit, by the Faculty of Religious Studies, to an undergraduate or graduate student in the United Theological College.

**Value:** \$3,000.

**Application:**



Applications should be directed to:  
 Student Aid Office, Brown Student Services Building,  
 3600 McTavish Street, Montreal, Quebec H3A 1Y2  
 Telephone: (514) 398-6013/6014  
 E-mail: [student.aid@mcgill.ca](mailto:student.aid@mcgill.ca)  
 Website: [www.mcgill.ca/studentaid](http://www.mcgill.ca/studentaid)

## 6.2 McGill Student Aid

The Student Aid Office administers the University's need-based financial aid programs which includes short-term loans, limited bursary assistance and a Work-Study program. All applicants for aid must first apply for the maximum government assistance for which they may be eligible. The Office is located in the Brown Student Services Building, 3600 McTavish, suite 3200, Telephone (514) 398-6013/14. A limited number of small bursaries are awarded on the basis of financial need and academic standing. Funding for the bursaries comes from several different sources at McGill including an annual transfer of funds to the Student Aid Office from the Graduate and Postdoctoral Studies Office.

### CAROLINE AND RICHARD RENAUD BURSARIES

Endowed in 1999 with a generous gift from Carolyn and Richard Renaud.

**Eligibility:** Awarded on the basis of financial need by the Student Aid Office to students entering or enrolled in graduate studies at McGill with a preference to students in programs in the Graduate School of Library and Information Studies.

### EBEN HOPSON BURSARY FOR STUDY AT MCGILL

Established in 1988 through a donation from the North Slope Borough of Alaska in honour of the late Eben Hopson, Mayor of the North Slope Borough from 1972 to 1980, to advance the pursuit, promotion and sharing of knowledge in those areas which are of common interest and relevance to the scientific, social and economic development, and the greater welfare of the North Slope Borough and the countries of the Circumpolar North.

**Eligibility:** For the support of students from the North Slope Borough of Alaska for graduate or undergraduate studies at McGill in any field deemed in the welfare of the North Slope Borough.

**Application:** Applications should be submitted to the GPSO and awards will be made by the Eben Hopson Fellowship committee and the North Slope Mayor or designee.

**Value:** \$6,000. Awards are renewable for a second year of Masters study to a fourth year of Doctoral studies and Bachelor's study.

### GEORGES, PAUL AND ROBERT MASSON BURSARIES IN SCIENCE

Established in 2002 by Georges Masson, Ph.D. 1942, Paul Masson, B.A. 1968, and Robert Masson, B.Sc. 2002, to commemorate the three generations of Massons at McGill.

**Eligibility:** Awarded to one or more students in good academic standing, enrolled in a graduate or undergraduate degree program in any department in the Faculty of Science. Preference shall be given to students in the departments of Biology and Mathematics. Awarded by the Student Aid Office on the basis of financial need.

### GRADUATE STUDENTS' BURSARY FUND

Established in 1989 by the GPSO to assist full-time students in any graduate degree program. Awarded by the Student Aid Office to students requiring financial assistance to pursue studies or research at McGill.

### GRADUATE STUDENTS' LOAN FUND

Established in 1951 by the Board of Governors for students in Graduate Studies.

### IRVING ORRIN VINCENT BURSARY

Established by Or-6(g)1(b) for graduate studies at McGill. 92Owa-7.4(e)TT25-TD0.0003 Tc-0.0035704-1925tan]TJ15.8963 0 e)7s3(s)-4.4( )7.4(np.4(d

Sciences. Awarded by the Dean of the Faculty in consultation with the departments. The recipients are expected to return to their home country after the completion of their studies.

**Value:** Minimum \$15,000, plus a mandatory contribution from the supervisor's research fund to provide a minimum annual income of \$27,000 at the postdoctoral level. Renewable once at the master's level and twice at the doctoral or postdoctoral levels.

### **COMMANDER C. BELLAIRS POSTDOCTORAL FELLOWSHIPS**

**Eligibility:** Tenable at the Bellairs Research Institute of McGill University, St. James, Barbados, for research in marine related fields including: biology, ecology, behavioural and avian ecology, geography and geology. Candidates should have recently attained their Ph.D. and must clearly demonstrate a definite need to carry out their research at the Institute.

