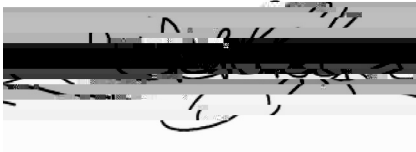


PRINCIPAL'S
MESSAGE
2007/2008



Welcome to McGill!





GRADUATE AND POSTDOCTORAL STUDIES CALENDAR 2007 - 2008

McGill University:
www.mcgill.ca

**Graduate and Postdoctoral
Studies Office**
www.mcgill.ca/gps

Admission:
www.mcgill.ca/applying/graduate

Registration:
www.mcgill.ca/minerva

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Calendar design and production:
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The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees, schedules, conditions of admission and credit requirements, and the revision or cancellation of particular courses or programs.





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June 25, Mon.	HOLIDAY	Classes cancelled. Administrative offices closed (for La Fête Nationale du Québec).
July 2007		
July 1, Sun.	HOLIDAY	CANADA DAY. Libraries closed.
July 2, Mon.	HOLIDAY	Classes cancelled. Administrative offices closed (for Canada Day).
July 31, Tues.	REG	Last day for returning students in all faculties to register (except Continuing Education) without a late registration fee.
August 2007		
Aug. 1, Wed. to Sept. 4, Tues.	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).
Aug. 2, Thurs. to Aug. 17, Fri.	IDCARD	Canadian students can avoid line-ups and get their ID cards early once they have registered. Visit the ARR Service Centre, James Administration Building, room 205, from August 2 to August 17. Office hours are Monday to Thursday 9 a.m. to 5 p.m. and Fridays 10 a.m. to 5 p.m.
Aug. 1, Wed. to Aug. 24, Fri.	IDCARD	New students can avoid line-ups and get their ID cards Monday – Thursday at Laird Hall, Room 106, from 9 a.m. to 3:30 p.m., and Friday from 9:00 a.m. to 12:00 p.m. If they miss these dates, one will be worked in for them during orientation activities.
Aug. 2, Thurs.	INFO	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 Summer 2007 term. Documents received after this date will be updated for the following term only.
Aug. 3, Fri. to Sept. 4, Tues.	REG	Registration using Minerva for all <u>newly-admitted</u> students in Graduate Studies.
Aug. 15, Wed.	REG	Registration using Minerva begins for Fall term Continuing Education courses.
Aug. 20, Mon. to Aug. 31, Fri.	IDCARD	IDs at the Trottier Building Cafeteria from 9 a.m. to 5 p.m. Including Saturday, August 25 and Sunday, August 26.
Aug. 27, Mon. to Aug. 31, Fri.	IDCARD	IDs at Laird Hall during "Discover Mac" week. Refer to Orientation .0003 Tc-0.0035 Tw(to 5 p.m.s2R6)l terev3.6963 -1.na(Aug. c3:700009 Tc0.0045 T)

DATE	ACTIVITY CODE	ACTIVITY
Sept. 4, Tues.	AWRD	Start of external and internal graduate fellowship competitions for 2008-2009 funding. Graduate and final-year undergraduate students should enquire in their department and on the fellowships Website at www.mcgill.ca/gps/fellowships regarding information session schedules and application procedures and deadlines.
Sept. 5, Wed. to Sept. 18, Tues.	REG	Late registration period with \$100 late registration fee for all faculties; \$40 for Special students and Graduate part-time students (\$25 late registration fee for Continuing Education students).
Sept. 6, Thurs.	ORIENT	University Orientation for new graduate students in Thomson House, 3650 McTavish Street, 3:00 p.m.
Sept. 6, Thurs.	ORIENT	University Orientation for new postdoctoral scholars in Thomson House, 3650 McTavish Street, 5:00 - 6:00 p.m.
Sept. 18, Tues.	W	Deadline for web withdrawing (grade of "W") from multi-term courses (D1/D2, N1/N2) that started in Summer 2007 (with fee refund for Fall term).
	NOTE	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 September 18 (with full refund for the Fall term) by contacting their faculty Student Affairs Office.
Sept. 18, Tues.	REG	Course Change (drop/add) deadline for Fall term and first part of multi-term courses starting in September 2007
Sept. 21, Fri.	AWRD	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. 23, Sun.	W/W--	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).

3 Programs Offered

3.1 Graduate Diplomas and Certificates

Graduate diplomas and graduate certificates are programs of study under the academic supervision of the Graduate and Post-doctoral Studies Office. They have as a prerequisite an undergraduate degree in the same discipline.

McGill University offers other diploma and certificate programs under the supervision of the relevant faculties and their Calendars should be consulted for further details.

Graduate Diplomas are offered in:

- Clinical Research (Experimental Medicine)
- Epidemiology and Biostatistics
- Housing
- Islamic Studies
- Library and Information Studies
- Mining Engineering
- Nursing
- Public Accountancy (C.A.)
- Registered Dietician Credentialing (R.D.)
- School and Applied Child Psychology (post-Ph.D.)
- Surgical Health Care Research

These programs consist of at least two terms of full-time study or the equivalent.

Graduate Certificates are offered in:

- Assessing Driving Capabilities
- Air and Space Law
- Bioresource Engineering (IWRM)
- Biotechnology
- Comparative Law
- Educational Leadership 1
- Educational Leadership 2
- Library and Information Studies
- Post-M.B.A.

Master of Engineering (M.Eng.)
Master of Laws (LL.M.)
Master of Library and Information Studies (M.L.I.S.)
Master of Management (M.M.)
Master of Music (M.Mus.)
Master of Sacred Theology (S.T.M.)
Master of Science (M.Sc.)
Master of Science, Applied (M.Sc.A.)
Master of Social Work (M.S.W.)
Master of Social Work/Bachelor of Civil Law (M.S.W./B.C.L.)
Master of Social Work/Bachelor of Laws (M.S.W./LL.B.)
Master of Urban Planning (M.U.P.)
Doctor of Civil Law (D.C.L.)
Doctor of Music (D.Mus.)
Doctor of Philosophy (Ph.D.)

Epidemiology and Biostatistics
Food Science and Agricultural Chemistry
French
Geography
 Environment
 Neotropical Environment
German
Hispanic Studies (Spanish)
History
Human Genetics
 Bioinformatics
Human Nutrition
Islamic Studies
Linguistics
 Language Acquisition
Management
Mathematics and Statistics
 Bioinformatics
Mechanical Engineering
Medicine, Experimental
Microbiology and Immunology
Microbiology (Macdonald Campus)
 Bioinformatics
 Environment
Mining and Materials Engineering
Music
Neurological Sciences
Nursing
 Psychosocial Oncology
Occupational Health Sciences
Parasitology
 Bioinformatics
 Environment
Pathology
Pharmacology and Therapeutics
 Chemical Biology
Philosophy
Physics
Physiology
 Bioinformatics
Plant Science
 Bioinformatics
 Environment
 Neotropical Environment
Political Science
 Neotropical Environment
Psychology
 Language Acquisition
 Psychosocial Oncology
Rehabilitation Science
Religious Studies
Renewable Resources
 Environment
 Neotropical Environment
Russian
School/Applied Child Psychology
Social Work
Sociology
 Environment
Surgery, Experimental

The following joint Ph.D. programs are offered:

Nursing (McGill/Université de Montréal)
Management (McGill/Concordia/H.E.C./UQAM)
Social Work (McGill/Université de Montréal)

Prerequisites:

An undergraduate degree relevant to the subject chosen for graduate work. Some departments require



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).

5.3 Competency in English

Applicants to graduate studies whose mother tongue is not English and who have not completed an undergraduate or graduate degree from a recognized foreign institution where English is the language of instruction or from a recognized Canadian institution (anglophone or francophone), must submit documented proof of competency in oral and written English. **Before acceptance**, appropriate exam results must be submitted directly from the TOEFL (Test of English as a Foreign Language) or IELTS (International English Language Testing Systems) Office. An institutional version of the TOEFL is not acceptable. Minimum acceptable exam results are: TOEFL with a minimum overall score of 86 on the iBT, and a score of at least 20 for each of its four components (or a minimum score of 213 on the computer-based test, or 550 on the paper-based test; or IELTS with a minimum overall band of 6.5). Applications will not be considered if a TOEFL or IELTS test result is not available. Higher scores may be set by individual departments.

Revised - CGPS -September 11, 2006

5.4 Admission Requirements

Applicants should be graduates of a university of recognized reputation and hold a Bachelor's degree equivalent to a McGill 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.

The applicant must present evidence of academic achievement: 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. High grades are expected in courses considered by the department to be preparatory to the graduate program.

Some departments impose additional requirements and even though the applicant may appear to satisfy the general admission requirements, acceptance into a graduate degree program is not guaranteed by the department or the Graduate and Postdoctoral Studies Office. The final admission decision rests with the Graduate and Postdoctoral Studies Office.

5.5 Parallel Admission

This program is designed to assist academically qualified applicants, lacking the minimum English language requirement for graduate studies at McGill, to adjust to the learning, research and teaching environment of a major, research-based, North American university where the usual language of operation is English. The program will ensure that otherwise suitably qualified applicants for admission into graduate studies programs will develop the appropriate level of English-language competency and adjust to the learning and living environment to be encountered in graduate studies at McGill within one calendar year of their admission to the program. Those students who fail to meet with these requirements will be asked to withdraw.

Students admissible to the program will have been screened by the staff of the graduate program into which they wish to be admitted, and recommended to the Graduate and Postdoctoral Studies Office. If the applicant is deemed by the GPSO to be admissible on purely academic grounds but has a TOEFL score below the entrance requirement of the graduate program, by no more than 27 points (paper-based scale) or 20 points (computer-based scale) or 10 points (Internet-based scale (overall)), he/she will be admitted to the Parallel Admission Program for a period not to exceed twelve (12) calendar months. In order to start his/her studies in the graduate program into which he/she had been admitted he/she

would have to obtain the McGill Certificate of Proficiency in English according to the rules and regulations in force in the Department of Languages and Translation within the 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 student who fails to meet the English-language requirement within one calendar year

5.10 Admission to an *Ad Hoc* Program (Thesis)

In exceptional cases, admission to an *Ad Hoc* program (thesis) may be considered. Before the Graduate and Postdoctoral Studies Office will authorize the admission of a student into an *Ad Hoc* program, it must receive a favourable report from a departmental committee constituted to examine the program in question.

Candidates, through the supervisor designated by the academic department most closely related to their research field, must submit a research proposal, an outline of the course work needed including a Comprehensive Examination (for Doctoral programs) in the relevant field, and the list of four supervisory committee members.

Once the request has been approved, the candidate may register following all the regular procedures. Full description of the admission procedure is available from the GPSO.

5.11 Reinstatement and Admission of Former Students

Students who have not been registered for a period of up to two years but who have not officially withdrawn from the University by submitting a signed Withdrawal Form to the Graduate and Postdoctoral Studies Office are eligible to be considered for reinstatement into their programs. The student's department must recommend, in writing, that the student be reinstated, stipulating any conditions for reinstatement that it deems appropriate. The final decision rests with the GPSO. Normally, the GPSO will approve the departmental recommendation. If the student's department chooses not to recommend reinstatement, the student may appeal to the Associate Dean (Graduate and Postdoctoral Studies). The Associate Dean's decision can be appealed to the Graduate Committee on Student Standing.

Reinstatement fees will be charged in addition to the fees due for the academic session into which the student has been reinstated. The amount of the reinstatement fees is the tuition portion of fees owed for all unregistered terms, up to a maximum of two years just prior to the term of reinstatement.

If an individual has not registered for a period of more than two years, their student file will be closed. These individuals and those who have formally withdrawn may be considered for admission. Applicants' admission applications will be considered as part of the current admission cycle, in competition with other people applying during that cycle and in accordance with current graduate admission procedures and policies.

Implementation: This procedure took effect in January 2004. Revised Council of February 9, 2004.

5.12 Deferral of Admission

Under exceptional circumstances, an admission for a particular semester can be considered for a deferral. This can be considered only if the student has not registered. If the student has already registered, no deferral can be granted. The student must withdraw from the University and apply for admission to a later term.

6 Regulations

6.1 Categories of Students

6.1.1 Full-time Students

Full-time students are students with a registration status of full-time and paying full-time fees. Full-time Master's, Diploma and Certificate candidates must show a minimum of 12 credits per term on their record.

6.1.2 Half-time Students (Thesis programs)

In some departments, students are permitted to proceed towards a degree on a half-time basis, i.e., students are permitted to register half-time instead of full-time during sessions of residence.

It is expected that half-time students will spend 50% of their time in the department participating in course work, seminars, discussions, etc., with the staff and the full-time students.

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

6.1.13 Quebec Inter-University Transfer Agreement (IUT)

The IUT Agreement permits concurrent registration at McGill and another Quebec institution.

6.1.13.1 McGill Students

Regular undergraduate and graduate degree, diploma or certificate candidates registered at McGill may, with the written permission of the Dean of their faculty or delegate, register at any university in the province of Quebec for three (3), or exceptionally six (6), credits per term in addition to their registration at McGill. These courses, subject to GPSO regulations, will be recognized by McGill for the purpose of the degree for which the student is registered up to the limit imposed by the residency requirements of the program. This privilege will be granted if there are valid academic reasons.

Students wishing to take advantage of this agreement should consult the GPSO for details, and are informed that this agreement is subject to the following conditions:

- The other universities concerned may, at their discretion, refuse the registration of a student for any of their courses.
- The obligation of the student to complete their faculty and program requirement.
- The student is responsible for ensuring that the McGill Class Schedule permits these courses to be taken without conflict.
- The universities concerned are not responsible for special arrangements in cases of examination or class schedule conflicts.
- Marks earned at the host university will not appear on McGill transcripts or be included in McGill grade point averages.
- Students who are attending McGill as exchange students from outside Quebec are not eligible to take courses at another Quebec institution through the IUT agreement.
- Be aware that late results received from host universities may delay your graduation.

Scholarship holders should consult with GPSO and the Scholarships Coordinator concerning eligibility for continuation.

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.

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 courses that are intended for qualified senior undergraduate students and open to graduate students.
- Courses at the 600 and 700 level are intended for graduate students only.

Two additional characters (D1, D2, N1, N2, J1, J2, J3) at the end of the seven-character course number identifies multi-term courses.

6.3.2 Multi-term Courses

Most courses at McGill are single term (Fall or Winter or Summer) courses with final grades issued and any credits earned recorded at the end of that term. Single term courses are identified by a seven-character course number.

A unit may, however, decide that the material to be presented cannot be divided into single term courses or it is preferable that the work to be done is carried out over two, or three, terms. Under such circumstances, courses are identified by a two-character extension of the course number.

In some cases, the same course may be offered in various ways: as a single term and/or in one or more multi-term versions. The course content and credit weight is equivalent in all modes, the only difference being the scheduling, and students cannot obtain credit for more than one version.

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 on Minerva, 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 2007 and Winter 2008.

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.

Courses with numbers ending in J1, J2 and J3 are taught over three consecutive terms. Students must register for the same section of all three components (J1, J2, J3). No credit will be given unless all three components are successfully completed.

students intending to register for restricted undergraduate courses MUST COME IN PERSON to the Graduate and Postdoctoral Studies Office with an approved Minerva Course Selection form, where the course will be added if there is space available in the course.

Please consult the *Summer Studies Calendar* for specific information on course dates and times. Information is also available on the Summer Studies Web site at www.mcgill.ca/summer.

6.5 Course Change Period

During the initial Registration Periods, [see section 6.2 "Registration"](#), students may make changes to their course registrations (add or drop courses), subject to the requirements and restrictions of their program and of individual courses.

The Course Change deadline coincides with the deadline for late registration. Please refer to the Calendar of Dates.

Students who are registered in the Fall term may continue to add and drop courses that will begin in the Winter term throughout the Fall term until the deadline for course change/late registration in the Winter term.

After the Course Change deadline, courses may be added only with written permission of the instructor and your department, and the approval of the GPSO. A fee will be charged for each course added.

6.6 Auditing of Courses

No auditing of courses is permitted at McGill.

6.7 Regulations Concerning Withdrawal

6.7.1 Regulations Concerning Course Withdrawal

Following the Course Change deadline there is a period of a few days during which students may withdraw, with a grade of W and full refund of course fees, from courses that start in that term.

After the Withdrawal (with refund)5(in for-.8(Tc-0.001.1 .6(dr0709 Tm(.Tw[(fuG-(ii7e01.1259 TDe for-0.Tcrg)w45 Tw[()]-0.2a.3(d(full))-7.r)6.8(l

based on the basis of a grade point average (GPA), which is calculated by dividing the sum of the credit times the grade points by the total courses GPA credits. GPA credits are the credits of courses with grades that are assigned grade points.

$$\text{GPA} = \frac{\sum (\text{course credit} \times \text{grade points})}{\sum (\text{GPA course credits})}$$

The term grade point average (TGPA) will be the GPA for a given term calculated using all the applicable courses at the same level in that term. The cumulative grade point average (CGPA) will be the GPA calculated using the student's entire record of applicable courses at McGill at the same level effective the Fall 2002 term. If the level is changed (e.g. from Master's to Doctoral), the CGPA will start again. For students with academic information prior to Fall 2002, who are continuing in the same program or are registered in a different program or level post-Fall 2002, the transcript displays a special message regarding the CGPA being calculated effective Fall 2002 onwards. If courses are repeated, all results are included in the GPA calculation. Therefore, grades of F or J continue to be used in the CGPA calculation (and remain on the record) even after the course is repeated or if a supplemental examination is taken.

Other Grades:

- IP** – ***In Progress***. (Master's Thesis Courses Only)
- P** – ***Pass***. Pass/Fail grading is restricted to certain seminars, examinations and projects only. In such cases all grades in these courses are recorded as either Pass or Fail. Not included in GPA calculations.
- HH** – ***To be continued***. The use of this grade is reserved for major research projects, monographs and comprehensive examinations as designated for graduate studies.
- J** – ***are-***

In the event of a failure of a supplemental exam, the department should request, in writing, that the student withdraw (with a copy of said letter forwarded to the GPSO).

Similarly, in the event of a failure in a second course, a written request for withdrawal (copied to the GPSO) should be sent to the student.

Note: A student in a graduate program who has failed one course while being a Special Student in a graduate studies will have this failure count as a first failure in a related graduate program. Any further failure will require withdrawal from the program of study.

6.11 Language Policy

The main language of instruction at McGill is English. Every student has a right to write essays, examinations, and theses in English or in French except in courses where knowledge of a language is one of the objectives of the course.

6.12 Regulations Concerning Theses

The thesis submission guidelines contain important information regarding procedures and deadlines. Students who are in the process of writing a thesis must consult these thesis submission guidelines in order to adhere to University regulations concerning the submission of a thesis. Thesis submission guidelines and all the forms required for thesis submission are posted on the Web at www.mcgill.ca/gps.

Forms and guidelines are updated as procedures change. Students should keep informed of these changes by referring to the Website.

Dates of submission of theses, convocations, etc. are listed in [section 2 "Calendar of Dates 2007-2008"](#) and are available on the Web at www.mcgill.ca/students-information/dates.

6.13 Graduation

In order to graduate, a student must complete program requirements. **It is the student's responsibility to ensure that all requirements are met before graduation.** All students should contact their Graduate Program Director early in the graduating year with any questions as to whether they will meet the necessary program requirements by graduation time.

6.13.1 Apply to Graduate

Students in non-thesis programs (master's, certificates, diplomas) must use Minerva to apply to graduate. It is your responsibility to inform us of your intention to graduate.

Deadlines:

- Students who intend to graduate at the end of the fall term (courses completed December for June convocation) must apply on Minerva by the end of November.
- Students who intend to graduate at the end of the winter term (courses completed April for June convocation) must apply on Minerva by February.
- Students who intend to graduate at the end of the summer term (courses completed by August for October convocation) must apply on Minerva by March.

Students who have missed these deadlines must follow the procedures on the web at www.mcgill.ca/gps/program/nonthesis.

The Application for Graduation is available on Minerva for students in non-thesis programs who have registered for their final year. For more information on how to apply on Minerva, go to www.mcgill.ca/minerva-students/records/graduation.

Graduation Fee

All students are charged a compulsory transcripts and diploma charge in each term of registration. This will entitle students to order transcripts free of charge as well as cover the costs of graduation.

6.13.2 Graduation Approval Query

Graduating students may view the status of their graduation record on Minerva as part of the review and approval process. The menu option called "Student Graduation Query" is accessed via the Student Records menu option on Minerva, and becomes available to graduating students approximately 3-4 weeks before the "degree granted" notation is updated on their requirem006 Tion is avac-0.0846 Ttuder



6.17.4 What Are the Consequences of Not Providing Your Documents?

All proofs of citizenship, requests for Quebec residency, international fee exemption, and immigrat

information and the necessary application materials, see this MELS Website: www.mels.gouv.qc.ca/ens-sup/ens-univ/droits_scolaire-A.asp. The list of organizations where students should apply can be accessed from this Web site.

Differential fee waivers for International students provide eligible non-Canadian graduate students with waivers of the international tuition fee supplement. There are no application forms for differential fee waivers, since these are awarded on the basis of departmental nominations made to the Fellowships and Awards Section. Eligible students should contact their McGill department. As of May 2007, summer DFW's will be applied primarily to eligible Master's students, while Fall and Winter term DFW's will be applied primarily to eligible doctoral students.

Research Assistantships, Teaching Assistantships and stipends from professors' research grants are handled by individual academic departments at McGill. All assistantship and stipend inquiries should be directed to departments.

7.2 Student Financial Assistance

Citizens and Permanent Residents of Canada

Need-based student financial aid programs are offered by the Federal/provincial governments. Applications should be submitted directly to the province (or territory) of residence. Application forms are available from the governmental aid authorities as well as the Student Aid Office. Information on governmental student aid and links to sites can be found on McGill's Financial Aid Website at www.mcgill.ca/studentaid.

Citizens and Permanent Residents of the United States

McGill University participates in the Federal Family Education Loan Program (FFELP). American students in need of financial assistance may apply for Stafford loans (subsidized and unsubsidized). Graduate students may also apply for Alternative loans. Complete instructions can be found on McGill's Student Financial Aid Website at www.mcgill.ca/studentaid.

McGill





Graduate students whose fees are charged on a flat rate basis (per term):

Full-time / additional session / non-thesis extension \$99.30
Half-time \$49.65

Post-Graduate Medical Education:

40-52 weeks pay \$99.30; 1-39 weeks pay \$49.65

Copyright Fee

All Quebec universities pay a per credit fee to Copibec (a consortium that protects the interests of authors and editors) for the right to photocopy material protected by copyright.

Graduate students whose fees are charged on a per credit basis:

\$.67 per credit to a maximum of \$10.05 per term

Graduate students whose fees are charged on a flat rate basis (per term):

Full-time / additional session / non-thesis extension \$10.05
Half-time \$5.03

8.6 Other Fees

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

8.7 Billings and Due Dates

Confirmation of Acceptance Deposit

In certain graduate departments, new students are required to make a deposit on tuition shortly after receiving notice of their acceptance to the University. Students will be required to confirm their acceptance of the offer of admission on www.mcgill.ca/minerva/applicants and pay the required deposit by credit card (Visa or Mastercard) at that time.

Invoicing of Fees

Fees are assessed on a term by term basis.

Electronic billing is the official means of delivering fee statements to all McGill University students. All charges to the student's account, including tuition, fees, health insurance and other miscellaneous charges are on your e-bill. E-bills are generally produced in the first few days of the month and an e-mail notification that the e-bill is ready to be viewed on Minerva is sent to the student's official McGill e-mail address. Charges or payments that occur after the statement date will appear on the next month's statement, but may be immediately viewed on the Account Summary by Term on Minerva (this is the on-line dynamic account balance view).

Interest *will not* be cancelled due to non-receipt of fee invoices. Students should access the Student Accounts Website at www.mcgill.ca/student-accounts for information on payment due dates.

Late Payment Fees: Students who still have an outstanding balance greater than \$100 on their account as of October 31st (February 28th for the Winter term) will be charged a late payment fee of \$25 over and above interest.

8.7.1 Guest Access on Minerva

Students may choose to give access privileges to a guest within Minerva. These privileges include viewing e-Bills/Account Summaries, Tax Receipts and e-payment.

A new web page at

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

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: \$50,000 U.S.

financial support, and to advise them how to resolve problems which may arise during their program.

- ii. As soon as possible, students should have a supervisor who has competence in the student's proposed area of research,

- iii. Academic units should establish criteria of excellence in supervision and graduate teaching appropriate to their disciplines and should suitably reward those who meet these criteria, e.g., in decisions concerning tenure and promotion, or merit pay awards.
- iv. The maximum number of students under the direction of a single supervisor should be consistent with the ability of the supervisor to provide quality supervision, taking into account the workload of the supervisor and norms of the discipline.
- v. Procedures should be established for ensuring continuity in supervision when a student is separated from a supervisor – for example, when the supervisor takes a sabbatical leave, retires from McGill or changes universities or when the student leaves to complete field work or takes a job before submitting a thesis.

Revised by Council of FGSR, April 23, 1999 and October 6, 2003.

10.2 Policy on Graduate Student Research Progress Tracking

This is a new mandatory policy and procedure to track the research progress of graduate students. The policy is referred to in the amended Guidelines and Regulations for Academic Units on Graduate Student Advising and Supervision in section 2.v. in bold print. Documents to record progress can be found on the GPS Website: www.mcgill.ca/gps/policies/revisions.

The following is a summary of the main elements of the new **mandatory** policy. The following steps must be followed for each graduate student in a thesis program:

1. Annually, the student must meet with, at minimum, their supervisor(s) and a departmental representative. This meeting can occur in the context of an annual thesis or advisory committee in those departments that have thesis committees.
2. At the first such meeting (to be held shortly after thesis students begin their programs), written objectives/expectations for the year must be recorded on the first of the three forms, Form #1 (Graduate Student Research Objectives Report Form). All three people at the meeting must sign this form. A student who does not agree to sign the form must write a statement detailing his/her objections to the expectations recorded on the form.
3. Approximately one year later, and every year thereafter, the student, supervisor(s) and the departmental representative should meet again to review the progress that has been achieved toward the recorded objectives. Prior to the meeting, the student should record his/her accomplishments and

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the necessary research skills and academic achievements to be permitted to continue in the Ph.D. program. (This list is not intended to be exhaustive.)

- knowledge of the discipline (from the point of view of breadth)
- understanding of the proposed field of research
- ability to conduct independent and original research
- a thesis proposal
- professional skills
- ability to present and defend material orally

The content of the comprehensive must be consistent with the objectives and should be appropriately circumscribed. Students must be given an indication of the range of material that may be covered in the examination and suggestions as to how to cover this material (e.g., via reading lists, courses, etc.).

Format

The format of the comprehensive must be clearly stated and must be consistent across students within a particular program. The following list gives some of the more common formats, which are often combined. (This list is not intended to be exhaustive.)

- written examination of a specific duration
- take-home examination
- extended research paper(s)
- written research proposal
- oral exam (which may include or consist of a defense of a research paper or research proposal)

If the comprehensive consists of several parts, the relationship (if any) between them must be made clear.

Timing

Timing of the comprehensive must be specified, including the earliest and latest dates by which the comprehensive is to be completed. Students must be informed of the specific dates of the exam in sufficient time for them to prepare for it.

Given the importance of the Ph.D. comprehensive and the consequences of failure, the exam should be held reasonably early in the program, so that students do not spend several years preparing for it.

Prerequisites must be specified. For example, clarify whether all course work must have been completed prior to the comprehensive and whether the comprehensive is the final step before thesis research and writing.

Assessment, Grading and Reporting

Evaluation parameters must be made clear, including information about who sets the exam questions and who evaluates the student. If performance is assessed by a committee, clarify how the committee is appointed and who sits on it. In the case of written examinations, clarify whether the grading is done by one or more people.

Where there is more than one component to the examination (e.g., an oral exam plus a written exam), it must be made clear how these components are factored into the final grade. For example, make it clear whether each component counts equally, whether the assessment is global, and whether failure on one part of the comprehensive examination (or on one question) results in an overall failure.

Feedback

The assessment and reasons for the decision must be documented and provided to the student in sufficient detail to allow the student to understand the decision, including identifying strengths and weaknesses. (A number of units have developed short forms specifically for this purpose.) In the case of oral examinations, the student should also be given feedback on presentation, logical exposition, ability to answer questions, etc.

In the case of oral exams, units may wish to consider the following: ensure that there is a reasonably detailed written assessment of the student's performance; tape the oral examination; allow the

the appropriateness of the grade. This is so even if the materials in question have already been discussed by the TA with the student.)

Verification

In a case where a student feels that totalling errors have been made in arriving at the final grade, the student can request the instructor to carry out a detailed check that all questions have been marked and that the final grade has correctly been computed on the basis of the term work, final examination, etc.

Rereads

According to the Charter, students have the right, subject to reasonable administrative arrangements, "to an impartial and competent review of any mark" (hereafter "reread").

At the time the request for a reread is made, the student should have already met with the faculty member responsible for the course to review the mark, or made a reasonable attempt to do so.

Rereads can only be requested if a change upwards in the letter grade for the course is possible as a result of the reread. Assignments can only be reread if, together, they account for more than 20% of the course grade.

The reread by a second reader is a review of the mark, not the work assigned. It is the second reader's task to determine whether the original mark is fair and reasonable, not to give the work a totally new assessment.

1. The time limit for requesting a reread is within 30 days after posting of the final marks for the course. However, in the case of work which has been graded during the course and returned to the student, students must indicate in writing to the Graduate and Postdoctoral Studies Office within 5 working days of receiving the graded work their intention to request a reread. This intention must be confirmed within 30 days of the posting of the final marks for the course.

(Note: Material that is returned to a student **cannot be reread** unless arrangements have been made to ensure that the material has not been changed subsequent to the original grading; for example, the student can make a copy for the professor to retain either before handing the material in or immediately upon receiving it back from the instructor or at the point where the professor and student review the work together.

Instructors are strongly advised to write their corrections in red pen and to write comments which help the student to understand the mark assigned.)

2. The request for a formal reread must be made by the student in writing to the Graduate and Postdoctoral Studies Office and should specify the reasons for the request. It should include a 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 (\$35 for an exam, \$35 for a paper, \$35 for one or more assignments, to a maximum of \$105 per course) will be charged directly to the student's fee account after the result of the reread is received. No fee will be charged if there is a change upwards in the letter grade for the course.
3. Administration of the reread is handled by the Graduate and Postdoctoral Studies Office, not by the department. The Office will contact the department to obtain the work to be reread, a list of potential readers, and details of the marking. All communication with the second reader is conducted by the GPSO.

The second reader is given the original assignment, with marginalia, corrections, summary comments and mark intact, as well as any notes from the instructor pertinent to the general nature of the course or the assignment and grading schemes, etc.
4. The student's and the instructor's names are blanked out to reduce the possibility of prejudice and to help meet the requirement of the Charter of Students' Rights that the review be impartial. The rereader's name will not be made known to the student or instructor at any time; the student's name will not be made known to the rereader at any time.

5. The second reader should support his or her assessment with a brief memorandum to the Graduate and Postdoctoral Studies Office. As a result of the reread process, the grade may become **higher or lower or remain unchanged**. The grade submitted by the second reader shall replace the original grade. The reread grade cannot be challenged.

In the case of requests for rereads of group work, all members of the group must sign the request, indicating that they agree to the reread. In the event that members of the group are not in agreement, the written request should indicate which students are requesting the reread and which students do not wish for a reread. In such cases, the outcome of the reread (whether positive or negative) will affect only the students in favour of the reread. Neither the reread grade nor the decision to opt in or out of the reread can be challenged.

6. The new grade resulting from the review will be communicated to the student in a letter from the Graduate and Postdoctoral Studies Office, with a copy to the academic unit.

Prepared by the Committee on Graduate Programs, Supervision and Teaching

Approved by Council of the Faculty of Graduate Studies and Research, May 12th 1995

10.6 Health and Parental/Familial Leave of Absence Policy

A leave of absence may be granted by the Graduate and Postdoctoral Studies Office for maternity or parenting (interpreted according to McGill's "Parental Leave Policy" for non-academic staff) reasons or for health reasons.

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 must make a request for such a leave in writing to their department and submit a medical certificate. T

offers extensive print collections from contemporary fiction and best-selling novels to extensive electronic resources, including early English texts, science and management textbooks and e-journals on topics ranging from philosophy to psychiatry. A wide range of services and a comprehensive Website (www.mcgill.ca/library) link the resources to those who need them for teaching, learning, research and scholarship.

The expert and friendly staff in each branch library assist in locating information for course work, assignments or research topics. Training is provided at all levels to ensure effective access to quality information through efficient database and internet searching, with information skills programs undertaken as part of course curricula. Moreover, Liaison librarians proficient in specific disciplinary areas are on hand to assist students and staff.

Opening hours vary for each library but most are open up to 84 hours per week and, during examination time, the libraries extend their opening hours, with the Humanities and Social Sciences Library open for 24 hours. Assistance is provided by phone, in person and online, including online chat. Hundreds of computers positioned in a secure e-zone environment, can be used for accessing online courses, reading library materials, e-mail, word-processing, preparing assignments and internet searching. Facilities for plugging in laptops are available in a wireless network. There are individual study carrels and group study rooms which can be booked for use. Printing and copying facilities, operated by a card system, are conveniently located in all libraries. Special facilities are available for the vision and hearing impaired.

The Collection contains over 6 million items, with over 1 million e-books. There are 9,000 print journals and almost 38,000 e-journals. Hundreds of databases on topics from art history to zoology guide users to relevant journal articles and research materials. Thousands of videos and sound recordings add visual and auditory enrichment to the collections. All items are listed in the Library's online catalogue. Materials are arranged on the shelves according to the Library of Congress Classification system. Electronic data resources support empirical and statistical research and a digitization program makes available unique scholarly materials on topics like Napoleon and Canadian military history. Copies of textbooks and some items on reading lists are held in Course Reserve collections for short term use. Links are made from the university's online learning management system, WebCT to library resources. Past examination papers, McGill theses and newspapers from all over the world are also available online.

11.2 University Archives

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The Physics Department has two specialized collections which may be viewed by appointment. The Rutherford Museum contains

(a) Falsification of Data

The gathering of data and research materials must be undertaken with honesty and integrity. Researchers should never publish data they know to be false or the result of deliberate acts of falsification.

(b) Plagiarism

Researchers should not knowingly represent the published or un-

under his or her jurisdiction, without prior written approval of the Vice-Principal (Research and International Relations) and the relevant dean.

10. Applicants for contracts or grants whose source is a government military agency shall indicate on the Graduate Studies and Research check list/approval form whether this research has direct harmful consequences. Where the University so requires, the applicants shall furnish a written statement setting out the possibilities of direct harmful application and potential benefits of their research.
11. The primary responsibility for undertaking research conforming to these Regulations rests upon the researcher. The Vice-Principal (Research and International Relations) shall supervise the procedures to be followed by researchers in fulfilling their responsibilities under paragraph 10 respecting research contracts sponsored by government military agencies. The Vice-Principal (Research and International Relations) shall advise the Board of Governors on whether the proposed contract conforms to McGill's guidelines on research. The Board of Governors has final authority

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permit review and approval by the FACC, a completed "Animal Use Protocol" form must be submitted at least two (2) months prior to starting a new project or to the expiration of an approved protocol. Animal Use Protocols are approved for a period of three (3) years and renewed annually. Any change in animal use procedures, research personnel, funding source or title, must be justified in an "Amendment Form" and approved by the appropriate FACC. All teaching projects, and those characterized as "Pain and Discomfort" level D will be referred to the UACC Animal Ethics Subcommittee for further review and approval.

Research funds may be withheld by the University administration for programs that are in non-compliance with both University or CCAC guidelines and policies.

Forms can be obtained at www.mcgill.ca/research/compliance/animal/forms.

Health and Safety Program for Animal Related Activities

Activities involving the care and use of animals in research and teaching pose particular health risks not normally encountered in other activities. The magnitude of risk is dependent on the species involved and the nature of contact (direct or indirect) with animals, their tissues, excreta, body fluids, hair, animal cages and dander. In recognition of its responsibility to provide a safe working environment, McGill University has adopted a policy for protection of faculty, staff, and students from health risks which may result from working with animals or working in animal care activities. The program is optional but strongly suggested for all faculty, staff, and students working with lower species (rodents, fish, frogs, etc...). It is mandatory for all faculty, staff, and students working with non-human primates and sheep.

For further information, consult the following Website:
www.mcgill.ca/research/compliance/animals/occupational.

Training of Animal Users

The CCAC has made training mandatory for faculty, staff, and students involved in animal-research, testing and teaching. Everyone listed in an animal use protocol must successfully pass the on-line McGill University course at www.animalcare.mcgill.ca. Additionally, all personnel who will be handling live rodents and rabbits need



- a) where developed in the course of research sponsored by a third party pursuant to a written agreement with the University, wherein ownership rights are determined by specific terms of the agreement. Unless the terms of the agreement give ownership of the Invention to the third party, such Invention is owned by the University until all rights, such as a license or an option, granted to the third party under the agreement have been exercised or have become extinguished, at which point the Invention becomes jointly owned by the University and the Inventor;
- b) where developed in the course of a consulting agreement between the Inventor and a third party;
- c) where made by an Inventor in a domain outside his or her Field of Academic Research, and where only Incidental Use has been made of University facilities and resources. The rights are then owned by the Inventor;
- d) where made by an Inventor who is a member of administrative and support staff of the University, as a result of activities not covered by his or her Contract of Employment, and where only Incidental Use has been made of University facilities and resources. The rights are then owned by the Inventor;
- e) where the University assigned its rights to the Inventor in accordance with section 8.4 of this policy. The rights are then owned by the Inventor;
- f) where the Inventor assigned his or her rights to the University in accordance with section 7 of this policy. The rights are then owned by the University.

5.5 Specific Exceptions Applicable to Software:

Notwithstanding section 5.2 and subject to section 5.3, the following categories of Software are not jointly owned by the University and the Inventor, and may be owned by the Inventor, the University, a third party, or jointly by two or more parties, as the case may be:

- a) where developed in the course of research sponsored by a third party pursuant to a written agreement with the University, wherein ownership rights are determined by specific terms of the agreement. Unless the terms of the agreement give ownership of the Software to the third party, such Software is owned by the University until all rights, such as a license or an option, granted to the third party under the agreement have been exercised or have become extinguished, at which point the Software becomes jointly owned by the University and the Inventor;
- b) where developed in the course of a consulting agreement between the Inventor and a third party;
- c) where limited to the electronic form of a Work, or where it is ancillary to a Work. The rights are then owned by the Inventor;
- d) works of art, including works of art expressed in multimedia format. The rights are then owned by the Inventor;
- e) in the case of Software which does not constitute Learnware, where developed by an Inventor in a domain outside his or her Field of Academic Research, and where only Incidental Use has been made of University facilities and resources. The rights are then owned by the Inventor;
- f) where constituting Learnware developed by an Inventor in a domain outside his or her Field of Academic Research and Teaching, where only Incidental Use has been made of University facilities and resources. The rights are then owned by the Inventor;
- g) where developed by an Inventor who is a member of administrative and support staff of the University, as a result of activities not covered by his or her Contract of Employment, and where only Incidental Use has been made of University facilities and resources. The rights are then owned by the Inventor;
- h) where the University has assigned its rights to the Inventor in accordance with section 8.4 of this policy. The rights are then owned by the Inventor;
- i) where the Inventor assigned his or her rights to the University in accordance with section 7 of this policy. The rights are then owned by the University;

- j) where constituting learnware developed as part of a Web based course specifically funded by the University, the rights are then owned or apportioned in accordance with a written agreement between the University and the Inventor.

5.6 Disclosure:

Inventors are required to disclose to OTT those Inventions and Software described in sections 5.1, 5.2, 5.3, 5.4(a) and 5.5(a) that they wish to develop for commercial purposes before they are publicly disclosed. This disclosure is to be made to OTT, acting as the delegate of the Vice Principal (Research and International Relations), through a "Report of Invention" ("ROI").

5.7 Moral Rights:

Inventors of Software may wish to defend their moral rights to their work. The University shall then provide appropriate advice and guidance to these Inventors.

6. Commercialization

6.1 Use of the word Inventor:

For the purpose of this section, except where otherwise specified in the text, the word Inventor shall, in cases where there are more than one Inventor, mean the Lead Inventor, or the Founder.

mechanisms and procedures outlined in sections 10 and 11 of this policy.

6.7 Negotiation of Transaction:

Except for cases where the rights have been assigned to the Inventor under section 8 of this Policy, and except in respect of a Founder, OTT shall be responsible for the implementation of the commercialization plan, including, without limiting the generality of the foregoing, the negotiation of any and all agreements with third parties.

6.8 Documentation:

The Inventor shall execute any document reasonably required for the purpose of protecting the Invention or Software and furthering its commercial development.

6.9 Protection of Intellectual Property:

The University may seek patent protection or copyright registration of the intellectual property underlying the Invention or Software as appropriate. It does not seek protection for Inventions or Software that, in its judgment, do not have significant commercial potential. The University ceases to pursue protection of intellectual property where successful commercial development seems unlikely. Except as otherwise provided in this Policy, the cost incurred in the protection of intellectual property is borne by the University.

6.10 Alternate Arrangements:

Whenever appropriate, and provided they do not represent undue risk or generate unreasonable expenses for the University, OTT will consider proposals from the Inventor(s) aimed at lawfully minimizing the impact of income tax legislation for the Inventor(s).

6.11 Expenses:

In circumstances where the rights to the Invention or Software are assigned to an Inventor under section 8.4(c) or 8.4(e), all costs incurred by OTT in the protection of the intellectual property shall be borne by such Inventor, and reimbursed to OTT within a reasonable period of time.

6.12 Learnware:

OTT shall consult the Vice-Principal (Information Systems and Technology) in cases involving Learnware.

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 entity, contracts concerning distribution or receipt of TRM are made through OTT.

6.14 Electronic Research Material:

Electronic Research Material ("ERM") may be distributed for academic purposes under agreements forbidding transfer to third parties. Where ERM is distributed for academic purposes, OTT charges recipients only costs related to the reproduction, shipping, and handling. Where commercial development is envisaged, or where ERM is received from, or transferred to, a commercial entity, contracts concerning distribution or receipt of ERM, including but not limited to, physical transfer on a storage medium, and electronic transfer via fax, telephone or Internet, is made through OTT.

the purpose of protecting the Invention or Software and furthering its commercial development.

8.6 Inventor with a Private-Sector Affiliation:

Where an Invention or Software is developed by an Inventor who is receiving a salary from a private-sector enterprise for the purpose of working at the University, the University will consider licensing the private-sector enterprise to use such Invention or Software on terms that will take into account the University's relative contribution.

9. Revenues

9.1 Sharing of Income:

Net Income derived from the commercialization of Inventions or

11.2.5 The panel thus struck shall be submitted to Senate and to the Board of Governors for approval.

11.2.6 In the event of rejection of the panel in whole or in part by Senate or the Board of Governors, the procedure set out in sections 11.2.1 and 11.2.2 shall recommence.

11.3 Hearing Subcommittee

11.3.1 The Hearing Subcommittee shall be composed entirely of members of the Intellectual Property Appeals Committee and shall include: i) the chair or vice-chair; ii) one member selected by the Vice-Principal (Research and International Relations); and iii) one member selected by the party who has brought an appeal before the Intellectual Property Appeals Committee.

11.3.2 If the Vice-Principal (Research and International Relations) and the party who brought the appeal submit the same name, the chair shall choose that person and one other member of the Intellectual Property Appeals Committee to form the Hearing Subcommittee.

11.3.3 In the event that a vacancy occurs in the Hearing Subcommittee, the party who nominated the member in respect of whom such vacancy occurred shall forthwith nominate a replacement. In the event that the vacancy occurs in respect of the chair or vice-chair, the one shall replace the other, if available; if not available, the replacement shall be chosen by lot from the remaining members of the Intellectual Property Appeals Committee.

11.3.4 The members of the Hearing Subcommittee shall not be informed of the identity of the party who nominated them.

11.4 Conflict of Interest:

No member of the subcommittee shall sit in a particular instance if that person: a) is a member of the same department (or, in a faculty without departments, of the same faculty) as the party who is bringing an appeal; or b) is in a position of conflict of interest.

11.5 Notice of Appeal:

Subject to section 8.3, a party to a dispute may appeal the decision of the Vice-Principal (Research and International Relations) or his or her delegate within 5 working days of receipt of such a decision, by filing a written notice of appeal with the Office of the Secretary-General. Within 10 working days of filing of the notice to appeal, the appellant shall file all relevant documentation and representations with the Office of the Secretary-General. The appellant shall notify the Vice-Principal (Research and International Relations) 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

Automobile Insurance

When using automobiles or similar vehicles for field work purposes, special care must be taken to comply with local laws and regulations. The University is unable to provide insurance for vehicles outside Canada and the United States, even though rented or purchased in the University's name. As a result, insurance coverage must be arranged locally to comply with jurisdictional requirements.

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Mourad El-Gamal; B.Sc.(Ain Shams), M.Sc.(Vanderbilt),
Ph.D.(McG.)
**Associate Vice-Principal (Research and International
Relations)**

Rima Rozen; B.Sc.,PhD.(McG.)
**Associate Vice-Principal (Research and International
Relations)**

Jane Everett; M.A.(Carl.), Ph.D.(McG.) **Dean of Students**



McGill University:
www.mcgill.ca

forms and all supporting documents should be returned directly to the academic department. No documentation should be sent to the GPSO Fellowships and Awards Section. Applications for McGill Graduate Fellowships tenable beginning in September 2007 must be received by McGill departments during the Fall semester of 2006 (check with departments for specific deadlines).

In addition to the McGill Major Fellowships for continuing graduate students, McGill University provides a number of Recruitment Fellowships. There are two types of Recruitment Fellowships. Some are awarded through a specific competition, such as the "Richard H. Tomlinson Fellowships" (section 4.1.1), and the "Max Stern McCord Museum Fellowships" (section 4.1.4, "Discipline-specific Recruitment Fellowships"). Others, such as the "Max Stern Recruitment Fellowships" (section 4.1.2), and the MGSF Fellowships, see "Multidisciplinary" (section 5.1) are allocated to selected academic departments for outstanding applicants seeking first admission to graduate studies at McGill during the following academic year. All applicants for first-time graduate admission are automatically considered by

EXTERNAL FELLOWSHIPS

Information for international students and fellows wishing to study in Canada is available from the Canadian Bureau for International Education (CBIE) Website at www.destineducation.ca.

Recherche sur la Société et la Culture (FQRSC) or Fonds de la recherche en santé du Québec (FRSQ).

EXTERNAL FELLOWSHIPS

number of applications each university may submit, though only one award is offered each year.

EXTERNAL FELLOWSHIPS

Value: \$15,000 Master's level; \$20,000 doctoral level per year (renewable); other awards in specific fields are also available. A special program for health professionals is also available.

Deadline: October 15 directly to FRSQ.

programs supported by the IDRC is also made available as targeted funding for students from developing countries. See the IDRC Website listed below for more details.

- Canadian Window on International Development Awards
- Community Forestry: Trees and People - John G. Bene Fellowship
- Ecosystem Approaches to Human Health Training Awards
- ECOPOLIS: International Graduate Research Awards in Urban Agriculture

Value: Varies depending on the program.

Deadline: Varies depending on the program.

