
53 Natural Resource Sciences

Department of Natural Resource Sciences
Macdonald Campus
21,111 Lakeshore Road
Sainte-Anne-de-Bellevue, QC H9X 3V9
Canada

Telephone: (514) 398-7890
Fax: (514) 398-7990
E-mail: info@nrs.mcgill.ca
Web site: www.nrs.mcgill.ca

Chair — B. Côté

Graduate Program Director — R.D. Titman

53.1 Staff

Emeritus Professors

A.C. Blackwood; B.Sc., M.Sc.(Alta.), Ph.D.(Wis.), F.R.S.C.;
Microbiology
R. Knowles; B.Sc.(Birm.), Ph.D., D.Sc.(Lond.); F.R.S.C.;
Microbiology
A.F. MacKenzie; B.S.A., M.Sc.(Sask.), Ph.D.(C'nell); Soil Science
R.A. MacLeod; B.A., M.A.(Br.Col.), Ph.D.(Wis.), F.R.S.C.;
Microbiology
P.H. Schuepp; Dipl.Sc.Nat.(Zür.), Ph.D.(Tor.); Agricultural Physics
R.K. Stewart; B.Sc.(Agr.), Ph.D.(Glas.); Entomology

Professors

D.M. Bird; B.Sc.(Guelph), M.Sc., Ph.D.(McG.); Wildlife Biology
P. Brown; B.A.(Haverford), M.A., Ph.D.(Columbia) (*joint appoint.
with Geography and McGill School of Environment*)
J.W. Fyles; B.Sc., M.Sc.(Vic., B.C.), Ph.D.(Alta.); Forest
Resources (*Tomlinson-Fowler Chair in Forestry*)
W.H. Hendershot; B.Sc.(Tor.), M.Sc.(McG.), Ph.D.(Br.Col.); Soil
Science

Associate Professors

B. Côté; B.Sc., Ph.D.(Laval); Forest Resources
M.A. Curtis; B.Sc., M.Sc., Ph.D.(McG.); Wildlife Biology
B.T. Driscoll; B.Sc., Ph.D.(McM.); Microbiology
G.B. Dunphy; B.Sc.(U.N.B.), M.Sc., Ph.D.(Mem.); Entomology
D.J. Lewis; B.Sc., M.Sc., Ph.D.(Mem.); Entomology
G.R. Mehuys; B.Sc., Ing.Agron.(Gembloux), Ph.D.(Calif.); Soil
Science
D.F. Niven; B.Sc., Ph.D.(Aber.); Microbiology
M.E. Rau; B.Sc.(Purdue), M.Sc., Ph.D.(McG.); Entomology
R.D. Titman; B.Sc.(McG.), M.Sc.(Bishop's), Ph.D.(U.N.B.); Wildlife
Biology
T.A. Wheeler; B.Sc.(Mem.), M.Sc., Ph.D.(Guelph); Entomology
L.G. Whyte; B.Sc.(Reg.), Ph.D.(Wat.); Microbiology

Assistant Professors

C. Buddle; B.Sc.(Guelph), Ph.D.(Alta.); Forest Insect Ecology
M. Humphries; B.Sc.(Man.), M.Sc.(Alta.), Ph.D.(McG); Wildlife
Biology
I. Strachan; B.Sc.(Tor), M.Sc., Ph.D.(Queen's); Micrometeorology
J. Whalen; B.Sc.(Agr.)(Dal.), M.Sc.(McG.), Ph.D.(Ohio St.); Soil
Science

Associate Members

L. Chan (*Dietetics and Human Nutrition*), D. Green (*Redpath
Museum*), W.D. Marshall (*Food Science and Agricultural
Chemistry*), G.J. Matlashewski (*Microbiology and Immunology*),
D. Smith (*Plant Science*)

Adjunct Professors

R. Anderson, F. Archibald, D. Berteaux, G. Boivin, J. Cumming,
C. Greer, T. Herman, C. Miguez, P. Mineau, E. Pattey, H. Sadar,
J.P. Savard, A. Scheuhammer, C. Vincent, F.G. Whoriskey

53.2 Programs Offered

The Department of Natural Resource Sciences offers programs leading to M.Sc. and Ph.D. degrees in Entomology, Microbiology, and Renewable Resources (includes Agrometeorology, Forest Science, Neotropical Environment, Soil Science and Wildlife Biology).

The Department possesses, or has access to, excellent facilities for laboratory research and research in the field. Affiliated with the Department are the Lyman Entomological Museum and Research Laboratory, the Molson Nature Reserve, the Morgan Arboretum, the Avian Science and Conservation Centre, and the Ecomuseum of the St. Lawrence Valley Natural History Society.