**Value:** \$20,000 per year, plus travel expenses. Renewable once.

**Deadline:** Check availability with the GPSO Fellowships and Awards Section.

**OFA # 125**





**JUVENILE DIABETES FOUNDATION POSTDOCTORAL FELLOWSHIPS IN DIABETES RESEARCH**

**Eligibility:** By the beginning of the period of support sought, applicant must hold a doctoral degree or equivalent from an accredited institution and must not have a faculty appointment. Applicants must be sponsored by an investigator affiliated full-time with an accredited institution, who agrees to supervise the applicant's training. The sponsor need not have a background in diabetes, but the research project must be diabetes-related.

**Value:** \$36,996 - \$46,992 for 2il3(agrea)7.53rs , \$5,500 eeaoowsance

Indo-Canadian Institute, 1402 Education Tower, 2500 University

Dr. N.W., Calgary, Alberta T2N 1N4. Tel:(403) 220-7467.

E-mail: [sci@ucalgary.ca](mailto:sci@ucalgary.ca)

Website: [www.ucalgary.ca/~sici](http://www.ucalgary.ca/~sici)

**OFA # 88**





**Applications:** See the Scholarships page on the CBIE website at: [www.cbie.ca/scholarship/index\\_e.cfm?page=cbie-grants\\_e](http://www.cbie.ca/scholarship/index_e.cfm?page=cbie-grants_e). The CBIE homepage is [www.cbie.ca](http://www.cbie.ca) and is navigable in French or English.

Canadian Bureau for International Education, 220 Laurier Ave. West, Suite 1550, Ottawa, ON K1P 5Z9, Canada. Telephone: (613) 237-4820, Fax: (613) 237-1073

E-mail: [info@cbie.ca](mailto:info@cbie.ca)

**OFA # 23**

#### **J. ARMAND BOMBARDIER INTERNATIONALIST FELLOWSHIPS**

The J. Armand Bombardier Internationalist Fellowships Program is unique in responding to the need of Canadians to develop their international awareness, its openness to all countries and all disciplines, as well as its objective to increase Canada's participation in the world economy. Applicants to the program show promise of becoming Canada's leaders of tomorrow in their chosen field of endeavour.

**Eligibility:** Open to Canadians and permanent residents of Canada who hold at least one university degree, or are in the final year of a degree program. The latest degree must have been awarded no longer than five years from the date of application. Applicants must have achieved high academic standing. Recipients of the predecessor program, Celanese Canada internationalist Fellowships, are not eligible to apply again. Fellowships are intended for study in formal postsecondary programs abroad. Consisting of taught courses, lectures or seminars, the international study program may also be combined with a period of research or work (internship). The program abroad must be of one academic year (a minimum of eight consecutive months) including at least four months of taught courses. It may be undertaken anywhere in the world outside Canada and may include more than one location.

**Value:** \$10,000 per year.

**Deadline:** March 1 to CBIE (confirm with GPSO Fellowships and Awards Section - the deadline may change in future competitions).

**Application:** Available from the Canadian Bureau for International Education, 220 Laurier Avenue West, Suite 1100, Ottawa, Ontario K1P 5Z9. Tel: (613) 237 4820  
Website: [www.cbie.ca](http://www.cbie.ca)

**OFA # 38**

#### **COMMANDER C. BELLAIRS GRADUATE FELLOWSHIPS**

**Eligibility:** Tenable at the Bellairs Research Institute of McGill University, St. James, Barbados (specializing in marine biology, marine ecology, geography, geology, behavioural ecology and other fields). Candidates should be registered full-time in graduate studies at McGill and may apply at any point in their research program for a fellowship to allow them to work at Bellairs.

**Value:** Up to \$10,000 per year, plus travel expense for graduate level, and up to \$20,000 per year for postdoctoral level.

**Deadline:** Check availability with the GPSO Fellowships and Awards Section.

**Application:** The fellowship is not being offered until further notice.

**OFA # 125**

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Italy, Japan, the Netherlands and Spain also offer awards to Canadian students. However, the embassies of these countries in Canada are responsible for the administration of their scholarships.

**Eligibility:** A common condition is that the applicant be a Canadian citizen and have completed a first degree.

**Value:** Although all of the awards are similar in nature, the value of each award is determined by the offering country. Most awards cover travel to and from the host country, tuition and registration fees, and a monthly living allowance. Several awards also cover books, mandatory health and accident insurance and various other allowances.