Application: Website: www.idrc.ca

Mailing address: PO Box 8500, Ottawa, ON, Canada K1G 3H9

Street address: 250 Albert Street, Ottawa, ON, Canada, K1P 6M1

Phone: (613) 236-6163, Fax: (613) 238-7230. E-mail: cta@idrc.ca

OFA # 1

JOINT JAPAN/ WORLD BANK GRADUATE SCHOLARSHIPS

Eligibility: These scholarships target students from developing or non-industrialized countries (one cannot reside in an industrialized country for more than one year and students must be nationals of World Bank member countries eligible to borrow). It funds study in a development-related university master's degree program (Ph.D.s and MBAs are not eligible). Students must be applying to such a degree and submit evidence of unconditional admission to a university and evidence of application to at least one other program. Preference is given to applicants with more than one offer of admission. Applicants must also have at least 2 years of recent full-time professional work experience in the applicant's home country or in another developing country after a university degree. Applicants must be between 25 and 45 years of age. As there are additional restrictive eligibility criteria, please read these on the Website before considering application (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.

Website: 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

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 and who do not qualify for an award from public funds. 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.

Application forms may be obtained from the Society's Web page on [Ap TD--5.7\(omainsura\)7uMs-002-0.000ed_ftJd4445\(\)JTJ/T259 TD havationyasonsact\(US\)7 w2\(min4 Tcain4 Tw 1](http://Ap_TD--5.7(omainsura)7uMs-002-0.000ed_ftJd4445()JTJ/T259 TD havationyasonsact(US)7 w2(min4 Tcain4 Tw 1)

require departmental endorsement and signed commitment from the sponsoring company. Research must be in the areas covered by MITACS, a Network of Centres of Excellence in the

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Eligibility: Canadian citizens or Permanent Residents living in the country. Applicants must intend to

students entering any Doctoral degree program, on the basis of academic merit.

Estimated value: \$23,000 each; renewable twice.

Funding: Endowment of \$1,400,000

SIR YUE-KONG PAO FELLOWSHIPS

Established in 2002 by Anna Pao Sohmén, M.S.W. 1969, in honour of her father, Sir Yue-Kong Pao. Awarded by the GPSO to outstanding graduate students on the basis of academic merit.

Preference shall be given first to students from Ningbo University, and, secondarily, to students from the People's Republic of China.

Value: \$25,000.

Deadline: February (Confirm precise deadline on GPSO Website). *(Not offered until further notice.)*

Application: Forms and additional information are available from the GPSO Fellowships and Awards Website at:

www.mcgill.ca/gps/fellowships.

4.1.4 Discipline-specific Recruitment Fellowships

J.W. MCCONNELL FOUNDATION FELLOWSHIPS IN ENVIRONMENT

Established in 2000 by the J.W. McConnell Foundation to outstanding students entering the first year of a Master's degree in the

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(including fee subsidies) must accept the latter and decline the Major. However, in some cases, students may be eligible for “topping-up” with a partial McGill Major Fellowship.

Announcement of Results

The final results of the McGill Major Fellowships competitions are announced in May by letter. The GPSO Fellowships and Awards Section will not give results over the telephone.

Description of Individual Major Fellowships

MAX E. BINZ FELLOWSHIP*

Established from the estate of the late Max E. Binz, who was born in Switzerland, emigrated to Canada in 1930, established a successful textile company, and became a benefactor (of) McGill University.

Eligibility: Awards will be made for graduate studies at McGill in appropriate areas of Arctic studies, including but not necessarily limited to environmental problems within the Arctic regions, Arctic archaeology and prehistory, social problems of the Arctic (development, impact assessment studies, psychology, rural education, etc.), Arctic health and medicine, communications, indigenous Native Peoples (rights, languages and traditional culture), Humanities and Social sciences and Natural Sciences.

Value: \$6,000. Awards are renewable for a second year for Masters studies and up to a fourth year for Doctoral Studies.

Deadline: To the department in which the applicant intends to study, by March 1.

Application: Application information is available from the GPSO Fellowships and Awards Website at:
www.mcgill.ca/gps/fellowships.

**JOHN WILLIAMSON FREDERICK PEACOCK MEMORIAL
SCHOLARSHIP**

Established in memory of Flight Lieu0F

applicable regulations, registers on a full time basis at least for the fall and winter trimesters and pays the tuition fees on the prescribed registration dates.

All French citizens and a limited number of citizens of a country in the list which can be found at www.mels.gouv.qc.ca/ens-sup/ens-univ/droits_scolarité-A_pays-organisations.pdf are eligible for such exemptions.

To apply for an exemption of this type, a student must meet the following conditions: be a citizen of one of the aforementioned countries or governments; be admitted to a program of studies at a post-secondary institution in Québec; be registered on a full-time basis according to the applicable rules at that institution; like any international student, be the holder of a valid passport and residence permit as prescribed by the applicable immigration rules; and, except for French citizens, be recommended for an exemption by the relevant authorities in his or her country-usually the department of education-accordi

DELTA KAPPA GAMMA - DR. MILDRED BURNS AWARD FOR LEADERSHIP IN EDUCATION

Established in 2001 by the Delta Kappa Gamma Society in honour of Dr. Mildred Burns, a retired associate professor of the Faculty of Education. Awarded by the Faculty of Education Graduate Studies Scholarships Committee to a student upon graduation who has completed an M.A. in Educational Studies leadership option, on the basis of academic excellence. If two or more equally qualified students are identified, preference shall be given to a female student. The student should have two or more years of relevant professional experience in the educational field.

Value: Minimum \$500.

KENNETH DOWNES GRADUATE AWARD

Established in 1998 by Kenneth Downes (Class of 1947).

Eligibility: Awarded by the GPSO to an outstanding graduate student.

Value: Minimum \$5,000.

MGSF FELLOWSHIPS AND RECRUITMENT EXCELLENCE FELLOWSHIPS

Eligibility: Applicants should enquire with the academic unit where they are seeking admission or are registered.

Value: Minimum \$5,000.

Fellowship units of \$5,000 are awarded by the GPSO upon nomination by academic units. Fellowship units may be used as a part of a recruitment package; as a top-up for an external fellowship, for a teaching or a research assistantship; in combination to form a larger fellowship; as a dissertation fellowship, in accordance with the academic unit's established priorities.

NORTHERN SCIENTIFIC TRAINING PROGRAM

Eligibility: The Northern Scientific Training Program administers grants to graduate and undergraduate students to help cover the field expenses of working in the North. Program funding is derived from the Department of Indian and Northern Affairs, Ottawa.

Value: Approximately \$3,000, awarded for one year only.

Deadline:

DR. PREMYSL “MIKE” PELNAR ACADEMIC ENRICHMENT AWARD

Established through a generous anonymous donation honouring Dr. Premysl Pelnar, a renowned occupational health physician.

Eligibility: Awarded to graduate students of the Department of Occupational Health to further their training and professional activities in the field of occupational health. Awarded by the Chair of the Department upon consultation with the Faculty.

Value: \$300 - \$600 per year.

F.C. HARRISON FELLOWSHIPS

Established in 1953 by a bequest from the late Francis Charles Harrison, Emeritus Professor of Bacteriology and Emeritus Dean of the Faculty of Graduate studies.

Eligibility: Awarded by the Department of Microbiology and Immunology on the basis of academic merit to full-time graduate students.

Estimated value: \$5,000

GEDDES PRIZE IN BIOMEDICAL ENGINEERING

Dr. L.A. Geddes (B.Eng. 1945; M.Eng. 1953; Hon.D.Sc. 1971) established an annual prize in Biomedical Engineering at the discretion of the Chair of the Department of Biomedical Engineering.

HARRY SHANKMAN SCHOLARSHIPS

A bequest from the late Annette Shankman Rieder in honour of her brother Harry Shankman, M.D., provides annual scholarships for meritorious medical students in the M.D./Ph.D. program. Awarded by the Faculty of Medicine Scholarships Committee, on the recom-

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PERCY HERMANT FELLOWSHIPS IN OPHTHALMOLOGY

This fellowship, established by Mr. Percy Hermant, is divided among the first-year residents in ophthalmology.

Eligibility: Candidates must be graduates of Medicine at McGill or other approved medical schools, must be commencing the study of Ophthalmology at McGill and must be planning to practice this specialty in Canada.

Application: Apply to the Chair, Department of Ophthalmology, McGill University.

PRESTON ROBB FELLOWSHIP

Eligibility: Established in 1994, awarded on a strictly competitive basis by the Montreal Neurological Institute (MNI) to support the training of a clinical fellow to work jointly with one of its basic and one of its clinician scientists. Candidates must have an M.D. degree with clinical studies in neurology or neurosurgery.

Value: Initial appointments, one year to a maximum value of \$25,000.

Deadline: October 15 to MNI for a fellowship commencing July 1 of the following year.

Application: Application forms are available from the Director's Office, MNI.

ROLANDE AND MARCEL GOSSELIN GRADUATE STUDENTSHIPS

Eligibility: Established in 2003 by a bequest from Rolande Dubreuil Gosselin. Awarded by the Faculty of Medicine's Postgraduate Awards Committee to two Ph.D. students undertaking cancer research under the direction of a member of the McGill Cancer Centre.

Value: Minimum \$12,500 each.

SEAN MURPHY AWARD

Established in 1997 from a bequest of Miss Dorothy Brown.

Eligibility: Awarded by a committee of the Department of Ophthalmology to a student in ophthalmic pathology, with a preference for graduate students or postdoctoral fellows.

Value: \$8,000

SIR EDWARD W. BEATTY MEMORIAL SCHOLARSHIPS FOR MEDICAL STUDENTS

Eligibility: Awarded annually to students of any nationality.

Applies to students registered in the M.D., C.M./Ph.D. program.

Value: Two scholarships, not necessarily of equal value.

Application: More information can be obtained by contacting the office of the Associate Dean, Medical Education and Student Affairs.

THEODORE SOURKES PRIZE

Established in 1992 by the Department of Pharmacology and Therapeutics in honour of Professor Theodore Sourkes.

Eligibility: Awarded annually to recognize outstanding contribution by a graduate student in the Department of Pharmacology and Therapeutics, as judged from a paper published in a peer-reviewed journal. Awarded by the Department to a student currently in the program or having graduated within a year.

Value: \$500.

DR. MILTON C. AND NINA E. WILSON AWARD

Established in 1970 by a bequest from the late Milton C. Wilson. The annual income provides support for Undergraduate of Postgraduate students in the Faculty of Medicine who are in Financial need.

5.2.2 Faculty of Medicine: Internal Studentships

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.

Tel: (514) 351-2770, Toll free: 1-800-361-2001, Fax: (514) 351-2658, E-mail: physio@oppq.qc.ca, Website: www.repar.ca.

Eligibility: Awarded by the Department of Plant Science to a graduate student who is conducting research in plant genetics. The award is renewable for one year in an M.Sc. program and two years in a Ph.D. program subject to satisfactory progress reports from the supervisory committee. The recipient must be a citizen or Permanent Resident of Canada.

Application: By departmental recommendation to the Faculty of Agricultural and Environmental Sciences Scholarships Committee.

Value: Minimum \$2,000.

ROTARY CLUB OF MONTREAL INTERNATIONAL AGRICULTURAL AWARD

Established by the Rotary Club of Montreal in 1997 to provide opportunity for international students in agriculture to study at McGill.

Eligibility: Awarded to an international student for graduate level studies at the Macdonald Campus in the area of agriculture and food production. Preference will be given to entering students from Asia, Africa or the Caribbean, who require additional financial assistance and who intend to return to their home country to train others.

Value: \$5,000. Renewable for one year in the M.Sc. program and two years in the Ph.D. program.

Application: By departmental recommendation to the Faculty of Agricultural and Environmental Sciences Scholarships Committee.

SIR VINCENT MEREDITH FELLOWSHIP IN AGRICULTURAL ECONOMICS

Eligibility: Offered to an outstanding student admitted to the graduate program in Agriculture Economics. The recipients of this fellowship may be expected to participate in the teaching program of the department.

Value: \$15,000 (two installments) renewable once on the basis of satisfactory progress.

Deadline: April 1.

Application: Apply to the Program Director (Agricultural Economics) in the Department of Natural Resource Sciences. Entering graduate students should submit their fellowship application with application for graduate studies.

TOMLINSON CENTENNIAL FELLOWSHIP IN FOREST ECOLOGY

Established in 2006 by Dr. Richard Tomlinson in honour of Macdonald Campus' hundredth anniversary and the long career in forest research of his brother, Dr. George Tomlinson. Awarded to an outstanding graduate student working in the area of forest ecology in the Department of Natural Resource Sciences. Awarded on the basis of academic merit by the Graduate and Postdoctoral Studies Office on the recommendation of the Scholarships Committee of the Faculty of Agricultural and Environmental Sciences.

Estimated Value: \$15,000; renewable once at the Master's level, twice at the Doctoral level.

T.W.M. CAMERON AWARD IN PARASITOLOGY

Eligibility: Open to M.Sc. or Ph.D. graduates at the Institute of Parasitology on completion of their degree. Awarded for excellence in parasitology, demonstrated in the course of study at the Institute of Parasitology.

Value: A book prize.

Application: Nominations by a selection committee at the Institute of Parasitology.

VINEBERG FAMILY FELLOWSHIP

Established in 1990 by the family of Gertrude Vineberg to support research on environmental quality.

Eligibility: Awarded by the GPSO on the recommendation of the Executive Committee of the Limnology Research Centre to an outstanding student pursuing graduate studies and research on fresh water pollution, conservation and rehabilitation.

Value: \$8,000, non-renewable.

WALTER M. STEWART POSTGRADUATE SCHOLARSHIP IN AGRICULTURE

From a fund established by the late Walter M. Stewart.

Eligibility: Awarded annually to students studying at the postgraduate level at Macdonald Campus. Preference will be given to graduates of Quebec universities. If there are insufficient suitable candidates at the postgraduate level in a particular year, funds will be awarded to undergraduate students in the Faculty of Agricultural and Environmental Sciences who have achieved high academic standing.

Application: By departmental recommendation to the Faculty of Agricultural and Environmental Sciences Scholarships Committee.

Value: \$5,000 awards, totalling \$25,000.

WILFRED YAPHE AWARD

Established in 1986 by the Department of Microbiology and Immunology, in memory of Dr. Wilfred Yaphe, Professor in the Department from 1966 until his untimely death in 1986.

Eligibility: Granted upon recommendation of the Graduate Committee of the Department of Microbiology and Immunology, to one M.Sc. student and one Ph.D. student who were awarded their degrees during the academic year.

Value: \$250.

5.3.2 Chemical Engineering

THOMAS HALIBURTON HENRY AWARD

Value: Varies.

Application: No Applications necessary. Awarded by the Chemistry Department.

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 an outstanding doctoral student who is in the last six months of the Ph.D. program.

RICHARD T. MOHAN SCHOLARSHIP

Established in 1971 to honour the memory of the late Richard T. Mohan.

Eligibility: Awarded to a post-graduate student proceeding to the Ph.D. degree.

Value: Varies.

Application: No applications necessary. Awarded by the Chemistry Department.

ROBERT ZAMBONI PRIZE(S) IN CHEMISTRY

Established in honour of Dr. Robert Zamboni (Ph.D. in Chemistry 1979), a distinguished Medicinal chemist at Merck Frosst Centre for Therapeutic Research.

Eligibility: Awarded by the Department of Chemistry on an annual basis to graduate students who have demonstrated excellence in research for the dissemination of their research.

Value: Minimum \$300.

T. STERRY HUNT AWARDS IN CHEMISTRY

Value: Several \$400 awards for best demonstrating.

Application: No applications necessary. Awarded by the Chemistry Department.

UDHO, PARSINI, DIWAN AWARD IN CHEMISTRY

Established in 1994 by Mr. G.C. Kakar, Dr. A. Kakar, and Mr. P. Kakar in memory of family members. Awarded on the basis of the best research paper published in the calendar year by a graduate student in the Chemistry Department.

Eligibility: Recipients must be registered at the time of submission of the research paper for the competition.

Value: \$300.

Application: Awarded by the Department of Chemistry in January each year.

5.3.4 Earth and Planetary Sciences

ALEXANDER A. MCGREGOR FELLOWSHIP IN EARTH AND PLANETARY SCIENCES

Established by Mr. Alexander A. McGregor (B.Sc. McGill '48).

Eligibility: Awarded on recommendation of the Department of Earth and Planetary Sciences to an outstanding research student in any field of the earth sciences.

Value: \$10,000.

CARL REINHARDT SCHOLARSHIPS AND BURSARIES IN PHYSICS AND EARTH AND PLANETARY SCIENCES

Established from the estate of the late Carl Reinhardt.

Eligibility: To be used for scholarships or bursaries or in the support of research for graduate st

recommendations of the Chairs and Directors of the academic units in the Faculty, with preference to students conducting environmental research focused on reducing our dependency on non-renewable resources.

Value: \$5,000, renewable once at the Master's level or twice at the doctoral level.

JAMES DOUGLAS FELLOWSHIPS IN MINING ENGINEERING

Eligibility: Awarded annually to suitable graduate students.

Value: Five research and teaching fellowships of \$2,000 each in the Department of Mining, Metals and Materials Engineering endowed by the late Dr. James Douglas.

SIR WILLIAM DAWSON FELLOWSHIP IN METALLURGY

Endowed in memory of the late Sir William Dawson, Principal of McGill University from 1855 to 1893.

Value: Two research and teaching graduate awards of \$6,000 or six undergraduate awards totalling \$12,000 in the Department of Mining, Metals and Materials Engineering.

WILLIAM MORGAN FELLOWSHIPS IN MINING ENGINEERING \$6,000 or \$12,000 in the Department of Mining, Metals and Materials Engineering. **Value:** Two research and teaching graduate awards of \$6,000 or six undergraduate awards totalling \$12,000 in the Department of Mining, Metals and Materials Engineering.

DR. JAMES E. GRIFFITHS AWARD IN MATERIAL SCIENCES

Established in 2001 by Dr. James E. Griffiths, Ph.D. 1959. Awarded by the GPSO upon recommendation of the Faculty of Science to an outstanding incoming graduate student pursuing studies and research in material sciences in the Faculty of Science. Preference will be given to students holding an FQRNT (FCAR) or NSERC fellowship.
Estimated value: \$1,500.

DR. AND MRS. MILTON LEONG GRADUATE STUDENT AWARDS

See complete description under previous heading: Agricultural and Biological Sciences.

DR. AND MRS. MILTON LEONG FELLOWSHIPS IN SCIENCE

See complete description under previous heading: Agricultural and Biological Sciences.

DR. ROBERT G.H. LEE FELLOWSHIP

Established in 1998 by a generous gift from a McGill graduate of Chemical Engineering (Class of 1959), from Hong Kong, in honour of Dr. Robert G.H. Lee, B. Eng. 1947 (Metallurgical Engineering).
Estimated value: \$10,000. Renewable once at the Master's level and twice at the Postdoctoral or Doctoral levels.

Application: Awarded by the GPSO on the recommendation of the Faculty of Engineering to an entering Postdoctoral, Doctoral or Master's student in either Chemical Engineering or Mining and Metallurgical Engineering.

DR. SOO KIM LAN PRIZE IN ARCHITECTURE

Established in 2000 by Arthur C.F. Lau (B.Arch. 1962) and Crystal S.C. Soo Lau (B.Sc. 1962, M.Sc. 1964) in memory of the latter's mother, Dr. Soo Kim Lan. The prize is awarded by a committee of staff of the School of Architecture to an outstanding student completing the second semester of study in the Master of Architecture program.
Value. \$2,000.

DOW-HICKSON FELLOWSHIP

Architecture. Selection is made by a Committee of Staff of the School of Architecture.

Value: \$4,500.

JOHN BLAND SCHOLARSHIP IN ARCHITECTURE

Established in 1998 by a generous gift from a McGill graduate of Chemical Engineering (Class of 1959), from Hong Kong, in honour of Professor John Bland, Director of the School of Architecture between 1941 and 1972. Awarded by a committee of staff of the School of Architecture to a graduating student to support work in China.

Estimated value: \$5,000.

JOHN BONSALL PORTER SCHOLARSHIP

Founded by Dr. W.W. Colpitts (B.Sc. 1899).

Eligibility: Open to full-time graduate students currently registered in a M. Eng. in Civil, Mechanical, or Electrical Engineering, preferably in Civil Engineering.

Value: \$1,000.

Application: Apply to the Dean of the Faculty of Engineering.

Applications from graduates of other universities must be accompanied by certified statements of academic standing and letters of recommendation.

JOHN BRADBURY AWARD IN GEOGRAPHY

Established in memory of John Bradbury, remembered as one who inspired students and colleagues alike with his enthusiasm for understanding the world, and his commitment to improving the working conditions of ordinary people.

Eligibility: Awarded annually to a Master's student in Geography, alternately from McGill (even-numbered years) and Simon Fraser (odd-numbered years), whose thesis topic is related to John Bradbury's research interest in the economic geography of Canadian resource towns and international development, especially economic and social problems of resource town planning, economic restructuring, housing, class conflict and gender and work.

Value: \$1,000.

Application: Awarded by the Department of Geography.

JOSEPH S. STAUFFER FELLOWSHIP

Established in 1992 by a gift from the Joseph S. Stauffer Founda-

the basis of outstanding academic achievement, with consideration for teamwork and leadership qualities. Preference will be

Application: Submitted by Government of candidate's country through the Director of the Meteorological/Hydrological Service, 41, avenue Giuseppe-Motta, 1211 Geneva 20, Switzerland, or the local United Nations Development Programme office.

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5.4 Social Sciences and Humanities

5.4.1 Various Social Science and Humanities Units

ABNER KINGMAN FELLOWSHIPS IN ARTS

Established in 2008 in memory of Abner Kingman, B.A. 1908, to commemorate the 100th anniversary of his convocation. Awarded by the Graduate and Postdoctoral Studies Office to full-time students in a doctoral degree program in Art History, Canadian Studies, Economics, English, History, Philosophy or Political Science. Awarded on the basis of academic merit on the recommendation of the Faculty of Arts. Whenever possible, the Fellowships will be awarded to at least one international student each year.

Estimated value: \$20,000; renewable once.

ALEXANDER MACKENZIE FELLOWSHIP IN POLITICAL SCIENCE

Eligibility: Tenable by a graduate of any accredited university, conditional upon acceptance by the GPSO in the field of Political Science. A certain amount of tutorial and teaching work is required.

Value: One award of \$5,000 and one of \$3,000, possible renewal.

Application: No application is required.

ALLEN OLIVER FELLOWSHIPS IN ECONOMICS AND POLITICAL SCIENCE

Established by Mrs. Frank Oliver, of Edmonton Alta, in proud and loving memory of her son, the late Allen Oliver, M.C., B.A. Lieutenant, 26th Battery, C.F.A., who was killed in action at the Somme on November 18, 1916. Lieutenant Oliver was an honours graduate in 1915 in the Department of Economics and Political Science.

Eligibility: Awarded to the student who stands highest in first class honours in the Departments of Economics and Political Science at the final B.A. examination. The holder is required to pursue studies in Economics and Political Science at McGill or elsewhere.

Value: Two awards of \$2,500 (one in political science; one in economics).

Application: Through the Departments of Economics and Political Science.

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.

BERNARD MICHAEL TARSHIS AWARD

Established in 1986 by family and friends in memory of Mr. Bernard Michael Tarshis, B. Com. (1969). The award commemorates Mr. Tarshis' commitment to the moral, philosophical, and ethical ideals of the Judaic tradition.

Eligibility: Awarded by the Department of History to the most promising student entering the graduate program in History.

Value: \$1,000.

Political Science to an outstanding doctoral student. Preference shall be given to students studying in the field of Canadian Politics.

Value: Minimum \$1,000.

DANIEL Q. MARISI AWARD

Established in 2005 by Mrs. Roberta Marisi, family, friends, and colleagues in memory of Dr. Daniel Q. Marisi, noted sports psychologist.

Eligibility: Awarded by the Department of Kinesiology and Physical Education to a graduate student (Masters or Doctorate) in

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H. ANTHONY HAMPSON AWARD IN THE MCGILL INSTITUTE FOR THE STUDY OF CANADA

Established by family and friends in memory of H. Anthony Hampson (B.A. 1951) who was a leader of McGill capital campaigns and the first President of the Canadian Development Corporation.

Eligibility: The McGill Institute for the Study of Canada will be awarding two H. Anthony Hampson Awards to final year Ph.D. students whose research focuses on some aspects of Canadian Studies and who are actively engaged in writing their thesis.

Value: Minimum \$3,000.

HANS AND EUGENIA JÜTTING FELLOWSHIP

Established in 2000 by Hans Jütting and Eugenia Jütting, friends of McGill University.

Eligibility: Awarded to a meritorious student in German Studies.

Value: Two awards of \$4,000 each.

Application: Awarded by the Department of German Studies.

HERSCHEL AND CHRISTINE VICTOR FELLOWSHIP IN EDUCATION

Established in 2000 by Herschel Victor, B.Com. 1944, for an outstanding graduate student in the Faculty of Education.

Eligibility: Awarded by the GPSO upon recommendation by the Faculty of Education, on the basis of academic merit.

Estimated value: \$10,000; renewable.

HUGH MACLENNAN FELLOWSHIP FOR THE STUDY OF ENGLISH

Established in 1993 from the estate of Hugh MacLennan.

Eligibility: Awarded by the GPSO to students in the Faculty of Arts, with preference being given to the study of English, on the recommendation of the department. No citizenship restrictions.

Value: \$15,000; renewable.

INGRID SEMAAN PRIZE

Established by Professor Khalil I. Semaan in honour of his daughter, a McGill/SUNY student and a class of 1990 graduate in Sociology.

Eligibility: Awarded by the Institute of

Legal Officer, and subsequent generous contributions by Mr. Allen and some of his friends in the legal community.

Eligibility: Awarded by the Faculty of Law to a student entering the first or second year of graduate studies in law, preference being given to doctoral students and/or students specializing in international business law.

Estimated value: \$10,000.

GUALTIERI-DORAN AWARD

Established in 1999 by Dr. Domenico John Doran in memory of his aunt Rosa Bianca Gualtieri, B.A. '48, B.C.L. '51, and his sister, Cheryl Rosa Teresa Doran LL.B/B.C.L. '84 who practised law together.

Eligibility: Awarded by the Faculty of Law, on the basis of Academic Merit, to a graduating student who wishes to pursue further studies in law or a related discipline. Special consideration will be given to students who demonstrate financial need and have made a distinctive contribution to the profession of law or the wider community.

Value: \$1,750.

JOHN AND EDMUND DAY AWARD FOR GRADUATE STUDIES IN LAW

Established in 1996 by a generous bequest by Isabelle Day in memory of her grandfather, Edmund Thomas Day and great-grandfather, John James Day, both graduates of the Faculty of Law.

Eligibility: Awarded by the Faculty of Law to a graduate student in Law.

Value: \$2,000 - \$5,000.

Application: None; on the basis of the candidate's application for admission to graduate studies in Law.

MACDONALD GRADUATE FELLOWSHIPS

Two Macdonald Graduate Fellowships, founded by the will of the late Sir William Macdonald, will be awarded by the Graduate and Postdoctoral Studies Office, on the recommendation of the Faculty of Law to two meritorious students, admitted to one of the Faculty's thesis graduate programs, in order to enable such students to pursue graduate studies in law at McGill. Preference will be given to students intending to study at the doctoral level. In the case of doctoral students who receive the fellowship, it may be renewed for a second year subject to the student maintaining good standing in the program and obtaining a highly satisfactory progress report on the thesis.

Value: \$10,000 each.

O'BRIEN FELLOWSHIP FOR HUMAN RIGHTS AND LEGAL PLURALISM

Established in 2005 by David O'Brien, B.C.L. 1965, for outstanding graduate students studying in the area of Human Rights and Leg FOR(then 2005 by David O' TwLeglu)7.4(st5 bmat Mclty of LaL)0.4(O)-7.4(to)-7Tf0 -1.125

Application: No application is necessary; recipients are to be selected by the Faculty of Management Scholarships Committee.

ASSOCIATION DES M.B.A. DU QUÉBEC AWARD

This prize will be awarded to a graduating student on the basis of academic performance, and proven leadership both inside and outside the classroom.

Value: \$1,000.

C. DOUGLAS MELLOR PRIZE

Established in 1981 by the Montreal-based Chartered Accountancy firms.

Eligibility: Awarded to a student in the Graduate Diploma Program in Public Accountancy whose academic record is judged to be outstanding among those who graduate during the academic year.

Value: \$1,000.

DONALD E. ARMSTRONG AWARD

Established by Seymour Schulich (B.Sc. 1961, M.B.A. 1965) and Lawrence Bloomberg (M.B.A. 1965) in 1996 in honour of Donald E. Armstrong, founding Director of McGill's Graduate School of Commerce.

Eligibility: Awarded by the Desautels Faculty of Management Scholarships Committee on the basis of high academic standing, proven leadership skills and active involvement in the community to a student in the M.B.A. program. Candidates must submit an application and financial form.

Value: Minimum \$3,000.

Application: For further information contact the M.B.A. Office, Faculty of Management.

DR. PETER BRIANT AWARD FOR ENTREPRENEURSHIP

Established by Seymour Schulich in memory of Professor Peter Briant, a teacher and mentor to many in the Desautels Faculty of Management. Awarded to Canadian students in the first year of the full time MBA program by the Desautels Faculty of Management. This award will be granted on the basis of entrepreneurial experience, potential and general scholastic ability. Candidates must submit an application, a statement providing evidence of entrepreneurial potential, a curriculum vitae and financial form.

Estimated value: \$4,000.

EDWARD BALLON GRADUATE AWARD IN MANAGEMENT

Established in 1998 by the John Dobson Foundation in honour of Edward M. Ballon (B.A. 1947), a distinguished graduate who, while a student at McGill, was captain of the McGill Track Team, President of the Students' Society of McGill and President of the Students Athletics Council. He later became President of the McGill Graduate Society and a member of the Board of Governors of the University.

Eligibility: Awarded by the Desautels Management Scholarships Committee to a full-time student entering the M.B.A. program on the basis of high academic standing, demonstrated leadership skills through involvement in extra-curricular activities and participation in a competitive sport. Candidates must be Canadian citizens. Renewable for a second year provided the holder maintains an academic standing satisfactory to the Committee.

Value: \$2,000-\$2,500

Application: Applicants must submit a one-page statement detailing their involvement in extra-curricular activities and participation in a competitive sport. The statement must be submitted at the time of application to the program.

EXECUTIVE DEVELOPMENT INSTITUTE (E.D.I.) BURSARY

Eligibility: Awarded on the basis of work experience and financial need to Canadian students entering the second year of the full-time MBA program from the part-time MBA program.

Value: Up to \$2,000

Application: Awarded by the Desautels Faculty of Management Scholarship Committee upon recommendation by the Student Aid Office. Candidates must submit a curriculum vitae and a financial aid form.

H.E. HERSCHORN GRADUATE SCHOLARSHIP

Eligibility: Established in 1965, phed S -1.CrsA 6TD0ne.Canadian students enTJ

**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 Desautels 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 pursuing research in the area of corporate social responsibility. Standing in the program to be evaluated by the Ph.D. Program Director.

Value: \$10,000, renewable once, based on satisfactory standing in the program.

PILARCZYK FELLOWSHIP

First awarded in 1997, this fellowship will be awarded every sec-

HERBERT A. MORSE MEMORIAL SCHOLARSHIP

Established in 1990 through a bequest from Dorothy E.M. Fairbairn in memory of her father.

Eligibility: Awarded to an outstanding student in the Faculty of Music.

Value: Approximately \$3,000.

HERBERT C. CALEY AWARD

Eligibility: Preference given to a student specializing in the performance or history of Baroque and early music. Open to both graduate and undergraduate students. Established by Mrs. Maude Caley in memory of her husband who died December 24, 1980.

Value: Approximately \$500.

JOHN R.E. BRADLEY PRIZES

Established in 2006 through a bequest from John R.E. Bradley, Sound and Lighting Technician at the Church of St. Andrew and St. Paul and a Montreal sound engineer whose career spanned from the 1930's to the 1990's. Awarded by the Schulich School of Music Scholarships Committee to outstanding graduate students in the Sound Recording Program.

SCHULICH SCHOLARSHIPS

Eligibility: Established in 2005 through an exceptional gift by
Canadian Philanthropist Seymour

MARK AND MILDRED GOLDENBERG FELLOWSHIP IN SOCIAL WORK

Established through a bequest in 2007 in memory of Mildred Heller Goldenberg, B.A. 1941, M.A. 1942, and Mark E. Goldenberg, B.A. 1934, M.S.W. 1967, Awarded by the School of Social Work on the basis of academic merit to a student entering a Doctoral program in social work.

Estimated Value: \$2,500

MIRIAM AND E. MICHAEL BERGER FELLOWSHIP

Eligibility: Awarded annually by the School of Social Work to a graduate student of the School whose area of practice or research is in the field of community organization and/or social policy and who demonstrates academic competence and financial need.

Value: Varies.

MYER KATZ FELLOWSHIP IN SOCIAL WORK

Established in 1986 by contributions from former students, colleagues and friends, the School of Social Work Alumni Committee, and the McGill Advancement Program, on the occasion of the retirement of Professor Myer Katz from the Directorship of the School of Social Work.

Eligibility: Awarded annually to a student pursuing graduate studies related to clinical social work practice.

Value: Varies.





POSTDOCTORAL FELLOWSHIPS

within a cooperation programme between French and Canadian laboratories. Contact should be made with the host institution prior to making the application (a letter of invitation is required) Candidates must be Canadian citizens and have received their Ph.D. in the last three years.

Value: Monthly stipend of 1680 euros plus medical insurance and cost of travel.

Deadline: January 31.

disciplines so that they may carry out long-term research projects in Germany. There are no quotas with respect to country of origin or academic discipline.

Value: The Humboldt Research Fellowship Program provides for a stay of six to 12 months in Germany for research. Monthly stipends range from 2,100 Euro to 3,000 Euro; special allowances are available for accompanying family members, travel expenses, and German language instruction.

Deadline: Applications may be submitted at any time.

Application: Information and applications may be obtained from: Alexander von Humboldt Foundation, U.S. Liaison Office, 1012 14th Street NW, Suite 1015, Washington, DC 20005, Telephone: (202) 783 1907, Fax.: (202) 783 1908

E-mail: avaa@verizon.net or info@avh.de

Website: www.humboldt-foundation.de

INSTITUT DE RECHERCHE EN SANTÉ ET EN SÉCURITÉ DU TRAVAIL DU QUÉBEC (IRSST) - BOURSES POSTDOCTORALES DE RECHERCHE

Graduate scholarships are intended for master's, doctoral and postdoctoral candidates whose research program deals specifically with the prevention of industrial accidents and occupational diseases or the rehabilitation of affected workers.

Eligibility: Candidates must be Canadian citizens or Permanent Residents, domiciled in Quebec. Selection will take into account the relation of the proposed project to the priorities of the IRSST.

Value: \$27,000 - \$36,000.

Deadline: First Tuesday in November.

Application: Information regarding specific application requirements and application forms are available from the Institut de recherche en santé et en sécurité du travail du Québec, 505 boul. de Maisonneuve ouest, Montréal, Québec H3A 3C2. Telephone: (514) 288-1551, ext. 344. E-mail: bourses@irsst.qc.ca. Website: www.irsst.qc.ca.

OFA #463

INSTITUT NATIONAL DE LA RECHERCHE SCIENTIFIQUE (INRS) POSTDOCTORAL FELLOWSHIPS

Eligibility: The INRS offers postdoctoral fellowships to researchers wishing to join research teams within one of its four centres (affiliated with the Université du Québec located throughout the province). These carry out research on: culture and society, water, energy and materials, geological sciences, oceanography, health, telecommunications and urban planning. Candidates must have either recently completed their doctoral studies or be in the final stages.

Value: Approximately \$26,000 (renewable).

Deadline: See INRS Website - www.inrs.quebec.ca

Application: Information regarding specific application requirements available from the INRS, 490, rue de la Couronne, Québec, Québec G1K 9A9. Telephone: (418) 654-4677 Fax: (418) 654-2525. E-mail: communications@adm.inrs.ca. Website: www.inrs.quebec.ca

OFA #411

INTERNATIONAL DEVELOPMENT RESEARCH CENTRE (IDRC) POSTDOCTORAL RESEARCH AWARDS

The mandate of the International Development Research Centre (IDRC) is to support research that meets the priorities of developing countries. Therefore, most of IDRC's training funds and awards are granted to individuals doing research directly related to, and in, the context of IDRC's programs and projects.

Value: Varies

Deadline: See IDRC Website - www.idrc.ca

JSPS POSTDOCTORAL FELLOWSHIPS FOR FOREIGN RESEARCHERS

This Japan Society for the Promotion of Science (JSPS) fellowship was established to assist foreign researchers wishing to conduct research in Japan.

Eligibility: Candidates must be a citizen of a country that has dip-w

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NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL (NSERC) POSTDOCTORAL FELLOWSHIPS

Eligibility: Candidates must be Canadian citizens or Permanent Residents who have recently obtained, or are about to obtain a Ph.D. degree (in a field of research supported by NSERC). Funding is available to undertake postdoctoral research in one of the fields supported by NSERC. Awards are tenable at a Canadian university, provincial research council, as well as universities and research councils abroad.

Value: \$40,000 per year for two years.

Deadline: To NSERC by October 15.

Application: Fellowship guide and application forms are available only on the Web. Further information available from the GPSO Fellowships and Awards Section or directly from Scholarships and International Programs, NSERC, 350 Albert Street, Ottawa, Ontario, K1A 1H5. Tel: (613) 996-3762, www.nserc.ca.

OFA # 375

NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL (NSERC) VISITING FELLOWSHIPS IN CANADIAN GOVERNMENT LABORATORIES (VF)

Eligibility: Candidates must have received a Ph.D. within the last five years. There are no citizenship restrictions but there are quotas. Please consult the NSERC Website. The fellowship is tenable in a number of Canadian government laboratories in the areas of agriculture, communications, environment, health, fisheries, etc.

Value: \$43,724 per year, renewable for up to two more years.

Deadline: No deadline.

Application: Fellowship guide and application forms are available only on the Web. Further information available from Visiting Fellowship's Office, NSERC, 350 Albert Street, Ottawa, Ontario, K1A 1H5. Tel: (613) 996-3762, www.nserc.ca.

OFA # 374

ORGANIZATION OF AMERICAN STATES (POSTDOCTORAL) FELLOWSHIPS

Eligibility: Offered to Canadian citizens and Permanent Residents for postdoctoral research in any field except medicine, in any of the OAS member countries.

Value: Covers monthly living allowance, health insurance, tuition and related fees, study material, plus return travel for one year (renewable).

Deadline: End of January - see Website for exact date.

Applications: Can be obtained on the Web or from the OAS Program Officer, Canadian Bureau for International Education, 220 Laurier Avenue West, Suite 1550, Ottawa, Ontario, K1P 5Z9, (613) 230-4820, www.scholarships-bourses-ca.org/oas/oas-en.html or the GPSO Fellowships and Awards Section.

OFA # 91

PROGRAMMES DE BOURSES D'EXCELLENCE POUR ÉTUDIANTS ÉTRANGERS (VOLET 2)

Eligibility: The program is open to foreign postdoctoral candidates in all disciplines who are not Canadian citizens or permanent residents of Canada. Fellows must start in the program for which they receive funding between May and January following the offer. Candidates already in a Quebec university (e.g., already at McGill) are eligible to apply. Due to the small number of nominations allowed per university, the GPSO will only consider applicants who have an overall First Class academic record (equivalent to 3.7/4.0 and up).

Value: \$35,000 for one year, non-renewable.

Deadline: August 1: Students, with the help of their supervisors, must submit the McGill pre-selection form. If nominated by the university (each Quebec university can nominate four candidates), the student may have to submit additional documentation by the agency deadline of November 15th.

Application: Application information is available on the McGill GPSO Website at www.mcgill.ca/gps/fellowships or on the FQRNT Website at www.fqrnt.gouv.qc.ca.

SHASTRI INDO-CANADIAN INSTITUTE POSTDOCTORAL RESEARCH FELLOWSHIPS

Eligibility: Candidates must be Canadian citizens or Permanent Residents and have completed a Ph.D. Affiliation with an Indian institution is not a prerequisite. Usually tenable in the social sciences and humanities.

Value: Rs. 16,000 living expenses per month and up to Rs. 4,000 per month for research, plus travel to and from India for 3 to 12 months.

Deadline: See Website.

Application: Information regarding specific application requirements and application forms are available from the Shastri Indo-Canadian Institute, 1402 Education Tower, 2500 University Dr. N.W., Calgary, Alberta T2N 1N4. Tel:(403) 220-7467.

E-mail: sci@ucalgary.ca Website: [GPSOlg7.7\(g\(0 Tw\[\(EI FOR\(0.0017 TcTc\[041](http://GPSOlg7.7(g(0 Tw[(EI FOR(0.0017 TcTc[041)

with an institution in the host country and are responsible for securing such affiliation.

Eligibility: Open to recent Ph.D.s (less than three years), citizens of one of the designated countries (excluding Canadian dual nationals): Germany, Spain, Italy, United Kingdom, Belgium, France, Switzerland, Australia, Denmark, United States, Japan, Norway, Finland, Sweden, Israel, South Korea. Priority is given to: biotechnology, information technologies, environment, space, health and new materials.

Value: \$25,000 USD for a full academic year (nine months) or \$12,500 for one semester. Basic health insurance is also provided.

Deadline: November 15.

Application: Information and application materials available from The Canada-U.S. Fulbright Program Foundation for Educational Exchange between Canada and the United States of America, 2015-350 Albert Street, Ottawa, Ontario K1R 1A4, Tel: (613) 237-5366, Fax: (613) 237-2029; E-mail: info@fulbright.ca;

**CAMBRIDGE CANADIAN TRUST – GRADUATE
SCHOLARSHIPS**

The Cambridge Canadian Trust offers a number of scholarships each year to Canadian graduates for graduate study at the University of Cambridge. These include: Ph.D. scholarships (Canada Cambridge Scholarships, First Canadian Donner Foundation Research Cambridge Scholarships, Kenneth Sutherland Memorial Cambridge Scholarship, UK Commonwealth (Cambridge) Scholarships, William & Margaret Brown Cambridge Scholarship, Tid-

program will not cover typing or reproduction of theses, equipment, computer time and supplies.

Value: Awards up to \$5,000.

Deadlines: April 17, October 17, January 16 (If deadline falls on a weekend or public holiday, the next working day applies)

Application: Further details and application forms are available from McGill University, Research Grants Office, James Administration Building, Room 429. Tel: (514) 398-3790 or Website: www.mcgill.ca/rgo/internal

INTER AMERICAN DEVELOPMENT BANK (IDB) SCHOLARSHIPS

Eligibility: The IDB administers two scholarship programs: the Japan Scholarship Program for graduate students in development-related fields, and scholarships to attend social development courses offered by INDES. Candidates must be a national of one of IDB borrowing member countries. For the Japan Scholarship Program, candidates must hold a bachelor's degree or its equivalent in the social sciences, business or public administration, or another development-related technical discipline, have a superior academic record, at least 2 years work experience in a development field, and be currently enrolled in a Master's degree program in the social sciences, business or public administration, or another development-related technical discipline (except law and medicine), in a university of a member country other than the country of origin or residence. Applicants must intend to return to their home country after completion of study and work for at least two years in order to apply enhanced knowledge and skills toward helping accelerate economic and social development.

The Japan-IDB Scholarship Program has the following three sub-programs: the Northern Hemisphere Program (at Universities located in the North America, Central America and Europe), the Southern Hemisphere Program (at Universities located in the South America countries), and the Special Program for Studies at Japanese Universities for students entering a Master's program, in English, at any university located in Japan.

Value: INDES scholarships cover participation, required materials and texts, health and life insurance, a roundtrip airline ticket between the city of residence and Washington D.C., and lodging. The Japan-IDB scholarship provides benefits covering full tuition, university medical and accident insurance, an installation allowance, a monthly subsistence allowance, a book allowance, and economy class travel. The scholarship is effective as of the start of the academic year and does not cover any expenses during the summer.

Deadline: Varies depending on scholarship and sub-program. See the Website below for more details.

Application: Forms and additional information are available on the IDB's scholarship page: www.iadb.org/aboutus/v/scholarships.cfm?language=English

The Bank's home page is www.iadb.org and the site is navigable in English, French, Spanish or Portuguese.

Headquarters: Inter-American Development Bank, Japan-IDB Scholarship Program, 1300 New York Avenue, NW, Stop W-404, Washington, D.C. 20577, United States of America

OFA # 51

INTERNATIONAL DEVELOPMENT RESEARCH CENTRE (IDRC) FELLOWSHIPS AND RESEARCH FUNDING

Eligibility: The IDRC administers a number of fellowships and funding opportunities for students conducting research in development-related disciplines. As there are several programs targeting several different areas, students are advised to consult the IDRC Website to see if such funding opportunities are applicable to their research. As the programs are related to development, many support research abroad. Those included here support some form of research outside of Canada or are available to international students from developing countries. Programs available to Canadians and permanent residents, as well as those that are more topic-based and do not necessarily include travel and research abroad are listed above, under the IDRC entry in the External Fellowships section (Section 3). Each

of the programs supported by the IDRC is also available as targeted funding for students from developing countries. See the IDRC Website listed below for more details.

"IDRC Doctoral Resear

of an affiliated institution or research associate is essential. Such affiliation must be demonstrated as part of the application (excluding Short-Term Researchers).

Value: 310,000 - 370,000 Japanese Yen monthly allowance, plus medical insurance, airfare, tuition fees and research allowance.

Short-term researchers are entitled to airfare, a 17,000 Yen daily stipend and a 5,000 Yen daily research allowance.

Deadline: December 1, though applying earlier is encouraged.

Application: Residents of Ontario residing outside the National Capital Region should apply through The Japan Foundation, Toronto. Residents of the National Capital Region should apply through the Embassy of Japan, Ottawa. Applicants from provinces outside Ontario should contact the nearest diplomatic mission. For more information about programs, see the PDF available on the Japan Foundation's Website at:

www.japanfoundationcanada.org. For application forms, see your local Japanese consulate (unless you live in Ontario, but not Ottawa), the Japan Foundation Toronto Office, 131 Bloor Street West, Toronto, Ontario, M5S 1R1. Tel: (416) 966-1600, the Consulate General of Japan, 600 de la Gauchetière Street West, Suite 2120, Montreal, Quebec, H3B 4L8. Tel: (514) 866 3429.

E-mail: jftor@interlog.com

Website: www.japanfoundationcanada.org

OFA # 219

JAPANESE GOVERNMENT 65interlog.co7 Tw[00 g-brg4.16g-n)7.4(ter)YTd03 Tc-0.0257 Tw[Dg

for Co-operation and Exchange in Educational and Cultural Matters.

Value: \$10,000 per year for Master's; \$12,000 for doctoral level. Renewable, but recipients must apply to have the fellowship renewed.

Deadline: January 31.

Application: Information and application materials available from the Ontario Quebec Exchange Fellowship Program Website at: <http://osap.gov.on.ca>. The Website is also navigable in French - proceed from the homepage to the Other Bursaries, Fellowships, Grants, and Scholarships menu.

Ministry of Training, Colleges and Universities Student Support, Fellowships, P.O. Box 4500, 189 Red River Road., 4th Floor, Thunder Bay, Ontario P7B 6G9. Tel: (807) 343 7257 (Toll-free: 1-800 465-3957)

OFA # 399

ONTARIO GRADUATE SCHOLARSHIP PROGRAM

Eligibility: Canadian citizens or Permanent Residents, or holders of a student visa at the time of application, with at least an A-average in the last two years of study, for graduate studies (Master's or doctoral level) at an Ontario university.