53.3 Admission Requirements

General

Competency in English – Non-Canadian applicants whose mother tongue is not English and who have not completed an undergraduate degree using the English language, are required to submit documented proof of competency in oral and written English by appropriate exams, e.g., TOEFL (Test of English as a Foreign Language) with a minimum score of 550 on the paper-based test (213 on the computer-based test) or 6.5 overall band on IELTS.

The Graduate Record Exam (GRE) is not required, however, it is highly recommended.

M.Sc.

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.

Ph.D.

Candidates, normally, are required to hold an M.Sc. degree and will be judged primarily on their ability to conduct an original and independent research study.

53.4 Application Procedures

Applicants for graduate studies through academic units in the Faculty of Agricultural and Environmental Sciences must forward supporting documents to:

Student Affairs Office (Graduate Studies)
Macdonald Campus of McGill University
21,111 Lakeshore
Sainte-Anne-de-Bellevue, QC H9X 3V9
Canada
Telephone: (514) 398-7925
Fax: (514) 398-7968
E-mail: grad@macdonald.mcgill.ca

Applications will be considered upon receipt of a signed and completed application form, \$60 application fee, all official transcripts, two signed original letters of reference on official letterhead of originating institution, and (if required) proof of competency in oral and written English by appropriate exams. DOCUMENTS SUBMITTED WILL NOT BE RETURNED.

Deadlines – Applications, including all supporting documents must reach the Student Affairs Office no later than June 1 (March 1 for International) for the *Fall Term (September)*; October 15 (July 1 for International) for the *Winter Term (January)*; February 15 (November 1 for International) for the *Summer Term (May)*. It may be necessary to delay review of the applicant's file until the following admittance period if application materials including supporting documents are received after these dates. International applicants are advised to apply well in advance of the deadline because immigration procedures may be lengthy. Applicants are encouraged to make use of the on-line

application form available on the Web at www.mcgill.ca/applying/graduate.

Application Fee (non-refundable) – A fee of \$60 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: on-line 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.

Transcripts – Two official copies of all 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 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) 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, are required. It is the applicant's responsibility to arrange for these letters to be sent.

Competency in English – Non-Canadian applicants whose mother tongue is not English and who have not completed an undergraduate degree using the English language are required to submit documented proof of competency in oral and written English, by appropriate exams, e.g., TOEFL (minimum score 550 on the paper-based test, 213 on the computer-based test) or 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.

Financial aid is very limited and highly competitive. It is suggested that students give serious consideration to their financial planning before submitting an application.

Acceptance to all programs depends on a staff member agreeing to serve as the student's supervisor and the student obtaining financial support. Normally, a student will not be accepted unless adequate financial support can be provided by the student and/or the student's supervisor. Academic units cannot guarantee financial support via teaching assistantships or other funds.

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 Graduate and Postdoctoral Studies Office minimum CGPA of 3.0/4.0. The course(s) to be taken in a *Qualifying Program* will be prescribed by the academic unit concerned. *Qualifying students* are registered in graduate studies, **but not as candidates for a degree**. Only one qualifying year is permitted. **Successful completion of a qualify-**

ing program does not guarantee admission to a degree program.

53.5 Program Requirements

M.Sc. in Entomology, Microbiology or Renewable Resources (which includes Agrometeorology, Forest Science, Soil Science and Wildlife Biology)

Candidates must complete a course and research program of a minimum of 45 credits elaborated in consultation with their Supervisory Committee. Course work (6 credits minimum) will include at least two, normally graduate-level, courses and in most research areas, at least one of these courses must be a graduate-level course in statistics. Students are required to register for three 1-credit seminar courses, the last of which will consist of a formal presentation of the student's final thesis research. Candidates must also register in the three M.Sc. Thesis Research courses (NRSC 691, NRSC 692, NRSC 693; 36 credits) and present a satisfactory thesis based on their research.

M.Sc. in Renewable Resources – Neotropical Environment Option

Candidates must complete a course and research program of a minimum of 48 credits elaborated in consultation with their Supervisory Committee. Course work (9 credits minimum) will include both ENVR 610 and BIOL 640, and one of POLI 644, SOCI 565, ENVR 611, ENVR 612, ENVR 680, BIOL 553, BIOL 641, GEOG 498, AGRI 550. Students may also require a graduate-level course in statistics. Participation in the MSE-Panama Symposium Presentation in Montreal is required. Students are required to register for three one-credit seminar courses, the last of which will consist of a formal presentation of the student's final thesis research. Candidates must also register in the three M.Sc. Thesis Research courses (NRSC 691, NRSC 692, NRSC 693; 36 credits) and present a satisfactory thesis based on their research.