**Deadline:** Deadlines for submission of applications vary depending on whether the competitions are administered by the CBIE or by each of the Embassies in Canada. Please also note that the forms provided on the website can only be used for those competitions administered by the CBIE. Forms for those competitions directly administered by the Embassies in Canada of participating countries must be obtained from the relevant Embassy or Consulate. See the website for Embassy contact information. CBIE-administered deadlines were either October 29th or January 28th, depending on the country. See this website for more information on deadlines and submission information: [www.scholarships.gc.ca](http://www.scholarships.gc.ca).

**Applications:** Applications and further information is best obtained on the web at: [www.scholarships.gc.ca](http://www.scholarships.gc.ca).

**OFA # 499**

**GOVERNMENT OF ITALY SCHOLARSHIPS**

**Eligibility:** The Government of Italy offers scholarships to Canadian citizens wishing to pursue studies in Italy. They are intended for students, professionals, teachers, and artists who meet the necessary requirements for enrolment in Italian post-secondary institutions (universities, academies, conservatories, art restoration institutes, National School of Cinematography, research centres or laboratories, libraries, archives, museums and other national or nationally-recognized institutions), and who would like to attend specialized courses or conduct research in specific fields. For Italian language study, the scholarships are awarded for specific programs at the Universities for Foreigners in Perugia, Siena and Roma Tre or at other recognized institutions.

The short-term scholarships consist of a three-month period to be used in the summer of 2005 and are reserved primarily for courses in Italian language and culture. Applicants must possess a high school diploma at the time they apply and must be 38 years of age or younger.

Italian language and culture courses of a one-month period are reserved for Italian language teachers to whom no age limit applies, and for 3rd year University students in the Italian Studies Department.

Department of Italian Studies, University of Toronto, 270 Spadina Avenue, Toronto, Ontario M5S 1A5, Canada. Tel: (416) 978-2811. Fax: (416) 978-2812. Email: [italian@utoronto.ca](mailto:italian@utoronto.ca)

For more information, visit the website at [www.italianstudies.org](http://www.italianstudies.org)

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Province of Quebec. Under the present regulations the scholarship must be used in the year in which it is awarded.

**Value:** \$24,000.

**Deadline:** May 1.

**Application:** Candidates should apply to the Faculty of Law, Student Affairs Office.

### **MACKENZIE KING TRAVELLING SCHOLARSHIPS**

**Eligibility:** Offered to a graduate of any Canadian university to engage in postgraduate studies in the U.S. or U.K in international or industrial relations (including international or industrial aspects of law, history, politics, economics). Applicants should be persons of unusual worth and promise. Awards are based on academic achievement, personal qualities and demonstrated aptitudes, as well as proposed program of study. McGill only considers undergraduate applicants with First Class Honours Standing (CGPA of 3.7 or higher) and graduate applicants with cumulative "straight A" records. Applicants to McGill who have graduated with a McGill undergraduate degree will automatically be considered for the Delta Upsilon and Peacock memorial scholarships.

**Value:** Approximately four scholarships per year of up to \$9,000. Value of the award is subject to change.

**Deadline:** Normally February 1 to applicant's home university. Verify McGill's deadline with the GPSO Fellowships and Awards Section.

**Application:** Application is made through the "home" university, i.e, the Canadian university from which the applicant has or will receive the most recent degree. Further information and application forms, consult the agency website: [www.mkingscholarships.ca](http://www.mkingscholarships.ca). To verify the application process and other procedural details, consult the McGill Graduate Studies website: [www.mcgill.ca/gps/fellowships](http://www.mcgill.ca/gps/fellowships). Mackenzie King Scholarships Competition Office, Faculty of Graduate Studies, University of British Columbia, 235 2075 Westbrook Mall, Vancouver, British Columbia V6T 1Z1.

**OFA # 353**

### **MINISTÈRE DE L'ÉDUCATION, DU LOISIR ET DU SPORT (MELS) - PROGRAMME DE BOURSES DES GOUVERNEMENTS ÉTRANGERS**

The MELS administers over 100 travelling fellowships created at a result of bilateral cooperation agreements in education and training between the Quebec Government and foreign governments. These fellowships are offered to Canadians citizens and permanent residents of Canada who are residents of Quebec, to financially support study or research abroad, in the countries or provinces listed on the MELS web site. (The list is updated from time to time.)