Value: Awarded for one academic year, which may consist of either two or three terms. Applicants receive \$5,000 per term.

Deadline: November 15.

Application: There are different application procedures, depending on your status as an applicant currently enrolled as full-time or part-time students in an Ontario university; applicants who graduated from an Ontario university at any time between November 15, 2005, and November 15, 2006, and are not currently registered; and applicants who are not currently enrolled in an Ontario university. Read the "How to Apply" section of the OGS Website (http://osap.gov.on.ca/eng/not_secure/OGS.htm) carefully. The Website is also navigable in French from the homepage, <http://osap.gov.on.ca>.

Information and application forms available from the Ontario Graduate Scholarship Program, Student Support, Ministry of Education and Training, P.O. Box 4500, 189 Red River Road, 4th floor, Thunder Bay, Ontario P7B 6G9. Tel: (807) 343-7257 (Toll-free: 1-800-465-3957), osap.gov.on.ca.

OFA # 398

ORGANIZATION OF AMERICAN STATES FELLOWSHIPS

Eligibility: Offered to Canadian citizens and Permanent Residents for graduate study and/or postdoctoral research in any field except the medical sciences and related areas, and introductory language studies. They are tenable in any of the 33 OAS member countries, with the exception of the country where the candidate is a citizen or a permanent resident.

Value: Academic Studies Fellowships may provide funds for university tuition and fees, international travel, health insurance, living expenses, and for the purchase of books or other study materials. These benefits will vary depending on the type of fellowship awarded. The OAS General Secretariat shall establish rates of allowances and ceiling of funds provided, taking into consideration the country of study. These are tenable for between 3 months and 2 years.

Deadline: For submitting online application is January 26.

Applications: Application information is available online at: www.scholarships.gc.ca. See the OAS Application form page at: www.scholarships.gc.ca.

OFA # 91

OVERSEAS RESEARCH STUDENTS (ORSAS) AWARDS

Eligibility: Awards are offered on a competitive basis to overseas students for a higher education degree at certain academic institutions in Britain. All fields of study are supported.

Value: Each award covers the difference between the tuition fee for a British graduate student and the "full-cost" fee for an overseas graduate student. Awards are renewable twice and can, therefore, be held for a maximum of three years.

Deadline: Deadline depends on the institution to which one applies.

Application: Applications should be obtained from the Registry or Scholarships Office of the British academic institutions concerned, or from ORSAS at orsas@hefce.ac.uk.

Website: www.orsas.ac.uk

OFA # 488

PHILIP F. VINEBERG TRAVELLING FELLOWSHIP IN THE HUMANITIES

Established in 1988 by his family inds

are

Deadline:

Bombardier (J. Armand) Internationalist Fellowships. 110
Bourke (Dr. E.T. & Mrs. Marjorie) Award 80
Bourse d'Excellence en Langue et Littérature Françaises
 Geneviève de la Tour Fondue 91
Bourse de Recherche Anne Lang Etienne. 81
Bourses de Recherche en milieu clinique et Bourses

Planning	90	Graupe (Werner) Memorial MMM Fellowship.	90
Farley (David) and Norbert Schoenauer Fellowship in Architecture	90	Graw Smythe (Barbara) Award In Library And Information Studies	96
Fattal, Leon and Suzzane Graduate Fellowships in Engineering	89	Greenshields (Chief Justice R.A.) Memorial Scholarship.	95
Fetherstonhaugh (H.L.) Book Prize.	88	Griffiths (Dr. James E.) Award in Material Sciences	88
Financial Assistance for Library Education	97	Griffiths (Ma(. .)-oa4.	72
Finley (Samuel) National Bursary	101		
Fischer (Lewis A.) Memorial Bursary in Agricultural Economics	84		
Fish (Judy) Graduate Award in Inclusive Education.	93		
Fleishman (Syra Deena Tarshis) Bursary	97		
Fond de la Recherche en Santé du Québec (FRSQ).	67		
Fondation Desjardins Subvention de recherche.	67		
Fondation Desjardins, Bourses de maîtrise et de doctorat – programme Girardin-Vaillancourt	67		
Fondation du prêt d'honneur bourse - projet	67		
Fondation du prêt d'honneur bourses de recherche postdoctorale.	106		
Fonds de la Recherche en Santé du Québec (FRSQ) Postdoctoral Training Fellowships.	106		
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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 eighteen months.

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

2.6 Courses

Students preparing to register should consult the Web at 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.

ANAT 541 CELL AND MOLECULAR BIOLOGY OF AGING. (3) (Winter) (2 hours lecture, 2 hours conference) (Prerequisites: ANAT 212 (or BIOC 212 or BIOL 201), ANAT 261, ANAT 262, or permission of instructor.) (Corequisite: BIOL 301.) Complex aging process, including theories and mechanisms of aging, animal model systems used to study aging, age-dependent diseases, for example, Alzheimer's, osteoporosis, and cancer, and age-related diseases, for example, Werner's syndrome and dyskeratosis congenita.

ANAT 663D1 (4.5), ANAT 663D2 (4.5) HISTOLOGY. (Students must register for both ANAT 663D1 and ANAT 663D2) (No credit will be given for this course unless both ANAT 663D1 and ANAT 663D2 are successfully completed in consecutive terms)

Students registered in the Department of Animal Science may develop programs in conjunction with other units at McGill, for example the Nutrition and Food Science Centre or the School of Dietetics and Human Nutrition.

Each student has an advisory committee composed of the thesis supervisor and at least two other faculty members.

3.3 Admission Requirements

M.Sc. (Thesis)

Candidates are required to have either a Bachelor's degree in Agriculture or a B.Sc. degree in an appropriate, related discipline with an equivalent cumulative grade point average of 3.0/4.0 (second class-upper division) or 3.

A minimum of 45 credits and completion of an acceptable thesis is required for the M.Sc. degree; 14 credits are for course work and 31 credits for the thesis (ANSC 680, ANSC 681, ANSC 682, and ANSC 683). Exceptional M.Sc. students may be considered for Ph.D. status after one full year in the Department.

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)**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)

3.6 Courses

Students preparing to register should consult the Web at 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.

ANSC 504 POPULATION GENETICS. (3) (Fall) (3 lectures) Considerations of the basic principles of Mendelian genetics dealing with the genetic properties of populations and extension to the simultaneous segregation of genes at many loci, polygenic inheritance and an introduction to quantitative genetics, including mechanisms of transmission, segregation, linkages between genes and the effect of natural and artificial selection.

ANSC 506 ADVANCED ANIMAL BIOTECHNOLOGY. (3) (Prerequisites: AEBI 202, ANSC 400.) New concepts and applications of animal biotechnology in agriculture, biomedicine, environmental preservation.

ANSC 508 TOOLS IN ANIMAL BIOTECHNOLOGY. (3) (Fall) (Restriction: Permission of instructor.) Essential laboratory techniques in animal biotechnology: extraction of nucleic acids, PCR technology, gel electrophoresis, construction of gene expression vectors, transformation of bacterial and mammalian cells and monitoring gene expression using reporter genes.

ANSC 551 CARBOHYDRATE AND LIPID METABOLISM. (3) (Winter) (3 lectures) Comparative aspects of nutrition and metabolism of carbohydrate and lipid from the cellular level through the multi-organ of the whole organism. Main topics will include biothermodynamics, calorimetry, cellular metabolism and functions of carbohydrate and lipid, digestion, absorption and utilization of dietary carbohydrate and lipid.

ANSC 552 PROTEIN METABOLISM AND NUTRITION. (3) (7 0 TDn48 403.56 367.4509)

improvements using the Internet. Individual case studies and familiarisation with cutting-edge computer applications.

ANSC 605 ESTIMATION: GENETIC PARAMETERS. (3) (3 lectures) (Given in alternate years.) General methods for the estimation of components of variance and co-variance are considered, with specific emphasis given to their application to heritability, repeatability and genetic correlation estimation.

ANSC 606 SELECTION INDEX AND ANIMAL IMPROVEMENT. (3) (3 lectures) Selection index principles and their application to live-stock improvement are considered, with emphasis on the estimation of genetic breeding values for single and multi-trait selection.

ANSC 611 ADVANCED REPRODUCTIVE PHYSIOLOGY. (3) (2 lectures, 1 seminar) (Given in alternate years.) Discussion of current concepts relating to male and female reproduction, primarily of domestic animals and avian species. Topics include: the regulation of gonadal function and sexual behaviour, pregnancy and parturition, and methods of assessing and/or improving reproductive efficiency.

ANSC 622 SELECTED TOPICS IN MOLECULAR BIOLOGY. (3) (1 lecture and 2 seminars) (Prerequisite: MICR 500 or permission of instructor) Key examples of applications of molecular biology to the study of animal physiology and animal genetics will be drawn from the current literature and discussed in depth. The course has a dual purpose. It will familiarize students with current events at the forefront of molecular biology and will teach them how to read and critically evaluate research publications.

ANSC 630 EXPERIMENTAL TECHNIQUES: ANIMAL SCIENCE: MACRO. (3) (1 lecture, 1 lab) Lectures and laboratories dealing with animal experimentation. Emphasis on the design and conduction of animal studies, selection of experimental animals, chemical and biological assays, statistical analysis, interpretation of data and preparation of

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Anthropology Complementary Course List**M.A. IN MEDICAL ANTHROPOLOGY**

With the medical anthropology program, candidates will apply for permission to take either of two courses of study, M.A. thesis or non-thesis.

M.A. in Medical Anthropology (Thesis) (48 credits)

Required Courses (42 credits)

Complementary Courses (6 credits)

M.A. in Medical Anthropology, (Non-Thesis) (45 credits)

Required Courses (45 credits)

Special M.A. with Research Paper

This course of study is taken by students who lack a strong academic background in anthropology. These students are required to take eight courses (24 credits), including two seminars in Medical Anthropology (HSSM 605, ANTH 615) and at least five additional graduate courses in anthropology (Theory 1 and Research Methods are recommended). In addition, students are required to write a research paper.

Ph.D. Degree

The purpose of the Ph.D. program is to enable a student to make an original contribution to anthropological research in the form of a doctoral thesis. This must be based on a comprehensive understanding of prior research relevant to the topic investigated.

All requirements for the M.A. must be completed. Students holding an M.A. from another discipline may be requested to take seminars covering deficiencies in their previous training.

Candidates must (1) pass a language exam; (2) demonstrate comprehensive understanding of prior research in three subfields

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

(Not offered in 2007-08)

The Master's degree with research paper is a 45-credit program: 5 courses (15 credits), a Proseminar (6 credits) and the research paper (24 credits).

The student's program of work is developed in consultation with the student's supervisor and the two other members of his or her advisory committee. It consists of: five courses (seminars or tutorials), only one of which is optional, a research paper proposal and the research paper. They must also attend the Proseminar. The research paper will normally be based on library research but can involve limited and preferably local fieldwork. The research paper should demonstrate the student's ability to define a problem, place it in a theoretical and factual context, collect and analyse data, and write up a report.

M.A. Degree in Medical Anthropology (48 credits)

The M.A. program in Medical Anthropology is given jointly by the Department of Anthropology and the Department of Social Studies of Medicine (SSOM). For additional information, including seminar offerings, please refer to the SSOM section.

The program is open to students with backgrounds in the social sciences, the medical professions, or the medical sciences. The M.A. degree is awarded by the Anthropology Department and admission is granted by a joint admissions committee made up of representatives from Anthropology and SSOM. Within the medical anthropology program, candidates will apply for permission to take one of the following courses of study:

carried out. One or more committee members will tutor the student in each selected subfield, and the student will prepare a bibliography of works read and discussed as well as a concise evaluation of the material covered in each. This written work will demonstrate understanding of prior research in each subfield.

- 3) The thesis proposal is also prepared in consultation with the committee members and under the direction of the thesis supervisor. It contains a brief review of the literature and controversies in the three relevant subfields, and a discussion of the proposed research (background, methods and hypotheses to be tested). When the proposal is finished, it must be read and approved by all members of the committee before it is submitted for oral examination. Copies of the proposal and of the bibliographies relating to the three subfields must be made available to all professors in the Department at least one week before the hearing.

The oral examination of the proposal and the three subfields is open to all staff and students. The first part of the examination will explore the student's general understanding of the three subfields selected. In the second part, the student may be questioned on the merits of any part of the proposal: theoretical assumptions, hypotheses, methods, understanding of the literature.

- 4) If the proposal is passed, the student will then carry out field research and write a thesis. Thesis drafts are read and commented on by the thesis committee. When the thesis is ready for examination, it is submitted to the Graduate and Postdoc-

h Thesis d.003 written work t

ANTH 699 M.A. THESIS. (24)

ANTH 699D1 (12), ANTH 699D2 (12) M.A. THESIS. (Students must register for both ANTH 691D1 and ANTH 691D2) (No credit will be given for this course unless both ANTH 699D1 and ANTH 699D2 are successfully completed in consecutive terms) (ANTH 699D1 and ANTH 699D2 together are equivalent to ANTH 699)

ANTH 700 Ph.D. PRELIMINARY EXAMINATION. (6)

ANTH 700D1 (3), ANTH 700D2 (3) Ph.D. PRELIMINARY EXAMINATION. (Students must register for both ANTH 700D1 and ANTH 700D2) (No credit will be given for this course unless both ANTH 700D1 and ANTH 700D2 are successfully completed in consecutive terms) (ANTH 700D1 and ANTH 700D2 together are equivalent to ANTH 700)

ANTH 760 ADVANCED ANTHROPOLOGICAL METHODS. (3)**ANTH 770 ADVANCED ARCHAEOLOGICAL THEORY. (3)****ANTH 780 READING AND RESEARCH 1. (3)****ANTH 781 READING AND RESEARCH 2. (3)****ANTH 790 Ph.D. TUTORIAL 1. (3)**

ANTH 790D1 (1.5), ANTH 790D2 (1.5) Ph.D. TUTORIAL 1. (Students must register for both ANTH 790D1 and ANTH 790D2) (No credit will be given for this course unless both ANTH 790D1 and ANTH 790D2 are successfully completed in consecutive terms) (ANTH 790D1 and ANTH 790D2 together are equivalent to ANTH 790)

ANTH 791 Ph.D. TUTORIAL 2. (3)

ANTH 791D1 (1.5), ANTH 791D2 (1.5) Ph.D. TUTORIAL 2. (Students must register for both ANTH 791D1 and ANTH 791D2) (No credit will be given for this course unless both ANTH 791D1 and ANTH 791D2 are successfully completed in consecutive terms) (ANTH 791D1 and ANTH 791D2 together are equivalent to ANTH 791)

ANTH 792 Ph.D. TUTORIAL 3. (3)

ANTH 792D1 (1.5), ANTH 792D2 (1.5) Ph.D. TUTORIAL 3. (Students must register for both ANTH 792D1 and ANTH 792D2) (No credit will be given for this course unless both ANTH 792D1 and ANTH 792D2 are successfully completed in consecutive terms) (ANTH 792D1 and ANTH 792D2 together are equivalent to ANTH 792)

5 Architecture

School of Architecture
Macdonald-Harrington Building

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graduation from a CACB-accredited program does not assure registration, the accrediting process is intended to verify that each accredited program substantially meets those standards that, as a whole, comprise an appropriate education for an architect.

Please note that the M.Arch. (Post-professional) degree is not a professional degree and does not satisfy the requirements for certification with the CACB.

5.3 Admission Requirements

M.Arch. (Professional) Program (Non-Thesis)

Applicants holding the McGill B.Sc.(Arch.) degree, or equivalent, with a cumulative grade point average of at least 3.0 on a scale of 4.0, are eligible to apply for admission.

M.Arch. (Post-professional) (Non-Thesis) and Graduate Diploma in Housing

Applicants holding an accredited professional degree in architecture, or equivalent, with a cumulative grade point average of at least 3.0 on a scale of 4.0, are eligible to apply for admission. In special cases, candidates with a degree in a related field may be considered.

Ph.D.

Candidates with high standing in McGill's M.Arch. (Post-professional), or who hold an equivalent degree from another university, are eligible to apply to this program. Those who do not have an appropriate background in the chosen research area may be recommended for the M.Arch. (Post-professional) program. Candidates who have an adequate background at the Post-professional Master's level in the proposed area of research will be admitted to Ph.D.II with the stipulation of additional courses from the M.Arch. (Post-professional) curriculum, if necessary.

A working knowledge of a language, 16t.12theT[Ma grade po admitted .2(.)]TJ1J-15 -1.1185 TD-0.000 Tc-0.fra 78 0 TD[(of e)7.5s in the CACB.

**Graduate Diploma in Housing
(Affordable Homes)** (30 credits)
Required Courses (24 credits)

**M.Arch. (Post-professional)
M.Arch. (Non-Thesis) – Urban Design** (45 credits)
Required Courses (21 credits)

**Graduate Diploma in Housing
(Minimum Cost Housing)** (30 credits)
Required Courses (24 credits)

5.6 Courses

Students preparing to register should consult the Web at 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.

ARCH 512 A

Ph.D.

Doctoral candidates must have their thesis proposal approved by their advisor (ARCH 700) before embarking on their research. A Thesis Advisory Committee is then struck and is responsible for monitoring the student's research. For course number ARCH 701, a comprehensive research proposal is required, as well as a demonstration of broad knowledge in the field. Candidates will submit two further reports in formal meetings with the Advisory Committee, who will review the work in progress (ARCH 702 and ARCH 703). The final meeting takes place after the Committee has reviewed the full draft of the dissertation. If approved, the dissertation will then be submitted in its final form to the Thesis Office. Acceptance of the thesis by the examiners is followed by an oral defence.

Graduate Diploma in Housing

The Graduate Diploma in Housing is open to applicants who have a professional degree in architecture. The Diploma program is a two-semester program which is intended for professionals who have worked in the area of housing in North America or in the developing world. The program is designed for those who, while wishing to advance their knowledge in the housing field, are not able, or inclined, to undertake studies towards a Master's degree.

ARCH 522 HISTORY OF DOMESTIC A

chapter of an historical treatise, a frontispiece or image, in the framework of recent scholarship on the subject.

ARCH 652 ARCHITECTURAL THEORY SEMINAR 1. (4) (4-0-8) Phenomenology and hermeneutic.

ARCH 653 ARCHITECTURAL THEORY SEMINAR 2. (4) (4-0-8) The experience of modernity in cultural criticism, philosophy, literature and art.

ARCH 671 DESIGN RESEARCH AND METHODOLOGY. (6) (2-10-6)

6.2 Programs Offered

M.A. and Ph.D.

Areas of Specialization:

Medieval, Renaissance, the Seventeenth, Eighteenth, Nineteenth, and Twentieth Centuries, Contemporary, Canadian, East Asian, Architectural History, New Media, Gender and Sexuality, Race and Representation, and art historical methodologies, notably

One course may be taken at another university in Montreal (more than one seminar may be taken at Université de Montréal by special arrangement).

All courses taken outside of Art History require the approval of the graduate program director, in consultation with the advisor, and the professor teaching the seminar.

The program is designed to be completed in 4 semesters, but may be completed in three semesters.

Language Requirements for the M.A. Degree: In addition to possessing a proficiency in English and French, students must demonstrate reading knowledge of any language relating to their research project assessed by means of a written translation of a text.

Course Sequence

All students must register for 45 credits.

Semester 1 – 12 credits

ARTH 600 (3) Advanced Professional Seminar

ARTH 606 (3) Research Paper Preparation

Two complementary courses (6 credits)

Semester 2 – 12 credits

ARTH 607 (3) Research Paper Proposal

Three complementary courses (9 credits)

Semester 3 – 12 credits

ARTH 608 (6) Research Paper 1

Two complementary courses (6 credits)

Semester 4 – 9 credits

ARTH 609 (6) Research Paper 2

One complementary courses (3 credits)

Program Requirements Overview

Required Course (3 credits)

ARTH 600 (3) Advanced Professional Seminar

Complementary Courses (24 credits)

24 credits chosen from the following:

ARTH 510 (3) The Body and Visual Culture

ARTH 617 (3) Modern Art

M.A. in Art History – Thesis (45 credits)

(Not Open for Admission – M.A. in Art History - Thesis Program suspended for 2007-08)

Required Course (3 credits)

Language requirements for the M.A. degree: In addition to possessing a proficiency in English and French, students must demonstrate reading knowledge of any language, if necessary, relating to their research project assessed by means of a written translation of a text.

Ph.D. in Art History

Students should refer to the Departmental Website for information about Ph.D. residency and timing.

Required Courses (3 credits)

In addition to possessing a proficiency in English and French, students must demonstrate reading knowledge of any language, if necessary, relating to their research project assessed by means of a written translation of a text.

The Department is prepared to direct dissertations in fields

ARTH 698 and ARTH 699 are successfully completed.) For the completion of thesis research.

background), a minimum of 24 thesis-research credits, and the completion of a thesis satisfying all the requirements of the Graduate and Postdoctoral Studies Office. Normally the equivalent of 12 months of full-time work is required to obtain the thesis-related credits, in addition to the time needed for the course work. Students can choose to write their thesis based on research in atmospheric, oceanic, or climate topics.

Required Courses (1 - 14 credits*)

**M.Sc. in Atmospheric and Oceanic Sciences (Thesis) –
Computational Science and Engineering
Option/Concentration** (46 - 55 credits)

Required Courses (1 - 15 credits)

**M.Sc. in Atmospheric and Oceanic Sciences (Thesis) –
Environment Option/Concentration** (45 credits)

Required Courses (6 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 stand50.0n1eThe sj17inar (.47998 *8.2ch.D. c Tm086u2[3.611 4ADsubmit a TS

ATOC 568 OCEAN PHYSICS. (3) (Winter) (3 hours lectures) (Prerequisite (Undergraduate): ATOC 512 or permission of instructor) (Restriction: Graduate students and final-year Honours Atmospheric Science students. Others by special permission.) Research methods in physical oceanography including data analysis and literature review. Course will be divided into five separate modules focussing on temperature-salinity patterns, ocean circulation, boundary layers, wave phenomena and tides.

ATOC 620 PHYSICAL METEOROLOGY 1. (3) (2 hours) Thermodynamics of the atmosphere. Instability and convection. Solar and terrestrial radiation. Radiative transfer. Radiation budgets.

ATOC 621 PHYSICAL METEOROLOGY 2. (3) (2 hours) Atmospheric aerosols, nucle

8.1 Staff*Emeritus Professors*

Angus F. Graham; M.Sc., Ph.D., D.Sc.(Edin.), F.R.S.C.
 Rose M. Johnstone; B.Sc., Ph.D.(McG.), F.R.S.C.
 Edward A. Meighen; B.Sc.(Alta.), Ph.D. (Calif.Berk.)
 Samuel Solomon; M.Sc., Ph.D.(McG.), F.R.S.C.
 Clifford P. Stanners; B.Sc.(McM.), M.A., Ph.D.(Tor.)
 Theodore L. Sourkes; M.Sc.(McG.), Ph.D.(C'nell), F.R.S.C.

Professors

Nicole Beauchemin; B.Sc., M.Sc., Ph.D.(Montr.) (*joint appt. with
 Oncology and Medicine*)
 Rhoda Blostein; B.Sc., M.Sc., Ph.D.(McG.), F.R.S.C.
 Philip E. Branton; B.Sc., M.Sc., Ph.D.(Tor.) (*Gilman Cheney
 Professor of Biochemistry*), F.R.S.C.
 Peter E. Braun; B.Sc., M.Sc.(Br. Col.), Ph.D.(Calif.Berk.)
 Kalle Gehring; M.Sc. (Mich.), Ph.D.(Calif.Berk.) (*Checheur
 National du FRSQ*)
 Vincent Giguère; B.Sc., Ph.D.(Laval) (*joint appt. with Oncology &
 Medicine*)
 Philippe Gros; B.Sc., M.Sc.(Montr.), Ph.D.(McG.) (*James McGill
 Professor*), F.R.S.C.
 Annette A. Herscovics; B.Sc., M.Sc., Ph.D.(McG.), F.R.S.C. (*joint
 appt. with Oncology & Medicine*)

the language of instruction or from a recognized Canadian institution (anglophone or francophone), must submit the following:

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:

Program Requirements – Chemical Biology Option

The curriculum of the Chemical Biology Option is structured so that in completing the option, students also complete the course requirements for the regular graduate programs in their home departments. For this reason, program requirements are listed separately for each department, even though the 'core' content in Chemical Biology (9 lecture credits plus 2 or 4 seminar credits for each program) is the same for each. The course requirements for the Chemical Biology Option taken through the Biochemistry Department are available at www.mcgill.ca/biochemistry/chemicalbiology.

M.Sc. in Biochemistry – Chemical Biology Option/Concentration (47 credits)**Required Course (3 credits)**

BIOC 696 (3) Seminars in Biochemistry

Complementary Courses (11 credits)

2 credits, two of the following courses:

BIOC 610 (1) Seminars in Chemical Biology 1

BIOC 611 (1) Seminars in Chemical Biology 3

CHEM 689 (1) Seminars in Chemical Biology 2

CHEM 690 (1) Seminars in Chemical Biology 4

at least 3 credits from the following courses:

CHEM 502 (3) Advanced Bio-Organic Chemistry

CHEM 503 (3) Drug Design and Development 1

or PHAR 503

at least 3 credits to be chosen from the following courses:

M.Sc. in Biochemistry – Bioinformatics Option/Concentration (45 credits)**Required Courses (6 credits)****Ph.D. in Biochemistry – Chemical Biology Option/Concentration****Required Courses (7 credits)****Ph.D. in Biochemistry – Bioinformatics Option/Concentration****Required Courses (6 credits)**

8.6 Courses

Students preparing to register should consult the Web at 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.

cellular regulatory signals. Biological membrane organization and dynamics: membrane transport; membrane receptors and their associated effectors; mechanisms of regulation of cell growth, morphology, differentiation and death.

BIOC 503 IMMUNOCHEMISTRY.(3) (Winter) (Prerequisites: BIOC 311, BIOC 312) This course, presented in lecture format, emphasizes the molecular, genetic and structure function events that occur in the humoral immune response. Interleukins and other mediators of inflammation, a field in which rapid changes are

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.

research. The main component of both degrees is a thesis embodying the results of original research. Formal course requirements are few and are largely intended to fill gaps in the student's background.

The Stewart Biology Building is well equipped for graduate training and research in a wide variety of areas of biology. Its resources are greatly extended by affiliation with other organizations such as the Redpath Museum; the Groupe Interuniversitaire de Recherches Océanographiques du Québec (GIROQ); the Biotechnology Research Institute of the National Research C

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Ph.D. in Biology**Complementary Courses** (6 credits)**Ph.D. in Biology – Environment Option****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 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 proceed to the attainment of the Ph.D. Students must pass the Qualifying Examination (BIOL 700) 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 within 8 months. Students who enter the Ph.D. program after completing an M.Sc. in Biology at McGill must take the exam within 12 months.

Ph.D. Seminar – All Ph.D. students must deliver a research seminar (BIOL 702) at some time during the academic session (September-April) towards the end of their studies and preferably at least 3 months prior to the thesis submission.

Thesis – The Ph.D. is a research degree. The candidate must present a thesis which represents high scholastic attainment in a specialized field, demonstrated by independent and original research. After the thesis has been submitted and approved, the candidate is required to orally defend their thesis in an open forum.

10.6 Courses

Students preparing to register should consult the Web at 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 offered in alternate years.

★ **BIOL 505 DIVERSITY AND SYSTEMATICS SEMINAR. (3) (Winter)**

demonstrated using microbial model systems. Topics include mutation, fitness, selection, adaptive radiation, properties of mixtures and community assembly.

★ **BIOL 572 MOLECULAR EVOLUTION.** (3) (Fall) (3 hours lecture/seminar) (Prerequisite: BIOL 300) Evolutionary change in DNA and proteins and its implications for cellular, organismal, and population/species evolution.

BIOL 573 VERTEBRATE PALAEOLOGY FIELD COURSE. (3) (Summer) (Prerequisites: BIOL 304 and BIOL 352 or permission of instructor.) (Notes: Field course with completed project and presentation in the early Fall. Gi

11.1 Staff*Professors*

J.D. Bobyn; B.Sc., M.Sc.(McG.), Ph.D.(Tor.) (*joint appt. with Surgery*)
T.M.S. Chang; B.Sc., M.D., C.M., Ph.D.(McG.), F.R.C.P.(C) F.R.S.(C) (*joint appt. with Physiology*)
A.C. Evans; B.Sc.(Liv.), M.Sc.(Sur.), Ph.D.(Leeds) (*joint appt. with Neurology and Neurosurgery*)
H.L. Galiana; B.Eng., M.Eng., Ph.D.(McG.)
R.E. Kearney; B.Eng., M.Eng., Ph.D.(McG.)
G.B. Pike; B.Eng., M.Eng., Ph.D.(McG.) (*joint appt. with Neurology and Neurosurgery*)

Associate Professors

D.L. Collins; B.Sc., M.Eng, Ph.D.(McG.) (*joint appt. with Neurology and Neurosurgery*)
W.R.J. Funnell; B.Eng., M.Eng., Ph.D.(McG.) (*joint appt. with Otolaryngology*)
S. Prakash; B.Sc.(Hon.), M.Sc., M.Tech(BHU), Ph.D.(McG.)
M. Tabrizian; B.Sc.(Iran), M.Sc., Ph.D.(PMC-France), M.B.A.(HEC) (*joint appt. with Dentistry*)

Assistant Professors

D. Juncker; Dipl., Ph.D.(Neuch-Switzerland)
J.L. Nadeau; B.S., Ph.D.(Univ. MN)

Associate Members

C. Baker (*Ophthalmology*), F. Barthelat (Mechanical Engineering),
K. Cullen (*Physiology*), S. De Serres (*Physical and*

M.Eng. in Biomedical Engineering - Bioinformatics
Option/Concentration (45 credits)
Required Course (3 credits)

Ph.D. in Biomedical Engineering– Bioinformatics
Option/Concentration
Required Courses

11.6 Courses

Students preparing to register should consult the Web at 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.

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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: www.bmed.mcgill.ca/require_phd.html.

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 Applicants to graduate studies whose mother tongue is not English and who have not completed an undergraduate or graduate degree from a recognized foreign institution where English is the language of instruction or from a recognized Canadian institution (anglophone or francophone), must 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 score 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.

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M.Sc. in Bioresource Engineer

M.Sc. Applied in Bioresource Engineering (Non-Thesis) –



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 experi-

mental methods and the design of card(o14.2Dnrmi1033-al c)]TJ14.2072-0.0003 Tc-0.en[(o.4(methods andnd)7 mod)7.9(e)0.5STc()Tj6.48 0 0 6.G0 g0 T

698N1 and CHEE 698N2 are successfully completed in a twelve month period) (CHEE 698N1 and CHEE 698N2 together are equivalent to CHEE 698) See CHEE 698N1 for course description.

CHEE 699 THESIS RESEARCH 2. (15) (Prerequisite: CHEE 698) Ongoing research pertaining to thesis.

CHEE 795 PH.D. THESIS PROPOSAL. (0) Independent work under the supervision of the thesis advisor(s) leading to a thesis proposal.

CHEE 796 PH.D. PROPOSAL DEFENCE. (0) Presentation and defence of thesis proposal at an oral examination.

CHEE 797 PH.D. SEMINAR. (0) (Prerequisite: CHEE 796) Required for all Ph.D. candidates. Presentation of a seminar on an aspect of their thesis work.

14 Chemistry

Department of Chemistry
Otto Maass Chemistry Building
801 Sherbrooke Street West
Montreal, QC H3A 2K6
Canada

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similar vein, breakthrough ultra-fast electron diffraction experiments have opened the window to real time observation of the making and breaking of chemical bonds. State-of-the-art multipulse femtosecond spectroscopy experiments are being applied to interesting and technologically important new materials such as photonic crystals and quantum dot superlattices. A molecular level picture of polymer dynamics and structure at surfaces and interfaces is being developed through theoretical modelling, high field solids NMR spectroscopy, electron microscopy and other surface characterization methods. In the area of atmospheric chemistry, the chemical transformation of the atmosphere is being modelled both experimentally and theoretically to understand how these processes are currently affecting and driving climate change. Finally, we have basic theory projects relating to the experimental work just described, as well as in transport and structure in complex colloidal or zeolite systems, protein dynamics, fundamental issues in quantum and statistical mechanics.

Materials Chemistry

The Chemistry of Materials is a rapidly evolving domain of research. Materials Chemistry seeks to understand how composition, reactivity, and structure are related to function from a molecular perspective. The functionality of materials is expressed in a variety of areas including photonics, micro- and nano-electronics, biosystems, nanotechnology, drug delivery, catalysis, polymer science, molecular biology, and chemical and biological sensing. Activities of the Materials Chemistry Group are often broadly interdisciplinary. University-wide synergies among members of this group have led to the creation of the McGill Institute for Advanced Materials (MIAM) and the McGill Nanotools Facility. The latter comprises state-of-the-art **micro/nanofabrication**, atomic manipulation and high performance computing facilities. MIAM and members of the Chemistry Department have established research that links the **Centre for Self Assembled Chemical Structures**, the **Centre for Biosensors and Biorecognition**, the **Centre for the Physics of Materials**, and the **Centre for Bone and Periodontal Research**. Synthetic approaches to new materials include research in dendrimers, polynucleic acid architectures, polymers that conduct electrons or light and biopolymers. Polymer and colloid science figure prominently as does research and applications of the chemistry and physical properties of nanostructures. There is significant activity in understanding directed molecular assembly at interfaces and in the application of sophisticated spectroscopic tools to explore them.

Synthesis – Catalysis

The Synthesis/Catalysis Research Activity Group is a collective to develop the state-of-art catalysts, synthetic methodologies, reaction mechanisms, and synthetic routes for organic chemicals, natural products and materials. The following are the major research activities at McGill (1). Development of novel catalysts and catalytic reactions for highly efficient organic synthesis; Green Chemistry. This includes the study and discovery of novel transition-metal catalysts, biological catalysts, nano- and dendrimer-based catalysts for synthetic purposes; new chemical reactivity such as C-H activation, asymmetric catalysis and theory, multi-component reactions and combinatorial chemistry; innovative chemistry in alternative solvents such as water, sub-critical water, ionic liquids, and liquid CO₂; photocatalytic reactions, reaction mechanisms, and physical organic chemistry; and computational chemistry (2). Synthesis of biological chemicals, organic materials and natural products: Focus areas are total synthesis of natural products, synthesis of DNA and RNA analogs; synthesis of antiviral and anti-cancer nucleoside analogs, synthesis of amino acid and peptides; synthesis and study of carbohydrate derivatives; design, synthesis and study of specialty organic chemical and materials and study of specialty organic chemical and materials.

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 demonstratorships/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,

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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.

14.6 Courses

Students preparing to register should consult the Web at
www.mcgill.ca/minerva

vey of polymer preparation and characterization; mechanisms of chain growth, including free radical, cationic, anionic, condensation and transition metal-mediated polymerization, and the effects of these mechanisms on polymer architecture; preparation of alternating, block, graft and stereoblock copolymers; novel macromolecular structures including dendrimers and other nanostructures.

CHEM 572 SYNTHETIC ORGANIC CHEMISTRY. (3) (3 lectures) (Prerequisite: CHEM 382) Synthetic methods in organic chemistry and their application to the synthesis of complex molecules.

CHEM 575 CHEMICAL KINETICS. (3) (Winter) (3 lectures) (Prerequisites: CHEM 273 and CHEM 223/CHEM 243 (formerly CHEM

15.2 Programs Offered

Advanced courses of instruction and laboratory facilities are available for engineering graduate students desiring to proceed to the degrees of **M.Eng., M.Sc. and Ph.D.**

Graduate studies and research are at present being conducted in the fields of structures and structural mechanics, infrastructure rehabilitation, risk engineering, fluid mechanics and hydraulics, materials engineering, soil behaviour, soil mechanics and foundations, water resources engineering, and environmental engineering.

M. Eng. (Environmental Engineering Option)

This program is offered to students with a university undergraduate degree in engineering who desire graduate education in the environmental engineering field. This option is within the context of the existing M.Eng. (Project Option) programs currently offered in the Departments of Bioresource Engineering (Agricultural and Environmental Sciences), Chemical Engineering, Civil Engineering, 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 possess a Bachelor's degree in engineering.

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, as outlined in [section 15.5 "Program Requirements"](#).

15.3 Admission Requirements

The general rules of the Graduate and Postdoctoral Studies Office apply and are detailed in the General Information section.

the Program Coordinator, Department of Civil Engineering and Applied Mechanics.

material structures, properties and degradation; concrete materials, as-built properties; steel corrosion and protection; steel, timber and masonry properties; deterioration mechanisms; condition survey; maintenance and repair strategies, materials and processes; economic appraisal, recent development; case studies.

CIVE 624 DURABILITY OF STRUCTURES. (4) Basic concepts, safety, durability, repair and strengthening; reliability analysis; deterioration mechanisms, preventive and corrective measures; design for durability; parking structures; bridges; steel, timber and masonry structures; municipal infrastructure; strengthening and retrofitting; management systems; case studies. This course will involve field trips and group design exercises.

CIVE 628 DESIGN OF WOOD STRUCTURES. (4) Review of wood material properties, grades, and design of sawn lumber and timber tension, bending and compression members. Design of connections. Glulam, engineered wood products and systems, shearwalls and diaphragms. Combined loading design, vibration design, moisture and humidity effects, deterioration and protection, fire performance, prescriptive design versus engineering design.

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CIVE 631 THESIS RESEARCH II. HESIS e r / 1 .

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16.4 Application Procedures

No applications will be accepted for 2007-08 as the program has been temporarily suspended. Further information may be obtained from the Department of History.

16.5 Program Requirements

Please consult the Department for detailed regulations.

M.A. with thesis

- 1) Course work: 18 credits
- 2) Special subjects: 6 credits (CLAS 695D1/CLAS 695D2)
- 3) Thesis: 24 credits:
 - CLAS 696 – Methods (3)
 - CLAS 697 – Proposal (3)
 - CLAS 698 – Preparation (6)
 - CLAS 699 – Completion (12)

M.A. non-thesis option

- 1) Course work: 24 credits.
- 2) Special subjects: 12 credits
(CLAS 685D1/CLAS 685D2, CLAS 686D1/CLAS 686D2).
- 3) Research papers: 12 credits
 - CLAS 681 – Research Paper 1 (3)
 - CLAS 682 – Research Paper 2 (3)
 - CLAS 683 – Research Paper 3 (3)
 - CLAS 684 – Research Paper 4 (3)

Ph.D.

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

16.6 Courses

Students preparing to register should consult the Web at 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.

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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 special education facilities.

Requirements for Licensure – The majority of provinces in Can-

17.5 Program Requirements**M.Sc. (Applied) in Communication Sciences and Disorders –
Speech-Language Pathology Option/Concentration**
(68 credits)

The professional degree program involves two academic years of full-time study and related practical work followed by a Summer internship.

Year 1 Required Courses (31 credits)

Year 1 Complementary Course (3 credits)

Year 2 Required Courses (31 credits)

Year 2 Complementary Course (3 credits)

M.Sc. (Applied) Complementary Course List

671D2 are successfully completed in consecutive terms) (SCSD 671D1 and SCSD 671D2 together are equivalent to SCSD 671)

SCSD 671N1 M.Sc. THESIS 1. (6) (Students must also register for SCSD 671N2) (No credit will be given for this course unless both SCSD 671N1 and SCSD 671N2 are successfully completed in a twelve month period) (SCSD 671N1 and SCSD 671N2 together are equivalent to SCSD 671)

SCSD 671N2 M.Sc. THESIS 1. (6) (Prerequisite: SCSD 671N1) (No credit will be given for this course unless both SCSD 671N1 and SCSD 671N2 are successfully completed in a twelve month period) (SCSD 671N1 and SCSD 671N2 together are equivalent to SCSD 671) See SCSD 671N1 for course description.

SCSD 672 M.Sc. THESIS 2. (12)

SCSD 672D1 (6), SCSD 672D2 (6) M.Sc. THESIS 2. (Students must register for both SCSD 672D1 and SCSD 672D2) (No credit will be given for this course unless both SCSD 672D1 and SCSD 672D2 are successfully completed in consecutive terms) (SCSD 672D1 and SCSD 672D2 together are equivalent to SCSD 672)

SCSD 672N1 M.Sc. THESIS 2. (6) (Students must also register for SCSD 672N2) (No credit will be given for this course unless both SCSD 672N1 and SCSD 672N2 are successfully completed in a twelve month period) (SCSD 672N1 and SCSD 672N2 together are equivalent to SCSD 672)

SCSD 672N2 M.Sc. THESIS 2. (6) (Prerequisite: SCSD 672N1) (No credit will be given for this course unless both SCSD 672N1 and SCSD 672N2 are successfully completed in a twelve month period) (SCSD 672N1 and SCSD 672N2 together are equivalent to SCSD 672) See SCSD 672N1 for course description.

SCSD 673 M.Sc. THESIS 3. (12)

SCSD 678 SPECIAL TOPICS 4. (3)

SCSD 679 ADVANCED CLINICAL PRACTICUM. (2) This course enhances professional practice independence through intensive exposure to a variety of clinical populations.

SCSD 680 DEGLUTITION AND DYSPHAGIA. (3) Advanced physiology and neurophysiology of mastication and deglutition, including normal function and diagnosis and treatment of swallowing disorders.

SCSD 681 PRACTICUM AND SEMINAR 1. (1) Course provides initial practicum experiences including a combination of one-to-one, small group, and large group experiences in clinical settings. (1 credit)

COMS 693D1 (3), COMS 693D2 (3) M.A. THESIS PREPARATION 2. (Students must register for both ENGC 693D1 and ENGC 693D2) (No credit will be given for this course unless both ENGC 693D1 and ENGC 693D2 are successfully completed in consecutive terms) (ENGC 693D1 and ENGC 693D2 together are equivalent to ENGC 693)

COMS 693N1 M.A. THESIS PREPARATION 2. (3) (Students must also register for ENGC 693N2) (No credit will be given for this course unless both ENGC 693N1 and ENGC 693N2 are successfully completed in a twelve month period) (ENGC 693N1 and ENGC 693N2 together are equivalent to ENGC 693)

COMS 693N2 M.A. THESIS PREPARATION 2. (3) (Prerequisite: ENGC 693N1) (No credit will be given for this course unless both ENGC 693N1 and ENGC 693N2 are successfully completed in a twelve month period) (ENGC 693N1 and ENGC 693N2 together are equivalent to ENGC 693) See ENGC 693N1 for course description.

COMS 694 M.A. THESIS PREPARATION 3. (6)

COMS 694D1 (3), COMS 694D2 (3) M.A. THESIS PREPARATION 3. (Students must register for both ENGC 694D1 and ENGC 694D2) (No credit will be given for this course unless both ENGC 694D1 and ENGC 694D2 are successfully completed in consecutive terms) (ENGC 694D1 and ENGC 694D2 together are equivalent to ENGC 694)

COMS 694N1 M.A. THESIS PREPARATION 3. (3) (Students must also register for ENGC 694N2) (No credit will be given for this course unless both ENGC 694N1 and ENGC 694N2 are successfully completed in a twelve month period) (ENGC 694N1 and ENGC 694N2 together are equivalent to ENGC 694)

COMS 694N2 M.A. THESIS PREPARATION 3. (3) (Prerequisite: ENGC 694N1) (No credit will be given for this course unless both ENGC 694N1 and ENGC 694N2 are successfully completed in a twelve month period) (ENGC 694N1 and ENGC 694N2 together are equivalent to ENGC 694) See ENGC 694N1 for course description.

COMS 695 M.A. THESIS PREPARATION 4. (6)

COMS 695D1 (3), COMS 695D2 (3) M.A. THESIS PREPARATION 4. (Students must register for both ENGC 695D1 and ENGC 695D2) (No credit will be given for this course unless both ENGC 695D1 and ENGC 695D2 are successfully completed in consecutive terms) (ENGC 695D1 and ENGC 695D2 together are equivalent to ENGC 695)

COMS 695N1 M.A. THESIS PREPARATION 4. (3) (Students must also register for ENGC 695N2) (No credit will be given for this course unless both ENGC 695N1 and ENGC 695N2 are successfully completed in a twelve month period) (ENGC 695N1 and ENGC 695N2 together are equivalent to ENGC 695)

COMS 695N2 M.A. THESIS PREPARATION 4. (3) (Prerequisite: ENGC 695N1) (No credit will be given for this course unless both ENGC 695N1 and ENGC 695N2 are successfully completed in a twelve month period) (ENGC 695N1 and ENGC 695N2 together are equivalent to ENGC 695) See ENGC 695N1 for course description.

COMS 696 RESEARCH PROJECT 1. (6)

COMS 697 RESEARCH PROJECT 2. (6)

COMS 702 COMPREHENSIVE EXAMINATION PART 1. (6) A required course for all new Ph.D. students. The Pro-Seminar is designed to explore theoretical and methodological issues in Communications through a series of presentations by the faculty and other McGill associates.

COMS 702D1 (3), COMS 702D2 (3) COMPREHENSIVE EXAMINATION PART 1. (Students must register for both ENGC 702D1 and ENGC 702D2) (No credit will be given for this course unless both ENGC 702D1 and ENGC 702D2 are successfully completed in consecutive terms) (ENGC 702D1 and ENGC 702D2 together are equivalent to ENGC 702) A required course for all new Ph.D. students. The Pro-Seminar is designed to explore theoretical &

methodological issues in Communications through a series of presentations by the faculty and other McGill associates.

COMS 702N1 COMPREHENSIVE EXAMINATION PART 1. (3) (Students must also register for ENGC 702N2) (No credit will be given for this course unless both ENGC 702N1 and ENGC 702N2 are successfully completed in a twelve month period) (ENGC 702N1 and ENGC 702N2 together are equivalent to ENGC 702) A required course for all new Ph.D. students. The Pro-Seminar is designed to explore theoretical & methodological issues in Communications through a series of presentations by the faculty and other McGill associates.

COMS 702N2 COMPREHENSIVE EXAMINATION PART 1. (3) (Prerequisite: ENGC 702N1) (No credit will be given for this course unless both ENGC 702N1 and ENGC 702N2 are successfully completed in a twelve month period) (ENGC 702N1 and ENGC 702N2 together are equivalent to ENGC 702) See ENGC 702N1 for course description.

COMS 703 COMPREHENSIVE EXAMINATION PART 2. (6)

COMS 703D1 (3), COMS 703D2 (3) C



M.Sc. University

COMP 533 OBJECT-ORIENTED SOFTWARE DEVELOPMENT. (3)

(Fall) (Prerequisites: COMP 335 or ECSE 321) Object-oriented, UML-based software development; requirements engineering based on use cases; using OCL and a coherent subset of UML to establish complete and precise analysis and design documents for a software system; Java-specific mapping strategies for implementation.

COMP 535 COMPUTER NETWORKS 1. (3) (Fall) (3 hours) (Prerequisite: COMP 310) (Restriction: Students may not take both COMP 435 and COMP 535 for credit) Exposition of the first four layers of the ISO model for computer network protocols, i.e., the physical, data, network, and transport layers. Basic hardware and software issues with examples drawn from existing networks, notably SNA, DECnet, and ARPAnet.

COMP 537 INTERNET PROGRAMMING. (3) (3 hours) (Prerequisites: COMP 251 and COMP 302, and any one of COMP 310, COMP 420, COMP 424, or COMP 433) Sockets, User Datagram Protocol (UDP), Transmission utility protocols; Remote Terminal Protocol (Telnet), Simple Mail Transfer Protocol (SMTP), File Transfer Protocol (FTP), Hypertext Transfer Protocol (HTTP), Internet resource database and search engines. Remote File Systems. Distributed objects, Common Object Request Broker Architecture (CORBA).