Ph.D. in Entomology, Microbiology, or Renewable Resources (which includes Agrometeorology, Forest Science, Soil Science and Wildlife Biology)

Course requirements are specified by the staff in the discipline but are flexible and depend largely on the student's background, immediate interests, and ultimate objectives. Students are required to register for four one-term seminar courses.

Also required are satisfactory performance in the Ph.D. Comprehensive Examination (NRSC 701) and the presentation, and subsequent defence, of a satisfactory thesis based on the student's research.

Ph.D. in Renewable Resources – Neotropical Environment Option

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. In this program course work will include both ENVR 610 and BIOL 640, and one of POLI 644, SOCI 565, ENVR 611, ENVR 612, ENVR 680, BIOL 553, BIOL 641, GEOG 498, AGRI 550. Participation in the MSE-Panama Symposium Presentation in Montreal is required. Students are required to register for four seminar courses (NRSC 751, NRSC 752, NRSC 753 and NRSC 754).

Also required are satisfactory performance in the Ph.D. Comprehensive Examination (NRSC 701) and the presentation, and subsequent defence, of a satisfactory thesis based on the student's research.

53.6 Courses for Higher Degrees

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

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

★ Denotes courses taught only in alternate years.

● Denotes courses not offered in 2003-04.

● **AEPH 602 ISOTOPIC TRACER TECHNIQUES.** (3) (3 lectures and 1 four-hour lab) (Prerequisite: AEPH 303 or equivalent.)

● ★ **ENTO 515 PARASITOID BEHAVIOURAL ECOLOGY.** (3) (Not open to students who have taken NRSC 515)

ENTO 520 INSECT PHYSIOLOGY. (3) (Winter) (Prerequisite: Permission of instructor) (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)

ENTO 550 VETERINARY AND MEDICAL ENTOMOLOGY. (3) (Winter) (Prerequisite: Permission of instructor) (Not open to students who have taken NRSC 550) Environmental aspects of veterinary and medical entomology. An advanced course dealing with the biology and ecology of insects and acarines as aetiological agents and vectors of disease, and their control. Integrated approaches to problem solving.

ENTO 600 INSECT PATHOLOGY. (3)

● **ENTO 610 INSECT PHYLOGENY AND DIVERSITY.** (3) (Winter)

ENTO 615 FOREST ENTOMOLOGY.(3) (Prerequisite: Permission of the instructor.) Current topics in forest entomology.

● **ENTO 726 INSECT POPULATION DYNAMICS.** (3)

MICR 772 ADVANCED MICROBIAL GENETICS. (3) (Restriction: Not open to students who have successfully completed NRSC 772) Topics in bacterial archaeal, eucaryal, and bacteriophage genetics.

MICR 773 ADVANCED MICROBIAL PHYSIOLOGY. (3) (Not open to students who have successfully completed NRSC 773) Topics in microbial physiology and metabolism, ranging from current to classic, from biochemical to genetic aspects.

NRSC 510 AGRICULTURAL MICROMETEOROLOGY. (3) (Fall) (3 lectures) (Not open to students who have taken AEPH 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. Experimental techniques for measuring fluxes of heat, water-vapour, CO₂ and natural and man-made pollutants.

● **NRSC 540 SOCIO-CULTURAL ISSUES IN WATER.** (3) (Winter) (Prerequisite: A 300- or 400-level course in water or permission of instructor.) (3-hour seminar)

NRSC 643 GRADUATE SEMINAR 1. (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 on a selected topic, research proposal, or research results based on progress towards the M.Sc. degree.

NRSC 644 GRADUATE SEMINAR 2. (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 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 701D1 PH.D. COMPREHENSIVE EXAMINATION. (0) (Students must also register for NRSC 701D2) (No credit will be given for this course unless both NRSC 701D1 and NRSC 701D2 are successfully completed in consecutive terms) (NRSC 701D1 and NRSC 701D2 together are equivalent to NRSC 701)

NRSC 701D2 PH.D. COMPREHENSIVE EXAMINATION. (0) (Prerequisite: NRSC 701D1) (No credit will be given for this course unless both NRSC 701D1 and NRSC 701D2 are successfully completed in consecutive terms) (NRSC 701D1 and NRSC 701D2 together are equivalent to NRSC 701)

May be offered as: NRSC 701N1 and NRSC 701N2.