**Eligibility:** Candidates must be Canadian citizens or Permanent Residents and must have resided in Quebec for the past year at least. Candidates must possess an undergraduate degree and be registered in a Master's or doctoral level program at a Quebec university at the time that the fellowship is granted. Candidates must also conform to the specific requirements of the particular program through which a fellowship is being sought, and in most cases be fluent in the language of the country where studies will be undertaken. The type of study eligible and the value and duration of these fellowships varies depending on the particular agreement. Prospective applicants are strongly encouraged to carefully consult the MELS website listed below.

**Value:** Normally covers travel and living expenses, for between one and twelve months. Some fellowships may be renewable.

**Deadline:** Varies according to the program.

**Application:** Up to date information regarding specific application requirements is available on this website: [www.mels.gouv.qc.ca/ens-s](http://www.mels.gouv.qc.ca/ens-s)





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Canadian Chinese Cultural Society of Montreal Inc. Scholarship . . . . .	30
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Canadian Library Association Scholarships . . . . .	35
Canadian Nurses Foundation Fellowship . . . . .	20
Canadian Society for Chemistry - Montreal 2001 Graduate Award . . . . .	24
Carpenter (Philip) Fellowship in Biology . . . . .	24
Carr-Harris (Lloyd) Fellowship . . . . .	13
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Magil (Louis B.) Scholarship in Affordable Homes . . . . . 28

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Mappin (Judith) Fellowship in Women's Health. . . . . 18

Marisi (Daniel Q.) Award . . . . . 30

Martin (The Right Honourable Paul) Sc23















including the dismantling of socialist realism, the recovery of the nineteenth- and early twentieth-century heritage, the emergence of a new plurality in trends such as rural, urban, youth and alternative prose, conceptualism and sotsart.

**RUSS 684 YURI TRIFONOV AND HIS TIMES. (3)**

**RUSS 685 POST-SOVIET WOMEN'S PROSE. (3)** (Prerequisite: Permission of the Department Graduate Committee.) I. Grekova, Petrushevskaya, Ulitskaya, Sadur, Tolstaia and others in their historical settings, particularly the continuities between and changes emerging from the Soviet to post-Soviet transition. The portrayal of women; power dynamics in the relationships between men and women, mothers and daughters. Discussion of literary language and stylistics.

**RUSS 689 19TH CENTURY RUSSIAN LITERATURE IN THEORY. (3)** (Prerequisite: Permission of the Department Graduate Committee.) (Restriction: Not open to students who have taken RUSS 690D1/D2.) Russian Formalism and its precursors, the Bakhtin circle considered in the context of major period trends and key texts of the nineteenth century.

**RUSS 690 20TH CENTURY RUSSIAN LITERATURE IN THEORY. (3)** (Prerequisite: Permission of the Department Graduate Committee.) (Restriction: Not open to students who have taken RUSS 690D1/D2.) Russian structuralism, post-structuralism, the Tartu school and Bakhtin considered in the context of major period trends and key texts of the twentieth century.

**RUSS 691 M.A. THESIS PROPOSAL. (6)**

**RUSS 691D1 (3), RUSS 691D2 (3) M.A. THESIS PROPOSAL.** (Students must register for both RUSS 691D1 and RUSS 691D2) (No credit will be given for this course unless both RUSS 691D1 and RUSS 691D2 are successfully completed in consecutive terms) (RUSS 691D1 and RUSS 691D2 together are equivalent to RUSS 691)

**RUSS 691N1 M.A. THESIS PROPOSAL. (3)** (Students must also register for RUSS 691N2) (No credit will be given for this course unless both RUSS 691N1 and RUSS 691N2 are successfully completed in a twelve month period) (RUSS 691N1 and RUSS 691N2 together are equivalent to RUSS 691)

**RUSS 691N2 M.A. THESIS PROPOSAL. (3)** (Prerequisite: RUSS 691N1) (No credit will be given for this course unless both RUSS 691N1 and RUSS 691N2 are successfully completed in a twelve month period) (RUSS 691N1 and RUSS 691N2 together are equivalent to RUSS 691) See RUSS 691N1 for course description.