COMP 540 MATRIX COMPUTATIONS. (3) (3 hours) (Prerequisite: MATH 327 or COMP 350) Designing and programming reliable numerical algorithms. Stability of algorithms and condition of problems. Reliable and efficient algorithms for solution of equations, linear least squares problems, the singular value decomposition, the eigenproblem and related problems. Perturbation analysis of problems. Algorithms for structured matrices.

COMP 547 CRYPTOGRAPHY AND DATA SECURITY. (4) (Fall) (3 hours) (Prerequisites: COMP 360 or COMP 362, MATH 323.) This course presents an in-depth study of modern cryptography and data security. The basic information theoretic and computational properties of classical and modern cryptographic systems are presented, followed by a cryptanalytic examination of several important systems. We will study the applications of cryptography to the security of systems.

COMP 552 COMBINA⁹²⁴, or

heaps, disjoint set structures, and splay trees. Amortizing. String

COMP 669D1 (0.5), COMP 669D2 (0.5) COMPUTATIONAL SCIENCE ENGINEERING SEMINAR. (Restriction: This seminar course is open only to students who were admitted to the CSE Program Option.) (Students must register for both COMP 669D1 and COMP 669D2.) (No credit will be given for this course unless both COMP 669D1 and COMP 669D2 are successfully completed in consecutive terms.) (COMP 669D1 and COMP 669D2 together are equal to COMP 669.) Techniques and applications in computational science and engineering.

COMP 680 MINING BIOLOGICAL SEQUENCES. (4) (Prerequisite: COMP 462 or with instructor's permission.) Advanced algorithms for the annotation of biological sequences. Algorithms and heuristics for pair-wise and multiple sequence alignment. Gene-finding with hidden Markov models and variants. Motifs discovery techniques: over representation and phylogenetic footprinting approaches. RNA secondary structure prediction. Detection of repetitive elements. Representation and annotation of protein domains.

COMP 690 PROBABILISTIC ANALYSIS OF ALGORITHMS. (4) (3 hours) Probabilistic analysis of algorithms and data structures under random input. Expected behavior of search trees, tries, heaps, bucket structures and multidimensional data structures. Random sampling, divide-and-conquer, grid methods. Applications in computational geometry and in game tree searching. Combinatorial search problems. Algorithms on random graphs.

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 primal-dual method, and metric embeddings.

COMP 694 RESEARCH PROJECT 1. (6) (Restriction: Computer Science students) Ongoing research pertaining to project.

COMP 695 RESEARCH PROJECT 2. (6) (Restriction: Computer Science students) Ongoing research pertaining to project.

COMP 698 THESIS RESEARCH 1. (9) (Restriction: Computer Science students) Ongoing research pertaining to thesis.

COMP 699 THESIS RESEARCH 2. (15) (Restriction: Computer Science students) Ongoing research pertaining to thesis.

COMP 700 PH.D. COMPREHENSIVE EXAMINATION. (0)

COMP 701 THESIS P

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DENT 669 EXTRACELLULAR MATRIX BIOLOGY. (3) Advanced topics on extracellular matrix biology with emphasis on matrix molecules and their effects on cell communication, tissue structure and integrity.

DENT 670 DENTAL R

The M.Sc. Applied is intended to provide advanced learning in Nutrition with substantial course work and either a *practicum in the field of Dietetics* or a *project in the area of Human Nutrition*. M.Sc. Applied students need not define their research area prior to enrolment.

Research Facilities: Students may conduct research at the School of Dietetics and Human Nutrition, including the Mary Emily Clinical Nutrition Research Unit, the Centre for Indigenous Peoples' Nutrition and Environment (CINE), or at the McGill University Health Centre.

In addition to their graduate degree, eligible candidates may complete the Graduate Diploma in Registered Dietitian Credentialing, the equivalent of a Dietetic Internship, required for professional registration as Dietitians and Nutritionists in Canada. Completion of the Graduate Diploma in Registered Dietitian Credentialing will increase the duration and cost of the program.

22.3 Admission Requirements

M.Sc.

Applicants must be graduates of a university of recognized reputation and hold a B.Sc. degree equivalent to a McGill Honours degree in a subject closely related to the one selected for graduate work. Applicants must have at least a cumulative grade point average (CGPA) in McGill University's credit equivalency of 3.2/4.0 (second class-upper division) during their Bachelor's degree program in nutrition or a closely related field. High grades are expected in courses considered by the academic unit to be preparatory to the graduate program.

M.Sc. (Applied)

Applicants to the M.Sc. Applied project or practicum options must have a B.Sc.(Nutritional Sciences) or equivalent with a GPA of 3.2 or higher. All eligible candidates may select the project option. Applicants who have completed a dietetic internship and six months work experience are eligible for the practicum option; it is open to students who do not have a working knowledge of French, however, not all practicum opportunities will be open to them.

Graduate Diploma in R.D. Credentialing

For information on admissions requirements, applicants must contact the School of Dietetics and Human Nutrition.

Ph.D.

Admission for Ph.D. studies normally requires a M.Sc. degree in an area related to the chosen field of specialization.

Qualifying Students - 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 if they have met the School's minimum CGPA of 3.2 out of 4.0. The course(s) to be taken in a Qualifying Program will be prescribed by the academic unit. Qualifying students are registered in graduate studies, **but not as candidates for a degree**. Only one qualifying year (two terms) is permitted. **Successful completion of a qualifying program does not guarantee admission to a degree program. Students must re-apply for admission to a degree program.**

201 or BIOC 212) An overview of the use of herbal medicines and food phytochemicals and the benefits and risks of their consumption. The physiological basis for activity and the assessment of toxicity will be presented. Current practices relating to the regulation, commercialization and promotion of herbs and phytochemicals will be considered.

★ **NUTR 600 ADVANCED CLINICAL NUTRITION 1.** (3) (3 lectures) (Prerequisites: Courses in human nutrition, biochemistry and physiology and permission of instructor.) Application of nutrition knowledge in the therapy and support of humans in various physiological and pathological states. The etiology, biochemistry and pathology of various medical disorders; their nutritional assessment and treatment.

★ **NUTR 602 NUTRITIONAL - STATUS ASSESSMENT.** (3) (1 lecture and 1 lab) (Prerequisites: courses in human nutrition, biochemistry and physiology.) The understanding and evaluation of dietary and anthropometric indices used in the nutritional assessment of individuals and groups.

★ **NUTR 603 NUTRITIONAL TOXICOLOGY.** (3) (Prerequisites: courses in human nutrition, biochemistry and physiology.) Combined lectures and tutorials cover topics in: mechanisms of nutrient modulation of xenobiotic toxicities; effects of nutrient excess and malnutrition on drug metabolism and toxicity; biogeography and hazards of environmental contaminants and food toxins: and nutrient effects on teratogenesis and carcinogenesis.

★ **NUTR 604 INTEGRATED METABOLIC RESEARCH.** (3) (2 seminars and 1 lab visit) (Prerequisites: at least one 500 or 600-level course in nutritional biochemistry, e.g. ANSC 551, ANSC 552, ANSC 634, and permission of instructor.) An in-depth analysis of concepts and investigative approaches to in vivo metabolic nutrition research. Seminars will emphasize stable isotope kinetic studies. Visiting scientists and tours of other laboratories will expose students to different approaches to research.

NUTR 606 HUMAN NUTRITION RESEARCH METHODS. (3) (3 lectures) (Prerequisites: A graduate course in statistics or permission of the instructor.) Basic approaches, philosophy and techniques used in nutrition research with human population groups. The course will include the formation and criticism of designs for research, sampling techniques, measurement and analysis issues and human research ethics.

NUTR 608 SPECIAL TOPICS 1. (3) (Prerequisite: permission of instructor and Director of School.) (Restriction: graduate students in Nutrition.) Prescribed reading, conference, lectures, assignments and/or practical work on selected topics in student's area of specialization. An approved course outline must be on file in the School's office prior to registration.

NUTR 609 SPECIAL TOPICS 2. (3) (Prerequisite: permission of instructor and Director of School.) (Restriction: graduate students in Nutrition.) An individualized course to allow students to 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) (Restrictions: Limited to McGill M.Sc. and M.Sc.Applied (Human Nutrition))

NUTR 680 HUMAN NUTRITION M.Sc. THESIS 1. (6) Independent research under the direction of a supervisor toward completion of the M.Sc. thesis.

NUTR 681 HUMAN NUTRITION M.Sc. THESIS 2. (6) Independent research under the direction of a supervisor toward completion of the M.Sc. thesis. Presentation of a thesis proposal.

NUTR 682 HUMAN NUTRITION M.Sc. THESIS 3. (9) Independent research under the direction of a supervisor toward completion of the M.Sc. thesis.

NUTR 683 HUMAN NUTRITION M.Sc. THESIS 4. (10) Final submission, thesis defense seminar and approval of the M.Sc. thesis.

NUTR 695 HUMAN NUTRITION SEMINAR 1. (1) Students will present a recent original research article in which the methods and data presentation will be critically analyzed. The article must be approved by the instructor.

NUTR 696 HUMAN NUTRITION SEMINAR 2. (1) Students will present a recent original research article in which the methods and data presentation will be critically analyzed. The article must be approved by the instructor.

NUTR 701 DOCTORAL COMPREHENSIVE EXAMINATION. (0) (See Faculty Regulations)

NUTR 795 HUMAN NUTRITION SEMINAR 4. (0)

NUTR 797 HUMAN NUTRITION SEMINAR 3. (1) Doctoral candidates will present a recent original research article in which the methods and data presentation will be critically analyzed. The article must be approved by the instructor.

NUTR 798 HUMAN NUTRITION SEMINAR 4. (1) Doctoral candidates will present a group of recent research articles in which the methods and data presentation will be critically analyzed. The articles must be approved by the instructor.

23 Earth and Planetary Sciences

Department of Earth and Planetary Sciences
Frank Dawson Adams Building
3450 University Street
Montreal, QC H3A 2A7

Sedimentary Geology

Sedimentology and stratigraphy of modern and ancient clastic and carbonate systems from outcrop, marine sampling, and sub-surface data; sequence stratigraphy; diagenesis.

Tectonics

Tectonics and structural geology, transpression in the Canadian Cordillera, origin of the Hudson Bay Arc, gravity features of sutures in the Canadian Shield, uplift of the Laurentides, paleomagnetism and plate motions.

Volcanology

Physical and chemical approaches to the study of active volcanoes and magmatic-hydrothermal systems; caldera systems, including the chemistry of silicic volcanic rocks, field and experimental studies of collapse mechanisms, and comparisons of recent and ancient caldera systems; magmatic volatiles and volcanic gas studies; arc volcanism, including eruption monitoring; and subaqueous volcanism, including experimental studies of subaqueous pyroclastic flows, and fragmentation of magma.

23.3 Admission Requirements

Applicants should have an academic background equivalent to that of a McGill graduate in the Honours or Majors program in geology, geophysics, chemistry, or physics (3.0 out of 4.0). The admissions committee may modify the requirements in keeping with the field of graduate study proposed. In some cases a qualifying year may be required.

23.4 Application Procedures

Applications and all supporting documents should be received in the Department before March 1st for admission the following September. Applicants who want to be considered for entrance awards, or requiring financial assistance, should apply as early as January 1st. There are no special forms required to apply for financial aid from the Department, as all applicants will be considered for the awards for which they are eligible.

Candidates should indicate their field(s) of interest when making formal application for admission. Specific inquiries concerning the Department should be addressed to Graduate Admissions, Department of Earth and Planetary Sciences.

McGill's online application form for graduate program candidates is available at www.mcgill.ca/applying/graduate.

23.5 Program Requirements

M.Sc. in Earth and Planetary Sciences (Thesis) (45 credits)

Complementary Courses (12 credits)

M.Sc. in Earth and Planetary Sciences (Thesis) – Environment Option/Concentration (48 credits)

Required Courses (9 credits)

Ph.D. Degree

The Ph.D. degree program comprises:

- a) an approved program of courses selected in consultation with the student's academic adviser, and approved by the Academic Standing Committee,
- b) a Comprehensive oral examination (EPSC 700) at the end of the Ph.D.II, and

EPSC 697D1 (4.5), EPSC 697D2 (4.5) THESIS PREPARATION

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

C. John Kurien; B.A.(Kerala), M.A., Ph.D.(Vanderbilt)
Daniel Parent; B.A., M.A.(Laval), Ph.D.(Montr.) (*William Dawson Scholar*)
Christopher T.S. Ragan; B.A.(Vic., BC), M.A.(Qu.), Ph.D.(MIT)
Lee Soderstrom; B.A., Ph.D.(Calif.)
Thomas Velk; M.S., Ph.D.(Wisc.)
Alexander Vicas; B.Com.(McG.), M.A., Ph.D.(Princ.)
William Watson; B.A.(McG.), Ph.D.(Yale)
Licun Xue; B.Eng., M.Eng.(Tianjin), M.A., Ph.D.(McG.)

Assistant Professors

Francisco Alvarez-Cuadrado; B.Sc.(U. Pontifica Comillas), M.A., Ph.D. (Wash.)
Leah Brooks; B.A.(Chic.), Ph.D.(Calif.-LA)
Takashi Kunimoto; B.E.(Doshisha), M.A.(Kyoto), M.A., Ph.D.(Brown)
Sonia Laszlo; B.A.(Ott.), M.A.(W. Ont.), Ph.D.(Tor.)
Markus Poshke; M.Sc.(Maastricht), M.A.(Institut d'Etudes Politiques, Paris), M.Res., Ph.D.(European University Institute, Italy)
Maxim Sinitsyn; B.A.(Central Methodist College), M.S.(Ill.), M.A., Ph.D.(N'western)
Erin Strumpf; B.A.(Smith), Ph.D.(Harv.)
Dhanoos Sutthiphisal; B.Eng.(Chulalonghorn), M.B.A., M.S.(Lehigh), C. Phil.(Calif.-LA)

Economics; International Economics; Labour Economics; Monetary Economics; Public Finance; Mathematical Economics; Advanced Theory. Courses at the 600 level are usually taught in the first-term. Seminars/course0..9(n)53uop-

25.2 Programs Offered

M.A. in Economics, thesis and non-thesis options.
Ph.D.

Because this Calendar is prepared early in the year, changes may take place after it has been printed. Students are advised to contact the Department Office for supplementary information which may be important to their choice of program.

25.3 Admission Requirements

An Honours B.A. in Economics is the normal requirement, although students holding an ordinary B.A., whether in economics or another discipline, may also be eligible for admission. Students judged by the admissions committee to have deficiencies in their preparation in economics may be admitted to a qualifying year in which they undertake advanced undergraduate work.

Students who have not previously passed a suitable course in statistics must take the undergraduate honours statistics course, ECON 257D1/ECON 257D2. A course in the history of economic thought is also a prerequisite for a graduate degree in economics, and students who have not taken such a course will be required to take ECON 460 and ECON 461 or ECON 660 (the M.A. course in History of Economic Thought). Students are also expected to have completed or to complete three terms of introductory calculus and at least one term of linear algebra.

25.4 Application Procedures

Applications will be considered upon receipt of:

1. application form
2. two copies of official transcripts sent by the university
3. two letters of reference
4. \$80 application fee
5. original TOEFL and/or GRE results, if applicable.

Information and electronic application forms can be accessed from the Economics Department Website at www.mcgill.ca/economics.

Deadline: February 1st for financial consideration.

25.5 Program Requirements

Lectures and examinations in the graduate program (M.A. and Ph.D.) in Economics are given in Macroeconomics, Microeconomics and several fields: Econometrics; Economic Development; Economic History; Industrial Organization; Health

Anthropology, Economics, and Sociology. This thesis option is open to master's students specializing in development studies. Students enter through one of the [participating departments and must meet the M.A. requirements of that unit. Students will take an interdisciplinary seminar and a variety of graduate level courses on international development issues. The M.A. thesis must be on a topic relating to development studies, approved by the DSO coordinating committee.

M.A. in Economics (Non-Thesis) – Development Studies Option/Concentration (45 credits)

Required Courses (33 credits)

REQUIREMENTS FOR THE Ph.D. DEGREE

Coursework (20 credits)

Three years of residence (credit for one year may be granted for master's work at McGill or for graduate study at another university).

Ph.D. Comprehensive Examination. This examination consists

IV. M.A. Degree Program Non-Thesis Option in Social Statistics:

The program complements disciplinary training with research experience applying statistical methods to Statistics Canada data (or equivalent). Students will normally complete normal program course requirements, supplemented by further statistical courses, as advised by the Option advisor, and subject to approval by the home department. Students will complete a statistics-based M.A. research paper (Economics, Political Science, Sociology) or thesis (Geography) in conjunction with an interdisciplinary capstone seminar.

Acceptance into the program is by application to the Social Statistics Option Committee and is contingent on acceptance into the M.A. program in one of the participating departments (Economics, Geography, Political Science, Sociology), which in turn requires meeting the Graduate and Postdoctoral Studies Office admission requirements.

M.A. in Economics (Non-Thesis) – Social Statistics Option/Concentration (45 credits)

Required Courses (30 credits)

literature in economics. Required for all Ph.D. students who have not taken Econometrics as a field.

ECON 670 THESIS 1. (6)

ECON 671 THESIS 2. (6)

ECON 672 THESIS 3. (6)

ECON 675 ANALYSIS OF MACROECONOMIC POLICY. (3) (Prerequisites: ECON 620.) The underlying principles of the design, implementation, and analysis of macroeconomic policy, with applications to monetary policy, exchange-rate policy, tax policy to influence growth and distribution, and the effect of government spending and debt. Emphasis is placed on Canadian macroeconomic policy, although international comparisons are also discussed.

ECON 680 M.A. REPORT 1. (3) The M.A. Report must demonstrate the candidate's ability to do independent work at the graduate level in a particular field of economics. While length will vary with the subject matter, it is expected that on average reports will be about 50 pages long. The Report will be graded jointly by two members of the Department. The supervisor will normally be one of the examiners.

ECON 681 M.A. REPORT 2. (3) The M.A. Report must demonstrate the candidate's ability to do independent work at the graduate level in a particular field of economics. While length will vary with the subject matter, it is expected that on average reports will be about 50 pages long. The Report will be graded jointly by two members of the Department. The supervisor will normally be one of the examiners.

ECON 681D1 (1.5), ECON 681D2 (1.5) M.A. REPORT 2. (Students must register for both ECON 681D1 and ECON 681D2) (No credit will be given for this course unless both ECON 681D1 and ECON 681D2 are successfully completed in consecutive terms) (ECON 681D1 and ECON 681D2 together are equivalent to ECON 681) The M.A. Report must demonstrate the candidate's ability to do independent work at the graduate level in a particular field of economics. While length will vary with the subject matter, it is expected that on average reports will be about 50 pages long. The Report will be graded jointly by two members of the Department. The supervisor will normally be one of the examiners.

ECON 682 M.A. REPORT 3. (3) The M.A. Report must demonstrate the candidate's ability to do independent work at the graduate level in a particular field of economics. While length will vary with the subject matter, it is expected that on average reports will be about 50 pages long. The Report will be graded jointly by two members of the Department. The supervisor will normally be one of the examiners.

ECON 682D1 (1.5), ECON 682D2 (1.5) M.A. REPORT 3. (Students must register for both ECON 682D1 and ECON 682D2) (No credit will be given for this course unless both ECON 682D1 and ECON 682D2 are successfully completed in consecutive terms) (ECON 682D1 and ECON 682D2 together are equivalent to ECON 682) The M.A. Report must demonstrate the candidate's ability to do independent work at the graduate level in a particular field of economics. While length will vary with the subject matter, it is expected that on average reports will be about 50 pages long. The Report will be graded jointly by two members of the Department. The supervisor will normally be one of the examiners.

ECON 683 M.A. REPORT 4. (3) The M.A. Report must demonstrate the candidate's ability to do independent work at the graduate level in a particular field of economics. While length will vary with the subject matter, it is expected that on average reports will be about 50 pages long. The Report will be graded jointly by two members of the Department. The supervisor will normally be one of the examiners.

ECON 705 READING COURSE: SELECTED TOPICS ECONOMICS. (3) Reading course in Economics.

ECON 706 SELECTED TOPICS. (3) (Prerequisites: ECON 610, ECON 620 and 6 additional credits at the 600 level) Reading course in Economics.

ECON 710 SELECTED TOPICS IN ECONOMICS. (3) Selected topics in specialized areas of Economic.

ECON 720 ADVANCED GAME THEORY. (3) The main focus of the course will be the "theory of social situations" (which is closely related to "game theory") which is a new and integrative approach to the study of formal models (both cooperative and non-cooperative) in the social sciences.

ECON 721 ADVANCED MONETARY THEORY. (3) Selected topics in monetary theory, the theory of monetary policy, and the history of monetary institutions.

ECON 724 INTERNATIONAL ECONOMICS. (3) Selected problems in international trade, foreign exchange and international movements of capital.

ECON 726 TOPICS IN ENVIRONMENTAL ECONOMICS. (3) Topics in

ECON 763 FINANCIAL ECONOMETRICS. (3) This course covers advanced time series methods used in the analysis of financial data and other potentially non-stationary time series. Topics: integrated time series, co-integration, unit root testing, conditional heteroscedasticity, long memory, non-parametric and neural network models. Applications include market efficiency, stochastic volatility and predictability of asset returns.

ECON 765 MODELS FOR FINANCIAL ECONOMICS. (3) (Prerequisite: Permission of instructor) A review of mathematical techniques used in modern finance theory, including measure theory and stochastic processes in continuous time (e.g., Brownian motion) and other techniques essential to understanding arbitrage pricing theory, including the pricing of options.

ECON 770 PHD RESEARCH SEMINAR 1. (1) (Prerequisites: All comprehensive and field examinations are to be completed.) (Note: ECON 770 and ECON 771 may be taken in either order.) Presentation of PhD research.

ECON 771 PHD RESEARCH SEMINAR 2. (1) (Prerequisites: All comprehensive and field examinations are to be completed.) (Note: ECON 770 and ECON 771 may be taken in either order.) Presentation of PhD research.

ECON 799 PH.D.COMPREHENSIVE EXAMINATION. (0)

ECON 799D1 (0), ECON 799D2 (0) PH.D. COMPREHENSIVE EXAMINATION. (Students must register for both ECON 799D1 and ECON 799D2) (No credit will be given for this course unless both ECON 799D1 and ECON 799D2 are successfully completed in consecutive terms) (ECON 799D1 and ECON 799D2 together are equivalent to ECON 799)

26 Educational and Counselling Psychology

Department of Educational and Counselling Psychology
Education Building, Room 614
3700 McTavish Street
Montreal, QC H3A 1Y2

Telephone – Program Information: (514) 398-4242

Fax: (514) 398-6968

Web site: www.mcgill.ca/edu-ecp

Chair — Susanne P. Lajoie

Program Directors:

Professional Psychology Program Grouping

Counselling Psychology

Acting Program Director — Marilyn Fitzpatrick

School/Applied Child Psychology

Acting Program Director — Jeffrey D

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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 and the Quebec Order of Psychologists (OPQ). 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

Ph.D. 2 Level

Applicants should hold an M.A. in Educational Psychology from McGill or a recognized equivalent degree, reflecting high overall standing, study within the area of proposed doctoral specialization, and evidence of research competence.

The requirements for the M.A. (Thesis) Educational Psychology specialization in School/Applied Child Psychology are described in [section 26.5.4 "Graduate Degrees in Educational Psychology – M.Ed., M.A. \(Non-Thesis\), M.A., Ph.D."](#).

Ph.D. 1 Level

(a) Applicants should hold an M.Ed. in Educational Psychology or a Master's degree in a related discipline (e.g., sociology, social 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. three 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,
4. a copy of a Master's thesis, Honours thesis, or research project (which will be returned after examination), and
5. a letter from the applicant's prospective supervisor agreeing to act as their Ph.D. supervisor.

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 initial application. (This option is rarely exercised.)

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.

The specific requirements to be admitted at each level are as follows:

Ph.D. 2 Level

Applicants should hold an M.A. in Educational Psychology from McGill or a recognized equivalent degree, reflecting high overall standing, study within the area of proposed doctoral specialization, and evidence of research competence.

Ph.D. 1 Level

(a) Applicants should hold an M.Ed. in Educational Psychology or a Master's degree in a related disc

Required Courses (9 credits)

(j) Computer Applications in Education

(Admission to this minor concentration has been suspended.)

Complementary Courses (9 credits)

26.6 Courses

Students preparing to register should consult the Web at www.mcgill.ca/minerva (click on Class Schedule) for the most

career education and guidance programs that refer to the subject

(No credit will be given for this course unless both EDC 699D1 and EDC 699D2 are successfully completed in consecutive terms)

exploration of the principles of artificial intelligence as a metaphor for understanding conventional instructional and learning-processes. Topics include expert systems, intelligent computer-assisted instruction, tutoring systems, fifth-generation languages, and logic programming (e.g. Prolog). Lectures, discussion, demonstrations, and where possible site visits and hands-on experience will be provided.

EDPE 564 FAMILY COMMUNICATION. (3) (May be offered through Summer Studies.) Family communication processes and interpersonal reactions in the context of marriage and the contemporary family will be considered. Attention will be given to role changes and the effect of crises on marital and family relationships.

EDPE 575 EDUCATIONAL MEASUREMENT. (3) (Offered through Continuing Education and Summer Studies.) Statistical measurements in education, graphs, charts, frequency distributions, central tendencies, dispersion, correlation, and sampling errors.

EDPE 595 SEMINAR IN SPECIAL TOPICS. (3) (Restriction: Permission must be obtained from the Department before registration.) The content of the seminar will vary from year to year and will be announced prior to registration. The seminar may be given by

EDPE 636 CLASSROOM PROCESSES - SOCIAL. (3) Instructional or environmental effects on learning and their implications for educational practice, with particular emphasis on such topics as the social psychology of learning, family background and effects, classroom interaction, teacher impact, and ethnographic and survey approaches to their study.

EDPE 637 ISSUES IN HEALTH PROFESSIONS EDUCATION. (3) An overview of health professions education issues, including: learning and assessment in the clinical setting, medical core competencies, design, delivery and evaluation of health professions education programs, organization & management of health professions education programs and systems, organizational change and leadership, clinical reasoning and decision making, interdisciplinary education.

EDPE 639 PRACTICUM IN HEALTH PROFESSIONS EDUCATION. (3) (Restriction: Approval by instructor required for registration.) Practical exposure to teaching, learning, and evaluation in health professions education, including participant/observer experience in ambulatory clinics, inpatient settings, operating rooms, small group sessions, lectures, laboratories, and seminars. Seminars for discussion and reflection on experiences.

EDPE 640 RESEARCH IN COMPUTER APPLICATIONS. (3) Recent research findings on applications of the computer to educational and psychological issues. Research paradigms. The use of the computer as an object of research as well as a research tool in education. Future directions in research.

EDPE 641 Use of Technology in Health Professions Education. (3) (Restriction: Approval by instructor required for registration.) This course explores the use of technology in health professions education. Topics include: the use of technology in the classroom, the use of technology in the clinical setting, the use of technology in research, and the use of technology in the health professions education program. (ESces.)TloAU.

EDPE 696D1 (3), EDPE 696D2 (3) THESIS 6. (Students must register for both EDPE 696D1 and EDPE 696D2) (No credit will be given for this course unless both EDPE 696D1 and EDPE 696D2 are successfully completed in consecutive terms) (EDPE 696D1 and EDPE 696D2 together are equivalent to EDPE 696) Thesis research under supervision of a research director.

EDPE 697 SPECIAL ACTIVITY 1. (6)

EDPE 697D1 (3), EDPE 697D2 (3) SPECIAL ACTIVITY 1. (Students must register for both EDPE 697D1 and EDPE 697D2) (No credit will be given for this course unless both EDPE 697D1 and EDPE 697D2 are successfully completed in consecutive terms) (EDPE 697D1 and EDPE 697D2 together are equivalent to EDPE 697)

EDPE 698 SPECIAL ACTIVITY 2. (6) A project relevant to improving educational practice. It may be an internship, a research project, or an innovation in teaching, supervised by the student's advisor and with the approval of the department. It is completed by the submission of a project report, monograph, or production. For M.Ed. students only.

EDPE 698D1 (3), EDPE 698D2 (3) SPECIAL ACTIVITY 2. (Students must register for both EDPE 698D1 and EDPE 698D2) (No credit will be given for this course unless both EDPE 698D1 and EDPE 698D2 are successfully completed in consecutive terms) (EDPE 698D1 and EDPE 698D2 together are equivalent to EDPE 698) A project relevant to improving educational practice. It may be an internship, a research project, or an innovation in teaching supervised by the student's advisor and with the approval of the department. It is completed by the submission of a project report, monograph, or production. For M.Ed. students only.

EDPE 704 ADVANCED SEMINAR: COGNITIVE/INSTRUCTION ISSUES 1. (3) Research and theory in the study of human learning and teaching and related psychological considerations. An exploration of present frontiers of knowledge in these areas and of research, analytical methods, and the ethical conduct of research in education and professional settings.

EDPE 705 ADVANCED SEMINAR: COGNITIVE/INSTRUCTION ISSUES 2. (3) Research and theory in the study of human learning and teaching and related psychological considerations. An exploration of present frontiers of knowledge in these areas and of research, analytical methods, and the ethical conduct of research in education and professional settings.

EDPE 706 ADVANCED SEMINAR: COGNITIVE/INSTRUCTION RESEARCH 1. (3) (Prerequisite: EDPE 705.) Seminar in cognitive and instructional research.

EDPE 707 ADVANCED SEMINAR: COGNITION/INSTRUCTION RESEARCH 2. (3) (Prerequisite: EDPE 706.) Seminar in cognitive and instructional research.

EDPE 708 COMPREHENSIVE EXAMINATION. (6) A four-part evaluation which is normally taken at the end of the Ph.D. 2 year. A detailed description of the examination is provided to all students.

EDPE 708D1 (3), EDPE 708D2 (3) COMPREHENSIVE EXAMINATION. (Students must register for both EDPE 708D1 and EDPE 708D2) (No credit will be given for this course unless both EDPE 708D1 and EDPE 708D2 are successfully completed in consecutive terms) (EDPE 708D1 and EDPE 708D2 together are equivalent to EDPE 708) A four-part evaluation which is normally taken at the end of the Ph.D. 2 year. A detailed description of the examination is provided to all students.

EDPE 710 CONSULTATION IN SCHOOL PSYCHOLOGY. (3) (Corequisites: EDPE 625, EDPE 626 or equivalent.) Open only to students in School/Applied Child Psychology and with permission, Counselling Psychology and Special Populations Major. A clinical course on the use of consultation in ONon the C

**EDPE 725D1 (6), EDPE 725D2 (6) INTERNSHIP 1 - SCHOOL PSY-
CHOLOGY**

EDPI 667 BEHAVIORAL AND E

recognized Canadian institution (anglophone or francophone), must submit documented proof of competency in English by a Test of English as a Foreign Language (TOEFL) with a score not

Students who choose the thesis option must register for all 29 credits during the course of study. Students in the thesis option must carry a full load (minimum of 12 credits) during the three terms of the residency requirement.

and sliding mode control; applications to deterministic adaptive control.

ECSE 506 STOCHASTIC CONTROL & DECISION THEORY. (3) (3-0-6) (Prerequisites: ECSE 509 and ECSE 500.) Gaussian processes and tail bounds; Bandit problems and optimal policies; Markov decision processes; Dynamic programming and optimal control in discrete time; learning models control from data; the ODE method and stochastic approximation; Q-learning; Approximate dynamic programming, linear stochastic systems; linear Gaussian systems; linear-quadratic control; system identification and stochastic adaptive control.

ECSE 507 OPTIMIZATION AND OPTIMAL CONTROL. (3) (3-0-6) (Prerequisites: MATH 264 or MATH 265 or MATH 248, MATH 270 or MATH 247) General Introduction to optimization methods including steepest descent, conjugate gradient, Newton algorithms. Generalized matrix inverses and the least squared error problem. Introduction to constrained optimality; convexity and duality; interior point methods. Introduction to dynamic optimization; existence theory, relaxed controls, the Pontryagin Maximum Principle. Sufficiency of the Maximum Principle.

ECSE 508 MULTI-AGENT SYSTEMS. (3) (3-0-6) (Prerequisite: ECSE 305 or equivalent.) Introduction to game theory, strategic games, extensive form games with perfect and imperfect information, repeated games and folk theorems, cooperative game theory, introduction to mechanism design, markets and market equilibrium, pricing and resource allocation, application in telecommunication networks, applications in communication networks, stochastic games.

ECSE 509 PROBABILITY AND RANDOM SIG. 2. (3) (3-0-6) (Prerequisites: ECSE 304 and ECSE 305) Multivariate Gaussian distributions; finite-dimensional mean-square estimation (multivariate case); principal components; introduction to random processes; weak stationarity: correlation functions, spectra, linear processing and estimation; Poisson processes and Markov chains: state processes, invariant distributions; stochastic simulation.

ECSE 510 STOCHASTIC PROCESSES AND SYSTEMS. (3) (3-0-6) (Prerequisite: ECSE 500 and ECSE 509 or equivalent.) Basic notions. Linear state space (SS) systems. Least squares estimation and prediction: conditional expectations; Orthogonal Projection Theorem. Kalman filtering; innovations; Riccati equation. ARMA and SS systems. Stationary processes; Wold decomposition; spectral factorization; Weiner filtering. The Weiner process; linear stochastic differential equations; continuous time filtering. Chapman-Kolmogorov, Fokker-Plank equations. Applications.

ECSE 511 INTRODUCTION TO DIGITAL COMMUNICATION. (3) (3-1-5) (Prerequisite: ECSE 304.) (Corequisite: ECSE 509) (An advanced version of ECSE 411) (Tutorials

ECSE 530 LOGIC SYNTHESIS. (3) (3-2-4) (Prerequisite: ECSE 323) The place of logic synthesis in microelectronics. Representations of Boolean functions: logic covers, binary decision diagrams. Two-level synthesis algorithms, Espresso. Multi-level synthesis to Boolean networks: don't care methods, algebraic optimizations, delay modelling. Sequential synthesis: state-based optimizations, state assignment, network optimizations. Technology mapping: library cell and FPGA mapping.

ECSE 532 COMPUTER GRAPHICS. (3) (3-3-3) (Prerequisite: ECSE 322) Introduction to computer graphics systems and display devices: raster scan, scan conversion, graphical input and interactive techniques - window environments; display files: graphics languages and data structures: 2D transformations; 3D computer graphics, hidden line removal and shading; graphics system design; applications. Laboratory project involving the preparation and running of graphics programs.

ECSE 533 PHYSICAL BASIS OF SEMICONDUCTOR DEVICES. (3) (3-0-6) (Prerequisites: ECSE 330, ECSE 351 and PHYS 271) Quantitative analysis of diodes and transistors. Semiconductor fundamentals, equilibrium and non-equilibrium carrier transport, and Fermi levels. PN junction diodes, the ideal diode, and diode switching. Bipolar Junction Transistors (BJT), physics of the ideal BJT, the Ebers-Moll model. Field effect transistors, metal-oxide semiconductor structures, static and dynamic behaviour, small-signal models.

ECSE 534 ANALOG MICROELECTRONICS. (3) (3-0-6) (Prerequisite: ECSE 334) Design of analog ICs using specialized analog CAD tools such as SPICE. Voltage and current amplifier design which encompasses the study of biasing circuits, current sources and mirrors, input and output stages, and frequency compensation; precision reference sources; analog multipliers; oscillators; waveform generators and shaping circuits, and analog switches.

ECSE 535 NANOELECTRONIC DEVICES.(3) Physical principles and

ECSE 593 ANTENNAS AND PROPAGATION. (3) (3-0-6) (Prerequisites: ECSE 303 and ECSE 352.) Fundamentals of antenna theory: sources, radiation pattern and gain. Classification of antennas. Main antenna types and their characteristics. Antenna temperature, remote sensing and radar cross-section. Self and mutual impedances. Special topics include adaptive antennas,

ECSE 649 VLSI TESTING. (4) (3-0-9) (Prerequisite: B.Eng. or equivalent.) The course is to orient designers of VLSI chips and boards to think about testing problems in parallel with the design process. Consideration in structured design-for-testability as a requirement for complex systems will be emphasized; as well as the emerging concept of built-in self-test (BIST).

ECSE 651 M. ENG. PROJECT 1. (1) (0-0-3)

ECSE 652 M.ENG. PROJECT 2. (2) (0-0-6)

ECSE 653 M.ENG. PROJECT 3. (3) (0-0-9)

ECSE 654 M.ENG. PROJECT 4. (4) (0-0-12)

ECSE 655 M.ENG. PROJECT 5. (5) (0-0-15)

ECSE 656 M.ENG. PROJECT 6. (5) (0-0-15)

ECSE 670D1 (0.5), ECSE 670D2 (0.5) COMPUTATIONAL SCIENCE ENGINEERING SEMINAR. (Restriction: This seminar course is open only to students who were admitted to the CSE Program Option.) (Students must register for both ECSE 670D1 and ECSE 670D2.) (No credit will be given for this course unless both ECSE 670D1 and ECSE 670D2 are successfully completed in consecutive terms.) Techniques and applications in computational science and engineering.

ECSE 670N1 COMPUTATIONAL SCIENCE ENGINEERING SEMINAR. (0.5) (Restriction: This seminar course is open only to students who were admitted to the CSE Program Option.) (Students must also register for ECSE 670N2.) (No credit will be given for this course unless both ECSE 670N1 and ECSE 670N2 are successfully completed in a twelve month period.) Techniques and applications in computational science and engineering.

ECSE 670N2 COMPUTATIONAL SCIENCE ENGINEERING SEMINAR. (0.5) (Prerequisite: ECSE 670N1.) (No credit will be given for this course unless both ECSE 670N1 and ECSE 670N2 are successfully completed in a twelve month period.) See ECSE 670N1 for description.

ECSE 675 SOLAR CELLS AND JUNCTIONS. (4) (3-0-9) (Prerequisite: ECSE 432) Schottky junctions: potential barriers, diffusion theory, thermionic emission theory, image force lowering, carrier injection, depletion layer recombination, tunnelling, effect of surface states and interfacial layer, barrier height determination. Photovoltaic solar cells: short circuit current, spectral response, equivalent circuit, fill factor, conversion efficiency.

ECSE 677 EXPERIMENTAL TECHNIQUES: SOLID STATE. (4) (0-6-6) (Prerequisite: ECSE 545) Experimental project in solid state involving the following: techniques of preparation, fabrication and orientation of samples and structures for experimental study; use of special laboratory apparatus; measurement of electronic, optical and structural properties of samples and structures; evaluation of electronic behaviour and performance; interpretation of relevant physical processes and phenomena.

ECSE 678 SPECIAL TOPICS IN SOLIDS 1. (4) (3-0-9) (Prerequisite: ECSE 432) Discussion of topics in semiconductor electronics and electronic properties of materials in areas of current research to the Department.

ECSE 681 COLLOQUIUM IN ELECTRICAL ENGINEERING. (4) Directed reading, seminar and discussion course in various subjects of current interest in electrical engineering research.

ECSE 682 TOPICS IN COMPUTERS AND CIRCUITS. (4) (3-0-9)

ECSE 683 TOPICS IN VISION AND ROBOTICS. (4) (3-0-9)

ECSE 684 TOPICS: COMPUTER AIDED DESIGN. (4) (3-0-9)

ECSE 685 TOPICS IN POWER ENGINEERING. (4) (3-0-9)

ECSE 686 TOPICS: COMMUNICATIONS



ENGL 504 19TH CENTURY. (3) (In 2007/08: 19th-Century Realist Fiction.)

ENGL 505 20TH CENTURY. (3) (In 2007/08: Space and Time in Postcolonial Theory and Literature.)

ENGL 516 SHAKESPEARE. (3)

ENGL 525 AMERICAN LITERATURE. (3)

ENGL 527 CANADIAN LITERATURE. (3) (In 2007/08: Canadian Food Narratives.)

ENGL 528 CANADIAN LITERATURE. (3)(In 2007/08: Alice Munro.)

ENGL 529D1 (1.5), ENGL 529D2 (1.5) INTERDISCIPLINARY

ENGL 796 RESEARCH PROJECT. (6) (Restriction: Ph.D Candidates)

ENGL 797 COMPULSORY RESEARCH PROJECT. (6) (Restriction: Ph.D Candidates)

ENGL 798 DISSERTATION PROPOSAL. (3) (Restriction: Ph.D Candidates)

29 Environment

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Advisor — Christina Zhu
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Fax: (514) 398-1643
E-mail: christina.zhu@mcgill.ca
Website: www.mcgill.ca/mse

Director — Nigel Roulet

29.1 Staff

Professors

Brown, Peter G.; B.A.(Haver.), M.A., Ph.D.(Col.) (*joint appt. with Geography and Natural Resource Sciences*)

Chapman, Colin; B.Sc., M.A., Ph.D.(Alta.) (*joint appt. with Anthropology*)

Roulet, Nigel; B.Sc., M.Sc.(Trent); Ph.D.(McM.) (*joint appt. with Geography*)

Associate Professors

Fabry, Frédéric; B.Sc., M.Sc., Ph.D.(McG.) (*joint appt. with Atmospheric and Oceanic Sciences*)

Sieber, Renée; B.Sc.(Mich. St.), M.P.A.(W. Mich.), Ph.D.(Rutg.) (*joint appt. with Geography*)

Assistant Professors

Badami, Madhav; B.Tech., M.Sc.(Indian IT), M.E.Des.(Calg.), Ph.D.(Br. Col.) (*joint appt. with School of Urban Planning*)

Bennett, Elena; B.A.(Oberlin), M.Sc., Ph.D.(Wisc.) (*joint appt. with Natural Resource Sciences*)

29.3 Admission Requirements

Once accepted into a partner department, candidates will apply for admission to the Environment Option through the McGill School of Environment. Their acceptability will be based on their academic experience and performance, and availability of a potential MSE accredited supervisor or co-supervisor for their proposed research.

29.4 Program Requirements

Students admitted into the Environment Option will be supervised or co-supervised by an accredited McGill faculty member. Their supervisory committee will include at least one individual from outside the home department. It is expected that the thesis, dissertation or project as well as the final seminar presentation will contain an environmental component and will include a discussion of the applied implications of the research findings. Together with the courses common to the Environment Option, specific course requirements for each program are given within the departmental listings cited below.

Program List

The Environment option is currently available with the following graduate programs:

29.5 Courses

ENVR 519 GLOBAL ENVIRONMENTAL POLITICS. (3) (Prerequisite: ENVR 201 or ENVR 203 or permission of instructor) (Restrictions: Open to students in the Environment Option (available to other students with permission of instructor). Not open to students who have taken ENVR 580 -- section 001 -- in Winter 2002, Fall 2003, or Fall 2004.) (Note: This course has been offered three times as a Topics in Environment Course.) How the problem of environ-

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.)

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.)

A. Benedetti; B.Sc., M.Sc., Ph.D.(McG.)(*joint appt. with Medicine*)

D. Buckeridge; M.D.(Qu.), M.Sc.(Tor.), Ph.D.(Stan.) (*Canada Research Chair*)

J. Cox; M.D.(Dal.), M.Sc.(McG.) (*joint appt. with Family Medicine*)

N. Dendukuri; M.Sc.(Indian IT), Ph.D.(McG.) (PT)

E. Loucks; B.Sc., Ph.D.(Br. Col.) (*joint appt. with Psychiatry*)

A. Manges, B.A.(Col.), M.P.H., Ph.D.(Calif., Berk.)

E.E.M. Moodie; B.A.(Winn.); MPhil(Camb.), Ph.D.(Wash.)

M. Pai; MBBS(Stanley Medical College), M.D.(Christian Medical College), Ph.D.(Calif., Berk.)

L. Patry; B.Sc., M.D.(Laval), F.R.C.P.(C) (PT)

A. Quesnel-Vallée; B.A., M.Sc.(Montr.), M.A., Ph.D.(Duke) (*joint appt. with Sociology*)

E. Strumpf; B.A.(Smith), Ph.D.(Harv) (*joint appt. with Economics*)

G. Tan; D.Phil.(Oxf.) (PT)

Associate Members

Dentistry: P. Allison, J. Feine; *Pediatrics:* G. Dougherty, B. Foster,

G. Pekeles; *Family Medicine:* T. Tannenbaum; *Dietetics and*

Human Nutrition: K. Gray-Donald; *Geography:* L(ography)Tj/TT2 1 4041 4041v/T.3(B.m4 Tc-0.063D0.0002w(n67 -1.1259D-0.0003 TD-Tj/TT2 1lt-0.0017 T

Note: Special students and students from other departments or universities require the permission of the course instructor.

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

EPIDEMIOLOGY

EPIB 525 HEALTH CARE SYSTEMS IN COMPARATIVE PERSPECTIVE.

(3) (Prerequisite: Permission of instructor.) (Restriction: Not open to students who are taking or have taken SOCI 525.) (Note: This course is cross-listed in Epidemiology, Biostatistics and Occupational Health and in Sociology) Comparative perspective to illustrate processes involved in the development and evolution of health care systems around the world. Countries examined will represent different welfare state regimes, health care system typologies, levels of development and wealth.

EPIB 601 FUNDAMENTALS OF EPIDEMIOLOGY 1.(4) (Corequisite: EPIB 607.) (New restriction: Not open to students who have taken EPIB 606.) This course aims to provide a comprehensive introduction to epidemiologic concepts and corresponding terms. After an introduction to the history, definition, and purposes of epidemiology, "core" concepts that are relevant in several areas of investigation (e.g. etiologic research, health care research, and community medicine practice) will be presented.

EPIB 602 FUNDAMENTALS OF EPIDEMIOLOGY 2.(3) Principles of measurement of exposures, covariates, and outcomes in epidemiological research, including design and conduct of surveys; chronic and infectious disease surveillance; screening and diagnostic tests; and qualitative methods.

EPIB 603 INTERMEDIATE EPIDEMIOLOGY.(3) (Prerequisites: EPIB 601, EPIB 602, and EPIB 607.) Concepts and methods for epidemiology at the intermediate level, including causation, measures of disease occurrence and effect, study designs, biases in epidemiologic research, and interaction.

EPIB 605 PRACTICUM.(1) (Prerequisites: EPIB 601 and EPIB 607.) This course gives students the opportunity to integrate knowledge from and apply principles covered in courses EPIB 606 and EPIB 607.

EPIB 607 INFERENCE STATISTICS. (4) (Prerequisite (Undergraduate): A first year course in undergraduate differential and integral calculus.) Introduction to the basic principles of statistical inference used in clinical and epidemiologic research. Topics include variability; methods of processing and describing data; sampling and sampling distributions; inferences regarding means and proportions, non-parametric methods, regression and correlation.

EPIB 608 ADVANCED EPIDEMIOLOGY. (3) (Prerequisite: Ph.D. candidates or permission of instructor.) Discussion of methodologic issues in the recent literature, including causal inference, measures of disease frequency, measures of effect, epidemiologic study designs, biases, statistics in epidemiology, and special topics. Discussion of day to day practice of epidemiology. Offered in alternate years or yearly depending on demand.

EPIB 609 SEMINAR ON ADVANCED METHODS IN EPIDEMIOLOGY.(3) (Prerequisites: EPIB 603 and EPIB 608 or equivalent courses or permission of instructor.) (Note: Enrolment in Epidemiology or Permission of Instructor.) A seminar course on selected topics in

V. Yaylayan; B.Sc.(Beirut), M.Sc., Ph.D.(Alta.)

Adjunct Professors

J.W. Austin, Y. Konishi, B. Lee, M. Marcotte, J.R.J. Pare

31.2 Programs Offered

M.Sc. (Non-Thesis), M.Sc. (Thesis) and Ph.D.