NRSC 751 GRADUATE SEMINAR 4. (0) (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) (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) (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) (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&BIOCHEMISTRY.** (3) (Not open to students who have taken NRSC 521)

SOIL 602 ADVANCED SOIL ECOLOGY 1. (3) Discussion of significant research in soil ecology including transformations of soil organic matter and nutrients, ecological and pedological functions of soil organisms, soil food webs, plant-soil biota interactions, and analytical techniques for monitoring soil organisms.

SOIL 603 ADVANCED SOIL ECOLOGY 2. (3) Discussion of significant research in soil ecology including the occurrence and activity of soil organisms, methods of monitoring and manipulating soil biota for soil fertility management, and human impacts on soil biota at different scales in the environment.

● ★ **SOIL 610 PEDOLOGY.** (3)

★ **SOIL 630 SOIL MINEROLOGY.** (3) (2 lectures per week, one term) Structure and identification of minerals, weathering, properties of clay surfaces, adsorption on clays, ion exchange.

SOIL 631 ADVANCED SOIL PHYSICS. (3) (2 lectures per week, one term) State and fluxes of matter and energy in the soil. Applica-

tions to movement of water, salts, nutrients; diffusion of gases; heat transfer. Discussion of significant research in soil physics.

WILD 605 WILDLIFE ECOLOGY. (3) (2 class hours per week) Discussion of current topics in wildlife ecology with special reference to the research interests of staff and students involved.

WILD 610 FISH ECOLOGY. (3) (3 class hours per week) A critical examination of current topics in fish ecology; discussion of migration, reproductive strategies, sex determination mechanisms, competition, communication and predator-prey relationships.

WOOD 640 RECENT ADVANCES: TREE ECOPHYSIOLOGY. (3) (3 lectures per week) Discussion of the effects of environmental factors on the physiology of trees. Both anthropogenic and natural factors will be discussed.

WOOD 660 RECENT ADVANCES: FOREST ECOLOGY. (3) (2 hours seminar) Review and discussion of current literature in forest ecology. Topics covered will depend on the research interests of students and may include population biology of forest plants, forest succession, forest nutrition and nutrient cycling, computer modelling of forest systems.

54 Neurology and Neurosurgery

GRADUATE PROGRAM IN NEUROLOGICAL SCIENCES

Division of Neuroscience

Department of Neurology and Neurosurgery

Departments of Psychiatry, Ophthalmology, and Anesthesia

Montreal Neurological Institute, Room 141

3801 University Street

Montreal, QC H3A 2B4

Canada

Telephone: (514) 398-1905/ 398-1229

Fax: (514) 398-4621

E-mail: monique.ledermann@mcgill.ca or GPNS@mni.mcgill.ca

Web site: www.mcgill.ca/gpns

Chair, Graduate Program in Neurological Sciences — H. Durham

Chair, Dept. of Neurology and Neurosurgery — R. Riopelle

54.1 Staff

Professors

A. Aguayo; M.D.(Cordoba Natn.), F.R.C.P.(C)
 E. Andermann; M.D., C.M., M.Sc., Ph.D.(McG.)
 F. Andermann; B.A.(Paris), B.Sc., (McG.), M.D.(Montr.), F.R.C.P.(C)
 J. Antel; M.D., B.Sc.(Man.), F.R.C.P.(C)
 D. Arnold; B.Sc., M.D.(C'nell), F.R.C.P.(C) (*James McGill Professor*)
 M. Avoli; M.D.(Rome), Ph.D.(McG.)
 A. Beaudet; B.A., M.D., Ph.D.(Mont.)
 C. Bourque; B.Sc.(Ott.), Ph.D.(McG.)
 G. Bray; B.Sc.(Bran.), M.D., B.Sc.(Man.), F.R.C.P.(C)
 S. Carbonetto; M.Sc.(Mass.), Ph.D.(N.Carolina)
 D. Colman; Ph.D.(SUNY)
 S. David; Ph.D.(Man.)
 R. Del Maestro; M.D.(W. Ont.), Ph.D.(Uppsala), F.R.C.S.(C), D.A.B.N.S., F.A.C.S.
 M. Diksic; B.Sc., Ph.D.(Zagreb)
 P. Drapeau; B.Sc., Ph.D.(McG.)
 J.R. Dunn; B.Sc., Ph.D.(U.B.C.)
 H. Durham; M.Sc.(W. Ont.), Ph.D.(Alta.)
 A. Evans; M.Sc.(Sur.), Ph.D.(Leeds)
 W.H. Feindel; O.C., B.A.(Acad.), M.D., C.M.(McG.), M.Sc.(Dal.), D.Sc.(Acad. and McG.), D.Phil.(Oxon), F.R.C.S.(C), F.A.C.S., F.R.S.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.)
 J.-P. Julien; B.Sc.,(Que.), Ph.D.(McG.)
 G. Karpati; M.D.(Dal.), F.R.C.P.(C)
 D. Lawrence; B.Sc.(Bishop's), M.Sc., M.D., C.M.(McG.), F.R.C.P.(C)
 R. Leblanc; M.Sc.(McG.), M.D.(Ott.), F.R.C.S.(C)
 B. Milner; B.A., Sc.D.(Cantab.), 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.(Lond.), Ph.D.(Cantab.) (*James McGill Professor*)
 M. Rasminsky; B.A.(Tor.), M.D.(Harv.), Ph.D.(Lond.), F.R.C.P.(C)
 J. Richardson; B.Sc., M.D., C.M., Ph.D.(McG.), F.R.C.P.(C)
 R.J. Riopelle; M.D.(Ott.), F.R.C.P.(C)
 G. Rouleau; M.D.(Ott.), F.R.C.P.(C)
 H. Schipper; M.D., Ph.D.(McG.)
 E. Shoubridge; M.Sc., Ph.D.(U.B.C.)
 J.D. Stewart; B.Sc.(Lond.), M.B., B.S.(W.I.), F.R.C.P.(C)
 J.G. Stratford; M.D., C.M., M.Sc.(McG.), F.R.C.S.(C), F.A.C.S.
 G. Tannenbaum; M.Sc., Ph.D.(McG.)
 C. Thompson; M.Sc., D.Sc.(N.Z.)
 G. Watters; B.A.(Minn.), M.D.(Man.), F.R.C.P.(C)
 R.J. Zatorre; A.B.(Boston), M.Sc., Ph.D.(Brown)