**RUSS 692 M.A. THESIS. (24)**

**RUSS 700 PHD TUTORIAL. (0)** (Prerequisite: Permission of the Department Graduate Committee.) Supervised preparation for the candidate's two designated Nt9 Tm-0.0002 Tc00d RUSS 692 M.A. T

of the chosen program, i.e., in anthropology, history or sociology; and, through seminars and interaction with Department members and other graduate students, exposure to the other disciplines that are represented in the Department. The Department aims to instill in its graduates a combination of disciplinary competence and interdisciplinary perspective.

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### **73.3 Admission Requirements**

#### **M.A. in Medical Anthropology**

The program is open to students with backgrounds in the social sciences, the medical professions, or the medical sciences.

#### **M.A. in the History of Medicine**

Candidates must have a background in either history (Honours B.A. in History, or equivalent) or a degree in one of the health professions.

#### **M.A. in Medical Sociology**

The program is open to students with a background in social sciences, health professions or health sciences. It aims to

**Research Component – Required** (24 credits)

**PH.D. PROGRAMS**

For information on the doctoral programs, please refer to the appropriate Department – Anthropology, History, or Sociology.

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**73.6 SSOM Courses**



**JOINT Ph.D. PROGRAM IN SOCIAL WORK**

**Ph.D. in Social Work**  
**(offered jointly by McGill and Université de Montréal)**  
**Required Courses (6 credits)**

**Duration of Program**

McGill Graduate and Postdoctoral Studies regulations prescribe a minimum of two years' "residence" - that is, registration on a full-time basis for two years, or paying the corresponding fees - after the master's degree for a doctoral degree. The deadline for submission of the dissertation is five years from the completion of residence requirements. Students entering McGill with a Masters' degree, as will be the case with all students in this program, have the student status of Ph.D. 2 in their first year.

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**74.6 Courses**

**Students preparing to register should consult the Web at [www.mcgill.ca/minerva](http://www.mcgill.ca/minerva) (click Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.**

The course credit weight is given in parentheses after the title.

**SWRK 531 SOCIAL**

services and social welfare programs. Topics include goal definition, comparison of experimental and non-experimental designs,

**SWRK 721 DISSERTATION SEMINAR.** (3) (Restriction: Open only to students in the joint Social Work Ph.D. program) The objective of this seminar is to provide an opportunity for doctoral students and faculty to explore a range of issues arising from students' research projects. Particular attention will be given to the relationship between research objectives and research methodology, and to situating the project in its historical context. The implications for intervention of students' research in terms of "Who benefits?" will also be an important focus of the seminar. It is to be given every other week throughout the two consecutive terms following completion of comprehensives.

**SWRK 723 ADVANCED SEMINAR ON SOCIAL POLICY.** (3) (Restriction: Open only to students in the joint Social Work Ph.D. program) Analysis of social policies and their impact on social work practice and on the clientele that they affect. Study of the interaction between social policies and styles of management of social work organizations responsible for their application.

**SWRK 724 ADVANCED RESEARCH METHODS AND ANALYSIS: QUANTITATIVE DATA.** (3) (Restriction: Open only to students in the joint Social Work Ph.D. program) Problems encountered in the use of quantitative methods in social work research. Types of quantitative research useful in social welfare policy analysis and discussion of yield from alternative analytic methods.

**SWRK 725 ADVANCED QUALITATIVE RESEARCH METHODS AND DATA ANALYSIS.** (3) (Restriction: Open only to students in the joint Social Work Ph.D. program) Review of the principal methods comprised under the area of qualitative research and problems related to the utilization of those methods. Particular attention to analysis arising from these methods.

**SWRK 726 INDEPENDENT STUDY.** (3) (Restriction: Open only to students in the joint Social Work Ph.D. program)

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## 75 Sociology

Department of Sociology  
 Stephen Leacock Building  
 855 Sherbrooke Street West, Room 712  
 Montreal, QC H3A 2T7  
 Canada

Graduate Program and Admission Information:  
 Telephone: (514) 398-6847  
 Fax: (514) 398-3403  
 E-mail: [graduate.sociology@mcgill.ca](mailto:graduate.sociology@mcgill.ca)  
 Website: [www.mcgill.ca/sociology](http://www.mcgill.ca/sociology)

*Chair* — Suzanne Staggenborg

*Graduate Program Director* — Morton Weinfeld

*Graduate Admissions Director* — TBA

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### 75.1 Staff

*Emeritus Professor*

Maurice Pinard; B.A., LL.L., M.A.(Montr.), Ph.D.(Johns Hop.),  
 F.R.S.C.