The Department has laboratory and research facilities required for research leading to the degree of Master of Science and Doctor of Philosophy in the field of food science, specifically in the chemical, biochemical and analytical aspects thereof.

31.3 Admission Requirements

of analytical aspects thereof. The Department has laboratory and research facilities required for research leading to the degree of Master of Science and Doctor of Philosophy in the field of food science, specifically in the chemical, biochemical and analytical aspects thereof.

M.Sc. in Food Science and Agri

FDSC 692 M.Sc. THESIS. (15) Master of Science research portion of the M.Sc. thesis based on results obtained from the research phase of the M.Sc. thesis. Satisfactory completion of the M.Sc. Thesis, its approval by reviewers and acceptance by the Graduate and Postdoctoral Studies Office is

des séminaires offerts ainsi que tous les renseignements pertinents sur les programmes.

Cours offerts en 2007-2008. Le nombre de crédits est indiqué entre parenthèses, après le titre du cours.

FREN 551 LECTURES GUIDÉES 2. (3) (Winter) Identique au précédent.

FREN 599 STAGE EN MILIEU DE TRAVAIL. (3) (Ouvert aux étudiants de U3 avec une moyenne de 3,3 pour l'ensemble du programme, dans un programme de Spécialisation ou de Concentration majeure du Département; les trois crédits comptent parmi les crédits libres ("electives"); permission du comité des études requise. Pour les étudiants de M.A. ou de Ph.D., permission du comité des études de 2e et 3e cycles; à noter que ces crédits ne peuvent pas compter comme crédits de programme de M.A. ou de Ph.D. Une description complète des exigences et des modalités du stage sera affichée sur le site web du Département. Ces exigences sont les suivantes : présentation par l'étudiant d'un Projet de stage précisant quelle sera l'institution hôte et en quoi consistera le stage ; présentation par l'étudiant d'un compte rendu de son stage approuvé par un superviseur de l'institution hôte; et rédaction d'un travail académique sur un sujet relié au stage.) Stage en milieu de travail dans une institution ou organisation approuvée.

FREN 600 TRAVAUX DIRIGÉS 1. (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 1. (3) - L - L - L

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

FREN 621 PROBLÈMES D'ESTHÉTIQUE 1. (3)

FREN 624 ~~QUESTIONS DE GÉOGRAPHE~~ ~~62276.5509~~ ~~Tm-0.009287~~ ~~55~~ ~~FREN 624~~ ~~16.075602~~ ~~Tu(R)~~ ~~TT4~~ ~~1~~ ~~Tf-24.9185~~ ~~-1.8889~~ ~~TD-0.0011~~ ~~Tc-0.0027~~ ~~TwTw2EN 624 Qw2EN 624~~

Thesis Component – Required (24 credits)

GEOG 698 (6) Thesis Proposal
 GEOG 697 (18) Thesis Research (Environment Option)

M.A. in Geography (Thesis) – Neotropical Environment Option/Concentration (48 credits)

or

M.Sc. in Geography (Thesis) – Neotropical Environment Option/Concentration (48 credits)**Required Courses** (12 credits)

BIOL 640 (3) Tropical Biology and Conservation
 ENVR 610 (3) Foundations of Environmental Policy
 GEOG 631 (6) Methods of Geographical Research

Complementary Courses (6 credits)

3 credits, one Geography graduate course, and

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 Component – Required (30 credits)

GEOG 698 (6) Thesis Proposal
 GEOG 699 (24) Thesis Research

Participation in the MSE-Panama Symposium presentation in Montreal is also required. BIOL 5D Tw4(evelopme1 Tcn)

Co00.003Ttwsi42640-2-4.6C-42sfil0684ts component required

M.A. in Geography (Thesis) – Development Studies Option/Concentration (48 credits)

GEOG 698 (6) Thesis Proposal
 GEOG 699 (24) Thesis Research

Participation in the MSE-Panama Symposium presentation in Montreal is also required. BIOL 5D Tw4(evelopme1 Tcn)

Co00.003Ttwsi42640-2-4.6C-42sfil0684ts component required

Participation in the MSE-Panama Symposium presentation in Montreal is also required. BIOL 5D Tw4(evelopme1 Tcn)

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Co00.003Ttwsi42640-2-4.6C-42sfil0684ts component required

Participation in the MSE-Panama Symposium presentation in Montreal is also required. BIOL 5D Tw4(evelopme1 Tcn)

Co00.003Ttwsi42640-2-4.6C-42sfil0684ts component required

Participation in the MSE-Panama Symposium presentation in Montreal is also required. BIOL 5D Tw4(evelopme1 Tcn)

Co00.003Ttwsi42640-2-4.6C-42sfil0684ts component required

Participation in the MSE-Panama Symposium presentation in Montreal is also required. BIOL 5D Tw4(evelopme1 Tcn)

Co00.003Ttwsi42640-2-4.6C-42sfil0684ts component required

Participation in the MSE-Panama Symposium presentation in Montreal is also required. BIOL 5D Tw4(evelopme1 Tcn)

Ph.D. in Geography

Required Course (6 credits)

Ph.D. in Geography – Environment Option/Concentration

Required Courses (12 credits)

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

Required Courses (12 credits)

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.

33.6 Courses

Students preparing to register should consult the Web at 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)

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 advanced-level study under guidance of qualified MSE staff in areas outside the scope of individual departments. Proposed topic and method of evaluation must be approved by the Associate Director one month before the beginning of term. Contact the Program Coordinator for information.

ENVR 610 FOUNDATIONS OF ENVIRONMENTAL POLICY. (3) (Restriction: Enrolment in the Graduate Environment Option or enrolment in the Neotropical Environment Option (NEO) or permission of the instructor.) Analysis of current environmental policies to reveal implicit and explicit assumptions regarding scientific methods, hypothesis testing, subject/object, causality, certainty, deities, health, development, North-South concerns for resources, commons, national sovereignty, equity. Discussion of implications of such assumptions for building future environmental policies.

ENVR 612 TROPICAL ENVIRONMENTAL ISSUES. (3) (Course will only be offered if enrolment is five students or more. Enrolment in the Neotropical Environment Option (NEO) or permission of the instructor) Interdisciplinary seminar presenting and comparing a variety of perspectives on environmental issues in Latin America. The course focuses on how different disciplines work collaboratively toward the resolution of environmental problems. Some issues include watershed management, bioprospecting and drug discovery, indigenous knowledge and the role of Institutions in protecting biodiversity.

ENVR 680 TOPICS IN ENVIRONMENT 4. (3) (Restriction: students taking the Neotropical Environment Option.) (Prerequisite: Permission of Instructor) Seminars and discussion of advanced, interdisciplinary aspects of current problems in environment led by staff and/or special guests.

34 German Studies

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Canada

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Fax: (514) 398-1748
E-mail: german.studies@mcgill.ca
Website: www.mcgill.ca/german

Chair — K. Bauer

Director of Graduate Studies — A. Piper

34.1 Staff

Emeritus Professor
P.M. Daly; B.A.(Brist.), Ph.D.(Zür.)

Professors
A. Hsia; Ph.D(F.UTel2-1. a;

GERM 657 LITERARY THEORY AND CRITICISM 3. (3)

GERM 680 RESEARCH PAPER 1. (6)

GERM 681 RESEARCH PAPER A P E R

M.A. in German (Non-Thesis) (45 credits)**Required Courses** (18 credits)**Complementary Courses** (27 credits)**Ph.D.****Requirements:**

Coursework – 8 three-credit courses (24 credits); with the approval of the Graduate Studies Committee, students are permitted to take a maximum of 6 credits in another department. Comprehensive examinations (oral and written) (GERM 701). French Language examination or Latin (if specializing in German Literature before 1600).

Thesis.

Thesis Defence.

Original research leading to new insights is a prerequisite for the acceptance of a Ph.D. thesis.

As a rule, it will take a candidate at least three years after the M.A. degree to complete the requirements for the Ph.D. degree. Students who have not spent an appreciable length of time in a German-speaking country are advised to spend one year at a university in such a country, for which credit may be given in the above program.

34.6 Courses

Students preparing to register should consult the Web at 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.

GERM 511 MIDDLE HIGH GERMAN LITERATURE. (3) (Fall) (Given in German) (Prerequisite: Germ 325 or equivalent) This seminar course will acquaint students with the German courtly literature of the 12th and 13th century, its concepts, concerns and its sociology. The knightly romances of Hartmann von Aue (Erec), Wolfram von Eschenbach (Parzival), Gottfried von Straßburg (Tristan), and the heroic epic (Nibelungenlied) will be read and discussed in class, Hartmann's Erec in the original MHG language as well as in translation, to give students a basic acquaintance with the Middle High German literary language. Writers studied will include: Hartmann von Aue, Gottfried von Straßburg, Wolfram von Eschenbach.

GERM 630 GERMAN CLASSICISM 1.(3) Hölderlin

GERM 646 GERMAN LITERATURE - 20TH CENTURY 2.(3) Zwischen Protest und Post-Modernem Impuls: Zur Frage des Engagements

Students may be required to attend an approved course in English or French if their knowledge of either language is deemed inadequate.

Prospective candidates may certainly express their preference but should note that the Graduate Committee of the Department of Hispanic Studies reserves the right to determine which of the two options (thesis/non-thesis) students admitted to the M.A. pro-

35.6 Courses

Students preparing to register should consult the Web at 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 Arts (courses at the 100- to 500-level) have limited enrolment.

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

HISP 505 SEMINAR IN HISPANIC S

Master in History – Development Studies
The Development Studies Option is

HIST 556 COLONIAL

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) The History of the Body 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 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) Consumption and Conservation 1760-1920 Graduate-level section for Topics: Canadian Conservatism 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) To be announced Graduate level section for Topics: Historical Interpretation

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) Cultural Revolution & Beyond: China 1960-1990

HIST 659 INTERDISCIPLINARY SEMINAR IN EUROPEAN STUDIES. (3) (Restriction: Only open to students in European Studies Option.) Interdisciplinary seminar on a theme relevant to the study of Europe.

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

HIST 673D1 (3), HIST 673D2 (3) PROBLEMS IN U.S. HISTORY. (Students must register for both HIST 673D1 and HIST 673D2) (No credit will be given for this course unless both HIST 673D1 and HIST 673D2 are successfully completed in consecutive terms)

HIST 677D1 (3), HIST 677D2 (3) SEMINAR: EUROPEAN JEWISH HISTORY. (Students must register for both HIST 677D1 and HIST 677D2) (No credit will be given for this course unless both HIST 677D1 and HIST 677D2 are successfully completed in consecutive terms) .

HIST 678 HISTORIOGRAPHY. (3) This seminar examines the fundamentals of historical theory: developing a clear understanding of exactly why history has a "theory". The philosophic language and modes of reasoning necessary to understand historical theory are introduced.

HIST 679 HISTORICAL METHODS. (3) An examination of the major approaches to historical interpretation through the reading of important works of historical scholarship.

HIST 680 GRADUATE COLLOQUIUM 1. (3) Collecting the World: Museum Manias and Crises of Public Knowledge Selected topics in history and practical issues of professional development.

HIST 681 GRADUATE COLLOQUIUM 2. (3) (Prerequisite: HIST 680.) Selected topics in history and practical issues of professional development.

HIST 683D1 (3), HIST 683D2 (3) HISTORY OF MONTREAL. (Students must register for both HIST 683D1 and HIST 683D2) (No credit will be given for this course unless both HIST 683D1 and HIST 683D2 are successfully completed in consecutive terms)

HIST 684 RESEARCH PROPOSAL. (3) The development of research-related skills and the production of a research proposal under the supervision of a faculty member.

HIST 685 DIRECTED RESEARCH. (3) (Corequisite: HIST 684.) Investigation of a specialized topic under the supervision of a faculty member.

HIST 686 BIBLIOGRAPHY TUTORIAL. (6) (Prerequisite: HIST 684.) The development of research-related skills and the production of a research bibliography under the supervision of a faculty member.

HIST 687 MA PAPER 1. (9) (Corequisite: HIST 688.) Start of the production of a research paper under the supervision of a faculty member.

HIST 688 MA PAPER 2. (6) (Corequisite: HIST 687.) Completion of the production of a research paper under the supervision of a faculty member.

HIST 691 M.A. RESEARCH PAPER 1. (6)

HIST 692 M.A. RESEARCH PAPER 2. (6)

HIST 693 M.A. RESEARCH PAPER 3. (9)

HIST 694 M.A. RESEARCH PAPER 4. (9)

HIST 696 THESIS RESEARCH 1. (9)

HIST 696D1 (4.5), HIST 696D2 (4.5) THESIS RESEARCH 1. (Students must register for both HIST 696D1 and HIST 696D2) (No credit will be given for this course unless both HIST 696D1 and HIST 696D2 are successfully completed in consecutive terms) (HIST 696D1 and HIST 696D2 together are equivalent to HIST 696)

HIST 697 THESIS RESEARCH 2. (12)

HIST 698 THESIS RESEARCH 3. (12)

HIST 699 TUTORIAL. (3)

HIST 699D1 (1.5), HIST 699D2 (1.5) TUTORIAL. (Students must register for both HIST 699D1 and HIST 699D2) (No credit will be given for this course unless both HIST 699D1 and HIST 699D2 are successfully completed in consecutive terms) (HIST 699D1 and HIST 699D2 together are equivalent to HIST 699)

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

HIST 703D1 (0), HIST 703D2 (0) COMPREHENSIVE EXAMINATION - FIRST MINOR FIELD. (Students must register for both HIST 703D1 and HIST 703D2) (No credit will be given for this course unless both HIST 703D1 and HIST 703D2 are successfully completed in consecutive terms) (HIST 703D1 and HIST 703D2 together are equivalent to HIST 703)

HIST 704D1 (0), HIST 704D2 (0) COMPREHENSIVE EXAMINATION - SECOND MINOR FIELD. (Students must register for both HIST 704D1 and HIST 704D2) (No credit will be given for this course unless both HIST 704D1 and HIST 704D2 are successfully completed in consecutive terms) (HIST 704D1 and HIST 704D2 together are equivalent to HIST 704)

37 Human Genetics

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E-mail: kandace.springer@mcgill.ca

Website: www.mcgill.ca/humangenetics

Chair — D.S. Rosenblatt

Program Directors:

M.Sc. in Genetic Counselling — J. Fitzpatrick

M.Sc. and Ph.D. in Human Genetics — E. Shoubridge

Graduate Program Coordinator — K. Springer

37.1 Staff

field, 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.

Ph.D. Comprehensive Examination – The comprehensive exam is a format of evaluation of the student's ability to proceed to the attainment of the Ph.D. Students must pass the Ph.D. Comprehensive 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.

Ph.D. Program

Requirements - In addition to thesis work, students are required to successfully complete HGEN 692. This 3-credit course may count towards the minimum requirements of 18 credits (6 semester courses) or 9 credits (entering Ph.D. after completing a Master's degree in a related field, 3 semester courses) for the Ph.D. program at the 500-level or higher with a passing grade of B- and an overall average of B. The course HGEN 692 must be successfully completed before the completion of the Ph.D. comprehensive examination, HGEN 701. A graduate pass (B- or better) is mandatory for all courses required for the Ph.D. program. Ph.D. students are also required to present a formal Ph.D. seminar before submitting their thesis.

Ph.D. in Human Genetics

Required Courses (3 credits)

Ph.D. in Human Genetics– Bioinformatics

Option/Concentration

Required Courses (6 credits)

37.6 Courses

Students preparing to register should consult the Web at 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 600 GENETIC COUNSELLING PRACTICUM. (6) Designed for students enrolled in the M.Sc. in

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 Neu-

Director of Graduate Certificates in Educational Leadership —
Dr. Lynn Butler-Kisber

Director of Graduate Certificate in Teaching English as a Second Language — Dr. Caroline Riches

The administrative office is open Monday to Friday from 09:00 to 17:00. For general information, please contact the Graduate Program Coordinators.

38.1 Staff

Emeritus Professors

Patrick X. Dias; B.A., M.A.(Karachi), B.Ed., Ph.D.(Montr.)
Margaret Gillett; B.A., Dip. Ed.(Syd.), M.A.(Russel Sage),
Ed.D.(Col.) (*William C. Macdonald Emeritus Professor of Education*)
Wayne C. Hall; B.A., M.A.(Bishop's) (*William C. Macdonald Emeritus Professor of Education*)
Norman Henchey; B.A., B.ped., Lic.Ped.(Montr.), Ph.D.(McG.)
Jacques J. Rebuffot; B.ès L., L.ès L., D.E.S.(Aix-Marseilles), Dip. I.E.P., Dr. 3rd Cy.(Strasbourg)
David C. Smith; B.Ed.(McG.) Ph.D.(Lond.), F.C.C.T., F.R.S.A.

Professors

David Dillon; B.A.(St. Columban's), M.S.(S.W. Texas St.), Ph.D.(Texas at Austin)
Anthony Paré; B.Ed, M.Ed., Ph.D.(McG.)
Ratna Ghosh; C.M., B.A.(Calc.), M.A., Ph.D.(Calg.) F.R.S.C., (*William C. Macdonald Professor of Education*) (*James McGill Professor*)
Joe L. Kincheloe; B.A.(Emory and Henry), M.A., M.S., Ph.D.(Tenn.)
Barry Levy; B.A., M.A., BRE(Yeshiva), Ph.D.(NYU)
Mary H. Maguire; B.A., B.Ed., M.A.(Montr.), M.Ed., Cert. Reading(McG.) Ph.D.(Ariz.)
Denise Lussier; B.A.(Coll. Jesus Marie de Sillery), M.A.(Boston), M.Ed., Ph.D.(Laval)
Claudia A. Mitchell; B.A.(Bran.), M.A.(Mt. St. Vin.), Ph.D.(Alta.) (*James McGill Professor*)
Bernard Shapiro; B.A.(McG.), M.A.T., Ed.D.(Harv.)
Roger Slee; B.A.(Queensland, Australia), Grad.Dip.Ed.(State College of Victoria, Rusden), Grad.Dip.Sp.Ed.(Melbourne College of Advanced Education, Australia), M.Ed., Ph.D.(La Trobe, Australia)

Associate Professors

Helen Amoriggi; B.Sc., M.A.(Rhode Isl.), Ed.D.(Boston)
Eric Caplan; B.A.(Tor.), M.A.(Hebrew University), Ph.D.(McG.)
Ann J. Beer; B.A.(Oxf.), M.A.(Tor.), D.Phil.(Oxf.)
Jon G. Bradley; B.A., M.A.(Sir G.Wms.)
Lynn Butler-Kisber; B.Ed., M.Ed.(McG.), Ed.D.(Harv.)
Janet Donin; B.A.(Tor.), M.A.(Ill.), Ph.D.(Cal.) (*joint appt. with Educational and Counselling Psychology*)
Steven Jordan; B.A.(Kent), M.Sc.(Lond.), Ph.D.(McG.)
Yarema G. Kelebay; B.A., B.Ed.(Montr.), M.A.(Sir G.Wms.), Ph.D.(C'dia)
Cathrine Le Maistre; B.Sc., Dip.Ed.(Exeter), M.Ed., Ph.D.(McG.)
Charles S. Lusthaus; B.S., M.S.(Canisius), Ph.D.(S.U.N.Y.)
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.)
Joan Russell; B.Mus., L.Mus., M.Ed., Ph.D.(McG.)
Gale A. Seiler; B.Sc. (Fairleigh Dickinson), M.S. (Montana), Ph.D. (Penn.)
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.), Cert. Ped.(C'dia), Ph.D.(WI)
Elizabeth Wood; B.F.A.(York), B.F.A.(C'dia), Dip.Ed., M.A., Ph.D.(McG.)

Assistant Professors

Spencer Boudreau; B.A.(Don Bosco), B.A., M.A.(Sherb.), Ph.D.(C'dia)
Michael Doxtater; B.A.(McM.), M.Sc.Ed., Ph.D.(Cornell)
Michael Hoechsmann; B.A., M.A.(S.Fraser), Ph.D.(Tor.)
Bronwen Low; B.A.(Qu.), M.A.(Br. Col.), Ph.D. (York)
Mela Sarkar; B.A., Dip.Ed.(

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Required Courses (9 credits)

- EDEM 609 (3) Issues in Educational Studies
 EDEM 673 (3) Leadership Theory in Education
 EDEM 681 (3) Practicum-Administrative Studies

Complementary Courses (6 credits)

Two courses chosen from the following:

- EDEC 635 (3) Advanced Written Communication
 EDEM 635 (3) Fiscal Accountability in Education
 EDEM 637 (3) Managing Educational Change
 EDEM 644 (3) Curriculum Development and Implementation
 EDEM 660 (3) Community Relations in Education
 EDEM 664 (3) Education and the Law
 EDEM 671 (3) The Principalship
 EDEM 675 (3) Special Topics 1
 EDEM 693 (3) School Improvement Approaches
 EDEM 695 (3) Policy Studies in Education

Other courses may be taken with permission from the Director of Graduate Certificate Programs in consultation with the Graduate Program Director.

38.5.3 Graduate Certificate in Teaching English as a Second Language (15 credits)

This 15-credit certificate is designed as professional development for in-service teachers and candidates with a background in education, language studies, linguistics or a related field, or as preparation for application to our M.A. in Second Language Education. The 5 courses which comprise the certificate provide a solid background and offer in-depth study in the field of second language education from a range of perspectives and with a focus on research and applications to teaching. Please note that this certificate does not lead to teacher certification.

The Graduate Certificate in TESL is designed to be available to students worldwide. Courses are offered in a combination of online and face-to-face formats, and sequenced in such a way that students can complete the certificate in one year. The maximum time for completion is five years. The first 3 courses are offered online, and can be undertaken anywhere an internet connection is available. The final two courses are offered face-to-face either on-site at McGill or at off-site locations with collaborative partners, if numbers warrant.

Required Courses (15 credits)

Online courses:

- EDSL 500 (3) Foundations and Issues in Second Language Education
 EDSL 505 (3) Second Language Acquisition Applied to Classroom Contexts
 EDSL 512 (3) Grammar in Teaching English as a Second Language

On-site at McGill* in Intensive (1 month) Institution

- EDSL 601 (3) Methods and Curriculum in Teaching ESL
 EDSL 602 (3) Second Language Reading and Writing Development

* off-site delivery can be considered for a specified minimum number of students. Certain limitations and additional costs would apply.

38.5.4 M.A. in Culture and Values in Education

This program is designed to support inquiries into the meaning and purpose of education, to help candidates gain facility in appropriate research skills, and to develop innovative approaches to educational thought and practice. The program encourages research into educational issues that have a culture and/or values orientation as a key investigative focus on more specific topics - such as philosophy of education, international and comparative education, intercultural education, values/moral education, gender education, religious/spirituality education, peace education, or art and aesthetics education.

MASTER OF ARTS IN CULTURE AND VALUES IN EDUCATION (Thesis Option) (45 credits)**Required Courses** (33 credits)

- EDEM 609 (3) Issues in Educational Studies
 EDER 615 (3) Culture, Values and Education
 EDER 690 (6) Thesis Preparation 1
 EDER 691 (6) Thesis Preparation 2
 EDER 692 (12) Thesis Preparation 3

Complementary Courses (12 credits)

9 credits to be selected from the following courses:

- EDEC 620 (3) Meanings of Literacy
 EDER 600 (3) Globalization, Education & Change
 EDER 606 (3) Philosophy of Moral Education
 EDER 607 (3) Values Education: Contemporary Approaches
 EDER 608 (3) Educational Implications of Social Theory
 EDER 614 (3) Sociology of Education
 EDER 617 (3) Aesthetics and Education
 EDER 625 (3) Topics: Culture in Education
 EDER 626 (3) Topics: Value in Education
 EDER 649 (3) Education: Multicultural Societies

3 credits to be selected from the following courses:

- EDEM 690 (3) Research Methods
 EDEM 692 (3) Qualitative Research Methods
 EDSL 630 (3) Qualitative/Ethnographic Methods

Elective Course (3 credits)

3 credits at the 500, 600, or 700 level chosen in consultation with the Graduate Program Director.

MASTER OF ARTS IN CULTURE AND VALUES IN EDUCATION (Non-Thesis Option – Coursework) (45 credits)**Required Courses** (6 credits)

- EDEM 609 (3) Issues in Educational Studies
 EDER 615 (3) Culture, Values and Education

Complementary Courses (24 credits)

21 credits to be selected from the following courses:

- EDEC 620 (3) Meanings of Literacy
 EDER 600 (3) Globalization, Education & Change
 EDER 606 (3) Philosophy of Moral Education
 EDER 607 (3) Values Education: Contemporary Approaches
 EDER 608 (3) Educational Implications of Social Theory
 EDER 614 (3) Sociology of Education
 EDER 617 (3) Aesthetics and Education
 EDER 625 (3) Topics: Culture in Education
 EDER 626 (3) Topics: Value in Education
 EDER 649 (3) Education: Multicultural Societies

3 credits to be selected from the following courses:

- EDEM 690 (3) Research Methods
 EDEM 692 (3) Qualitative Research Methods
 EDSL 630 (3) Qualitative/Ethnographic Methods

Elective Courses (15 credits)

15 additional credits at the 500, 600, or 700 level chosen in consultation with the Graduate Program Director.

MASTER OF ARTS IN CULTURE AND VALUES IN EDUCATION (Non-Thesis Option – Project) (45 credits)**Required Courses** (18 credits)

- EDEM 609 (3) Issues in Educational Studies
 EDER 615 (3) Culture, Values and Education
 EDER 633 (6) Project 1
 EDER 634 (6) Project 2

Complementary Courses (12 credits)

9 credits to be selected from the following courses:

- EDEC 620 (3) Meanings of Literacy
 EDER 600 (3) Globalization, Education & Change
 EDER 606 (3) Philosophy of Moral Education
 EDER 607 (3) Values Education: Contemporary Approaches

Elective Courses (15 credits)**MASTER OF ARTS IN CULTURE AND VALUES IN EDUCATION (Non-Thesis Option – Jewish Education)**

(45 credits)

This program is designed to offer a graduate-level point of entry into the teaching profession for students who typically will have completed a B.A. with minor or major in Jewish studies. The M.A. will not provide Quebec Government teacher certification (in Quebec certification is at the B.Ed. level) but Jewish schools presently have the right to hire non-certified teachers of Jewish studies.

Students interested in doing a research-focused M.A. in the area of Jewish education should follow one of the other graduate degree offerings within the area of Culture and Values in Education.

Required Courses (21 credits)**Complementary Courses** (24 credits)**38.5.5 M.A. in Curriculum Studies**

This program introduces students to the broad field of curriculum studies in education. Students explore past and present theoretical perspectives on the curriculum, as well as issues concerned with curriculum design, implementation, planning and development. A central theme of the program is how curriculum unites theory and practice in education. The program draws upon a wide range of expertise from within the Department, including: sociology of education, multicultural and intercultural education, science and technology education, policy studies, gender, critical pedagogy, media and cultural studies.

- EDEM 646 (3) Planning and Evaluation
 EDEM 664 (3) Education and the Law
 EDEM 673 (3) Leadership Theory in Education
 EDEM 675 (3) Special Topics 1'

Elective Courses (6 credits)

6 credits at the 500, 600, or 700 level chosen in consultation with the Graduate Program Director.

38.5.6 M.A. in Educational Leadership

This program is designed to prepare leaders in the field of education who are committed to personal and institutional improvement in schools and other centres of formal or informal learning. The program fosters the ongoing development of reflective practitioners who have a sense of educational action, the capacity to anticipate needs, the ability to exercise professional judgment within the realities of policy frameworks, and the ability to both lead and support institutional and organizational change at all levels. A central theme of the program is the impact of policy on educational practice at local, national and international levels.

MASTER OF ARTS EDUCATIONAL LEADERSHIP (Thesis Option) (45 credits)**Required Courses** (33 credits)

- EDEM 609 (3) Issues in Educational Studies
 EDEM 610 (3) Leadership in Action
 EDEM 673 (3) Leadership Theory in Education
 EDEM 621 (6) Thesis 1
 EDEM 623 (6) Thesis 2
 EDEM 699 (12) Thesis 3

Complementary Courses (6 credits)

6 credits from following:

- EDEM 690 (3) Research Methods
 EDEM 692 (3) Qualitative Research Methods, or equivalent
 EDLS 630 (3) Qualitative/Ethnographic Methods

Elective Courses (6 credits)

6 credits at the 500, 600, or 700 level chosen in consultation with the Graduate Program Director.

MASTER OF ARTS EDUCATIONAL LEADERSHIP (Non-Thesis Option – Coursework) (45 credits)**Required Courses** (12 credits)

- EDEM 609 (3) Issues in Educational Studies
 EDEM 610 (3) Leadership in Action
 EDEM 673 (3) Leadership Theory in Education
 EDEM 690 (3) Research Methods

Complementary Courses (27 credits)

24 credits from the following:

- EDEM 628 (3) Education Resource Management
 EDEM 630 (3) Policy Issues: Workplace Learning
 EDEM 637 (3) Managing Educational Change
 EDEM 644 (3) Curriculum Development and Implementation
 EDEM 646 (3) Planning and Evaluation
 EDEM 664 (3) Education and the Law
 EDEM 674 (3) Organizational Theory and Education
 EDEM 675 (3) Special Topics 1
 EDEM 677 (3) Special Topics 2
 EDEM 693 (3) School Improvement Approaches

3 credits from the following:

- EDEC 602 (3) Foundations of Curriculum
 EDEC 606 (3) Seminar in Curriculum Inquiry
 EDEC 612 (3) Media Literacy
 EDEC 620 (3) Meanings of Literacy
 EDEC 635 (3) Ad.0008 Tc-0.003 Tw[(6 cred.3((3))-1000.8- Writte-1.1852.09muni1 TwT*675)-10EC 3.0519t

Elective Courses (6 credits)**MASTER OF ARTS EDUCATIONAL LEADERSHIP (Non-Thesis Option – Project)** (45 credits)**Required Courses** (18 credits)**38.5.7 M.A. in Second Language Education**

From a range of pedagogical, linguistic, cognitive, political, and sociocultural perspectives, this program combines theoretical and applied studies of how second and foreign languages are learned and used. The M.A. Thesis option is a research-oriented degree in which approximately half consists of thesis research. The M.A. Non-thesis option, consisting entirely of course work, is less research-oriented and suitable for practitioners interested in professional development with a theoretical orientation.

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

MASTER OF ARTS IN SECOND LANGUAGE EDUCATION**(Non-Thesis)** (45 credits)**Required Courses** (12 credits)**Complementary Courses** (15 credits)**Elective Courses** (18 credits)**38.5.8 Ph.D. in Educational Studies**

The Ph.D. in Educational Studies provides an integrative perspective on education by drawing on a range of related disciplines and research orientations. Students develop scholarly and innovative expertise in at least one of three contexts of inquiry and awareness of the inter-relatedness of all three: (a) the broad context of culture and society; (b) the international, national, and local contexts of educational leadership and policy studies; and (c) the more specific contexts of schools and other sites of teaching and learning. Students begin with a set of common core courses and proceed to specialization through advanced course work and dissertation topics focused on areas of expertise that are supported by the research interests of current faculty members.

Required Courses (8 credits)**Additional Requirements**

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38.6.2 EDEC – Curriculum and Instruction

Courses currently scheduled for 2007-08:

EDEC 500 TUTORING WRITING. (3) Theory and practice of teaching writing through one-on-one conferencing. Focus on composition theory and research, rules of English usage, and tutorial teaching strategies. Practical experience offered through work in Writing Tutorial Service. Relevant for anyone who teaches or will teach in English at any level in any subject.

EDEC 602 FOUNDATIONS OF CURRICULUM. (3) The processes of development, implementation and evaluation will be studied from the perspective of the teacher. The focus will be on the role of the teacher as a curriculum professional at the preschool, elementary and secondary school levels.

EDEC 603 INDIVIDUAL READING COURSE. (6) Individualized guided study of a topic in the teaching of the candidates' specialties selected according to their interest and teaching experience.

EDEC 604 LITERACY AND LEARNING ACROSS CURRICULUM. (3) Examination of the central role of language in learning across the curriculum: the processes by which pupils acquire information and understanding and the ways in which teaching must take account of these processes: learning through talk, learning by writing, learning from text.

EDEC 606 SEMINAR IN CURRICULUM INQUIRY. (3) Students will be introduced to debates that are current in curriculum studies which centre on the appropriate emphasis to be accorded to traditions of schooling. To join the debate, students will need to explore the nature of a variety of traditions and the concomitant curricular manifestations and approaches to pedagogy.

EDEC 608 SELECTED READINGS IN LITERACY. (6) This course serves as a tutorial course that would normally involve the monograph supervisor. Students would concentrate their reading in an area pertinent to the monograph.

EDEC 610 LITERATURE: CHILDREN/YOUNG ADULTS. (3) An examination of the growth of children's literature from the Middle Ages to modern times, with special emphasis on its reflection of social, cultural, psychological and historical rAnuu9

EDEM 609 ISSUES IN EDUCATIONAL STUDIES. (3) The purpose is to explore critically the contemporary trends, issues, historical contexts and implications in curriculum and leadership through processes that engage students with each other and various members of the Department.

EDEM 610 LEADERSHIP IN ACTION. (3) Teaching of the use of reflective practice as a means of developing individual theories of action in educational settings. It provides students with the knowledge, skills and attitudes necessary to engage in processes that can improve individual and organizational performance. Special emphasis will be given to communication, problem solving and decision-making.

EDEM 612 FOUNDATIONS OF ADMINISTRATION & POLICY STUDIES EDUCATION 1. (3)

EDEM 613 FOUNDATIONS OF ADMINISTRATION & POLICY STUDIES EDUCATION 2. (3)

EDEM 615 SELECTED ISSUES: CONTEMPORARY EDUCATION. (6)

EDEM 616 INDIVIDUAL READING COURSE. (3) Independent study of an approved topic with the guidance of a faculty advisor.

EDEM 621 THESIS 1. (6) Departmental seminar to guide students through the process of developing a thesis proposal, identifying a supervisor, research sites and participants, and considering ethical issues.

EDEM 623 THESIS 2. (6) Continuation of EDEM 621.

EDEM 624 THESIS 3. (6) Continuation of EDEM 621.

fostering spirituality within Jewish educational frameworks. Selected portions of the High Holy Day liturgy are examined with a view to teaching this material in Jewish settings.

EDER 527 TEACHING JUDAISM: SPECIAL TOPICS. (3) In-depth examination of topics in Jewish education. Content will vary from year to year.

EDER 528 TEACHING JUDAISM: THE HOLOCAUST. (3) (Restriction: Not open to students who have taken 422-421 / EDER 421) An exploration of approaches and techniques for the teaching of the Holocaust. Strategies for using Holocaust education as a basis for discussing prejudice and moral responsibility are examined.

EDER 600 GLOBALIZATION, EDUCATION & CHANGE. (3) The impact of globalization on educational institutions, processes and practices. Topics may include the politics of change, teachers' work, educational reform, technology, environment, educational management and leadership.

EDER 603 INDIVIDUAL READING COURSE. (6)

EDER 604 SELECTED EDUCATIONAL THEORIES. (3) A study of major theories of educational thought with implications for current praxis.

EDER 606 PHILOSOPHY OF MORAL EDUCATION. (3) A study of principles underlying contemporary moral education such as what constitutes moral values and judgments, normative basis for morality, and differing foundations employed in determining moral norms.

EDER 607 VALUES EDUCATION: CONTEMPORARY APPROACHES. (3) A study of the objectives, content and approaches to the teaching of human and moral values. A critical examination of selected programs dealing with human and moral values.

EDER 608 EDUCATIONAL IMPLICATIONS OF SOCIAL THEORY. (3) An analysis of some of the educational implications of various social and political theories: liberalism, Marxism and others.

EDER 609 EDUCATION AND PHILOSOPHICAL THOUGHT. (3) An analysis of the educational implications of various philosophical positions concerning the nature of reality and the nature of knowledge.

EDER 610D1 (7.5), EDER 610D2 (7.5) INTERNSHIP. (Restriction: Only open to students in M.A. Culture and Values Non-Thesis (Jewish Education Option)) (Students must register for both EDER 610D1 and EDER 610D2) (No credit will be given for this course unless both EDER 610D1 and EDER 610D2 are successfully completed in consecutive terms) Supervised fieldwork in a Jewish school or educational institution.

EDER 614 SOCIOLOGY OF EDUCATION. (3) Social context of schooling, including education and social stratification and socialization processes within and outside schools.

EDER 615 CULTURE, VALUES AND EDUCATION. (3) In-depth examination of culture and values in education.

EDER 616 INDIVIDUAL READING COURSE. (3)

EDER 617 AESTHETICS AND EDUCATION. (3) An examination and critical analysis of selected readings on the topic of aesthetics, with specific reference to their application to educational practice.

EDER 622 STUDIES IN COMPARATIVE EDUCATION. (3) Comparative study of the economic, political and social aspects of education systems.

EDER 625 TOPICS: Cc(02 Tc0 Tw[c0.0008 rTT2 10 6.48 81.84 190;cts)-005tem)- Tm-0.0h Tctompar8 8ldxH85 -1.1185 TD0.0008 . 622 So

An overview of theory and research in second language acquisition, including developmental patterns, factors affecting how second languages are learned, and relevance for teachers in terms of applications to the classroom context.

EDSL 512 GRAMMAR IN TEACHING ENGLISH AS A SECOND LANGUAGE.(3) (Prerequisite: EDSL 505.) (Restriction: Restricted to students in the Graduate Certificate in TESL.) Analysis of English grammar at phonological, morphological, syntactic, semantic, and discourse levels. Applications are made to second language teaching and learning, focusing on integrating grammar into communicative language approaches.

EDSL 601 METHODS AND CURRICULUM IN TEACHING ESL.(3) (Prerequisite: EDSL 512.) (Restriction: Restricted to students in the Graduate Certificate in TESL or with permission of the Graduate Program Director.) Adapting and elaborating strategies in language and content lessons for second language learners, including materials selection

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ISLA 521D1 (4.5), ISLA 521D2 (4.5) INTRODUCTORY ARABIC.

(Fall and Winter) (5 lecture hours and laboratory) (Students must register for both ISLA 521D1 and ISLA 521D2.) (No credit will be given for this course unless both ISLA 521D1 and ISLA 521D2 are successfully completed in cons

ISLA 633D1 (3), ISLA 633D2 (3) HIGHER INTERMEDIATE TURKISH. (Prerequisite: ISLA 532 or equivalent) (Students must register for both ISLA 633D1 and ISLA 633D2) (No credit will be given for this course unless both ISLA 633D1 and ISLA 633D2 are successfully completed in consecutive terms)

ISLA 642 UPPER INTERMEDIATE PERSIAN 1. (3) (Prerequisite: ISLA 542 or permission of instructor.) (Restriction: Not open to students who have taken ISLA 643D1/2.) (Note: Language of instruction is Persian.) Upper intermediate level of Persian language study.

ISLA 643 UPPER INTERMEDIATE PERSIAN 2. (3) (Prerequisite: ISLA 642 or permission of instructor.) (Restriction: Not open to students who have taken ISLA 643D1/2.) (Note: Language of instruction is Persian.) Continuation of upper intermediate level of Persian language study.

ISLA 644 ADVANCED PERSIAN 1. (3) (Prerequisite: ISLA 643 or permission of instructor.) (Restriction: Not open to students who have taken ISLA 644D1/2.) (Note: Language of instruction is Persian.) Advanced level of Persian language study.

ISLA 645 ADVANCED PERSIAN 2. (3) (Prerequisite: ISLA 644 or permission of instructor.) (Restriction: Not open to students who have taken ISLA 644D1/2.) (Note: Language of instruction is Persian.) Advanced level of Persian language study.

ISLA 670 ISLAMIC LAW. (3) Advanced examination of research issues in the field of Islamic law. Topics will include modernity, gender, family law, and property.

ISLA 680 PRO-SEMINAR: OTTOMAN INSTITUTIONS. (3)

ISLA 681 SPECIAL TOPICS 2. (3) (Note: Subject matter will vary year to year, according to the instructor. Topic will be announced at the beginning of the term.) Selected topics in Islamic studies.

ISLA 682 ISLAMIC POLITICS IN AFRICA. (3) Advanced examination of research issues in the field of Islamic politics in Africa. Topics will include: Political Islam; social movement perspectives; Islam, state-building and civil conflict; the political economy of Islamist extremism, and globalization; informal markets and the rise of the politics of Identity.

ISLA 683 HISTORY OF SCIENCE IN ISLAM. (3) Advanced examination of research issues in the historiography of Islamic science. These include: the appropriate and naturalization of ancient Greek science by Islamic scientists; the Arabic-Latin translation movement and the influence of Islamic science on medieval and Renaissance Europe; and the question of the post-medieval decline of Islamic science.

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) This years topic: Islamic Law: colonialism and the State The topic this term is Contours of Ottoman History

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 relevance of Islamic values to development problems.

★ **ISLA 764D1 (3), ★ ISLA 764D2 (3) OTTOMAN HISTORY.** (Seminar 2 hours) (Students must register for both ISLA 764D1 and ISLA 764D2) (No credit will be given for this course unless both ISLA 764D1 and ISLA 764D2 are successfully completed in consecutive terms) A

Complementary Courses (15 credits)

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 Reading Course 1 and ITAL 607 Individual Reading Course 2 offered as tutorials.

Typically, the first year program will consist of: Literary Theory course, ITAL 610, three Complementary courses, and ITAL 690. The second year will include ITAL 602, ITAL 680, two Complementary courses and ITAL 691.

40.6 Courses

Students preparing to register should consult the Web at 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 Arts (courses at the 100- to 500-level) have limited enrolment.

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

ITAL 551 BOCCACCIO AND THE ITALIAN RENAISSANCE (3 credits)
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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.

JWST 511 JEWISH BIBLE INTERPRETATION 2. (3) (Restriction: Not open to students who have taken JWST 512) The issues, problems, approaches, and texts of Jewish Bible interpretation in medieval, renaissance, early modern, and modern times. Interpretation in the Geonic, Ashkenazi, Sefardic, North African, Italian, European, Yemenite, North American and Israeli centres of Jewish Learning.

JWST 523 ANCIENT BIBLE INTERPRETATION. (3) Advanced level work in one aspect of Jewish Bible interpretation in ancient times.

JWST 530 TOPICS IN YIDDISH LITERATURE. (3) Supervised research in Yiddish literature. Work will focus on one genre, literary school or author.

JWST 531 TOPICS IN YIDDISH LITERATURE. (3) Supervised research in Yiddish literature. Work will focus on one genre, literary school or author.

JWST 539 BIBLICAL INTERPRETATION 1. (3) Close readings in one or more texts of early rabbinic Bible interpretation: Mishnah, Tosefta, Halakhic and Aggadic Midrashim, Talmud.

JWST 548 MEDIEVAL PARSHANUT. (3) Advanced level work in one aspect of Jewish Bible interpretation in medieval times.

JWST 551 20TH CENTURY PARSHANUT. (3)

JWST 552 JUDAISM AND POVERTY. (3) (Prerequisite: One course in Jewish Studies, Sociology or Social Work.) An introduction to the subject of poverty in Jewish literature and its influence on religions such as Christianity and Islam, and on modern, secular ideologies, especially socialism, and creative literature.

JWST 558 TOPICS: MODERN JEWISH THOUGHT. (3) Topic 2007-08: The Thought of Rabbi Joseph Soloveitchik.

JWST 562 MEDIEVAL ISLAMIC AND JEWISH PHILOSOPHY. (3) (Prerequisite: one course in Greek, Islamic or Jewish Philosophy, or permission of instructor.) Deals with the manifold points of contact between medieval Muslim and Jewish intellectual history. Muslim and Jewish philosophers, theologians and mystics belonged to the same currents of thought, used the same language and studied the same sources in translation, proposing similar answers to questions that arose in the context of their respective religious traditions.

JWST 575 TOPICS IN PARSHANUT. (3) Advanced level work in one aspect of Jewish Bible Interpretation that cuts across all periods of Jewish Bible interpretation.

JWST 581 ARAMAIC LANGUAGE. (3) (Requires Departmental approval) (Restriction: Not open to students who have taken JWST 506)

JWST 585 TUTORIAL: EASTERN EUROPEAN STUDIES 1. (3)

JWST 586 TUTORIAL: EASTERN EUROPEAN STUDIES 2. (3)

JWST 587 TUTORIAL IN YIDDISH LITERATURE. (3)

JWST 588 TUTORIAL IN YIDDISH LITERATURE. (3)

JWST 589 TUTORIAL IN JEWISH LITERATURE. (3) Supervised research in Modern Jewish history.

JWST 590 TUTORIAL IN JEWISH LITERATURE. (3) Supervised research in Modern Jewish history.

JWST 601 M.A. THESIS 4: AREA II. (3) Preparation and submit-

Descriptions of courses not scheduled in 2007-08 can usually be found in the preceding Calendar.

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 2007-08*.

EDKP 504 HEALTH & LIFESTYLE EDUCATION.

Frédéric Bachand; LL.B.(Montr.), LL.M.(Cantab.), LL.D.(Montr.),
Docteur en droit (Paris II)

G. Blaine Baker; B.A.(Huron College), LL.B.(W.Ont.), LL.M.(Col.)

Jean-Guy Belley; LL.L., LL.M.(Laval), Doctorat en sociologie
juridique(Paris II) (*Sir William C. Macdonald Professor of Law*)

Adelle Blackett; B.A.(Qu.), LL.B., B.C.L.(McG.), LL.M., J.S.D.
(Col.) (*William Dawson Scholar*)

Kimberly Brooks; B.A.(Tor.), LL.B.(UBC), LL.M.(York)

Angela Campbell; B.A., B.C.L., LL.B.(McG.), LL.M.(Harv.)

Irwin Cotler; O.C., B.A., B.C.L.(McG.), LL.M.(Yale), Ph.D.(Hebrew
University), LL.D. Hon. Causa (Bar-Ilan, York, Simon Fraser,
Haifa) (*on leave*)

Paul-André Crépeau; C.C., O.Q., Q.C., B.A., L.Ph.(Ott.),
LL.L.(Montr.), B.C.L.(Oxon), Docteur de l'Université de
Paris(Droit), LL.D. Hon. Causa (Ott., York, Dalhousie,
Strasbourg, Montréal, Paris II (Panthéon-Assas),(Laval),
F.R.S.C.; *Wainwright Emeritus Professor of Civil Law*)

Armand de Mestral; A.B.(Harv.), B.C.L.(McG.), LL.M.(Harv.),
Doctorat Hon. Causa(Université Lyon III, Kwansai Gakuin
University)

Helge Dedek; LL.M.(Harv.), Dr. Iuris(Bonn)

Paul S. Dempsey; A.B.J., J.D.(Georgia), LL.M.(GWU),
D.C.L.(McG.) (*Tomlinson Professor of Global Governance*)

Jaye Ellis; B.A.(Calg.); LL.B., B.C.L.(McG.), LL.M.(UBC),
D.C.L.(McG.)

Yaëll Emerich; B.C.L. (Paris), Docteur en droit (Montr.), Docteur
en droit (Jean Moulin, Lyon III)

William F. Foster; LL.B.(Hons.)(Auck.), LL.M.(Br.Col.) (*Sir William
C. Macdonald Professor of Law*) (*on leave*)

Evan Fox-Decent; B.A., M.A.(Manit.), J.D., Ph.D.(Tor.)

Fabien Gélinas; LL.B., LL.M.(Montr.), D.Phil.(Oxon.)