Associate Professors

A. Alonso; M.S.(Barcelona), Ph.D.(Madrid)
 M. Aubé; B.A., M.D.(Montr.), F.R.C.P.(C)
 P. Barker; Ph.D.(Alta.), B.Sc.(S. Fraser)
 S. Bekhor; M.B., Ch.B.(Baghdad), F.R.C.P.(C)
 J. Carlton; B.S., M.D.(Johns H.), F.R.C.P.(C)
 C. Chalk; B.Sc.(Queen's), M.D., C.M.(McG.) F.R.C.P.(C)
 H. Chertkow; M.D.(W. Ont.), F.R.C.P.(C)
 R. Cote; M.D.(Montr.), F.R.C.P.(C)
 S. David; Ph.D.(Man.)
 R. Del Carpio; M.D.(Lima), F.R.C.P.(C)
 F. Dubeau; M.D.(Montr.), F.R.C.P.(C)
 J.P. Farmer; M.D., M.Sc.(McG.), F.R.C.P.(C)
 K. Hastings; B.Sc., Ph.D.(McG.)
 T. Kennedy; B.Sc.(McM.), Ph.D.(Col.)
 Y. Lapierre; B.A., M.D.(Montr.), F.R.C.P.(C)
 A. Leblanc; M.Sc.(Moncton), Ph.D.(Dal.)
 I. Libman; B.A., M.D., C.M.(McG.), F.R.C.P.(C)
 P. McPherson; M.Sc.(Man.), Ph.D.(Iowa) (*William Dawson Scholar*)
 D. Melançon; B.A., M.D.(Montr.)
 C. Melmed; B.Sc., M.D.(Man.), F.R.C.P.(C)
 J. Montes; B.Sc.(Inst.Pot.-Mex.), M.D.(Uoio.Auto.de San Luis Pot.-Mex)
 J. Nalbantoglu; B.Sc., Ph.D.(McG.)
 A. O'Gorman; M.D.(Ireland)
 A. Peterson; B.Sc.(Vic., B.C.), Ph.D.(U.B.C.)
 B. Pike; B.Eng.(Mem.), M.Eng., Ph.D.(McG.) (*William Dawson Scholar*)
 A. Ptito; Ph.D.(Montr.)
 L.F. Quesney; B.Sc., M.D.(Chile), Ph.D.(McG.)
 B. Rosenblatt; B.Sc., M.D., C.M.(McG.), F.R.C.P.(C)
 A. Sadikot; M.D., C.M.(McG.), Ph.D.(Laval), F.R.C.S.(C)
 G. Savard; M.D.(Montr.), F.R.C.P.(C)
 R. Schondorf; M.Sc., Ph.D., M.D., C.M.(McG.), F.R.C.P.(C)
 P. Séguéla; Ph.D.(Bord.), Ph.D.(Montr.)
 M. Shevell; B.Sc., M.D.(Vanderbilt)
 W. Sossin; S.B.(M.I.T.), Ph.D.(Stan.)
 S. Stifani; Ph.D.(Rome); Ph.D.(Alta)
 D. Tampieri; M.D.(Bologna)
 J. Teitelbaum; M.D.(Montr.), F.R.C.P.(C)
 J. Woods; M.B., B.Ch.(Dub.), M.Sc.(McG.), F.R.C.P.(C)