*Professors*

John A. Hall; B.A.(Oxf.), M.A.(Penn. St.), Ph.D.(L.S.E.)  
 Céline Le Bourdais B.Sc. (Montr.), B.Sc. (Laval), M.Sc. (Montr.),  
 Ph.D. (Brown) (*Canada Research Chair in Social Statistics and  
 Family Change*)

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case, applicants may be required to take some additional Sociology courses to fill gaps in their background.

The strength of an applicant's academic record is of primary importance in consideration of an applicant's dossier. For a detailed description of courses open to graduates and undergraduates, and of preparation required of McGill University honours students, candidates should consult the *Undergraduate Programs Calendar* via on the Web at [www.mcgill.ca](http://www.mcgill.ca).

All applicants are asked to submit two letters of recommendation and two certified copies of their university-level grades along with an example of their written work. Applicants who have received a Master's degree at a university other than McGill should submit a copy of their thesis or evidence of equivalent research experience with their application for admission. The applicant's dossier must be completed by February 15th to be considered for the McGill Awards Competition and the internal Teaching Assistantship competition.

Applicants not registered at Canadian universities must submit with their applications the results of the Verbal and Quantitative aptitude tests of the Graduate Record Examination. Canadian students are also encouraged to submit the results of this test with their application. Arrangements to take the Graduate Record Examination should be made directly with the Educational Testing Service, Box 955, Princeton, New Jersey 08540, USA. The Test of English as a Foreign Language (TOEFL) is also required of all non-Canadian students whose mother tongue is not English. The minimum acceptable score for the TOEFL exam is 580 on the paper-based test, 237 on the computer-based test, or 92 on the





**M.A. in Sociology (Thesis)– Neotropical Environment**

**Option/Concentration** (48 credits)

McGill University and the Smithsonian Tropical Research Institute (STRI) have joined forces to offer graduate studies in neotropical environment. These are offered as options within existing programs in Biology, Bioresource Engineering, Geography, Political Science, Plant Science, Renew

attitudes of the working class. Students will prepare quantitative analysis of Canadian survey material as well as critical qualitative reviews.

**SOCI 511 MOVEMENTS/COLLECTIVE ACTION.** (3) A critical examination of classical and more recent approaches to the study of social movements and collective action. Discussion of: the role of grievances and interests, incentives and beliefs, conditions of breakdown and solidarity, mobilization and social control, the dynamics of collective action.

**SOCI 515 MEDICINE AND SOCIETY.** (3) (Prerequisite: Undergraduate students require permission of instructor) The sociology of health and illness. Reading in areas of interest, such as: the sociology of illness, health services occupations, organizational settings of health care, the politics of change in national health service systems, and contemporary ethical issues in medical care and research.

**SOCI 519 GENDER AND GLOBALIZATION.** (3) (Prerequisite: SOCI 270 or permission of instructor.) Focus on the diverse forces of globalization that impact the lives of men and women. Critical analysis of key theories and concepts implicated in the intersection of globalization processes with gender dynamisms.

**SOCI 520 MIGRATION AND IMMIGRANT GROUPS.** (3) (Prerequisite: 15 credits in the Social Sciences) Review of the major demographic, economic and sociological theories of internal and international migration. The main emphasis will be on empirical research on migration and immigrant groups.

**SOCI 525 HEALTH CARE SYSTEMS IN COMPARATIVE PERSPECTIVE.** (3) (Prerequisite: Permission of instructor.) (Restriction: Not open to students who are taking or have taken EPIB 525.) (Note: This

**SOCI 691 M.A. THESIS 2.** (6) (Restriction: Open only to graduate students registered in the M.A. thesis program of the Sociology Department.) Preparation, submission and approval of the thesis proposal by the student to his/her committee.

**SOCI 692 M.A. THESIS 3.** (3) (Restriction: Open only to graduate students registered in the M.A. thesis program of the Sociology Department.) Fieldwork and data analysis on the thesis. Progress report to the supervisor.