H. Patrick Glenn; B.A.(Br.Col.), LL.B.(Qu.), LL.M.(Harv.), D.E.S.,
Docteur en droit (Strasbourg), LL.D. Hon. Causa (Fribourg)
F.R.S.C. (*Peter M. Laing Professor of Law*)

Jane Matthews Glenn; B.A.(Hons), LL.B.(Qu.), Docteur de
l'Université de Strasbourg(Droit)

Richard Gold; B.Sc.(McG.), LL.B.(Hons)(Tor.), LL.M.,
S.J.D.(Mich.)

Patrick Healy; B.A.(Vict.), B.C.L.(McG.), LL.M.(Tor.) (*on leave
Jan-June '08*)

Ram Jakhu; 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.)

Pierre-Gabriel Jobin; B.A., B.Phil., LL.L.(Laval), D.E.S. en droit
privé, Doctorat d'état en droit privé(Montpellier)

Rosalie Jukier; B.C.L., LL.B.(McG.), B.C.L.(Oxon.)

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*)

Lara Khoury; LL.B.(Sher.), B.C.L., D.Phil.(Oxon.)

Dennis R. Klinck; B.A., M.A.(Alta.), Ph.D.(Lon.), LL.B.(Sask.)

David Lametti; B.A.(Tor.), LL.B., B.C.L.(McG.), LL.M.(Yale),
D.Phil.(Oxon.)

Robert Leckey; B.A. (Qu.), B.C.L. LL.B. (McG.), S.J.D. (Tor.)

Roderick A. Macdonald; B.A., LL.B.(York), LL.L.(Ott.), LL.M.(Tor.)
(*F.R. Scott Professor of Public and Constitutional Law*),
F.R.S.C. (*on leave*)

Desmond Manderson; B.A.(Hons.), LL.B.(Hons.)(A.N.U.),
D.C.L.(McG.) (*Canada Research Chair in Law and Discourse*)
(*on leave*)

Frédéric Mégret; LL.B. (King's College), D.E.A. (Paris), Ph. D.
(Geneva/Paris) (*Canada Research Chair on the Law of Human
Rights and Legal Pluralism*)

Pierre-Emmanuel Moyses; LL.B., LL.M., LL.D.(Montr.)

Victor Muñoz-Fraticelli; B.A.(Cornell), J.D.(Puerto Rico),
M.A.(Chic.) (*joint appt. with Political Science*)

Tina Piper; B.A.Sc.(Tor.), LL.B.(Dal.), B.C.L., M.Phil.(Oxon.)

René Provost; LL.B.(Montr.), LL.M.(Berkeley), D.Phil.(Oxon.)

Geneviève Saumier; B.Com, B.C.L., LL.B.(McG.), Ph.D.(Cantab.)

Stephen A. Scott; B.A., B.C.L.(McG.), D.Phil.(Oxon.); *Emeritus
Professor*

Colleen Sheppard; B.A., LL.B.(Tor.), LL.M.(Harv.)

particularly appropriate for students with a strong professional orientation who do not wish to write a thesis.

The Institute of Comparative Law operates within the Faculty of Law as a centre of comparative legal studies. It accommodates national, international and transnational studies and encourages openness to diverse legal cultures in teaching and research. The Institute offers a Graduate Certificate in Comparative Law and the degrees of Master of Laws (LL.M.) and of Doctor of Civil Law

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2. statement of academic program;
3. official transcripts and proof of degree;
4. certified translations of transcripts and proof of degree (if not written in French or English);
5. official university grading system;
6. letters of reference on forms provided for that pur



BUS2 503 BUSINESS ORGANIZATIONS. (3) (Restriction: Not open to students who have taken BUS2 367.) A treatment of specialized topics in the law of business organizations.

BUS2 504 SECURITIES REGULATION. (3) (Restriction: Not open to students who have taken BUS2 372.) An introduction to the structure of Canada's capital markets and a review of major features of securities regulation using the Quebec or Ontario scheme as background. An examination of the general regulatory framework for licensing of securities professionals, disclosure to investors and enforcement powers of regulators.

BUS2 505 CORPORATE FINANCE. (3) (Restriction: Not open to students who have taken BUS2 464.) Advanced issues in business and corporate law. Principles underlying decisions about a corporation's capital structure. Distinctive aspects and rights of corporate securities, including common shares, preferred shares.

CMPL 500 ABORIGINAL PEOPLES AND THE LAW. (3) Current legal topics relating to native peoples, including the concept of aboriginal title, and constitutional aspects of contemporary land claims. Aspects of Canadian law relating to native peoples, their constitutional status, and hunting and fishing rights.

CMPL 501 JURISPRUDENCE. (3) The main schools of jurisprudence and the most significant writings, particularly contemporary writings, in legal philosophy.

CMPL 502 CANON LAW. (3) History, sources and methods of interpretation of canon law, its influence on secular legal traditions, its codification, and its contemporary relevance.

CMPL 504 FEMINIST LEGAL THEORY. (3) Feminist theory and its relevance and application to law, including feminist methodologies in law, the public versus private dichotomy, and changing conceptions of equality.

CMPL 505 ADVANCED JURISPRUDENCE. (2) An advanced course on selected topics in legal theory.

CMPL 506 LEGAL THEORY. (3) The philosophical basis of private law, from a comparative and historical perspective.

CMPL 507 LINGUISTIC AND LITERARY APPROACHES TO LAW. (2) The techniques of linguistic and literary analysis and their contribution to the interpretation and evaluation of legal texts.

CMPL 508 RESEARCH SEMINAR 1. (2) Research seminar to be offered by members of the Faculty or visiting professors, to permit research in legal traditions and legal theory in areas not covered by other courses in the program.

CMPL 509 RESEARCH SEMINAR 2. (2) Research seminar to be offered by members of the Faculty or visiting professors, to permit research in legal traditions and legal theory in areas not covered by other courses in the program.

CMPL 510 ROMAN LAW. (3) An examination of the contemporary relevance of principles of Roman law, in both civil and common law jurisdictions.

CMPL 511 SOCIAL DIVERSITY AND LAW. (3) The interaction of law and cultural diversity. Through the use of a number of case studies, we will examine: 1. The empirical effect of cultural diversity on legal systems. 2. Institutional structures to accommodate diversity. 3. Theoretical perspectives.

CMPL 512 THEORIES OF JUSTICE. (3) The concept of political justice and its relationship to particular legal and economic institutions, including the moral foundations of theories of justice, the nature of legitimate political authority, and the nature of distributive justice.

CMPL 513 TALMUDIC LAW. (3) Historical sources of Talmudic law, methods of interpretation, selected topics, and relation to various secular legal traditions.

CMPL 515 INTERNATIONAL CARRIAGE OF GOODS BY SEA. (3) A comparative study of private international maritime law.

CMPL 516 INTERNATIONAL DEVELOPMENT LAW. (3) The law and economics of development, including the role of agencies of the United Nations in development, the role of UNCTAD in formulating uniform rules of international trade, and the World Bank and the

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 H



Lecturers

Joy Bennett; B.A., M.A.(C'dia), M.L.I.S.(McG.), Ph.D.(C'dia)
Leanne Bowler; B.A., M.L.I.S., M.Ed.(McG.)
Erica Burnham; B.A., M.L.I.S.(McG.), Liaison Librarian,
Macdonald Campus Library, McGill
Gordon Burr; B.A., M.L.I.S.(McG.); Senior Archivist, Records
Management, McGill
Louise Carpentier; B.L.S.(Tor.), M.Bibl.(Montr.), M.P.P.PA.(C'dia),
Senior Librarian, Head, Government Documents and Special
Collections Services, Webster Library, Concordia
Larry Deck; B.A.(Windsor), M.A.(Montr.), M.L.I.S.(McG.)
Danielle Dennie; B.Sc.(Laur.), M.Sc.(Inst. Armand Frappier),
M.L.I.S.(McG.), Chemistry & Biochemistry and Physics
Librarian, Concordia
Jocelyn Godolphin; B.A.(Man.), M.A.(Oregon), M.L.S.(Br. Col.),
Asst. Director, Collection Services, Webster Library, Concordia
Jim Henderson; B.Sc.(Victoria), M.Sc.(Queen's), M.L.S.(U.B.C.),
Life Sciences Librarian, McGill
Alexander Jerabek; B.A.(McG.), M.A.(C'dia.), M.L.I.S.(McG.)

years' professional experience following completion of the M.L.I.S.

2. Applicants to graduate studies whose mother tongue is not English and who have not completed an undergraduate or graduate degree from a recognized foreign institution where English is the language of instruction or from a recognized Canadian institution (anglophone or francophone), must submit documented proof of competency in oral and written English prior to admission. Such proof normally comprises the 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 25 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.

44.3.4 Ph.D. (*Ad Hoc*)

1. 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.

2. Applicants to graduate studies whose mother tongue is not English and who have not completed an undergraduate or graduate degree from a recognized foreign institution where English is the language of instruction or from a recognized Canadian institution (anglophone or francophone), must submit documented proof of competency in oral and written English prior to admission. Such proof normally comprises the 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 25 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.

44.4 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.

1. A completed application form, available on the Web at www.mcgill.ca/applying/graduate

6. To foster commitment to professional service for individuals, organizations and society.

44.5.2 Objectives of the M.L.I.S. Program

Upon completion of the M.L.I.S. degree, graduates will be able to integrate their knowledge and skills to:

1. Understand the historical and theoretical foundations of archival studies, knowledge management and librarianship.
2. Articulate the issues concerning access to information, privacy, censorship, and intellectual freedom.
3. Understand research principles and techniques that are applied in the field.
4. Select, acquire, organize, store, retrieve and disseminate information and knowledge resources.
5. Design, manage and evaluate information systems and services.
6. Apply management theories, principles and techniques in libraries and other knowledge-based organizations.
7. Assume the role of information professionals as mediators between users and information resources.
8. Understand the nature of professional ethics and the role of professional associations.

44.5.3 Objectives of the Archival Studies Stream

M.L.I.S. graduates in the archival studies stream will have:

1. expertise in archives, records management, and electronic records management to support authenticity, access, and long-term preservation of records.
2. knowledge of theories and techniques in acquisitions, appraisal, arrangement, description, preservation, and access to records.
3. skills to practice in settings such as archives, libraries, museums, government agencies, academic institutions, and corporate and non-profit organizations.

Graduates with this stream are prepared for professional careers as archivists, records managers, information managers, records specialists, preservation librarians, and curators.

44.5.4 Objectives of Knowledge Management Stream

M.L.I.S. graduates in the knowledge management stream will have:

1. critical knowledge of the creation, capture, organization, sharing, dissemination and evaluation of knowledge assets for individuals, groups, and organizations.
2. solid grounding in organizational memory, communities of practice, and taxonomies of organizational knowledge.
3. skills to facilitate user-centred consensus-based approaches.

Graduates with this stream are prepared for professional careers as knowledge managers, online/virtual librarians, knowledge base developers and corporate taxonomists.

44.5.5 Objectives of the Librarianship Stream

M.L.I.S. graduates in the librarianship stream will have:

1. knowledge to provide library and information services in varied settings to meet the information needs of various clientele.
2. ability to develop information systems and resources.
3. skills to practice in libraries and information centres in various settings (including public, academic, school, corporate, and special libraries, as well as government agencies, museums, and health organizations).

Graduates with this stream are prepared for professional careers as reference librarians, cataloguers, and information systems librarians.

44.7 Graduate Diploma in Library and Information Studies

The 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.

Each Diploma student will be assigned a faculty advisor in conjunction with whom an individualized program of study will be designed.

Graduate Diploma in Libr

retrieval. Paper-based, microform, and electronic bibliographies are introduced. The creation and use of bibliographies, within various contexts, are discussed.

GLIS 616 INFORMATION RETRIEVAL

for this course unless both GLIS 646D1 and GLIS 646D2 are successfully completed in consecutive terms) (GLIS 646D1 and GLIS 646D2 together are equivalent to GLIS 646) A two-term in-depth research study leading to the preparation of a research paper with potential for publication. The subject of the study will vary according to the student's interests and pre-supposes some detailed background knowledge in the area to be researched. Working with a faculty supervisor, the student will plan, conduct and document a piece of research.

GLIS 647 INDEPENDENT STUDY. (6) (Prerequisites: GLIS 611 and permission of Director.) An in-depth exploration of a topic in library and information studies which is not emphasized or elaborated in any other part of the curriculum. The subject will vary according to the student's interests. It may be a work of synthesis, a research paper of limited scope, a state-of-the-art paper or a project which is an outgrowth of course work or in an area not covered in the curriculum. The student will work with a faculty supervisor to plan and pursue an individualised program of study.

GLIS 647D1 (3), GLIS 647D2 (3) INDEPENDENT STUDY. (Prerequisites: GLIS 611 and permission of Director.) (Students must register for both GLIS 647D1 and GLIS 647D2) (No credit will be given for this course unless both GLIS 647D1 and GLIS 647D2 are successfully completed in consecutive terms) (GLIS 647D1 and GLIS 647D2 together are equivalent to GLIS 647) An in-depth exploration of a topic in library and information studies which is not emphasized or elaborated in any other part of the curriculum. The subject will vary according to the student's interests. It may be a work of synthesis, a research paper of limited scope, a state-of-the-art paper or a project which is an outgrowth of course work or in an area not covered in the curriculum. The student will work with

**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)**

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 2007-08:

45.6 Courses

Students preparing to register should consult the Web at 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

and LING 607D2 are successfully completed in consecutive terms).

LING 631 PHONOLOGY 3. (3) (Fall) (Prerequisite: LING 531 or permission of instructor.) Foundations of phonological theory, focusing on issues in segmental and prosodic structure.

LING 635 PHONOLOGY 4. (3) (Winter) (Prerequisite: LING 631) Exploration of current topics in phonological theory.

LING 640 FUNDAMENTALS OF MORPHOLOGY. (3) (Fall) (Restriction: Not open to students who have taken LING 440) Introduction to current theoretical notions that seek to define a well-formed word structure, including headedness, morphological subcategorization, feature percolation and cyclicity.

LING 645 MORPHOLOGY: THEORY AND ANALYSIS. (3) (Prerequisite: LING 571 or equivalents) (Corequisite: LING 530 or equivalent) In-depth investigation of current issues in theoretical morphology.

★ **LING 651 TOPICS IN ACQUISITION OF PHONOLOGY** Tc(.)Tj/TT2 1 Tf4238.5709 Tm-0.0038 Tc(P)

Associate Professors

T. Boyaci; B.S.(Middle-East Tech., Turkey), M.S., Ph.D.(Col.),
Management Science

F. Carrieri; Laurea-Law(Universita'di Bari), M.A., Ph.D.(S. Calif.),
Finance

P. Christofferson; B.A.(Copenhagen), M.A., Ph.D.(Penn.), *Finance*

S. Christofferson; B.A.(Qu.), M.A.(Br.Col.), Ph.D.(Penn.), *Finance*

B. Croitoru, DIAF(Institut de Statistique de l'Universite Pierre et
Marie Curie-Paris); Ph.D.(Wharton), *Finance*

R. David; B.Eng., M.B.A.(McG.); Ph.D.(Cornell), *Strategy and
Organization*

J. Ericsson; M.Sc., Ph.D.(Stockholm Sch. of Econ.), *Finance*

H. Etemad; B.S.C.; M.Eng.(Tehran), M.S., M.B.A., Ph.D.(Calif.),
International Business

S. Faraj; B.S.(Wisconsin), M.S.(Mass. Inst. of Tech.), DBA, *MIS*

S. Fortin; BAA(U. du Quebec a Rimouski); Ph.D.(Waterloo),
Accounting

M. Graham; M.A., M.B.A., Ph.D.(Harv.), *Strategy and Organization*

R. Hebdon; B.A., M.A., Ph.D.(Tor.), *General Management-
Industrial Relations*

K. Jacobs; B.A., M.A.(Cath. U. of Louvain), Ph.D.(Pitts.), *Finance*

A.M. Jaeger; B.Sc.(N'western), M.B.A., Ph.D.(Stan.),
Organizational Behaviour

M-S. Jo; B.Com.(Hankuyk U., Korea), M.B.A.(Mich.), M.S.(Ill.),
Ph.D.(Colo.), *Marketing*

J. Jorgensen; B.A., M.A.(N.C.), Ph.D.(McG.), *Strategy and
Organization*

L. Lapointe; B.A., M.Sc.(Montr.), Ph.D.(HEC), *Information
Systems*

S. Li; M.S.(Georgia), Ph.D.(Tex.), *Management Science*

S. Maguire; B.Sc.(Qu.), M.B.A.(Br.Col.), *Strategy and
Organization*

M. Mendonça; B.A., B.Com., M.A.(Bombay), M.B.A.(McG.),
Organizational Behaviour (Part-time)

K. Moore; B.Sc.(Ambassador U.); M.B.A.(U.S.C.); Ph.D.(York),
Marketing/Strategy & Organization (Part-time)

A. Mukherjee; B.Eng.(Jadavpur), M.B.A.(Indian Inst. of Mgmt),
Ph.D.(Texas-Austin), *Marketing*

W. Oh; B.A.(SUNY), M.B.A.(Geo.Wash. U.). M.Phil(Stern); Ph.D.
(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

E. Sarigollu; B.A., M.B.A.(Bogazici), M.A., Ph.D.(Penn.),
Marketing

S. Sarkissian; M.S.(Berkeley), Ph.D.(Wash.), *Finance*

O. Toulan; B.Sc.(G'town), Ph.D.(MIT), *Strategy and Organization*

D. Vakratsas; B.Sc.(Aristotle U.) M.Sc., Ph.D.4.8(e)-6.2(Sc.)-6.1(Ph.)-(totle 012)Tj/TT6C6ul2t Dh.U.Berkeleyc-0.0013 Tw[(D.1.9(a)-1.9(krat)8.otle 012)T6.1

of Quebec (see section 46.6.1 "Certificat d'acceptation (C.A.Q.)/ (Certificate of Acceptance)").

All of the above is clearly outlined in the letter of acceptance.

46.5.1 Registration

All accepted candidates will receive a package outlining registration procedures as well as deadline dates for fee payment.

Candidates who fail to register during the specified registration period may do so later but will be charged a late registration fee by the University.

For more information on registration, please refer to the General Information section of the Graduate and Postdoctoral Studies Calendar for more information.

46.5.2 Orientation

Orientation for all new M.B.A. I students is held during the week before classes begin. **This activity is a mandatory part of M.B.A. I.** During this orientation, students get acquainted with other students and may form initial study groups. There is also an opportunity to meet with professors and to have various facets of the program outlined and clarified. An orientation fee of approximately \$80 is assessed to each student.

46.6 International Applicants

The University is unable to waive or defer the application fee for international students. Applications received without the application fee will not be processed.

There is no financial aid to bring international students to study in Canada. If an international applicant has been selected to receive an entrance award, it will be credited to the student fee account after registration in September. International applicants must, therefore, rely on their own financial resources to enter Canada.

The regulations governing international students working in Canada should be checked with the nearest Canadian Embassy or Consulate. Visas must also be checked.

46.6.1 Certificat d'acceptation (C.A.Q.)/ (Certificate of Acceptance)

International Students should carefully follow all instructions sent to them when applying for their Certificate of Acceptance (CAQ) which is required of all students who wish to study in the Province of Quebec. **The M.B.A. Office is unable to help students obtain this document.**

All students who are not citizens or Permanent Residents of Canada are required to obtain the necessary Visa and/or Student Authorization documents **prior to entering the country. Do not leave home without proper documentation. You cannot change your status from Visa to Student (Is inah59 -nd5.20-15.20005 Tc-e)0.005 Tc-.0033 T.004505 Tc- TD** before, rely

have the opportunity to work on a one-to-one basis with a faculty member.

or

- 2) Ten courses (30 credits) selected as part of a General Management program.

46.7.3 M.B.A. II Year Concentrations

The M.B.A. II Concentrations are geared to the needs and demands of the employment market. They have been designed with considerable thought and attention to provide meaningful and useful packages of courses which will be an advantage upon graduation.

Concentrations include:

- Entrepreneurial Studies
- Finance
- Information Systems
- International Business
- Management for Development
- Marketing
- Operations Management
- Strategic Management

M.B.A. students may select a concentration or create their own General Management Curriculum.

A Concentration consists of five courses within an area. Support courses from accounting, human resource management, management science, and managerial economics are also offered to supplement the five courses within each concentration.

Double Concentrations

Students wishing to do a Double Concentration must take five courses in each area.

46.8 M.B.A. Part-time Studies

The course requirements for students completing their degree on

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.

46.11.1 M.B.A. I Year: Course Descriptions

MGCR 628D2 are successfully completed in consecutive terms) (MGCR 628D1 and MGCR 628D2 together are equivalent to MGCR 628) This course provides an integrative perspective to the topics in the first year core, building on progressive stages of integrative understanding from basic management skills looking inward to basic and specialized management skills looking both inward and outward. The emphasis is on pedagogic tools which focus on a holistic view of the organization, forcing an understanding of the management of the enterprise from multiple perspectives and the resolution of conflicting viewpoints.

MGCR 628J1 INTEGRATIVE COURSE. (2) (Students must also register for MGCR 628J2 and MGCR 628J3) (No credit will be given for this course unless MGCR 628J1, MGCR 628J2 and MGCR 628J3 are all successfully completed in consecutive terms) (MGCR 628J1, MGCR 628J2 and MGCR 628J3 together are equivalent to MGCR 628) This course provides an integrative perspective to the topics in the first year core, building on progressive stages of integrative understanding from basic management skills looking inward to basic and specialized management skills looking both inward and outward. The emphasis is on pedagogic tools which focus on a holistic view of the organization, forcing an understanding of the management of the enterprise from multiple perspectives and the resolution of conflicting viewpoints.

MGCR 628J2 INTEGRATIVE COURSE. (2) (Prerequisite: MGCR 628J1) (Students must also register for MGCR 628J3) (No credit will be given for this course unless MGCR 628J1, MGCR 628J2 and MGCR 628J3 are all successfully completed in consecutive terms) (MGCR 628J1, MGCR 628J2 and MGCR 628J3 together are equivalent to MGCR 628) See MGCR 628J1 for course description.

MGCR 628J3 INTEGRATIVE COURSE. (2) (Prerequisite: MGCR 628J2) (No credit will be given for this course unless MGCR 628J1, MGCR 628J2 and MGCR 628J3 are all successfully completed in consecutive terms) (MGCR 628J1, MGCR 628J2 and MGCR 628J3 together are equivalent to MGCR 628) See MGCR 628J1 for course description.

MGCR 629 GLOBAL LEADERSHIP: REDEFINING SUCCESS.(1) An introduction to the leadership challenges of the 21st century in a rapidly changing global environment at the intersection of business and society.

MGCR 640 MANAGEMENT ACCOUNTING. (2) The use of internally generated accounting information for decision making, planning and control purposes. The concepts and techniques involved in developing and interpreting accounting information that is relevant and useful for managers.

MGCR 641 ELEMENTS OF MODERN FINANCE 1. (2) Topics: appropriate evaluation criteria for projects, risk and return; how to construct efficient portfolios; rigorous techniques for valuing financial assets. Corporate financing strategies, efficient market theories and investment banking; principles of debt financing and Modigliani-Miller propositions.

MGCR 642 ELEMENTS OF MODERN FINANCE 2. (2) Topics: asset pricing theories; organization and structure of bond markets; yield curves, term structure of interest rates; boot-strapping techniques, bond pricing; concepts of duration; corporate debt market; structure and covenant features; tax effects; innovations and project finance; derivative markets; futures and forward pricing; options trading strategies.

46.11.2 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

entrepreneurial careers either as owners or managers. Provides a practical approach to the many problems likely to be encountered in the evolving life cycle of the small business.

BUSA 665 MANAGING

FINE 693 INTERNATIONAL FINANCE 1. (3) The international financial environment as it affects the multinational manager. In-depth study of the various balance of payments concepts, adjustment of the external balance, and the international monetary system will be followed by a review of theory and institutional aspects of the foreign exchange and the international (Eurodollar) markets.

FINE 694 INTERNATIONAL FINANCE 2. (3) (Prerequisite: MGMT

693) Focus on the operational problems of financial -7.4(ab)-0.1gTJ-T*-0.0004 Tc-0.0034 Tw[(finthe 7.6(a)-7.4(lulti))7.6(ational eternpris: M]TJ13.95

the firm; and (3) the strategic connection between the project and the firm's strategy and structure.

MGPO 651 STRATEGIC MANAGEMENT: DEVELOPING COUNTRIES.

(3) The course examines strategic management challenges in developing countries using lectures and discussion of readings and cases. Topics include economic policy management (national development strategies, structural adjustment, privatization), economic cost/benefit analysis, technology choice and transfer, negotiations between multinational firms and host governments, and strategic management for public enterprise, family-owned firms, economic groups, and developmental organizations.

MGPO 669 MANAGING GLOBALIZATION. (3) MBAs need to understand international competitive issues, such as: forces for industry globalization, a firm's international expansion process, and international competitive strategies. Many types of firms will be analyzed, from small U.S. and Canadian firms beginning to explore internationally to large multinationals that are managing investments around the world.

MGPO 683 INTERNATIONAL BUSINESS POLICY. (3) Development and application of conceptual approaches to general management policy and strategy formulation in multinational enterprises. Alternative forms of international business involvement (licenses, contractual arrangements, turnkey projects, joint ventures, full direct investment); formulation and implementation of international, multinational and transnational competitive strategies; technology transfer; ownership strategy; international collaborative arrangements. A combination of conceptual readings and applied case analyses.

MGPO 690 TOPICS: STRATEGIC MANAGEMENT 1.(3) Independent Project - no classes.

MGPO 691 TOPICS: STRATEGIC MANAGEMENT 2.(3)

MGPO 692 TOPICS: STRATEGIC MANAGEMENT 3.(3) Current topics in strategic management.

MGSC 601 MANAGEMENT OF TECHNOLOGY IN MANUFACTURING.

(3) This course discusses the latest developments in manufacturing technology and manufacturing planning, and examines issues

General Business and Management – Complementary Courses (6 credits)

Manufacturing and Supply Chain – Required Courses (15 credits)

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

Website: 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 prmgO94 TwtivirFran(ce,)7.4 Ena-
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* Admission to the program is very competitive and meeting the

Phase I (for example, marketing or management science), a sub-area within one of these (such as organizational development within organizational behaviour), or an interdisciplinary area that combines two or more of these (such as behavi

James G. Loveys; B.A.(St.Mary's), M.Sc., Ph.D.(S. Fraser)
 Neville G.F. Sancho; B.Sc., Ph.D.(Belf.)
 John A. Toth; B.Sc., M.Sc.(McM.) Ph.D.(MIT) (*William Dawson Scholar*)

Alain Vandal; B.Sc., M.Sc.(McG.), Ph.D.(Auck.)
 Daniel T. Wise; B.A.(Yeshiva), Ph.D.(Princ.)

Assistant Professors

Nilima Nigam; B.Sc.(Indian IT , Bombay), M.S., Ph.D.(Delaware)
 Russell Steele; B.S., M.S.(*Carnegie Mellon*), Ph.D.(Wash.)
 Paul Tupper; B.Sc.(S. Fraser), Ph.D.(Stan.)
 Jacques Vestraëte; B.Sc., M.Sc.(Natal), Ph.D.(Camb.)
 A. Vetta; B.Sc., M.Sc.(London School of Economics), Ph.D.(MIT)
 (*joint appointment with SOCS*)
 Thomas P. Wihler; M.S., Ph.D.(ETH)

Associate Members

Xiao-Wen Chang (*Computer Science*), Luc P. Devroye (*Computer Science*), Pierre R.L. Dutilleul (*Plant Science*), Leon Glass (*Physiology*), Jean-Louis Goffin (*Management*), James A. Hanley (*Epidemiology & Biostatistics*), Lawrence Joseph (*Epidemiology & Biostatistics*), Michael Mackey (*Physiology*), Lawrence A. Mysak (AOS), Christopher Paige (*Computer Science*), Prakash Panangaden (*Computer Science*), Robert Platt (*Epidemiology & Biostatistics*), James O. Ramsay (*Psychology*), Peter Swain (*Physiology*), George Alexander Whitmore (*Management*), Christina Wolfson (*Epidemiology & Biostatistics*)

Adjunct Professors

Donald A. Dawson; Martin Gander; Andrew Granville; Ming Mei; Ram Murty; Vladimir Remeslennikov; Robert A. Seely

Faculty Lecturers

José Correa; Axel Hundemer

47.2 Programs Offered

The Department of Mathematics and Statistics offers programs which can be focused on applied mathematics, pure mathematics and statistics leading to Masters degrees (M.A. or M.Sc.), as well as M.Sc. program options in Bioinformatics and in CSE (Computational Science and Engineering). In the basic Masters programs students must choose between the thesis option and the non-thesis option, which requires a project. The Bioinformatics and CSE Options require a thesis. In addition to the Ph.D. Program in Mathematics and Statistics there is a Ph.D. option in Bioinformatics.

The department Website (www.math.mcgill.ca) provides extensive information on the department and its facilities, including the research activities and the research interests of individual faculty members. It also provides detailed information, supplementary to the calendar, concerning our programs, admissions, funding of graduate students, thesis requirements, advice concerning the choice of courses, etc.

Students are urged to consult the Website (www.math.uqam.ca/ISM) of the Institut des Sciences Mathématiques (ISM), which coordinates intermediate and advanced level graduate courses among Montreal and Quebec universities. A list of courses available under the ISM auspices can be obtained from the ISM Website. The ISM also offers fellowships and promotes a variety of joint academic activities greatly enhancing the mathematical environment in Montreal and in the province of Quebec.

47.3 Admission Requirements

In addition to the general Graduate and Postdoctoral Studies Office requirements, the Department requirements are as follows:

Master's Degree

The normal entrance requirement for the Master's programs is a Canadian Honours degree or its equivalent, with high standing, in mathematics, or a closely related discipline in the case of applicants intending to concentrate in statistics or applied mathematics.

Applicants wishing to concentrate in pure mathematics should have a strong background in linear algebra, abstract algebra, and real and complex analysis.

Applicants wishing to concentrate in statistics should have a strong background in linear algebra and basic real analysis. A calculus based course in probability and one in statistics are required, as well as some knowledge of computer programming. Some knowledge of numerical analysis and optimization is desirable.

Applicants wishing to concentrate in applied mathematics should have a strong background in most of the areas of linear algebra, analysis, differential equations, discrete mathematics and numerical analysis. Some knowledge of computer programming is also desirable.

Students whose preparation is insufficient for the program they wish to enter may, exceptionally, be admitted to a Qualifying Year.

Ph.D. Degree

A Master's degree with high standing is required, in addition to the requirements listed above for the masters program. Students may transfer directly from the Masters program to the PhD program under certain conditions.

47.4 Application Procedures

Online application is preferred and is available at www.mcgill.ca/applying/online. Applicants unable to apply online can request a paper or PDF form from the department. Applications will be considered upon receipt of:

1. application form;
2. \$80 application fee;
3. two official or certified copies of transcripts;
4. two letters of reference on letterhead with original signatures;
5. one page statement outlining research interests and identifying possible supervisor;
6. TOEFL/IELTS test results (if applicable);
7. applicants in pure and applied mathematics should provide a GRE score report, if available.

For more details, especially concerning items 6 and 7, please consult the Website at www.math.mcgill.ca/students/grad_app.php#necessarybackground.

All information is to be submitted directly to the Graduate Program Secretary in the Department of Mathematics and Statistics.

Deadline: Applicants are urged to submit complete applications by March 1 for September admissions [JTJ0-13.5926 -1.4963 TD-0.0006 To

M.A. in Mathematics and Statistics (Thesis) (45 credits)
or
M.Sc. in Mathematics and Statistics (Thesis) (45 credits)
Complementary Courses (minimum 21 credits)

M.Sc. in Mathematics and Statistics (Thesis) – Bioinformatics
(48 credits)

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.

Approximately 15 of the 600- and 700-level courses will be given.

Term(s) offered (Fall, Winter, Summer) may appear after the credit

methods to solve problems arising in applications. Topics include direct and iterative methods for the solution of linear equations (including preconditioning), eigenvalue problems, interpolation, approximation, quadrature, solution of nonlinear systems.

MATH 579 NUMERICAL DIFFERENTIAL EQUATIONS. (4) (Winter) (Prerequisites: MATH 375 and MATH 387 or permission of the instructor.) Numerical solution of initial and boundary value problems in science and engineering: ordinary differential equations; partial differential equations of elliptic, parabolic and hyperbolic type. Topics include Runge Kutta and linear multistep methods, adaptivity, finite elements, finite differences, finite volumes, spectral methods.

MATH 580 APPLIED PARTIAL DIFFERENTIAL EQUATIONS 1. (4) (Fall) (Prerequisites: MATH 316, MATH 375 or equivalent.) (Restrictions: Not open to students who have taken MATH 586.) Linear and nonlinear partial differential equations of applied mathematics. Uniqueness, regularity, well posedness and classification for elliptic, parabolic and hyperbolic equations. Method of characteristics, conservation laws, shocks. Fundamental solutions, weak and strong maximum principles, representation formulae, Green's functions.

MATH 581 APPLIED PARTIAL DIFFERENTIAL EQUATIONS 2. (4) (Winter) (Prerequisite: MATH 580.) Continuation of topics from MATH 580. Transform methods. Weak solutions. Advanced topics in partial differential equations.

MATH 587 ADVANCED PROBABILITY THEORY 1. (4) (Fall) (Prerequisite: MATH 356 or equivalent and approval of instructor) Probability spaces. Random variables and their expectations. Convergence of random variables in L_p . Independence and conditional expectation. Introduction to Martingales. Limit theorems including Kolmogorov's Strong Law of Large Numbers.

MATH 589 ADVANCED PROBABILITY THEORY 2. (4) (Winter) (Prerequisites: MATH 587 or equivalent) Characteristic functions: elementary properties, inversion formula, uniqueness, convolution and continuity theorems. Weak convergence. Central limit theorem. Additional topic(s) chosen (at discretion of instructor) from: Martingale Theory; Brownian motion, stochastic calculus.

★ **MATH 590 ADVANCED SET THEORY.** (4) (Prerequisites: MATH 318, either MATH 355 or MATH 371, or permission of the instructor.) (Restriction: Not open to students who have taken or are taking MATH 488.) Students will attend the lectures and fulfill all the requirements of MATH 488. In addition, they will study an advanced topic agreed on with the instructor. Topics may be chosen from combinatorial set theory, Goedel's constructible sets, forcing, large cardinals.

★ **MATH 591 MATHEMATICAL LOGIC 1.** (4) (Winter) (Prerequisites: MATH 488 or equivalent or consent of instructor) Propositional logic and first order logic, completeness, compactness and Löwenheim-Skolem theorems. Introduction to axiomatic set theory. Some of the following topics: introduction to model theory, Herbrand's and Gentzen's theories, Lindström's characterization of first order logic.

★ **MATH 592 MATHEMATICAL LOGIC 2.** (4) (Winter) (Prerequisites: MATH 488 or equivalent or consent of instructor) Introduction to recursion theory; recursively enumerable sets, relative recursiveness. Incompleteness, undecidability and undefinability theorems of Gödel, Church, Rosser and Tarski. Some of the following topics: Turing degrees, Friedberg-Muchnik theorem, decidable and undecidable theories.

MATH 600 MASTER'S THESIS RESEARCH 1. (6) (Restriction: Not open to students who have taken or are taking MATH 640) Thesis research under supervision.

MATH 601 MASTER'S THESIS RESEARCH 2. (6) Thesis research under supervision.

MATH 604 MASTER'S THESIS RESEARCH 3. (6) Thesis research under supervision.

MATH 605 MASTER'S THESIS RESEARCH 4. (6) Thesis research under supervision.

MATH 606 ALGEBRAIC TOPOLOGY. (4) (Prerequisite: MATH 577) Homology and Cohomology theories. Duality theorems. Higher homotopy groups.

MATH 626 ADVANCED GROUP THEORY 1. (4) The structure of groups. Special classes of groups. Representation theory. Additional topics to suit the class.

MATH 627 ADVANCED GROUP THEORY 2. (4) A continuation of the topics listed in the description of MATH 626.

MATH 635 FUNCTIONAL ANALYSIS 1. (4) (Prerequisite: MATH 564, MATH 565, and MATH 566) Banach spaces. Hilbert spaces and linear operators on these. Spectral theory. Banach algebras. A brief introduction to locally convex spaces.

MATH 640 PROJECT 1. (6) (Restriction: Not open to students who have taken or are taking MATH 600) Project research under supervision.

MATH 641 PROJECT 2. (8) Project research under supervision.

MATH 651 ASYMPTOTIC EXPANSION AND PERTURBATION METHODS. (4) Asymptotic series. Summation. Asymptotic estimation of integrals. Regular and singular perturbation problems and asymptotic solution of differential equations.

MATH 666 SEMINAR MATHEMATICS AND STATISTICS 1. (2) (Restriction: Departmental approval required.) Study on an advanced topic in mathematics or statistics.

MATH 667 SEMINAR MATHEMATICS AND STATISTICS 2. (2) (Restriction: Departmental approval required.) Study on an advanced topic in mathematics or statistics.

MATH 669D1 (0.5), MATH 669D2 (0.5) CSE SEMINAR. (Restriction: This seminar course is open only to students who were admitted to the CSE Program Option.) (No credit will be given for this course unless both MATH 669D1 and MATH 669D2 are successfully completed in consecutive terms) (Students must register for both MATH 669D1 and MATH 669D2) Techniques and applications in computational science and engineering.

MATH 669N1 CSE SEMINAR. (0.5) (Restriction: This seminar course is open only to students who were admitted to the CSE Program Option.) (Students must also register for MATH 669N2) (No credit will be given for this course unless both MATH 669N1 and MATH 669N2 are successfully completed in a twelve month period) Techniques and applications in computational science and engineering.

MATH 669N2 CSE SEMINAR. (0.5) (Prerequisite: MATH 669N1) (No credit will be given for this course unless both MATH 669N1 and MATH 669N2 are successfully completed in a twelve month period) See MATH 669N1 for course description.

MATH 671 APPLIED STOCHASTIC PROCESSES. (4) Discrete parameter Markov chains, including branching processes and random walks. Limit theorems and ergodic properties of Markov chains. Continuous parameter Markov chains, including birth and death process. Topics selected from the following areas: renewal process.

Introduction to a statistical computing language, such as S-PLUS; random number generation and simulations; EM algorithm; bootstrap, cross-validation and other resampling schemes; Gibbs sampler. Other topics: numerical methods ; importance sampling; permutation tests.

MATH 681 TIME SERIES ANALYSIS. (4) Stationary stochastic processes. Autocovariance and autocovariance generating functions. The periodogram. Model estimation. Likelihood function. Estima-

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)

Industry – Required Courses (12 credits)

For more information, contact:

Program Coordinator, Mechanical Engineering

Telephone: (514) 398-7201

E-mail: mmm.mecheng@mcgill.ca

Website: www.mcgill.ca/mmm

or the Masters Program Office, Faculty of Management

Telephone: (514) 398-4648

Ph.D. Degree in Mechanical Engineering

Candidates normally register for the M.Eng. degree in the first instance. However, in exceptional cases where the research work is proceeding very satisfactorily, or where the equivalent of the M.Eng. degree has been completed at another university, candidates may be permitted to proceed directly to the Ph.D. degree without submitting a Master's thesis as long as they have satisfied the course requirements for the M.Eng. degree.

Courses will be selected by a committee, which includes the supervisor, in consultation with the student. The course selection will depend on the existing academic qualifications of the student and those needed to conduct the proposed research.

Candidates are required to pass a preliminary oral examination (MECH 701 - Ph.D. Comprehensive Preliminary Oral Examina-

MECH 524 COMPUTER INTEGRATED MANUFACTURING. (3) (3-0-6) (Prerequisite: Permission of the instructor) A study of the present impact of computers

finite element method for static analysis, vibration analysis and structural dynamics; introduction to nonlinear problems.

MECH 553 DESIGN AND MANUFACTURE OF MICRODEVICES. (3) (3-0-6) (Prerequisite: Instructors' Permission.) Introduction to micro-electromechanical systems (MEMS). Micromachining techniques (thin-film deposition; lithography; etching; bonding). Microscale mechanical behaviour (deformation and fracture; residual stresses; adhesion; experimental techniques). Materials- and process-selection. Process integration. Design of microdevice components to meet specified performance and reliability targets using realistic manufacturing processes.

MECH 554 MICROPROCESSORS FOR MECHANICAL SYSTEMS. (3) (2-3-4) (Prerequisite (Undergraduate): MECH 383 and COMP 208) Digital logic and circuits - asynchronous and synchronous design. Microcontroller architectures, organization and programming - assembly and high-level. Analog/ digital/hybrid sensors and actuators. Sensing and conditioning subsystems. Interfacing issues. Real-time issues. Operator interfaces. Laboratory exercises on digital logic design, interfacing and control of peripherals with a final team project.

MECH 557 MECHATRONIC DESIGN. (3) (3-1-5) (Prerequisite (Undergraduate): ECSE 461, MECH 383 and (MECH 412 or MECH 419)) Team project course on the design, modelling, model validation, and control of complete mechatronic systems, constructed with modern sensors, actuators, real-time operating systems, embedded controllers, and intelligent control.

MECH 561 BIOMECHANICS OF MUSCULOSKELETAL SYSTEMS. (3) (3-0-6) (Prerequisite (Undergraduate): MECH 321 and (MECH 315 or MECH 419)) The musculoskeletal system; general characteristics and classification of tissues and joints. Biomechanics and clinical problems in orthopaedics. Modelling and force analysis of musculoskeletal systems. Passive and active kinematics. Load-deformation properties of passive connective tissue, passive and stimulated muscle response. Experimental approaches, case studies.

MECH 562 ADVANCED FLUID MECHANICS. (3) (3-0-6) (Prerequisite: MATH 271 or permission of instructor.) Conservation laws, control volume analysis, Navier stokes equations, dimensional analysis and limiting forms of N-S equation, laminar viscous flows, boundary layer theory, inviscid potential flows, lift and drag, introduction to turbulence.

MECH 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 616 VISCOUS FLOW AND BOUNDARY LAYER THEORY. (4) (3-0-9) (Prerequisite: MECH 610 or permission of instructor.) Navier-Stokes equations. Laminar boundary layer equations. Similarity, approximate and exact solutions, including wakes and jets. Boundary layer separation. Stability of laminar flow. Transition to turbulence. Lubrication theory. Low Reynolds numbers flows, Oseen approximation.

MECH 620 ADVANCED COMPUTATIONAL AERODYNAMICS. (4) (Evening course) Explicit and implic

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 convenience to the instructors.

MECH 688 INDUSTRIAL STAGE. (6) (Restriction: students in the Aerospace Engineering Option/Program) An integral component of the program that is to be completed under the supervision of an experienced engineer in the facilities of a participating company. The topic is to be decided by a mutual agreement between the candidate, the participating company and the Liaison Committee on Aerospace Engineering. An evaluation of the candidate's performance during the work period becomes a part of the student's record.

MECH 691 M.ENG. THESIS LITERATURE REVIEW. (3) A comprehensive literature review in the general area of the thesis topic, to be completed in the first semester.

MECH 692 M.ENG. THESIS RESEARCH PROPOSAL. (4) Initiation of research with particular emphasis on the definition of the thesis topic.

MECH 693 M.ENG. THESIS PROGRESS REPORT 1. (3) A first status report on the progress in the thesis research.

MECH 694 M.ENG. THESIS PROGRESS REPORT 2. (6) A second status report on the progress in the thesis research.

MECH 695 M.ENG. THESIS. (12) Submission of the M.Eng. thesis for examination.

MECH 701 P

49.5 Program Requirements

M.Sc. in Medical Radiation Physics (Thesis) (60 credits)

This two-year program provides a comprehensive introduction to the academic, research and practical aspects of physics applied to radiation medicine. In addition to the thesis requirement (32 credits) there are 12 mandatory courses (28 credits). The practical and laboratory sections of the program are conducted in various McGill teaching hospitals.

The program comprises:

1. didactic courses in radiation physics, radiation dosimetry, the physics of nuclear medicine and diagnostic radiology, medical imaging, medical electronics and computing, radiation biology and radiation hazards and protection;
2. seminars in radiation oncology, diagnostic radiology and miscellaneous aspects of medical physics, e.g., lasers;
3. laboratory courses in radiation dosimetry and medical imaging;
4. an individual research thesis.

Required Courses (28 credits)

★ MDPH 608 LABORATORY - DIAGNOSTIC RADIOLOGY AND

NUCLEAR MEDICINE. (2) (Prerequisites: MDPH 314, MDPH 615.) This laboratory course takes place in hospital departments of medical diagnostic imaging and is designed to give the student a working knowledge of the performance parameters of the diagnostic imaging equipment. Laboratory classes will offer the student the practical experience of image quality control, on selected imaging equipment currently used in diagnostic medicine together with practical applications of the concepts studied in MDPH 614 and MDPH 615.

MDPH 609 RADIATION BIOLOGY. (2) Deals with the effects and mode of action of ionizing radiation on biological material from molecular interactions, through sub-cellular and cellular levels of organization, to the response of tissues, organs and the whole body. Includes the application of radiation biology to oncology and the biological aspects of environmental radiation exposure.

MDPH 611 MEDICAL ELECTRONICS. (2) An introductory course on electronics, with emphasis on digital electronics, data acquisition

49.6 Courses

Students preparing to register should consult the Web at 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.

MDPH 601 RADIATION PHYSICS. (3) The production and properties of directly and indirectly ionizing radiations and their interactions with matter; basic theoretical and experimental aspects of radiation dosimetry.

MDPH 602 APPLIED DOSIMETRY. (3) (Prerequisite: MDPH 601) Theoretical and practical dosimetry of radiation sources, both external and internal with respect to the human body. Equipment used for external beam radiotherapy and brachytherapy.

MDPH 603 LABORATORY PRACTICUM 1. (2) (Prerequisite: MDPH 601.) (Corequisite: MDPH 602) This laboratory course gives some experience in practical/clinical aspects as applied to radiation therapy and to the techniques for the measurement of different physical parameters which characterize radiation beams. The student is exposed to the operation of various therapy units, dose measuring devices, 3D treatment planning, virtual simulator units, brachytherapy, quality assurance, calibration and thermoluminescent dosimetry.

MDPH 607 INTRODUCTION TO MEDICAL IMAGING. (3) (Prerequisite: MDPH 615) A review of the principles of medical imaging as applied to conventional diagnostic radiography, digital subtraction radiography, computed tomography and magnetic resonance imaging. The course emphasizes a linear system approach to the formation, processing and display of medical images.

terms) (MDPH 625D1 and MDPH 625D2 together are equivalent to MDPH 625)

Assistant Professors

M. Behr; B.Sc.(Tor.), M.D.(Qu.), M.Sc.(McG.)

V. Blank; B.Sc., M.Sc.(Konstanz, Germany), Ph.D.(Inst. Pasteur)

M. Blostein; M.D., C.M.(McG.)

M. Bouchard; B.Sc., Ph.D.(Laval)

L. Chalifour; B.Sc., Ph.D.(Man.), M.A.(Harv.)

S.R. Cohen; B.Sc., M.Sc., Ph.D.(McG.)

M. Culty; B.Sc., M.Sc.(Lyon), Ph.D. (Grenoble)

S. Daly; B.Sc.(C' dia), Ph.D.(W. Ont.)

G. Duque; M.D.(Col.), Ph.D.(McG.)

S. Daly; B.Sc.(C' dia), Ph.D.(W. Ont.)

J.C. Engert; B.A.(Colby), Ph.D.(Boston)

renal and neural control of the circulation, and cardiac assist devices.