Assistant Professors

M. Angle; M.D., C.M.(McG.), F.R.C.P.(C)
 A. Bar-Or; M.D., C.M.(McG.); F.R.C.P.(C), D.A.B.N.P.

A. Bernasconi; M.D.(Basel U.)
 M.A. Castro-Alamancos; B.Sc., M.Sc., Ph.D.(U. Complutense of Madrid)
 L. Collins, M.Eng., Ph.D.(McG.)
 A. Dagher; M.Eng.(McG.), M.D.(Tor.), F.R.C.P.(C)
 M.-E. Dilenge; M.D.(Sher.), F.R.C.P.(C)
 L. Durcan; M.D.(Man.), F.R.C.P.(C)
 M. Ferns; B.Sc.(Otago), Ph.D.(W. Aust.)
 E. Fon, M.D.(Montr.), F.R.C.P.(C)
 A. Fournier; B.Sc., Ph.D.(McG.)
 D. Gendron; M.D.(Laval), F.R.C.P.(C)
 A. Genge; B.Sc.(Dal.), B.Med.Sc., M.D.(Mem.), F.R.C.P.(C)
 W. Gorczyca; M.D., Ph.D.(Poland)
 B. Goulet; M.D.(Laval), F.R.C.S.(C)
 R. Gunn; Ph.D.(U. Warwick)
 L. Jacques; B.Sc.(Laval), M.Sc., M.D.(Montr.), F.R.C.P.(C)
 K. Johnston; Ph.D., M.D.(Tor.), F.R.C.S.(C)
 D. Klein; B.A., Ph.D.(U. of Witwatersrand/S. Africa)
 A.L. Lafontaine; M.Sc.(McG.), M.D.(McM.), F.R.C.P.(C)
 M. Lechter; B.Sc.(McG.), M.D., Ph.D.(Queen's)
 G. Leonard; Ph.D.(McG.)
 M. Maleki, M.D.(Iran), F.R.C.S.(C)
 E. Meyer; M.Sc.(Montr.), Ph.D.(McG.)
 J. Minuk; M.D.(Man.), F.R.C.P.(C)
 S. Mzengeza; M.Sc.(Univ. of East Anglia), Ph.D.(Queen's)
 M. Panisset; M.D.(Montr.)
 H. Paudel; Ph.D.(Okla.), M.Sc.(Nepal)
 T. Paus; M.D.(Purkyne U./Czechoslovakia), Ph.D.(Czech. Acad. of Sciences/Prague)
 C. Poulin; M.D.(Laval), F.R.C.P.(C)
 D. Ragsdale; B.S.(Ill.), Ph.D.(Calif.)
 Y. Rao; B.Sc.(China), Ph.D.(Tor.)
 J.-P. Roy; M.D.(Laval), F.R.C.P.(C)
 J. Rubin; B.Sc., M.D., C.M.(McG.), D.A.M.P.& N.
 F. Salevsky; M.Sc., M.D.(Alta.), F.R.C.P.(C)
 D. Sinclair; M.D.(Dalhousie), F.R.C.S.(C)
 C. Sirard; M.Sc.(Montr.), Ph.D.(Tor.)
 D. Sirhan; M.D.(Montr.), F.R.C.S.(C)
 V. Soland, M.D.(Sher.)
 V. Sziklas, Ph.D.(McG.)
 D. Trojan; M.D.(Conn.)
 M. Veilleux; M.D.(Sher.), F.R.C.P.(C)
 L. Viera, B.Sc.(Waterloo), M.D.(Ott.) F.R.C.S.(C)
 F. Wein, M.D., C.M.(McG.) F.R.C.S.(C)
 T. Wein; M.D.(Vt.), F.R.C.P.(C)

Lecturers

S. Chouinard; M.D.(Montr.), F.R.C.P.(C)
 D. Diorio; M.D.(Tor.), M.Sc.(McG.)
 T. Stroh; Ph.D.(Max Planck Inst.)
 W. Vanast; M.D.(Tor.), F.R.C.P.(C)