**SOCI 693 M.A. THESIS 4.** (3) (Restriction: Open only to graduate students registered in the M.A. thesis program of the Sociology Department.) Fieldwork and data analysis on the thesis. Progress report to the supervisor.

**SOCI 694 M.A. THESIS 5.** (18) (Restriction: Open only to graduate students registered in the M.A. thesis program of the Sociology Department.) Completion, submission, and approval of the M.A. Thesis by the committee and the Graduate and Postdoctoral Stud-SOCI 694 M.A. T

### 76.3 Admission Requirements

#### **Graduate Diploma in Surgical Health Care Research**

The program is open to all graduate students in the Division of Surgical Research, but is specifically designed for surgical residents who have allotted time during their residency training. To be accepted into the Graduate Diploma Program students must be accepted into the Division of Surgical Research; fulfill the minimum requirements for admission to the Graduate and Postdoctoral Studies Office; identify an acceptable and feasible research project; and identify an accredited faculty member willing to support the research and supervise the student. **The program is under the direction of Professor John Sampalis.**

#### **M.Sc. Program**

Usually a B.Sc., M.D. or D.V.M. degree, with a minimum CGPA of 3.2/4.0. Applications will be











Kinesiology . . . . .	262
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Language Acquisition [Linguistics] . . . . .	282
Language Acquisition [Psychology] . . . . .	393
Law . . . . .	265
Law and M.B.A. [Law] . . . . .	265
Law and M.S.W. [Law] . . . . .	265
Law and M.S.W. [Social Work] . . . . .	407
Law, Air and Space . . . . .	265
Law, Comparative . . . . .	265
Law/M.B.A. [Management] . . . . .	289
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Library and Information Studies . . . . .	274
Linguistics . . . . .	281
Literacy Studies [Education] . . . . .	247
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M.B.A./M.D. [Management] . . . . .	289
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Management – Joint Ph.D. in Administration . . . . .	299
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Management, International Masters Program in	

**URBP 616 SELECTED TOPICS 1.** (3) Special topics related to Urban Planning will be presented by staff and visiting lecturers.

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**URBP 619 TRANSPORTATION AND LAND DEVELOPMENT.** (3) Urban land development projects: design procedures and standards for internal traffic distribution, auto, truck and pedestrian access, parking requirements, and the development of transportation-related land-use controls. Methods for assessing the impact of land development projects on external traffic. Transportation/land-use relationships at the broader regional scale, with a review of land-use forecasting and allocation models and procedures for the coordination of comprehensive transportation/land-use planning.

**URBP 622 PLANNING PROJECT 1.** (6) (studio) This studio introduces practical problems based on real world cases. Material covered includes: problem definition; data sources, collection and analysis; goal setting; the creative process; problem solving; and policy implications. Students work in interdisciplinary groups. Each studio terminates with an oral and graphic presentation of work to which expert critics are invited. Progress is evaluated according to performance in class, in the oral presentation, and on written reports.

**URBP 623 PLANNING PROJECTS 2.** (3) This studio introduces practical problems based on real world cases. Material covered includes: problem definition; data sources, collection and analysis; goal setting; the creative process; problem solving; and policy implications. Students work in interdisciplinary groups. Each studio terminates with an oral and graphic presentation of work to which expert critics are invited. Progress is evaluated according to performance in class, in the oral presentation, and on written reports.

**URBP 625 PRINCIPLES AND PRACTICE 2.** (2) This six-week intensive course exposes students to issues and techniques which are applicable in diverse professional planning contexts that vary in terms of their subject matter, location, scale and the role played by planners. The course focuses on a specific case study and is taught by a visiting lecturer with experience in the selected subject area. Course topics are systematically varied over a two-year cycle.

**URBP 626 PRINCIPLES AND PRACTICE 3.** (2)

**URBP 628 PRACTICAL EXPERIENCE.** (6) An internship related to the practice of urban planning is required. The practical experience must be of at least 3 months duration and be supervised by a professional in the planning field. An evaluation of the student's performance by the supervisor, as well as a short report by the student, forms the basis for assessment.

**URBP 629 C** 4(Lm( 6Tj6.48 0 0 6.48 14231 8ati1 Tf02H-0.0S0.XPERIENC)9.1(E)TJ8.1 0 0 8.1 184.001 Tc(RA60038 Tc3. )c3-0-0-6. )c