EXMD 507 ADVANCED APPLIED RESPIRATORY PHYSIOLOGY. (3)

51 Microbiology and Immunology

Department of Microbiology and Immunology
3775 University Street
Montreal, QC H3A 2B4
Canada

Telephone: (514) 398-3061

Fax: (514) 398-7052

E-mail: office.microimm@mcgill.ca

Website: www.mcgill.ca/microimm

Chair — G.J. Matlashewski

51.1 Staff

Professors

Z. Ali-Khan; B.Sc.(Bilar), M.Sc.(Karachi), Ph.D.(Tulane)

M.G. Baines; B.Sc., M.Sc., Ph.D.(Qu.)

J.W. Coulton; B.Sc.(Tor.), M.Sc.(Calg.), Ph.D.(W. Ont.)

J. Hiscott; B.Sc., M.Sc., Ph.D.(W. Ont.)

G.J. Matlashewski; B.Sc.(C'dia), Ph.D.(Ohio)

R.A. Murgita; B.Sc.(Maine), M.S.(Vt.), Ph.D.(McG.)

M.A. Wainberg; B.Sc.(McG.), Ph.D.(Col.)

Associate Professors

A. Berghuis; M.Sc.(The Netherl.), Ph.D.(Br. Col.)

D.J. Briedis; B.A., M.D.(Johns Hop.)

M. Olivier; B.Sc.(Montr.), Ph.D.(McG.)

S. Vidal; Ph.D.(Genève)

Assistant Professors

B. Cousineau; B.Sc., M.Sc., Ph.D.(Montr.)

S. Fournier; Ph.D.(Montr.)

M. Gotte; Ph.D. (Max Planck)

S. Gruenheid; Ph.D.(McG.)

S-L. Liu; Ph.D.(Wash.)

H. Le Moual; Ph.D.(Montr.)

G.J. Marczyński; B.S., Ph.D.(Ill.)

C. Piccirillo; B.Sc., Ph.D. (McG.)

D. Sheppard; M.D.(Tor.)

Associate Members

Institute of Parasitology: G. Faubert, A. Jardim, P. Ribeiro

Division of Exp. Medicine: C. Couture

Microbiology and Immunology: L. Kleiman

Medicine: M. Behr, A. Dascal, S. Hussain, A. Kristof, R. Lalande,

C. Liang, V. Loo, A. Manges, J. D. Maclean, J. Mendelson, M.

A. Miller, J. Nadeau, M. Newkirk, R.G.E. Palfree,

K. Pantopoulos, J. E. Rauch, M Saleh, M. Stevenson,

C. Tsoukas, B. Turcotte, B.J. Ward.

Neuroimmunology: A. Bar-Or

Neurology and Neurosurgery: J. Antel

Oncology: A. Gagnon, A.E. Koromilas, A. Moulard, A. Pause, S. Richard

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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)

The principal aim of the M.Sc. Applied is to provide specialized training in applied medical microbiology and immunology. Applied laboratory research projects must be pursued as a major part of the overall program. The results of each project form the basis of a formal report that is reviewed by the Department staff.

Required Courses (15 credits)

Ph.D.

Each Ph.D. student has an advisory committee (three professors including research advisor) that meets yearly to consider the student's progress. Candidates will be judged principally on their research ability and on the presentation of a satisfactory thesis.

Ph.D. in Microbiology and Immunology

Required Courses (18 credits)

Other courses may be required to strengthen the student's background.

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. (3) (Restriction: Ph.D. students - three of these courses required throughout the course of their degree program.) Description as for M.Sc. students.

MIMM 705 READING AND CONFERENCE. (3) (Restriction: Ph.D. students - three of these courses required throughout the course of their degree program.) Description as for M.Sc. students.

MIMM 706 READING AND CONFERENCE. (3) (Restriction: Ph.D. students - three of these courses required throughout the course of their degree program.) Description as for M.Sc. students.

MIMM 707 READING AND CONFERENCE. (3) (Restriction: Ph.D. students - three of these courses required throughout the course of their degree program.) Description as for M.Sc. students.

MIMM 711 GRADUATE SEMINARS 3. (3) (Restriction: Ph.D. students) Presentation of a maximum of three seminars topics throughout the course of their degree program.

MIMM 712 GRADUATE SEMINARS 4. (3) (Restriction: Ph.D. students) Presentation of a maximum of three seminars topics throughout the course of their degree program.

MIMM 713 GRADUATE SEMINARS 5. (3) (Restriction: Ph.D. students) Presentation of a maximum of three seminars topics throughout the course of their degree program.

MIMM 714 CURRENT TOPICS 4. (3) (Restriction: Ph.D. students) Discussion groups with guest speakers.

MIMM 715 CURRENT TOPICS 5. (3) (Restriction: Ph.D. students) Discussion groups with guest speakers.

MIMM 716 CURRENT TOPICS 6. (3) (Restriction: Ph.D. students) Discussion groups with guest speakers.

MIMM 721 PH.D. RESEARCH PROGRESS REPORT 1. (1) Each Ph.D. student has an advisory committee (3 professors including research advisor) that meets yearly to consider student's progress. Students submit a 6-page progress report to the committee and give a 20-minute oral presentation, discussing data obtained and future research plans. Committee gives advice on progress and fine-tuning the research project.

MIMM 721D1 (0.5), MIMM 721D2 (0.5) PH.D. RESEARCH PROGRESS REPORT 1. (Students must also register for MIMM

1. they have a minimum CGPA of 3.3 at the undergraduate

Associate Dean (Administration) — Bruce Minorgan
Associate Dean (Academic and Student) — Gordon Foote

53.1 Staff

Emeritus Professors

Edith Della Pergola; Graduate, Royal Conservatory (Bucharest)
 Dorothy Morton; Graduate, Conservatoire de Musique de Québec

Professors

William Caplin; B.M.(S.Calif.), M.A., Ph.D.(Chic.) (*James McGill Professor*)
 Brian Cherney; Mus.Bac., Mus.M., Ph.D.(Tor.)
 John Grew; L.T.C.L.(Lond.), B.Mus.(Mt. All.), M.Mus.(Mich.)
 D.D.(U.T.C.); LL.D.(Mt.All.); University Organist
 Steven Huebner; B.A., B.Mus., L.Mus.(McG.), M.F.A.,
 Ph.D.(Princ.) (*James McGill Professor*)
 Stephen McAdams; B.Sc. (McG.), Ph.D. (Stan.), D.Sc. (Paris)
 John Rea; B.Mus.(Wayne St.), M.Mus.(Tor.), M.F.A., Ph.D.(Princ.)
 Wieslaw Woszczyk; M.A., Ph.D.(F. Chopin Academy of Music,
 Warsaw) (*James McGill Professor*)

Associate Professors

Theodore Baskin; B.Mus.(Curtis), M.Mus.(Auck.); Principal Oboe,
 Montreal Symphony
 Tom Beghin; Diplome Superieur (Louvain), M.A., D.M.A.(C'nell.)
 Denys Bouliane; B.Mus., M.Mus.(Laval), Graduate, Hochschule
 für Musik (Hamburg)
 David Brackett; B.A. (Calif.-Santa Cruz), M.M. (New England
 Conservatory), D.M.A.(C'nell.)
 Julie Cumming; B.A.(Col.), M.A., Ph.D.(Berkeley)
 Kevin Dean; B.M.E.(Iowa), M.Mus.(Miami)
 Martha de Francisco; Diploma(Musikkhochschule, Detmold)
 Philippe Depalle; B.Sc.(Paris XI and ENS Cachan), D.E.A.(Le
 Mans and ENS Cachan), Ph.D.(Le Mans & IRCAM)(*William
 Dawson Scholar*)
 Lucile Evans; Dip.(Vincent d'Indy)
 Gordon Foote; B.Sc., M.A.(Minn.)
 Matt Haimovitz; B.A. (Harv.)
 Kyoko Hashimoto; B.A.(Tokyo)
 Alexis Hauser; Diplom (Konservatorium der Stadt, Wien)
 Timothy Hutchins; Dip. L.G.S.M.(Guildhall), B.A.Hons.Mus.(Dal.),
 Principal Flute, Montreal Symphony
 Jan Jarczyk; B.A., M.A.(Academy of Music, Cracow),
 Dip.(Berklee)
 Abe Kestenber
 Hank Knox; B.Mus., M.Mus.(McG.)(*William Dawson Scholar*)
 Sara Laimon; B.Mus.(Br. Col.), M.Mus.(Yale), D.M.A.(SUNY,
 Stony Brook)
 Richard Lawton; B.Mus.(McG.), M.Mus.(Ind.)
 William Martens; B.A.(Miami), Ph.D.(N'western)
 Don McLean; Mus.Bac., M.A., Ph.D.(Tor.)
 Michael McMahon; B.Mus.(McG.), Graduate, Hochschule für
 Musik(Vienna)
 Douglas McNabney; B.Mus.(Tor.), M.M.(W.Ont.), D.Mus.(Montr.)
 Marina Mdivani; Post-graduate Dip.(Moscow Cons.)
 Bruce Minorgan; B.Mus.(Br. Col.), M.A.(Tor.)
 Tom Plaunt; B.A.(Tor.), Graduate, Nordwestdeutsche
 Musikakademie (Detmold, Germany)
 Richard Raymond; Premier Prix (Cons. de Montréal),
 M.Mus.(Montr.)
 Dixie Ross-Neill; B.Mus.(N. Carolina), M.Mus.(Texas)
 Marcel Saint-Cyr; B.A.(Laval), Premier Prix(Cons.de Mus. de
 Qué.), Concert Dip.(Hochschule für Musik, Karlsruhe)
 Peter Schubert; B.A., M.A., Ph.D.(Col.)
 Thérèse Sevadjan; B.Mus., M.Mus.(Montr.)
 Eleanor Stuble; B.Mus.(Tor.), M.Mus.(Bran.), Ph.D.(Ill.)
 Julian Wachner; B.Mus., Mus.Doc.(Boston)
 Joel Wapnick; B.A.(N.Y.), M.A.(S.U.N.Y.), M.F.A.(Sarah L.),
 Ed.D.(Syr.)
 Thomas Williams; B.Mus.(Bran.)
 John Zirbel; B.Mus.(Wis.), Principal Horn, Montreal Symphony
 Luba Zuk; L.Mus.(McG.), Graduate, Con. de Mus. de Qué.

Assistant Professors

Stefano Algieri
 Lisa Barg; B.A. (Antioch), M.A., Ph.D. (SUNY)
 James Box; B.M.(Southern Methodist U.), M.M.(Cleveland Inst.
 Music), Principal Trombone, Montreal Symphony
 Alain Cazes; Premier Prix (Cons. de Montréal)
 Carolyn Christie; B.Mus.(McG.); Montreal Symphony
 Isabelle Cossette; Premier Prix (Cons. de Qué.), M.Mus. (McG.),
 D.Mus. (Montr.)
 Jonathan Crow; B.Mus.(McG.)
 Robert Crowley; B.M.(Eastman), M.M.(Cleveland); Principal
 Clarinet, Montreal Symphony
 Russell DeVuyst; B.Mus.Ed.(Boston Cons.), M.M.(New England
 Cons.); Associate Principal Trumpet, Montreal Symphony
 Elizabeth Dolin; B.Mus. (Tor.), Artist Dip. (Ind.)
 Sean Ferguson; B.Mus.(Alta.), M.Mus., D.Mus.(McG.)
 Ichiro Fujinaga; B.Mus., B.Sc.(Alta.), M.A., Ph.D.(McG.)
 Jean Gaudreault; LL.L.(Montr.), Graduate, Conservatoire
 de Musique de Québec, Montreal Symphony
 Aiyun Huang; B.A. (Tor.), D.M.A. (Calif. - San Diego)
 Robert Ingari
 Valerie Kinslow; B.A.(McG.)
 Roe-Min Kok; B.Mus.(Texas), M.A.(Duke), Ph.D.(Harv.)
 Joanne Kolomyjec; B.Mus.(Tor.)
 Jean Lesage; Concours, Diplôme d'études supérieures(Cons.
 de Montréal)
 Stéphane Lévesque; Premier Prix(Cons. de Montréal),
 M.Mus.(Yale), Principal Bassoon, Montreal Symphony
 Denise Lupien; B.M., M.M.(Juilliard), Concertmaster, Orchestre

(Ph.D.) is available in Composition, Music Education, Musicology, Music Technology, Sound Recording and Theory. Interdisciplinary studies are encouraged.

There are opportunities for graduate students to obtain funding by being hired as assistants through the Schulich School of Music. Positions are available as: teaching assistants, apprentice writers for program notes, sound recording technicians, dubbing technicians, correctors, and invigilators. Inquiries should be directed to the Chair of the Department of Music Research or the

Master of Music – Performance: Solo – Guitar, Orchestral

Master of Music – Sound Recording (Non-Thesis) (60 credits)

Required Courses (51 credits)

M.A. in Music – Theory (Thesis) (48 credits)

Required Courses (15 credits)

**M.A. in Music (Non-Thesis) options in Music Education,
Musicology, and Theory** (45 credits)

Required Courses (21 credits)

Master of Music – Performance: Chamber Music - Piano
(49 credits)

Required Courses (22 credits)

Master of Music – Performance: Orchestral Training

**Master of Music – Performance
Piano Accompaniment** (45 credits)

Required Courses (21 credits)

Complementary Courses (6 credits)

One approved graduate 3-credit seminar with the prefix MUCO,
MUGS, MUGT, MUHL, MUMT, MUPP, MUTH

One additional graduate 3-credit seminar from the following:

MUPG 590 (3) Vocal Styles and Conventions
(if not already taken as a required course)

MUPG 691 (3) Vocal Seminar 1

MUPG 692 (3) Vocal Seminar 2

MUPG 693 (3) Vocal Treatises and Methods

MUPG 694 (3) Vocal Physiology for Singers

Recitals (18 credits)

MUPG 656 (6) Vocal Quick Study

Master of Music – Performance: Vocal Opera Coach

(45 credits)

Required Courses (21 credits)**Master of Music – Performance: Vocal Pedagogy** (47 credits)

Required Courses (27 credits)

Master of Music – Performance: Vocal Performance

(49 credits)

Required Courses (19 credits)**Master of Music – Performance: Early Music** (48 credits)

(Voice, baroque flute, recorder, baroque oboe, baroque violin,
baroque viola, baroque cello, viola da gamba, harpsichord)

Required Courses (15 credits)

Master of Music – Performance: Church Music - Organ
(45 credits)

Required Courses (18 credits)

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



terms) (MUPG 668D1 and MUPG 668D2 together are equivalent to MUPG 668)

MUPG 670 ADVANCED CONTINUO 1. (2) A historically-oriented study of the principles of figured bass. Standard idioms from historical treatises will be introduced. Preparation of operatic excerpts from the standard high Baroque repertory is required.

MUPG 671 ADVANCED CONTINUO 2. (2) (2 hours) (Prerequisite: MUPG 670) A study of the many different styles of figured bass accompaniment as revealed in contemporary sources. The emphasis will be on realization at the keyboard of representative 17th- and 18th- century operatic recitatives and arias.

MUPG 672D1 (1.5), MUPG 672D2 (1.5) LITURGICAL IMPROVISATION. (1 1/2 hours) (Students must register for both MUPG 672D1 and MUPG 672D2) (No credit will be given for this course unless both MUPG 672D1 and MUPG 672D2 are successfully completed in consecutive terms) The study and practice of cantus firmus-based improvisation according to selected stylistic models so as to provide diversity of techniques, styles and tonalities. Free improvisation is studied in conjunction with C.F. improvisation. Modulation is taught in both C.F.-based and free improvisation; emphasis being placed on clarity and liturgical appropriateness.

MUPG 675 SPECIAL PROJECT IN PERFORMANCE 1. (3) (Requires Departmental approval)

MUPG 675D1 (1.5), MUPG 675D2 (1.5) SPECIAL PROJECT IN PERFORMANCE 1. (Students must register for both MUPG 675D1 and MUPG 675D2) (No credit will be given for this course unless both MUPG 675D1 and MUPG 675D2 are successfully completed in consecutive terms) (MUPG 675D1 and MUPG 675D2 together are equivalent to MUPG 675)

MUPG 676D1 (3), MUPG 676D2 (3) SPECIAL PROJECT IN PERFORMANCE 2. (Students must register for both MUPG 676D1 and MUPG 676D2) (No credit will be given for this course unless both MUPG 676D1 and MUPG 676D2 are successfully completed in consecutive terms)

MUPG 677 SEMINAR IN PERFORMANCE TOPICS 1. (3) (3 hours)

MUPG 678 SEMINAR IN PERFORMANCE TOPICS 2. (3) (3 hours)

MUPG 681 PIANO SEMINAR 1. (2) (3 hours.) Comparative studies of recorded solo and ensemble repertoire, and lecture-recital presentations reflecting knowledge of historical context and performance practice.

MUPG 682 PIANO SEMINAR 2. (2) (3 hours.) Detailed critiques of in-class teaching, and general discussion of preparation for competitions and academic job applications.

MUPG 685 MASTER CLASS - 20TH-C

MUSR 667 DIGITAL STUDIO TECHNOLOGY. (3) (3 hours lecture)
(Restriction: Not open to students who have taken MUMT 667.)
Technical and operational characteristics of different digital recording systems currently employed by the recording industry.

MUSR 668 DIGITAL/ANALOG AUDIO EDITING. (3) (1 hour tutorial, 3 hours studio time.) (Restriction: Not open to students who have taken MUMT 668.) Using analog and digital record/playback

231) (Normally offered in alternate years) The Romantic style as traced by an analysis of works by the major composers of Lied, symphony, symphonic poem, chamber music, and opera.

MUHL 385 EARLY TWENTIETH-CENTURY MUSIC. (3) (3 hours) (Prerequisites: MUHL 184 and MUHL 185 and MUTH 211 OR MUCO 240 and MUSP 231) Development of European, Russian, and American music from the 1890s until the early 1940s, tracing its roots in late 19th-century Romanticism and following its evolution in central Europe, France, and the United States. The music of major innovators such as Debussy, Stravinsky, Schoenberg, Ives, and Varèse will be discussed.

MUHL 387 OPERA FROM MOZART TO PUCCINI. (3) (3 hours) (Prerequisites: MUHL 184 and MUHL 185 and MUTH 211 OR MUCO 240 and MUSP 231) Mozart's operas and the seria, buffa, and Singspiel traditions. Ottocento opera, grand opera, and cross-fertilization between France and Italy. German Romantic opera. Wagner. Eastern European opera. Verismo and fin-de-siècle opera in Vienna and Paris. Sociology of opera. Emphasis on critical understanding of music's role in articulating drama.

MUHL 396 ERA OF THE MODERN PIANO.(3) (3 hours) (Prerequisites: MUHL 184 and MUHL 185 and MUTH 211 OR MUCO 240 and MUSP 231) Survey of keyboard repertoire from 1850 to the present: instruments, the crisis at mid-century, character pieces, Brahms, late Liszt, national schools, commercialization - the concert hall, music for the bourgeois - salon music, Scriabin, the Second Viennese School, Impressionism, Neo-Classicism, Neo-Romanticism, serialism, the sonata in the 20th-century, North American composers.

MUHL 570 RESEARCH METHODS IN MUSIC. (3) (3 hours) (Prerequisites: MUHL 184 and MUHL 185 and MUTH 211 OR MUCO 240 and MUSP 231. Additional prerequisite: one MUHL or MUPP course at the 300 level or higher, or permission of instructor.) Survey and critical evaluation of research- and performance-related tools: composers' collected editions, monuments of music, bibliographies of music and music literature, discographies, directories, and databases. Topics will include: developing bibliographies, structuring written arguments, assessing academic and popular writings about music, and understanding the task of the music editor.

MUHL 591D1 (1.5), MUHL 591D2 (1.5) PALEOGRAPHY. (1 hour) (Prerequisites: MUHL 184 and MUHL 185 and MUTH 211 OR MUCO 240 and MUSP 231) (Restriction: U3 honours students in History) (Normally alternates with MUHL 529) (Students must register for both MUHL 591D1 and MUHL 591D2.) (No credit will be given for this course unless both MUHL 591D1 and MUHL 591D2 are successfully completed in consecutive terms) The theory and practice of musical transcription for the period 1100 to 1600. Black modal notation, Franconian notation, French and Italian Ars Nova notation, Mannerism, white mensural notation, proportions, and lute and keyboard tablatures will be studied.

MUMT 306 MUSIC AND AUDIO COMPUTING 1. (3) (3 hours) (Prerequisites: MUMT 202 and MUMT 203. Pre-/Co-requisite: COMP 251) Concepts, algorithms, data structures, and programming techniques for the development of music and audio software, ranging from musical instrument design to interactive music performance systems. Student projects will involve the development of various music and audio software applications.

MUMT 307 MUSIC AND AUDIO COMPUTING 2. (3) (3 hours) (Prerequisite: MUMT 306) Advanced programming techniques for the development of music and audio software, and system components (plugins). Development of audio and control systems.

music from Debussy and Mahler to the present to: 1) provide analytical tools necessary for the understanding of pitch organization, form, rhythm, timbre, etc., in individual works; 2) introduce salient theoretical approaches pertaining to 20th Century music.

MUTH 528 SCHENKERIAN TECHNIQUES. (3) (3 hours) (Prerequisite: MUTH 310 or MUCO 240 OR Corequisite: MUTH 327 OR permission of instructor.) (Restriction: Limited enrolment with preference given to students in Honours Theory) Introduction to the principles and techniques of Schenkerian analysis. Interpretation and construction of reductive graphs through the analysis of a diversified repertoire of tonal works. Comparison with traditional methods of harmonic analysis (Rameau, Riemann, etc.).

MUTH 529 PROSEMINAR IN MUSIC THEORY 1. (3) (3 hours) (Prerequisites: MUTH 211 or MUCO 240 and MUSP 231 and MUSP 171) (Corequisites: MUTH 327 and MUHL 570 OR permission of instructor. Preference given to students in Honours Theory) A survey of various topics in contemporary music theory, including experimental aesthetics, indeterminacy, information theory, linguistics, microtonality, music technology, psycho-acoustics, and rhythmic theory.

MUTH 538 MATHEMATICAL MODELS/MUSICAL ANALYSIS. (3) (3 hours) (Prerequisites: MUTH 211 or MUCO 240 and MUSP 231 and MUSP 171) A survey of the theoretical and analytical writings from 1955 to the present, with emphasis on the following topics: a) atonal music (the works of Forte, Lewin, Rahn, Clough, Benjamin); b) twelve-tone music (Babbitt, Lewin, Mead); c) contour theory (Friedmann, West Marvin, Morris); and d) mathematical groups

M.Sc. Thesis (Entomology, Microbiology, Renewable Resources)

Candidates are required to have a Bachelor's degree with an equivalent cumulative grade point average of 3.0/4.0 (second class-upper division) or 3.2/4.0 during the last two years of full-time university study. High grades are expected in courses considered by the academic unit to be preparatory to the graduate program.

M.Sc. Non-Thesis Option in Environmental Assessment (Renewable Resources)

Candidates are required to have a Bachelor's degree in a relevant subject, with an equivalent cumulative grade point average of 3.0/4.0 (second class-upper division) or 3.2/4.0 during the last two years of full-time university study. High grades are expected in courses considered by the academic unit to be preparatory to the graduate program. Applicants should also have at least one year of professional experience in environmental assessment or a similar field.

Ph.D. Thesis (Entomology, Microbiology, Renewable Resources)

Candidates, normally, are required to hold a M.Sc. degree and will be judged primarily on their ability to conduct an original and independent research study.

54.4 Application Procedures

(For all programs excluding the Environmental Assessment Option.)

Applicants for graduate studies must forward supporting documents to:

Department of Natural Resource Sciences
(Graduate Student Office)
McGill University, Macdonald Campus
21,111 Lakeshore Road
Sainte-Anne-de-Bellevue, QC H9X 3V9
Canada
Telephone: (514) 398-7941
Fax: (514) 398-7990
E-mail: marie.kubecki@mcgill.ca

Applications will be considered upon receipt of a signed and 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 are required for admission. 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

Department of Natural Resource Sciences
 (Environmental Assessment Office MS2-082)
 McGill University, Macdonald Campus
 21,111 Lakeshore Road
 Sainte-Anne-de-Bellevue, QC H9X 3V9
 Canada
 Telephone: (514) 398-7901
 Fax: (514) 398-7990
 E-mail: robert.oxley@mcgill.ca

Applications will be considered upon receipt of:

1. A signed and completed application form and \$80 application fee.
2. 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. If transcripts contain course numbers only, please submit a list of the titles of courses taken in the major subject.
3. 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. If the degree was awarded more than five years ago, letters of recommendation can be written by employers rather than professors.
4. A curriculum vitae.
5. Letter of intent outlining the applicant's reasons for wishing to pursue the program of study.

It is the applicant's responsibility to arrange for the following documents to be sent. DOCUMENTS SUBMITTED WILL NOT BE RETURNED.

Competency in English - - Non-Canadian applicants whose mother tongue is not English, who did not graduate from a Canadian institution (Anglophone or Francophone) 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 570 on the paper-based test, 230 on the computer-based test or 88 on the Internet-based test with each component score not less than 20) or IELTS (minimum 7 overall band). 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.

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 - There is only one start date per year for this program, and applications will be taken for the winter term ONLY. Applications, including all supporting documents must reach the Department of Natural Resource Sciences (Environmental Assessment Office) no later than August 15 for both International and Canadian students. 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. Applicants are encouraged to make use of the online application form available on the Web at 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.

54.5 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 690 (1) Seminar

Complementary Courses (18 credits)

6 credits, two theory courses chosen from:

AGEC 611 (3) Price Analysis
 AGECE 633 (3) Environmental and Natural Resource Economics
 ECON 610 (3) Microeconomic Theory 1
 ECON 611 (3) Microeconomic Theory 2
 ECON 620 (3) Macroeconomic Theory 1
 ECON 621 (3) Macroeconomic Theory 2

3 credits, one quantitative methods course chosen from:

AEMA 610 (3) Statistical Methods 2
 ECON 525 (3) Project Analysis
 ECON 662 (6) Econometrics
 ECON 665 (3) Quantitative Methods
 MGSC 634 (3) Econometric Methods in Management
 MGSC 679 (3) Applied Deterministic Optimization

9 credits, three 3-credit graduate-level courses - at least one of which must be in Agricultural Economics, chosen in consultation with the Agricultural Economics Advisor.

Thesis Component - Required (27 credits)

AGEC 691 (6) M.Sc. Thesis 1
 AGECE 692 (3) M.Sc. Thesis 2
 AGECE 693 (6) M.Sc. Thesis 3
 AGECE 694 (6) M.Sc. Thesis 4
 AGECE 695 (6) M.Sc. Thesis 5

M.Sc. in Entomology (Thesis) (45 credits)

Required Courses (3 credits)

NRSC 643 (1) Graduate Seminar 1
 NRSC 644 (1) Graduate Seminar 2
 NRSC 651 (1) Graduate Seminar 3

Complementary Courses (6 credits)

Two 3-credit courses at the 500-level or higher; normally one of these will be a course in statistics.

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

M.Sc. in Entomology (Thesis) – Environment Option/Concentration (46 credits)

Required Courses (7 credits)

ENVR 610 (3) Foundations of Environmental Policy
 ENVR 650 (1) Environmental Seminar 1
 ENVR 651 (1) Environmental Seminar 2
 ENVR 652 (1) Environmental Seminar 3
 NRSC 651 (1) Graduate Seminar 3

Complementary Courses (3 credits)

3 credits, one of the following courses:

ENVR 519 (3) Global Environmental Politics
 ENVR 544 (3) Environmental Measurement and Modelling

- ENVR 580 (3) Topics in Environment 3
 ENVR 611 (3) The Economy of Nature
 ENVR 620 (3) Environment and Health of Species
 ENVR 622 (3) Sustainable Landscapes
 ENVR 630 (3) Civilization and Environment 1
 ENVR 680 (3) Topics in Environment 4

or other graduate course recommended by the advisory committee and approved by the Environment Option Committee

Thesis Component – Required (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

M.Sc. in Entomology (Thesis) – Neotropical Environment Option/Concentration (48 credits)

Required Courses (9 credits)

- BIOL 640 (3) Tropical Biology and Conservation
 ENVR 610 (3) Foundations of Environmental Policy
 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.

M.Sc. in Microbiology (Thesis) (45 credits)

Required Courses (3 credits)

- NRSC 643 (1) Graduate Seminar 1
 NRSC 644 (1) Graduate Seminar 2
 NRSC 651 (1) Graduate Seminar 3

Complementary Courses (6 credits)

Two 3-credit courses at the 500-level or higher; normally one of these will be a course in statistics.

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

M.Sc. in Microbiology (Thesis) – Environment Option/Concentration (46 credits)

Required Courses (7 credits)

- ENVR 610 (3) Foundations of Environmental Policy
 ENVR 650 (1) Environmental Seminar 1
 ENVR 651 (1) Environmental Seminar 2
 ENVR 652 (1) Environmental Seminar 3
 NRSC 651 (1) Graduate Seminar 3

Complementary Courses (3 credits)

3 credits, one of the following courses:

- ENVR 519 (3) Global Environmental Politics
 ENVR 544 (3) Environmental Measurement and Modelling
 ENVR 580 (3) Topics in Environment 3
 ENVR 611 (3) The Economy of Nature
 ENVR 620 (3) Environment and Health of Species

- ENVR 622 (3) Sustainable Landscapes
 ENVR 630 (3) Civilization and Environment 1
 ENVR 680 (3) Topics in Environment 4

or other graduate course recommended by the advisory committee and approved by the Environment Option Committee

Thesis Component – Required (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

M.Sc. in Renewable Resources (Thesis) (45 credits)

(including Agrometeorology, Forest Science, Soil Science and Wildlife Biology as areas of research)

Required Courses (3 credits)

- NRSC 643 (1) Graduate Seminar 1
 NRSC 644 (1) Graduate Seminar 2
 NRSC 651 (1) Graduate Seminar 3

Complementary Courses (6 credits)

One 3-credit graduate level statistics course.
 One 3-credit course at the 500-level or higher.

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

M.Sc. in Renewable Resources (Thesis) – Environment Option/Concentration (46 credits)

Required Courses (7 credits)

- ENVR 610 (3) Foundations of Environmental Policy
 ENVR 650 (1) Environmental Seminar 1
 ENVR 651 (1) Environmental Seminar 2
 ENVR 652 (1) Environmental Seminar 3
 NRSC 651 (1) Graduate Seminar 3

Complementary Courses (6 credits)

3 credits, one of the following courses:

- ENVR 519 (3) Global Environmental Politics
 ENVR 544 (3) Environmental Measurement and Modelling
 ENVR 580 (3) Topics in Environment 3
 ENVR 611 (3) The Economy of Nature
 ENVR 620 (3) Environment and Health of Species
 ENVR 622 (3) Sustainable Landscapes
 ENVR 630 (3) Civilization and Environment 1
 ENVR 680 (3) Topics in Environment 4

M.Sc. in Renewable Resources (Thesis) – Neotropical Environment Option/Concentration (48 credits)

Required Courses (9 credits)

- 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.

M.Sc. in Renewable Resources (Non-Thesis) – Environmental Assessment Option/Concentration (45 credits)

Required Courses (21 credits)

- NRSC 610 (3) Advanced Environmental Assessment
 NRSC 611 (3) Environmental Assessment Knowledge Base
 NRSC 612 (3) Environmental Assessment and Sustainable Development
 NRSC 613 (3) Strategic and Sectoral Environmental Assessment
 NRSC 614 (3) Meeting Environmental Assessment Regulations
 NRSC 617 (6) Environmental Assessment: Institutional Approaches

Required Internship (15 credits)

- NRSC 615 (15) Environmental Assessment Internship

Required Project (9 credits)

- NRSC 616 (9) Environmental Assessment Project Paper

Ph.D. in Entomology, Microbiology, or Renewable Resources (which includes Agrometeorology, Forest Science, Soil Science and Wildlife Biology)

Required Courses

- NRSC 751 (0) Graduate Seminar 4
 NRSC 752 (0) Graduate Seminar 5
 NRSC 753 (0) Graduate Seminar 6
 NRSC 754 (0) Graduate Seminar 7

Coursework

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.

Ph.D. Comprehensive - Required (0 credits)

- NRSC 701 (0) Ph.D. Comprehensive Examination

Thesis

Presentation and subsequent defence of a satisfactory thesis based on the student's research.

Ph.D. in Entomology – Environment Option/Concentration

Required Courses(6 credits)

- ENVR 610 (3) Foundations of Environmental Policy
 ENVR 650 (1) Environmental Seminar 1
 ENVR 651 (1) Environmental Seminar 2
 ENVR 652 (1) Environmental Seminar 3
 NRSC 754 (0) Graduate Seminar 7

Coursework

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.

Complementary Courses (3 credits)

One course chosen from:

- ENVR 519 (3) Global Project in the Foundations of Environmental Policy (ENVR 519)-12073
 ENVR 650 (1) Environmental Seminar 1 and the Foundations of Environmental Policy

Ph.D. in Entomology – Neotropical Environment Option/Concentration

Required Courses (6 credits)

Ph.D. in Microbiology – Bioinformatics Option/Concentration

Required Courses (3 credits)

Ph.D. in Microbiology – Environment Option/Concentration

Required Courses (6 credits)



AGEC 690 SEMINAR. (1) This course will focus on current research on economic problems of agriculture through presentations by staff, students and special guests. All graduate students are required to register for this course, and make at least one major presentation.

AGEC 691 M.Sc. THESIS 1. (6)

AGEC 692 M.Sc. THESIS 2. (3)

AGEC 693 M.Sc. THESIS 3. (6)

AGEC 694 M.Sc. THESIS 4. (6)

AGEC 695 M.Sc. THESIS 5. (6)

★ **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.

ENTO 550 VETERINARY AND MEDICAL ENTOMOLOGY. (3) (Winter) (Prerequisite: Permission of instructor) (Restriction: Not open to

NRSC 514 FRESHWATER ECOSYSTEMS. (3) (Fall) diversity, ecosystems; fauna, flora and biotic communities of freshwater habitats; indicator organisms; biotic indices; human impact on freshwater ecosystems.

★ **NRSC 540 SOCIO-CULTURAL ISSUES IN WATER.** (3) (Winter) (Prerequisite: A 300- or 400-level course in water or permission of

INSECT PATHOLOGY. (3) A detailed study of the interaction between insects and their pathogens (viruses, bacteria, fungi, protozoa, nematodes, etc.) of the insect systematics, evolution, and special reference to insects and related

★ **ENTO 615 FOREST ENTOMOLOGY.** (3) (Winter) (Prerequisite: Permission of the instructor.) Current

ADVANCED MICROBIAL GENETICS. (3) (Restriction: Not open to students who have successfully completed

ics.

ADVANCED MICROBIAL PHYSIOLOGY.

current to classic, from biochemical to genetic aspects.

★ **NRSC 510 AGRICULTURAL MICROMETEOROLOGY.** (3) (Fall) (3) to students who have successfully completed ENTO 510) Interaction between plant communities and the atmosphere. The physical processes governing the transfer of heat, mass and momentum as they relate to research and production in agricultural and environmental systems. measuring fluxes of heat, water-vapour, man-made pollutants.

NRSC 512 WATER: ETHICS, LAW AND POLICY.

ious legal expressions of the relationship between humanity and water such as those grounded in markets, basic rights, First Nations traditions, utilitarianism

students) Open to students in the M.Sc. Program. Presentation on a selected topic, research proposal, or research results based on progress towards the M.Sc. degree.

NRSC 651 GRADUATE SEMINAR 3. (1) (Section 001 Agrometeorology, Forest Science and Soil Science students) (Section 002 Entomology and Wildlife Biology students) (Section 003 Microbiology students) Open to students in the M.Sc. Program. Presentation of an M.Sc. student's final thesis results.

NRSC 680 SPECIAL TOPICS 1. (1) Students pursue topics not otherwise available in formal courses, under staff supervision.

NRSC 682 SPECIAL TOPICS 3. (2) Students pursue topics not otherwise available in formal courses, under staff supervision.

NRSC 684 SPECIAL TOPICS 5. (3) Students pursue topics not otherwise available in formal courses, under staff supervision.

NRSC 685 SPECIAL TOPICS 6. (3) Students pursue topics not otherwise available in formal courses, under staff supervision.

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 694 M.Sc. THESIS RESEARCH 4. (9) Independent research under the direction of a supervisor towards the completion of the M.Sc. degree.

NRSC 701 PH.D. COMPREHENSIVE EXAMINATION. (0)

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.**

J.R. Dunn; B.Sc., Ph.D.(Br. Col.)
H. Durham; M.Sc.(W. Ont.), Ph.D.(Alta.)
A. Evans; M.Sc.(Sur.), Ph.D.(Leeds)
J.P. Farmer; M.D., M.Sc.(McG.), F.R.C.P.(C)
S.G. Gauthier; B.A., M.D.(Montr.), F.R.C.P.(C)
J. Gotman; M.Eng.(Dart.), Ph.D.(McG.)
D. Guitton; Dipl. IVK(U. Libre de Brux.), B.Eng., M.Eng.,
Ph.D.Eng., Ph.D.Physiol.(McG.)
E. Hamel; B.Sc.(Sher.), Ph.D.(Montr.)
P.C. Holland; B.A.(Lanc.), Ph.D.(N'cle)
B. Jones; B.A., M.A., Ph.D.(Delaware)
M. Jones-Gotman; B.A.(Calif.), M.A., Ph.D.(McG.)
G. Karpati; M.D.(Dal.), F.R.C.P.(C)
R. Leblanc; M.Sc.(McG.), M.D.(Ott.), F.R.C.S.(C)
B. Milner; B.A., Sc.D.(Cant.), Ph.D.(McG.)
G. Mohr; M.D.(Stras.)
A. Olivier; M.D.(Montr.), Ph.D.(Laval), F.R.C.S.(C)
T. Owens; M.Sc.(McG.), Ph.D.(Ott.)
M. Petrides; B.Sc., M.Sc

thesis, and each year, a report from the student's Advisory Committee is required by the

of the first year in the program. This document stating the hypothesis being tested, relevant literature and methodology will be orally presented to the student's Adviso

Associate Professors

Hélène Ezer; N., B.Sc.(N.), M.Sc.(A.)(McG.), Ph.D.(Montr.)
Franco Carnevale; N., B.Sc.(N.), M.Sc.(A.), M.Ed., Ph.D.(McG.)
Anita J. Gagnon; N., B.Sc.N., M.P.H., Ph.D.(McG.)
Omaima Mansi; N., B.Sc.N.(Alexandria), M.Sc.(A.)(McG.), Ph.D.
candidate (Montr.)

Assistant Professors

Antonia Arnaert; N., M.P.H.(Catholic U. of Leuven, K.U.L.),
M.P.A.(EHSAL), Ph.D.(K.U.L.)
Marcia Beaulieu; N., B.Sc., M.Sc.(A.), Ph.D.(McG.)
Nancy Feeley; N., B.Sc.(N.), M.Sc.(A.), Ph.D.(McG.) (*part-time*)
Céline Gélinas; N., B.Sc.(N.), M.Sc.(N.), Ph.D.(Laval), Post
Doc(McG.)
Mélanie Lavoie-Tremblay, N., B.Sc.(N.) (Laval), M.Sc.(N.) (Laval),
Ph.D. (Laval), Post Doc (Tor.)
Carmen G. Loiselle; N., B.Sc.(N.)(Montr.), M.S., Ph.D.(Wis.-
Madison)
Margaret Purden; N., B.Sc.(N.), Ph.D.(McG.)
Sonia Semenic; N., B.A., M.Sc.(A.), Ph.D.(McG.)

Faculty Lecturers

Cheryl Armistead; N., B.Sc.(N.), M.Sc.(N.)(Ott.)
Madeleine M. Buck; N., B.Sc.(N.), M.Sc.(A.)(McG.)
Catherine P. Gros; N., B.Sc.(Mass.), M.Sc.(A.)(McG.) (*part-time*)
Sandie Larouche; N., B.Sc.(N.)(Laval), M.Sc.(A.)(McG.)

Contracted Faculty [part-time]

Deborah Abner; N., B.Sc.(N.), M.Sc.(A.)(McG.)
Linda Boisvert; N., B.Sc.(N.)(Ott.), M.Sc.I.(Montr.)
Jane Chambers-Evans; N., B.Sc.(N.), M.Sc.(A.)(McG.)
Luisa Ciofani; N., B.Sc.(N.), M.Sc.(A.)(McG.)
Chantal Cloutier; N., B.A.(Montr.)
Robin Cohen; B.Sc., M.Sc., Ph.D.(McG.)
Hermes Cornejo; N., B.Sc.(N.)(Chile), M.Sc.(N.)(Montr.)
Ayan Dalel; N., B.Sc.(N.), M.N.(Tor.)
Suzanne Dhaini, N., B.Sc.(N.) (Amer.); M.A. (Ed.) (C'dia)
Elaine Doucette; N., B.Sc.(C'dia), B.Sc.(N.), M.Sc.(N.)(Ott.)
Vicki Doucette; N., B.Sc.(N.)(Br. Col.)
Susan Drouin; N., B.N.(UNB), M.Sc.(A.)(McG.)
Moirá Edwards; N., B.A.(C'dia), M.Ed.(McG.)
Jessica Emed; N., B.A., B.Sc., M.Sc.(A.)(McG.)
Lucia Fabijan; N., B.Sc.(N.)(Calg.), M.Sc.(A.)(McG.)
Nancy Fazzari; N. (Dawson College)
Andrea Fleiszer; N., B.Sc.(McG), B.N.(Calg.)
Louise Fullerton; N., B.N.(Dal.), M.Sc.(A.)(McG.)
Shari Patricia Gagné; N., B.Sc.(N.)(Ott.), M.Sc.(A.)(McG.)
Nancy Gantzkow; N., B.Sc.(N.)(Dal.)
Elizabeth Garfunkel-Katz; N., B.Sc.(N.)(McG.)
Richard Gosselin; M.D.(Laval)
Wendy Higden; N., B.Sc.(N.)(McG.)
Andrea Laizner; N., B.Sc.(N.), M.Sc.(A.)(McG), Ph.D.(Penn.), Post
Doc(Montr.)
Anne Marie Lanctôt; N., B.A., M.Sc.(A.)(McG.)
Linda Lee; N., B.Sc.(N.)(McG.)
Josée Lizotte; N., B.Sc.(N.)(Montr.N.)(Ott.),ti46 T0l(Penn.), Post

Assistant Professors

Madeleine Boulay-Bolduc, Jane Chambers-Evans, Susan Drouin, Margaret Eades, Linda Edgar, Lucia Fabijan, Valerie Frunchak, Andrea Laizner, Suzanne Lanctôt, Virginia Lee, Diane E. Lowden, Ann Lynch, Mary Ellen Macdonald, Linda McHarg, Lynne McVey, Michelle Nadon, Patricia O'Connor, Janet Rennick, Andreanne Saucier, Linda Ward

Faculty Lecturers

Deborah Abner, Sophie Baillargeon, Louise Beauvais, Denise Bédard, Gisèle Bélanger, Vasiliki Bitzas, Linda P. Boisvert, Diane Borisov, Aline Bourgon, Rose Boyle, Sharon Brissette, Robin Canuel, Lucy Mary-Anne Caron, Luisa Ciofani, Christina Clausen, Martine Claveau, Carole Cormier, Hermes Cornejo, Esther Dajczman, Cindy Dalton, Danielle J. Drouin, Nancy Drummond, Jessica Emed, Donna Fitz-Gerald, Constance Forget Falcicchio, Maryse Godin, Iris Gourdji, Cynthia Graham-Certosini, Maria Hamakiotis, Norine M. Heywood, Yasmin Khalili, Philippe Lamer, Anne Marie Lanctôt, Althea Hazel McBean, Sharon Mooney, Linda Morneault, Maggie Newing, Catherine Notley, Catherine Oliver, Marsha Ptack, Helene Racine, Patricia Rose, Christina Rosmus, Peggy Ann Sangster, Rosalia Sanzone, Maryse Savoie, Eleanor Scharf, Valerie Joy Schneidman, Melanie Sheridan, Rosa Sourial, Diane St-Cyr, Janice Karen Stephenson, Gillian Taylor, Claire Thibault, Kelly Thorstad, Lucie Tremblay, Antoinetta Vitale, Lucy Wardell, Rosanna Zappavigna

Adjunct Professor

Bruce Gottlieb

Associate Members

Rhonda Amsel, S. Robin Cohen, Mary K. Decell, Jae-Marie Ferdinand, Richard Gosselin, Ronald D. Gottesman, Sophie Nadeau, Claire Dominique Walker

Clinical Instructors

A list of nurses holding a McGill instructor appointment is available at the School of Nursing.

56.1.1 History

The McGill School of Nursing, a professional School within the Faculty of Medicine, has been educating nurses since 1920. The School is internationally recognized for its distinctive vision, leadership in nursing and the quality of its programs. McGill nursing graduates have earned a reputation as outstanding clinicians, educators, researchers, and leaders in the discipline.

Over the years the faculty of the School at McGill has worked to formulate a philosophy about the responsibilities and practice of nursing. This philosophy, known as the McGill Model of Nursing, directs the curriculum of the programs at the School and emphasizes health, the family, learning and development, collaboration with clients and working with the resources of individuals, families and communities. Its intent is to actively promote health and well-being in people of all ages and across all situations. The McGill Model is also central to the Department of Nursing of the McGill University Health Centre.

The first programs offered at the McGill School of Nursing in the 1920s were intended to develop knowledge and skill for nurses working in the field of community health. In those early years, education programs offered at McGill were directed at nurses holding diplomas from hospital schools. Since 1957 the School has offered a first level undergraduate degree in nursing to university students interested in health care. The increasing complexity of nursing practice, coupled with the rapid growth of knowledge about human behaviour during health and illness led to the development of the Master's program in nursing in 1961 and the joint Doctoral program in collaboration with the University of Montreal in 1994.

The first doctoral degree in nursing in Canada was awarded at McGill in 1990. In addition the 4(ga(1961 and igeen0e to)pub)6.8(i)sh

GRADUATE DIPLOMA IN NURSING

Applicants must hold a Master's degree in Nursing comparable to McGill with a minimum CGPA of 3.2 on a 4.0 scale required. Prior to entry, applicants should have a minimum of 2 years of experience in the United States and in Canada, in the specialty area over the previous 5 years.

MASTER'S PROGRAMS

Our graduate programs offer applicants the possibility of developing a program of study that fits with their career plans. The programs are intended to enable students to assume roles as clinical nurse specialists in a variety of different areas, as neonatal nurse practitioners, or to tailor their program towards a career in administration or in global health studies.

Nurse applicants to the Master's program may complete their studies on a part-time basis, i.e., minimum of 6 credits per term to a maximum of four years.

All nurse applicants are expected to hold current registration in the province or country from which they come. Nurses who are not licensed in Quebec be registered with the Ordre des infirmières et infirmiers du Québec.

International nurse applicants are required to have had experience as nurses in their country of origin and in North America (recommended).

B.A./B.Sc. APPLICANTS

Applicants holding a general B.Sc. or B.A., including a number of prerequisite courses, may be admitted to a Qualifying Year. A minimum cumulative CGPA (Grade Point Average) of 3.0 on a scale of 4.0 is required for entry. Upon successful completion of the Qualifying Year, candidates apply to the Master's program. Persons prepared in another professional discipline or in nursing are not eligible for this program.