Associate Members

J. Armony, C. Baker, S. Beaulieu, C. Benkelfat, G. Bennett, P. Blier, D. Boivin, P. Boksa, P. Braun, C. Bushnell, N. Cermakian, D. Chartrand, T. Coderre, B. Collier, K. Cornish, R. Dykes, G. Debonnel, B. Debrulle, C. de Montigny, J.P.A. Gratton, R. Hess, R. Joobar, S. Kar, F. Kingdom, P. Lachapelle, M. Lepage, G. Luheshi, S. Lupien, A. Majnemer, M. Meaney, K. Mullen, D. Payen de la Garanderie, B. Petrof, J. Poirier, R. Quirion, J. Rochford, L. Srivastava, G. Turecki, C.D. Walker, S. Williams, C. Wolfson, K. Worsley, S. Young

Adjunct Professors

Z. Argov, S. Berkovic, F. Cendes, L. Descarries, J. Doyon, G. Duncan, A. Gjedde, J. Hardy, C. Holmes, P. Matthews, L. McKerracher, M. Molnar, M. Pandolfo, T. Peters, M. Pfito, Y. Robitaille, N. De Stefano.

54.2 Programs Offered

M.Sc. and Ph.D. in Neurological Sciences.

54.3 Admission Requirements

General

The applicant must be a university graduate and hold a Bachelor's degree in a field related to the subject selected for graduate work.

The applicant must present evidence of high academic achievement. A standing equivalent to a cumulative grade point average of 3.0 out of a possible 4.0 is required by the Graduate and Postdoctoral Studies Office; however, the program prefers applicants to show a higher academic standing, and requires a minimum GPA of 3.3.

Applicants with degrees from a non-Canadian university must submit results of the GRE exam with their application.

Applicants whose undergraduate studies were carried out in a language other than English must submit results of the TOEFL exam with their application and have a score of 600 on the paper-based test (250 on the computer-based test) or higher.

M.Sc. Degree

Bachelor's degree with adequate background in basic sciences, or an M.D.

Ph.D. Degree

M.Sc. in a related field, or an M.D. with post-graduate training or enrolled in M.D.-Ph.D. program

54.4 Application Procedures

Applications will be considered upon receipt of:

1. application form,
2. transcripts,
3. letters of reference,
4. \$60 application fee,
5. TOEFL test results,
6. GRE test results.

All information is to be submitted to above address.

Deadlines:

September entrance –
 paper and on-line applications (www.mcgill.ca/applying/graduate) available.

- on-line application deadline: May 1
- paper application deadline:
 May 1 (February 1 for International candidates)

January entrance –

September 15 (June 1 for International candidates).

To meet the diversity of individual interests and backgrounds, the graduate program for each student is designed at the time of entry. As part of the admission process each applicant will identify, with the participation of the prospective thesis supervisor and the Graduate Studies Committee, a research thesis topic and the course work necessary to complete the training deemed necessary for the degree sought. These decisions become an integral part of the graduation requirements for the student.

54.5 Program Requirements

GENERAL

1. Students must select an Advisory Committee, in conjunction with their thesis supervisor. This committee will consist of the thesis supervisor and two other individuals who will participate in discussions with students about their research program.
2. Students are required to submit a written thesis proposal to the Graduate Studies Committee (at the end of their first year for M.Sc. students, and at least one month prior to the Candidacy Examination for Ph.D. students). This document must state the hypothesis being tested, the relevant literature, and a summary of the methods that will be used to address the research question. This proposal will then be orally presented to the student's Advisory Committee which will also review the written

proposal and communicate its recommendations to the student and the Graduate Studies Committee.

- Students will present a formal seminar on their research work prior to writing their thesis. This presentation will be attended by the student's Advisory Committee and members of the Graduate Studies Committee who will report their impressions and recommendations to the student.
- An annual oral informal presentation of research work accomplished will be presented to the student's Advisory Committee which in turn presents its report to the Graduate Studies Committee.

M.Sc. DEGREE

Course requirements:

Student with a B.Sc., B.A. or M.D. degree: A minimum of 45 credits distributed as follows:*

- Principles of Neuroscience 1 course: NEUR 630 and either Principles of Neuroscience 2: NEUR 631 or CNS course: NEUR 610;
- 6 credits in other graduate level specialty courses relevant to program;
- 9 credits in Master's project Proposal: NEUR 697 (first term of studies)
- 9 credits in Master's Seminar Presentation: NEUR 698 (second term of studies)
- 12 credits in Master's Thesis Submission: NEUR 699 (third term of studies)

Upon recommendation, depending upon their particular background and needs, students may be requested to take additional selected courses.

Any remaining credits needed to complete the minimum 45 credits required may be chosen from the following: Master's Thesis Research 1: NEUR 695 (3 credits); Master's Thesis Research 2: NEUR 696 (6 credits).

* Please note that all M.Sc. level students must register for a minimum of 12 credits a term during the first three terms of their Master's program.