Direct-Entry applicants must complete their Qualifying Year and the Master's program of study on a full-time basis, i.e., total of three years.

Applicants should make arrangements to obtain C.P.R. (Cardio-Pulmonary Resuscitation) certification prior to entry into the Qualifying year. Applicants will be asked to provide proof of certification once registered in the program.

NURSE APPLICANTS (NURSING BACHELOR'S ENTRY - NBE)

Applicants for the Master's degree must have completed a bachelor's degree in nursing with a minimum CGPA of 3.0 on a scale of 4.0. This preparation must be comparable to that offered in the bachelor's program at McGill. An introductory statistics course (3 credits) is required. Experience in Nursing is recommended. (Nurse applicants may already have CPR certification; if not they must obtain one prior to entry as well.)

PH.D. PROGRAM

Applicants admitted to the Doctoral program through McGill University must have completed Master's level studies with either their undergraduate or graduate degree in nursing. Applicants

vaccination is strongly recommended. Entry into the McGill University Teaching Hospital Network is dependent on having met the immunization requirements. All students must have immunizations complete (or in process for hepatitis B) by the start of clinical rotations in September.

CPR and First Aid Requirements

Valid First Aid and CPR Certification (level C) is required no later than September 15th of the Qualifying year of the Master's program. This Certification must be maintained throughout the program of study.

Achievement Builders - Student Services

Any student who is experiencing difficulty in meeting course requirements must take advantage of the Achievement Builders Program offered through Student Services. Information is available at: www.mcgill.ca/firstyear/achievementbuilders.

Regulations Concer

QUALIFYING YEAR (41 credits)
(non-nurse applicants entering with B.A. or B.Sc.)

***Complementary Courses:** A total of 12 credits from the physical sciences, social sciences and nursing, are chosen in consultation with faculty to complement the student's previous academic background.

Students must successfully complete the Qualifying Year with a minimum of B- in all courses and be recommended by the Standing and Promotions Committee for entry to the Master of Science (Applied) Program. Students in the Qualifying Year will be required to submit an online application to the Master's of Science (Applied) by the application deadline.

Ph.D. PROGRAM

Each student's program is designed with the thesis supervisor

taking into account the student's previous academic background and research interests.

NUR2 512 PRACTICE AND THEORY IN NURSING. (8) Learning to nurse patients in acute care sett

and NUR2 650D2 are successfully completed in consecutive terms.) Supervision of clinical practice for nurse practitioner roles.

NUR2 701 COMPREHENSIVE EXAMINATION. (1)

NUR2 702 QUANTITATIVE RESEARCH. (3) Examination of various experimental, quasi-experimental, correlational, and survey designs with particular focus on the use of these designs in nursing research.

NUR2 705 PALLIATIVE CARE IN CANCER. (3) (Note: Required for the Psychosocial Oncology Option for PhD students in the School of Nursing and Dept. of Psychology. Other PhD students are welcome to join.) Psychosocial aspects of care as an integral part of whole person care for people living with a life-threatening illness.

NUR2 706 QUALITATIVE NURSING RESEARCH. (3) (Corequisite: NUR2 702) (Restriction: Enrolled in Ph.D. in Nursing or permission of instructor) Advanced examination of the utilization of qualitative research in nursing.

NUR2 720 NURSING WORKFORCE DETERMINANTS. (3) Factors affecting the planning and management of the nursing workforce in the context of forecasting models, demographic changes, public organizational response, models of organizational behavior and determinants of nursing sensitive outcomes, and productivity.

NUR2 730 THEORY DEVELOPMENT IN NURSING. (3) (Prerequisite: NUR2 620 or equivalent) This course surveys the history of nursing theory development with special emphasis placed on the approaches theory development and the factors affecting these approaches. Issues such as the level of theory, where theory derives are examined in light of the needs of a practice discipline. Future directions for theory development in nursing are explored.

NUR2 780 ADVANCED NURSING. (3) (3 hours seminar weekly) (Prerequisite: NUR2 621, NUR2 624, NUR2 625 or equivalent and permission of instructor) An in-depth analysis of selected issues and developments within nursing and health care. Included will be topics relevant to the areas of research and clinical expertise of the student and faculty.

NUR2 783 PSYCHOSOCIAL ONCOLOGY RESEARCH. (3) (Restriction: Open to doctoral students and postdoctoral fellows in health sciences, social work, psychology, management and by permission 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.

K. Gray-Donald; *Geography*: N. Ross;

After successfully completing the course requirements and passing the comprehensive examination, students must carry out an extended project (15 credits). The projects can be surveys, laboratory work, bibliographic studies or research protocol development. The project requires students to identify an issue in their chosen area, to review the present state of knowledge relevant to that issue, and to carry out their particular project plan, which must be approved by faculty.

Normally, students extend the duration of their project into the Fall term by registering for an additional session.

Required Courses (30 credits)

Project Component – Required (15 credits)

M.SC. APPLIED PROGRAM (DISTANCE EDUCATION)

The MSc.(A) as a distance education program takes three and one-half years to complete.

The first part of the program consists of 10 three-credit theory courses. Students enrolled in the program must successfully complete ten courses (30 credits). Equivalencies may be granted upon examination of the application by the professors concerned, and the Graduate and Postdoctoral Studies Office.

The second part consists of writing an extended project report (15 credits). The project report will be carried out under the supervision of a member of the teaching staff. Note that students must pass the comprehensive exam before writing their report. A total of 45 credits is offered, the number required to complete the M.Sc. program.

Courses (30 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.

57.6 Courses

Students preparing to register should consult the Web at 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

OCC1 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.

OCC1 551 PSYCHOSOCIAL PRACTICE IN OT. (3) (Prerequisite: ANAT 321.) (Restriction: OT students only.) Principles of basic psychosocial assessments and treatment approaches for psychiatric conditions.

OCCH 600 COMPREHENSIVE

and safety measures are studied. Ventilation strategies for indus-

N. Fanous; M.B., BCH.(Cairo), F.R.C.S.(C)
W.R.J. Funnell; B.Eng.

59 Parasitology

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

60.3 Admission Requirements

Applicants must have a B.Sc. or the equivalent degree with an extensive background in the physical and biological sciences. An academic record equivalent to or better than a CGPA of 3.2 out of 4 at McGill is required for at least the two final full-time years of undergraduate training with a minimum CGPA of 3.0 overall.

Applicants to graduate studies whose mother tongue is not English and who have not completed an undergraduate or graduate degree from a recognized foreign institution where English is the language of instruction or from a recognized Canadian institution (anglophone or francophone), must submit the GRE and TOEFL examinations in order to properly evaluate their suitability. Students are normally accepted into the M.Sc. program, and 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. For further information, applicants may contact the Teaching Of

61.1 Staff

Emeritus Professors

B. Collier; Ph.D.(Leeds)

T. Sourkes; Ph.D.(C'nell.)

Professors

G. Almazan; Ph.D.(McG.)

R. Capek; M.D., Ph.D.(Prague)

P.B.S. Clarke; M.A.(Camb.), Ph.D.(Lond.)

A.C. Cuello; M.D.(Buenos Aires)

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

PHAR 503 DRUG DESIGN AND DEVELOPMENT 1. (3) (Fall) (Prerequisites: CHEM 302, BIOL 200, BIOL 201, BIOC 212, PHAR 300, PHAR 301, PHAR 303 or permission of coordinator) (Restriction: Not open to students who are taking or have taken CHEM 503) (Priority: students registered in the Minor in Pharmacology) Interdisciplinary course in drug design and development covering chemistry, mechanisms of drug action and steps in drug development, principles and problems in drug design.

PHAR 504 DRUG DESIGN AND DEVELOPMENT 2. (3) (Winter) (Prerequisite: PHAR 503/CHEM 503 or permission of the instructor.) (Restriction: U3 and graduate students. Students can register only with permission of coordinators) (Restriction: Not open to students who are taking or have taken CHEM 504) Interdisciplinary course in drug design and development

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.)
G. Mikkelson; M.S., Ph.D.(Chic.) (*joint appt. with McGill School of Environment*)
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)
G. Fiasse; B.A., M.A., Ph.D. (Louvain) (*joint appt. with Religious Studies*)
A. Reisner; M.A. (Bristol), D.Phil.(Oxf.)
H. Sharp; M.A.(SUNY), Ph.D.(Penn.)

Associate Professor (part-time)

K. Arvanitakis

Associate Member

L. Kaplan (Jewish Studies)

Adjunct Professor

S. Davis (Car.)

62.2 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.

62.3 Admission Requirements

Ph.D. Students with an Honours B.A. degree in philosophy, or the equivalent, are normally admitted to the Ph.D. program directly at the Ph.D. I level. The Department considers an Honours B.A. degree to include:

- 1) A general knowledge of the history of Western philosophy: Greek, Medieval, Modern.
- 2) A systematic knowledge of the main philosophical disciplines in their contemporary as well as historical contexts: logic, ethics, epistemology, and metaphysics.
- 3) An ability to present, in written form, clear and substantial reconstructions and analyses of the materials normally studied in the areas mentioned in (1) and (2).

To demonstrate their competence in these areas applicants must submit transcripts of academic work, three letters of recommendation from persons with whom they have studied, and at least one substantial example (approximately 15-20 typewritten pages) of their written philosophical work.

In addition, applicants from North America whose first language is English are strongly encouraged to submit scores of the Graduate Record Examination. Applicants to graduate studies whose mother tongue is not English and who have not completed an undergraduate or graduate degree from a recognized foreign institution where English is the language of instruction or from a recognized Canadian institution (anglophone or francophone), must submit documented

graduate degree from a recognized foreign institution where English is the language of instruction or from a recognized Canadian institution (anglophone or francophone), must 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 250 on the computer-based test or 100 on the Internet-based test with each component score not less than 20. (School requirement), or the International English Language Testing System (IELTS) with a minimum overall band score of 7.0.

5. The GRE Test is recommended for the following applicants: those who do not have a B.Sc. or equivalent from a Canadian university; those who have been out of university for 5 years or more. Only the General Test is mandatory. For consideration, students must obtain a minimum score of 550 in verbal and

Required Courses (40 credits)

PHTH 571	(7)	PT Clinical Practicum 1
PHTH 572	(7)	PT Clinical Practicum 2
PHTH 573	(6)	PT Clinical Practicum 3
PHTH 620	(8)	PT Clinical Practicum 4
PHTH 622	(3)	Integrated Pain Management
PHTH 623	(3)	Differential Dx and Management
POTH 602	(3)	Educational Methodology
POTH 610	(3)	Research Methodology

Complementary Courses (12 credits)

9 credits chosen from the following courses offered by the School.

With permission from the Academic Director, students may take courses offered at the 500 or 600 levels by other departments at McGill.

PHTH 661	(3)	Sport Physiotherapy
PHTH 662	(3)	Advanced Manual Therapy
POTH 508	(3)	Plasticity in Rehabilitation
POTH 604	(3)	Current Topics in Pediatrics
POTH 614	(3)	Selected Topics in Rehabilitation Science
POTH 618	(3)	Topics in Rehabilitation
POTH 620	(3)	Measurement: Rehabilitation 1
POTH 622	(3)	Pathokinesiology
POTH 630	(3)	Measurement: Rehabilitation 2
POTH 637	(3)	Cancer Rehabilitation

3 credits from the Desautels Faculty of Management MBA/MD program

Project – Required (6 credits)

POTH 624	(6)	Master's Project
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Master of Science, Applied (Occupational Therapy)

(58 credits)

The professional Master of Science, Applied (Occupational Therapy) is a 58 credit degree program which includes 1000 hours of fieldwork education over 5 terms.

Students admitted to the M.Sc.A. who have undergraduate degrees other than the B.Sc.(Occ.Ther.) (non-practicing) from McGill University will be required to complete a preparatory year of study, prior to beginning the Master's Program. For further information about the required courses in the preparatory year, please see (appropriate section of undergraduate calendar).

Required Courses (49 credits)

OCC1 501	(7)	Clinical Practicum 1
OCC1 502	(7)	Clinical Practicum 2
OCC1 503	(7)	Clinical Practicum 3
OCC1 602	(7)	Clinical Practicum 4
OCC1 617	(6)	Occupational Solutions 2
OCC1 618	(5)	Applied OT: Psychosocial Theory
OCC1 620	(2)	Work/Ergonomics
OCC1 622	(3)	Community-Based OT
OCC1 623	(2)	Assistive Technology
POTH 610	(3)	Research Methodology

Complementary Courses (3 credits)

3 credits chosen from the following courses offered by the school.

With permission from the Academic Director, students may take courses offered at the 500 or 600 levels by other departments at McGill.

OCC1 625	(3)	Functional Environments
OCC1 626	(3)	Mental Health: Child and Youth
POTH 632	(3)	Research Elective
POTH 633	(3)	Function/Activity in Arthritis
POTH 634	(3)	Childhood Performance Issues
POTH 637	(3)	Cancer Rehabilitation
POTH 638	(3)	Promoting Wellness of Seniors
POTH 640	(3)	Role-Emerging Management

Project – Required (6 credits)

POTH 624	(6)	Master's Project
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Master of Science in Rehabilitation Science (Thesis)

(45 credits)

The program requires a minimum of three terms of full-time residence study. It is not uncommon for a student to take two or more years to complete the degree.

Required Courses (10 credits)

POTH 610	(3)	Research Methodology
POTH 614	(3)	Selected Topics in Rehabilitation Science
POTH 616	(1)	Seminars in Rehabilitation Science
POTH 617	(0)	Rehabilitation Seminars 1
POTH 631	(3)	Research Proposal

A research proposal is to be submitted in written form and defended in front of a supervisory committee. Research proposals should be completed by the beginning of the second full-time year.

Complementary Course (3 credits)

One 3-credit graduate level course in statistics may be required if not already completed in a prior degree.

Elective Courses (3 - 6 credits)

Courses at the 500 or 600 level which pertain to the student's area of specialization.

Thesis Component – Required (29 credits)

POTH 696	(2)	Thesis Research
POTH 697	(6)	Thesis Research 1
POTH 698	(9)	Thesis Research 2
POTH 699	(12)	Thesis Research 3

All four of these courses must be registered for within the first three terms of full-time study. The course POTH 699 is carried as IP "in progress" until completion of thesis.

The student carries out a research study in an approved subject area under the guidance of an internal supervisor (from within the School) or an external supervisor (from outside the School). In the case of an external supervisor, an internal co-supervisor must be appointed.

Master of Science in Rehabilitation Science (Non-Thesis)

(45 credits)

This program has two options. In the first option, students complete 45 credits of required and complementary course work. In the second option, students complete 30 credits of required and complementary courses plus a 15-credit research project in their area of interest. The program normally takes 3 to 4 terms when done on a full-time basis.

Required Courses (9 credits)

POTH 602	(3)	Educational Methodology
POTH 610	(3)	Research Methodology
POTH 617	(0)	Rehabilitation Seminars 1
POTH 619	(0)	Rehabilitation Seminars 2
	(3)	Statistics at the 500 level or higher

Complementary Courses (36 credits)

Group A, 21 credits:

chosen from the following courses offered by the School or other campus courses at the 500 and 600 levels with permission of the Director.

POTH 508	(3)	Plasticity in Rehabilitation
POTH 603	(3)	Directed Practicum
POTH 604	(3)	Current Topics in Pediatrics
POTH 614	(3)	Selected Topics in Rehabilitation Science
POTH 618	(3)	Topics in Rehabilitation
POTH 620	(3)	Measurement: Rehabilitation 1
POTH 622	(3)	Pathokinesiology
POTH 630	(3)	Measurement: Rehabilitation 2
POTH 631	(3)	Research Proposal
POTH 673	(3)	Screening for at Risk Drivers
POTH 674	(3)	Assessing Driving Ability 1
POTH 675	(3)	Driving Assessment Practicum
POTH 676	(3)	Adaptive Equipment and Driving
POTH 677	(3)	Retraining Driving Skills

setting related to the student's clinical specialization, including curriculum development. 5(l)-us stu-0.00. i56L85(, includi)7.3(ng)-7.4(92e: 3ve)7.5(l)- in

Doctorate in Rehabilitation Science

Doctoral students are required to pursue at least three years of full-time residence study.

The curriculum is divided as follows:

Required Courses (12 credits)

Of the four required courses, at least two* will already have been completed by students with a M.Sc. in Rehabilitation Science from McGill.

The student must successfully pass a written comprehensive examination (POTH 701) by the end of the first academic year. The format is three questions to be answered in essay style over a five-day period. An additional requirement may include an oral component.

Complementary Course (6 credits)

Elective Courses (3-6 credits)

Research Proposal

A research proposal is to be submitted in written form and defended in front of a supervisory committee. Research proposals should be completed during the second full-time year, following the comprehensive examination.

Thesis Component - Required

The student carries out a research study in an approved subject area under the guidance of an internal supervisor (from within the School) or an external supervisor (from outside the School). In the case of an external supervisor, an internal co-supervisor must be appointed.

63.6 Courses

Students preparing to register should consult the Web at 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.

* Please note that courses are subject to change without prior notice.

POTH 508 PLASTICITY IN REHABILITATION. (3) (Prerequisite: POTH 455 or equivalent.) A seminar course designed to provide students with a review of current research on plasticity in the central and peripheral nervous systems. Particular emphasis is placed on the mechanisms involved in the recovery of function after injury.

POTH 603 DIRECTED PRACTICUM. (3) (Restriction: on-campus students only.) A tutorial with directed practical experience in a clinical

POTH 634 CHILDHOOD P

data of the earth's atmosphere and surface as well as high quality precipitation data from the McGill Radar Weather Observatory.

64.3 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. in Physics or equivalent. Candidates in good standing may have the option of transferring into this program from the M.Sc. program after one year.

64.4 Application Procedures

An application package is available upon request. It includes a brochure with a detailed description of the research activities in the Department. Inquiries should be addressed to the Graduate Coordinator. Please also check our Website www.physics.mcgill.ca for information about our graduate program

chemistry and biomedical application of artificial cells, blood substitutes, immobilized enzymes, microorganisms and cells, hemoperfusion, artificial kidneys, and drug delivery systems. PHGY 517 and PHGY 518 when taken together, will give a complete picture of this field. However, the student can select one of these.

PHGY 531 TOPICS IN APPLIED IMMUNOLOGY. (3) (Winter) (Restriction: Permission of the instructor. U3 InterDept. Honours Immunology students and graduate students with strong immunology background i.e. PHGY 513 and BIOC 503) Seminar format course 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

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

DOCUMENTS SUBMITTED WILL NOT BE RETURNED.

Transcripts - Two official copies of all university level transcripts with proof of degree(s) granted. Transcripts written in a language

M.Sc. in Plant Science (Thesis) – Environment**Option/Concentration (48 credits)**

Plant Science M.Sc. research programs normally require two years for completion.

Attendance at Thesis progress reports (PLNT 665, PLNT 666) and the invitational seminar (PLNT 690) is required.

Additional courses may be required at the discretion of the candidate's supervisory committee.

Required Courses (6 credits)

ENVR 610	(3)	Foundations of Environmental Policy
ENVR 650	(1)	Environmental Seminar 1
ENVR 651	(1)	Environmental Seminar 2
ENVR 652	(1)	Environmental Seminar 3
PLNT 690	(0)	Research Horizons in Plant Science

Complementary Courses (3 credits)

3 credits, one of the following courses:

ENVR 519	(3)	Global Environmental Politics
ENVR 544	(3)	Environmental Measurement and Modelling
ENVR 580	(3)	Topics in Environment 3
ENVR 611	(3)	The Economy of Nature
ENVR 620	(3)	Environment and Health of Species

M.Sc. in Plant Science (Thesis) – Neotropical Environment**Option/Concentration (48 credits)**

Plant Science M.Sc. research programs normally require two years for completion.

Candidates must complete a 48-credit course and research program established by their advisory committee. Additional courses may be required at the discretion of the candidate's supervisory committee.

When in residence in Montreal attendance at all Thesis progress reports (PLNT 665, PLNT 666) and the invitational seminar (PLNT 690) is required.

Candidates must also participate in the STRI seminar series when in residence in Panama, and in the MSE-Panama Symposium Presentation in Montreal.

Required Courses (6 credits)**M.Sc.A. in Plant Science (Non-Thesis) (45 credits)**

N.B. this program is under revision. Please contact Ms. Carolyn Bowes for information.

Ph.D. in Plant Science

Students who have taken their M.Sc. degree at McGill University will be required to spend one term in study at another research institution.

Candidates must complete the program of study established by their advisory committee and attend the invitational seminar (PLNT 690).

Required Courses (0 credits)**Ph.D. in Plant Science – Bioinformatics****Option/Concentration**

Students who have taken their M.Sc. degree at McGill University will be required to spend one term in study at another research institution.

Candidates must complete the program of study established by their advisory committee and attend the invitational seminar (PLNT 690).

Required Courses (3 credits)**Ph.D. in Plant Science – Environment Option/Concentration****Required Courses (6 credits)**

PLNT 628 PLANT NITROGEN FIXATION AND MYCORRHIZAE. (3) A detailed examination of the chemistry, biochemistry, anatomy, physiology, ecology and agricultural application of biological nitrogen fixation and mycorrhizal associations in higher plants.

PLNT 636 EPIDEMIOLOGY AND MANAGEMENT OF PLANT DISEASE. (3) Concepts and principles of plant disease epidemiology. Quantification of factors influencing epidemiological processes. Influence of host, pathogen and environmental factors on the development of plant disease.

inadequate preparation in Political Science but are otherwise judged to be qualified are admitted to a qualifying year, in which they undertake advanced undergraduate work.

Ph.D.

Students holding a Master's degree in Political Science may be eligible for admission to the Ph.D. program. In some instances, students may be admitted directly into the Ph.D. program without having completed an MA degree. They will be considered Ph.D.1 and some previous political science course work could be applied to the requirements of the program, provided that it did not count towards any other degree.

GRE and TOEFL Exams

GRE results are required for applications to the Doctoral Program; this includes McGill Master's students applying to the Doctoral Program. GRE results are not required for students applying

Note: Up to two 500/600 level complementary courses outside the department in related disciplines may be allowed if appropriate for the student's program.

Thesis Component – Required (24 credits)

POLI 697 (12) M.A. Thesis Proposal
POLI 698 (12) Master's Thesis Submission

M.A. in Political Science (Non-Thesis) (45 credits)

A research paper is required to demonstrate proficiency in research. It is normally about 50 pages in length and involves revision of a paper written for one of the graduate courses completed in the program. The research paper is evaluated by two faculty members in the Department.

Required Course (6 credits)

POLI 691 (6) Bciplin(6)-14.7037 9rogra24uicpoMeth1(69ods 11 Tf0 -1.5556 TD-0.0002 Tc0 Tw19 Tw[(lieted i -)7.courses -j]/TT2 1 Tf8.8741 0 T1

M.A. in Political Science (Non-Thesis) – Development Studies Option/Concentration (45 credits)

Required Courses (9 credits)

revision of a paper written for one of the graduate courses completed in the program. The research paper is evaluated by two faculty members in the Department.

Required Courses (12 credits)

M.A. in Political Science (Non-Thesis) – Social Statistics Option/Concentration (45 credits)

This program complements disciplinary training with statistical research. Students will normally complete program course requirements, supplemented by further statistical courses, as advised by the Option advisor, and subject to approval by the Department.

A research paper is required to demonstrate proficiency in research. It is normally about 50 pages in length and involves revision of a paper written for one of the graduate courses completed in the program. The research paper is evaluated by two faculty members in the Department.

Entrance to this option is by application to the Social Statistics Option Committee *subsequent to acceptance into the Department program.*

Required Course (6 credits)

M.A. in Political Science (Non-Thesis) – Neotropical Environment Option/Concentration (45 credits)

A research paper is required to demonstrate proficiency in research. It is normally about 50 pages in length and involves



POLI 694 RESEARCH PREPARATION 1. (3)

POLI 695 RESEARCH PREPARATION 2. (3)

POLI 696 RESEARCH PREPARATION 3. (3)

POLI 697 M.A. THESIS PROPOSAL. (12) Preparation of a thesis proposal.

POLI 698 MASTER'S THESIS SUBMISSION. (12) A thesis to demonstrate proficiency in research. The thesis is normally about 100 pages long, and is subject to evaluation by one examiner internal to the Department and one examiner external to the Department.

POLI 698D1 (6), POLI 698D2 (6) MASTER'S THESIS SUBMISSION. (Students must register for both POLI 698D1 and POLI 698D2) (No credit will be given for this course unless both POLI 698D1 and POLI 698D2 are successfully completed in consecutive terms) (POLI 698D1 and POLI 698D2 together are equivalent to POLI 698) A thesis to demonstrate proficiency in research. The thesis is normally about 100 pages long, and is subject to evaluation by one examiner internal to the Department and one examiner external to the Department.

POLI 699 MASTER'S RESEARCH ESSAY. (6) The Master's research paper should explore a clearly defined problem, show familiarity with the most important work previously done in the field, and demonstrate the ability to carry out research, organize results and present them in good literary style. Normally the paper will flow out of a previous graduate seminar and will be approximately 50 pages in length.

POLI 699D1 (3), POLI 699D2 (3) MASTER'S RESEARCH ESSAY. (Students must register for both POLI 699D1 and POLI 699D2) (No credit will be given for this course unless both POLI 699D1 and POLI 699D2 are successfully completed in consecutive terms) (POLI 699D1 and POLI 699D2 together are equivalent to POLI 699) The Master's research paper should explore a clearly defined problem, show familiarity with the most important work previously done in the field, and demonstrate the ability to carry out research, organize results and present them in good literary style. Normally the paper will flow out of a previous graduate seminar and will be approximately 50 pages in length.

POLI 701 PH.D. GENERAL WRITTEN EXAMINATION FIRST FIELD.(0).

POLI 702 PH.D. GENERAL WRITTEN EXAMINATION SECOND FIELD. (0).

POLI 728 RESEARCH SEMINAR IN COMPARATIVE POLITICS. (3) (Suggested prerequisites: POLI 612 and POLI 628) (Note: The field is Comparative Politics in Developed Areas.) A consideration of research on comparative politics in Western Europe and North America. Problems of research design and execution, the application of research methods, and the evaluation of findings. Selections from the literature will be examined critically.

POLI 771 INTERNATIONAL POLICY AND FOREIGN POLICY IN DEVELOPING WORLD. (3) (Prerequisites: A graduate-level course in international relations or comparative politics/developing areas) (Note: The field is Comparative Politics in Developing Areas and International Politics.) A seminar focusing on the multiple security concerns of developing states including developmental (political, economic) and traditional (military, power political) pressures; linkages between internal and external vulnerabilities; the changing security environment of the post Cold War era; alternative external/internal strategies. These issues will be examined in comparative perspective.

POLI 778 RESEARCH SEMINAR - INTERNATIONAL POLITICS. (3) (Note: The field is International Politics.) A workshop intended to help M.A. and Ph.D. students prepare their thesis proposals and chapters. Writing techniques and methodology will be covered. Students critique seminar presentations by leading scholars on their new works.

POLI 780 READING SEMINAR (3) (Prerequisites: POLI 612 and POLI 628) (Note: The field is Comparative Politics in Developed Areas.) A consideration of research on comparative politics in Western Europe and North America. Problems of research design and execution, the application of research methods, and the evaluation of findings. Selections from the literature will be examined critically.

D.J. Levitin; A.B.(Stan.), M.S., Ph.D.(Oregon) (*Bell Professor of Psychology and E-Commerce*)

J. Lydon; B.A.(Notre Dame), M.A., Ph.D.(Wat.)

J. MacDougall; B.A.(Carl.), M.A., Ph.D.(McG.) (*Part-time*)

M.J. Mendelson; B.Sc.(McG.), A.M., Ph.D.(Harv.)

K. Nader; B.Sc., Ph.D.(Tor.)

G. O'Driscoll; B.A.(Wellesley), Ph.D.(Harv.) (*William Dawson*)

(anglophone or francophone) must submit a TOEFL score (www.ets.org/toefl).

7. A personal statement (sent separately or completed on the online application form, "applicant statement"). Describe in as much detail as possible your interests in psychology and your career goals. Also indicate the area of psychology that you want to study (e.g., developmental, social, etc.) and the name of one or more staff members with whom you would like to work.

The online application deadline is December 1. Supporting documents are submitted directly to the Department of Psychology.

Graduate Admissions
Department of Psychology
McGill University
1205 Dr. Penfield Avenue
Montreal, Quebec H3A 1B1

Applicants should note that the deadline for many scholarships and fellowships is about four months earlier than the application deadline and that applications for scholarships and fellowships should be submitted through their home university.

69.5 Program Requirements

Master's (M.A. and M.Sc. Degrees – 45 credits each)

There is no M.A. or M.Sc. program in Clinical psychology. M.A. and M.Sc. degrees may be awarded in Experimental Psychology, but only as a stage in the Ph.D. program.

Candidates must demonstrate a sound knowledge of modern psychological theory, of its historical development, and of the logic of statistical methods as used in psychological research. Candidates will be expected to have an understanding of the main lines of current work in areas other than their own field of specialization. The primary concern of the candidate is research. Final standing for the degree is based mainly on the student's research progress and on the results of course work and other required assignments. All first year students, Experimental and Clinical must submit a General Comprehensive paper on a topic related to their research interests.

Ph.D.

All candidates for the Ph.D. degree must demonstrate broad scholarship, mastery of current theoretical issues in psychology and their historical development, and a detailed knowledge of their special field. Great emphasis is placed on the development of research skills, and

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 Science (courses at the 100- to 500-level) have limited enrolment. The course credit weight is given in parentheses after the title.

PSYC 502 PSYCHONEUROENDOCRINOLOGY. (3) (Prerequisite: One of PSYC 308, PSYC 311, PSYC 318, PSYC 342, or permission of the instructor.) Neuroendocrinological mechanisms of action that underlie specific behaviors and their disorders. Hormones and cognitive functioning, sexual functioning, aggression, mood and stress in humans and will focus on methods of hypothesis-testing in these areas.

PSYC 505 THE PSYCHOLOGY OF PAIN. (3) (Fall) (2 lectures; 1 conference) (Prerequisites: any two of the following: PSYC 308, PSYC 311, PSYC 318, PSYC 522, ANAT 321, BIOL 306, PHGY 314 or permission of instructor.) An introduction to pain research and theory, with emphasis on the interactions of psychological, cultural and physiological factors in pain perception. The role of these factors in clinical pain and its management by pharmacological and non-pharmacological means will be discussed.

PSYC 507 EMOTIONS, STRESS, AND ILLNESS. (3) (Fall) (Prerequisites: PSYC 337, PSYC 429 and permission of the instructor.) Emotional effects on peripheral physiology and the development, course, and outcome of physical disorders such as high blood pressure, coronary artery disease, ulcers, asthma, and cancer.

PSYC 512 ADVANCED PERSONALITY SEMINAR. (3) (Prerequisite: PSYC 332 or permission of instructor.) (Restrictions: Open to psychology students. Enrollment limited. Students must be in U3 or above. Departmental permission required.) Advanced topics in personality. Focus on power, status, and dominance and how these are manifested in social behavior. Dominance in nonhuman species, biological substrates of dominance, relations of status

will be given for this course unless PSYC 708J1, PSYC 708J2 and PSYC 708J3 are all successfully completed in consecutive terms) (PSYC 708J1, PSYC 708J2 and PSYC 708J3 together are equivalent to PSYC 708) See PSYC 708J1 for course description.

PSYC 708J3 CLINICAL INTERNSHIP 2. (5) (Prerequisite: PSYC 708J2) (No credit will be given for this course unless PSYC 708J1, PSYC 708J2 and PSYC 708J3 are all su

Associate Professor

Brian J. Alters; B.Sc., Ph.D.(S.Calif.) (*Tomlinson Chair in Science Education, Sir William Dawson Scholar*)

Assistant Professors

Claire de Mazancourt; Bacc.(Ecole des Mines), DEA, Ph.D.(Paris VI)

Andrew Hendry; B.Sc.(Vic.,BC), M.Sc., Ph.D.(Wash) (*joint appt.*)

72.2 Programs Offered

MASTER OF SACRED THEOLOGY (S.T.M.) (48 credits)

ATS Accreditation The S.T.M. program is fully accredited by the Association of Theological Schools in the U.S. and Canada.

The normal requirement is two years (of two terms each) of full-time study (or one year of full-time study for those admitted with advanced standing into S.T.M. 2), but the degree may, by permission, be taken on a part-time basis.

Note: Ordination requirements for S.T.M. graduates will normally involve a further year of professional pastoral studies (the In-Ministry Year) provided by the Montreal School of Theology affiliated with the Faculty of Religious Studies.

Candidates are required to complete satisfactorily twelve one-term courses (36 credits) and pass four Area Studies courses (12 credits) chosen from the following areas:

- 1) Biblical Theology (RELG 520)
- 2) Church History (RELG 530)
- 3) Christian Theology (RELG 531)
- 4) Philosophy of Religion (RELG 540)
- 5) Theological Ethics (RELG 541)
- 6) Comparative Religion (RELG 550)

Normally six 3-credit courses and two Area Studies courses shall be taken in each academic year. The pass mark in courses is B- for S.T.M. students. Normally graduate courses should be chosen from at least four different specialty areas in Religious Studies.

N.B. S.T.M. students are normally not permitted to take special studies courses.

Applicants who are admitted directly into S.T.M. 2 are required to complete six one-term courses (18 credits) and two Area Studies (6 credits).

Students who take the S.T.M. as part of their ordination requirements are to choose their courses in consultation with the Principal of the Theological College with which they are associated. Course selection for all S.T.M. students needs the approval of the Chair of the Religious Studies Graduate Committee.

Courses are offered by the Department in the areas of specialization listed in section 72.2.

Related courses are also available in other departments.

The S.T.M. has no language requirement.

DOCTOR OF PHILOSOPHY (PH.D.)

RELG 613 THE MINISTRY OF JESUS. (3) A study of the Synoptic Presentation of the Aims, Teaching and Achievement of Jesus of Nazareth.

RELG 618 THE CHURCH IN THE NEW TESTAMENT. (3) A study of the history of the Early Church on the basis of the New Testament Writings.

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 attention to the problems of translation and interpretation as they relate to the student's thesis research.

RELG 649 PRIMARY TEXT: COPTIC. (3) (Prerequisite: RELG 280 or equivalent; Basic reading knowledge of Coptic or permission of instructor) Religious texts in Coptic, with particular attention to the problems of translation and interpretation as they apply to the student's thesis research.

JWST 510 JEWISH BIBLE INTERPRETATION 1. (3) (Restriction: Not open to students who have taken JWST 512) The issues, approaches, and texts of Jewish Bible interpretation between the Biblical and talmudic eras: Bible interpretation in the Bible; in Greco-Roman Jewish literature; in the Mishnah, Tosefta, Targumim, and Talmudim; early Samaritan interpretation, Bible interpretation in ancient synagogue art, and in the massoretic literature.

JWST 511 JEWISH BIBLE INTERPRETATION 2. (3) (Restriction: Not open to students who have taken JWST 512) The issues, problems, approaches, and texts of Jewish Bible interpretation in medieval, renaissance, early modern, and modern times. Interpretation in the Geonic, Ashkenazi, Sefardic, North African, Italian, European, Yemenite, North American and Israeli centres of Jewish Learning.

HISTORICAL AND THEOLOGY AREA

RELG 530 CHURCH HISTORY. (3) (Fall and Winter) Limited to S.T.M. students. Tutorials and guided reading in the field of church history.

★ **RELG 549 JAPANESE BUDDHIST PHILOSOPHY.** (3) (Prerequisites: RELG 344, or RELG 451, or permission of the instructor.) (Note: Taught in alternate years.) Major figures of the Kyoto School of Buddhist philosophy (Nishida, Tanabe, Nishitani), emphasizing their intellectual debts to both modern European philosophy (Hegel, Nietzsche, Heidegger) and Mahayana Buddhism (Zen and Pure Land Buddhism).

RELG 550 COMPARATIVE RELIGION. (3) (Fall, Winter and Summer) Tutorials and guided reading in the field of Comparative Religion.

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; compari-

RELG 696D1 and RELG 696D2 are successfully completed in consecutive terms) (RELG 696D1 and RELG 696D2 together are equivalent to RELG 696).

RELG 698 THESIS RESEARCH 3. (12)

RELG 698D1 (6), RELG 698D2 (6) THESIS RESEARCH 3. (Students must register for both RELG 698D1 and RELG 698D2) (No credit will be given for this course unless both RELG 698D1 and RELG 698D2 are successfully completed in consecutive terms) (RELG 698D1 and RELG 698D2 together are equivalent to RELG 698)

RELG 698N1 THESIS RESEARCH 3. (6) (Students must also register for RELG 698N2) (No credit will be given for this course unless both RELG 698N1 and RELG 698N2 are successfully completed in a twelve month period) (RELG 698N1 and RELG 698N2 together are equivalent to RELG 698)

RELG 698N2 THESIS RESEARCH 3. (6) (Prerequisite: RELG 698N1) (No credit will be given for this course unless both RELG 698N1 and RELG 698N2 are successfully completed in a twelve month period) (RELG 698N1 and RELG 698N2 together are

73.4 Application Procedures

Applications will be considered upon receipt of:



M.A. in History of Medicine (Non-Thesis) (45 credits)]**Required Courses** (27 credits)**M.A. IN MEDICAL SOCIOLOGY**

Students may choose between two programs: M.A. thesis or non-thesis.

For Sociology courses, see Department of Sociology. For SSOM seminars, see below.

M.A. in Medical Sociology (Thesis) (48 credits)

This includes 18 credits of course work and a research thesis that is based on original research (30 credits)

Required Courses (12 credits)**Complementary Courses** (6 credits)**Thesis Component – Required** (30 credits)**M.A. in Medical Sociology (Non-Thesis) (45 credits)**

This includes 27 credits of course work and a research paper based on original research (18 credits).

Required Courses (36 credits)

MSW program, students develop critical and innovative approaches to practice competence and to policy analysis such that they may contribute to both established social services and to new and less developed areas of service provision.

The MSW degree can be pursued via two options: thesis and non-thesis. Both options carry a weight of 45 credits, and, taken on a full-time basis, both options involve three terms of study. In both options, part-time study can be arranged (see section on **Duration and Time Limitations** below).

NOTE: While not a prerequisite for admission, possession of a working knowledge of the French language is important not only to candidates who intend to seek admission to the Quebec professional Ordre after graduation but also to those who wish to maximize their field placement opportunities during their program. In consultation with the Field Education Coordinator, students may have the option of completing their field requirements at an approved social service agency outside of Quebec.

M.S.W. (Thesis) (45 credits)

This option is designed for students who have strong research interests.

Required Courses (6 credits)

M.S.W. (Non-Thesis) (45 credits)

This option is designed for students who are interested in advancing practice skills in a specialized area.

Required Courses (15 credits)

the program may be completed in six terms. In the practice (non-thesis) option, students may arrange to register course by course, so that greater flexibility is possible. Students in both options who have met their residency requirement of three full-time terms (all 45 credits of study should have been registered for), but still have some incomplete work, must register for additional sessions and pay fees accordingly until all their program requirements have been completed.

The Graduate and Postdoctoral Studies Office sets time limitations for students pursuing masters programs at McGill. Full-time students must complete the M.S.W. degree within three years of initial registration, and part-time/half-time students must complete the degree within five years of initial registration. Under certain exceptional conditions, an extension may be permitted. These conditions are described in the General Information section of the *Graduate and Postdoctoral Studies Calendar*.

Joint program: Master of Social Work (MSW) with integrated Bachelor of Civil Law (BCL)

Courses Taken Outside of the Department

Students in both M.S.W. options are invited to take up to two courses in other departments of the University in areas of study not offered in the School of Social Work. Students also have the option of taking equivalent research methodology courses offered in other departments to fulfill the research requirement. All students must secure the approval of their advisor prior to registration for such courses.

Duration and Time Limitations

Taken on a full-time basis, both M.S.W. options involve three terms of study. The third term may optionally be taken in the Summer, in which case the entire program may be completed in one calendar year.

In both options, part-time study can be arranged. In the thesis option, a student may register for half-time studies, in which case

changes within relevant social science disciplines on the process of social work theory development and its relation to intervention.

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

case, applicants may be required to take some additional Sociology courses to fill gaps in their background.



M.A. in Sociology (Thesis) – Medical Sociology (48 credits)

This program is given jointly by the Sociology Department and the Department of Social Studies in Medicine.

Required Courses (12 credits)

M.A. in Sociology (Thesis) – Development Studies

Option/Concentration (48 credits)

The M.A. thesis must be on a topic relating to development studies, approved by the Development Studies Option (DSO) coordinating committee.

Required Courses (15 credits)

M.A. in Sociology (Thesis)– Neotropical Environment

Option/Concentration (48 credits)

Not offered in 2007-08.

McGill University and the Smithsonian Tropical Research Institute University of

M.A. in Sociology (Thesis) Environment

Option/Concentration (48 credits)

Required Courses (18 credits)

Complementary Courses (3 credits)



SOCI 505 QUANTITATIVE METHODS 2. (3) (Prerequisite: SOCI 504)

Topics include: problems - and solutions - in regression analysis, models for categorical dependent variables, including logit, log-linear, and linear probability models, measurement models, structural equation models with latent variables (LISREL), and time series and panel analysis.

SOCI 506 QUANTITATIVE METHODS 3. (3) (Prerequisite: SOCI 504

or equivalent or permission of instructor.) Advanced statistical analyses focusing on advanced methods such as event history analysis and analysis of contingency tables.

SOCI 507 S

economic structures, rural and urban activities and landscapes, indigenous peoples, the effects of the Canal and the Free Trade Zone. Focus throughout on the interaction of human society and the environment.

SOCI 571 DEVIANCE AND SOCIAL CONTROL. (3) This seminar focuses on how social groups enforce rules (and maintain social order) through coercion and socialization. It reviews current research and critiques key theoretical approaches to social control. Included are discussions of regulating institutions such as prisons and mental asylums, and the roles of gossip, manners and etiquettes.

SOCI 580 SOCIAL RESEARCH DESIGN AND PRACTICE. (3) (Restriction: Open to U3 and graduate students) Asking researchable sociological questions and evaluation of different research designs used to answer such questions. Development of cogent research proposals, including data collection procedures. Principles, dynamics, strengths and practical limitations of research designs. Examples from recent publications.

SOCI 588 SOCIOLOGY OF KNOWLEDGE. (3) (Restriction: Not open to students who have taken SOCI 661.) A review of the current research in the sociology of knowledge. The focus will be on sociological studies of the formation, circulation and reception of scientific and artistic ideas, beliefs and practices, and the configuration and social organization of the collectives involved in these processes.

SOCI 603 BIBLIOGRAPHIC METHODS 1. (3) (Corequisite: SOCI 604.) (Restriction: Restricted to Sociology M.A. students.) Research-related skills for the production of a research bibliography under the supervision of a faculty member.

SOCI 604 BIBLIOGRAPHIC METHODS 2. (3) (Corequisite: SOCI 603.) (Restriction: Restricted to Sociology M.A. students.) Advanced research-related skills for the production of a research bibliography under the supervision of a faculty member.

SOCI 627 POLITICAL SOCIOLOGY. (3) Key theories and empirical areas of political sociology. Major works relevant to each theme will be read and analyzed. Topics include: political socialization, the social psychology of political behaviour, class and politics, political organizations, elite studies. A research paper in one of the areas covered will be required.

SOCI 652 CURRENT SOCIOLOGICAL THEORY. (3) (Prerequisite: SOCI 330) Examination of works in some major areas of Sociology with a focus on: antecedent thought and research in the area; the internal structure and consistency of these works; the validity of the major claims made; and the implications for future theoretical development and research.

SOCI 688 SOCIAL STATISTICS 1. (1.5) (Prerequisite: SOCI 504 or permission of Social Statistics Program advisor.) (Note: Students in the Social Statistics Option must take both SOCI 688 (Social Statistics 1) and SOCI 689 (Social Statistics 2).) (Restriction: Not open to students who have taken SOCI 688 prior to Winter 2007.) Social statistics seminar.

SOCI 689 SOCIAL STATISTICS 2. (1.5) (Prerequisite: SOCI 688 or permission of Social Statistics Program advisor.) (Note: Students in the Social Statistics Option must take both SOCI 688 (Social Statistics 1) and SOCI 689 (Social Statistics 2).) (Restriction: Not open to students who have taken SOCI 688 prior to Winter 2007.) Social statistics seminar.

SOCI 690 M.A. THESIS 1. (3) (Restriction: Open only to 3.4963 TDDu]TJ/l3 Tc[(pc(S)Tj6.48 0p)Tj6.58 Tw[(Pr)6.9(ogramust take)-7must take ofred .4963

both EXSU 691N1 and EXSU 691N2 are successfully completed in a twelve month period) (EXSU 691N1 and EXSU 691N2 together are equivalent to EXSU 691)

EXSU 691N2 M.Sc. RESEARCH 2. (2) (Prerequisite: EXSU 691N1) (No credit will be given for this course unless both EXSU 691N1 and EXSU 691N2 are successfully completed in a twelve month period) (EXSU 691N1 and EXSU 691N2 together are equivalent to EXSU 691) See EXSU 691N1 for course description.

EXSU 692 M.Sc. RESEARCH 3. (4)

EXSU 692D1 (2), EXSU 692D2 (2) M.Sc. RESEARCH 3. (Students must register for both EXSU 692D1 and EXSU 692D2) (No credit will be given for this course unless both EXSU 692D1 and EXSU 692D2 are successfully completed in consecutive terms) (EXSU 692D1 and EXSU 692D2 together are equivalent to EXSU 692)

EXSU 692N1 M.Sc. RESEARCH 3. (2) (Students must also register for EXSU 692N2) (No credit will be given for this course unless both EXSU 692N1 and EXSU 692N2 are successfully completed in a twelve month period) (EXSU 692N1 and EXSU 692N2 together are equivalent to EXSU 692)

EXSU 692N2 M.Sc. RESEARCH 2.

participate in this process in a variety of ways, as designers, analysts, advocates and mediators, facilitating the search for equitable and efficient solutions to problems of urban growth and development.

McGill University was the first institution in Canada to offer a full-time planning program. An inter-disciplinary program was established in 1947, in which students combined a master's degree in Urban Planning with one in a related field. An autonomous program was established in 1972. It became the School of Urban Planning in 1976, a unit within the Faculty of Engineering. It has strong links with the School of Architecture, which is housed in the same building, notably in initiating a new set of joint options in Urban Design. The Urban Design option enables qualified students to specialize in this growing area of professional practice. Urban design practitioners work in concert with developers, architects, builders, and other key stakeholders on strategic interventions or projects. They develop clear guidelines that are used to shape the built environment as well as articulating plans in four dimensions, including space and time. Details are outlined on the Urban Design option Website at www.mcgill.ca/urbandesign.

Students come to the School from diverse backgrounds, the physical sciences, the traditional professions, such as architecture and engineering, and the social sciences. Alumni of the School work as planners and designers at various levels of government, in non-profit organizations and with private consulting

Master of Urban Planning

not included in the curriculum. It is given by members of staff as a tutorial.

URBP 607 READING COURSE: URBAN PLANNING. (3) The Reading Course offers an opportunity to explore, under the supervision of a staff member, subject areas relevant to urban planning.

URBP 609 PLANNING GRAPHICS. (3) Designed to familiarize the student with graphic techniques used in professional planning work, as well as to heighten environmental perception. Weekly lecture which reviews theory and practice followed by a weekly studio assignment involving the application of practical skills.

URBP 612 HISTORY AND THEORY OF PLANNING. (3) A review of planning history and theories of planning. These are examined under three categories: expl

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