Research requirements:

Presentation of a thesis in a subfield of neuroscience. The thesis must be based upon the research of the student. While not necessarily requiring an exhaustive review of work in a particular field, or a great deal of original scholarship, the thesis must show familiarity with previous work in the field and must demonstrate the ability of the candidate to carry out research and to organize results, all of which must be presented in good literary style. The Graduate Studies Committee expects the student's research should be of sufficient quality for publication in a peer-reviewed journal. A seminar on the thesis topic is given prior to writing the thesis, and each year, a report from the student's Advisory Committee is required by the graduate Studies Committee.

Residence requirements:

Three terms of full-time study.

PH.D. DEGREE

Course requirements:

Students with an M.Sc. degree continuing in this Department have no required courses. It may be recommended that they take specialty courses related to their field of study in neuroscience. Students with an M.Sc. degree from another program will be required to take NEUR 630 and NEUR 631 and/or other courses listed under the M.Sc. degree depending upon their background and field of study.

Students with an M.D. degree proceeding directly into a Ph.D. program will be required to take NEUR 630 and NEUR 631. Recently graduated M.D.s should have the equivalent of NEUR 610, and may be granted equivalence. They will also be required to take 6 credits of graduate level courses.

Doctoral Candidacy Examination (NEUR 700)

All students registering directly into the Ph.D. program on or after September 1998, regardless of prior degrees from McGill or any

other academic institutions, must complete the Doctoral Candidacy Examination within 18 months of initial registration in the Program. This is a qualifying examination consisting of a formal presentation and oral examination of the thesis proposal. The questioning will pertain to the student's knowledge and understanding of his/her field of specialization in neuroscience as well as the research proposal. Its primary purpose is to evaluate the student's ability to carry out original scholarship.

The Candidacy Examination will be conducted in conjunction with the Transfer seminar for all students currently registered in the M.Sc. program who apply for transfer to the Ph.D.

Research requirements:

Presentation of a thesis in a subfield of neuroscience. The thesis must display original scholarship expressed in satisfactory literary style and must be a distinct contribution to knowledge. After the thesis has been submitted to, and approved by the Graduate and Postdoctoral Studies Office, a final oral exam will be held on the subject of the thesis and subjects immediately related to it.

Residence requirements:

Three years of resident study of which one year may be completed in the Master's program.

54.6 Graduate Courses

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

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

- Denotes courses not offered in 2003-04.

NEUR 550 FREE RADICAL BIOMEDICINE. (3) (Prerequisite: BIOL 200, BIOL 201, BIOC 311, BIOC 312, PHGY 209, PHGY 210 or Permission of Instructor.) An interdisciplinary course on the biochemistry and cellular/molecular biology of free radicals, transition metals, oxidative stress and antioxidants and their roles in health and disease.

- **NEUR 602 NEUROSCIENCE SEMINAR 1.** (3) (Prerequisite: Permission of Unit Instructor) (Offered alternate years - even numbered years)

NEUR 603 NEUROSCIENCE SEMINAR 2. (3) (Offered alternate years - even numbered years) This course will focus on the neuronal excitability and synaptic communication in the central nervous system. Discussion of the molecular properties of the voltage- and ligand-gated ion channels that are the building blocks of cellular excitability. Examination of synaptic transmission and the mechanisms that underlie the changes in synaptic strength that are responsible for learning and memory. Discussion of the properties of neuronal networks that contribute to higher brain functions and pathological conditions like epilepsy. Each week, the class will meet for two 90 minute long sessions dedicated to a particular topic. The first session will be a general presentation by the instructor and the second session will be a student presentation on a specific paper or set of papers.

NEUR 604 NEUROSCIENCE SEMINAR 3. (3) (Offered alternate years - odd numbered years) (Prerequisites: NEUR 630, NEUR 631 or NEUR 610; and permission of instructor) (Enrolment limited to 12) Advanced seminars in neurobiology emphasizing current concepts of the molecular and cellular mechanisms underlying disease of the nervous system and muscle and how the study of disease has contributed to our understanding of cell biology. Topics: genetic mutations responsible for diseases, mechanisms of selective vulnerability of cell populations, and environmental influences.

- **NEUR 605 NEUROSCIENCE SEMINAR 4.** (3) (Offered alternate years - odd numbered years)

NEUR 610 CENTRAL NERVOUS SYSTEM. (5) An interdisciplinary course including lectures in neuroanatomy and neurophysiology;

laboratories in neuroanatomy, and clinical problems and demonstrations in neurology.

NEUR 630 PRINCIPLES OF NEUROSCIENCE 1. (3) (Prerequisites: BIOL 200 and BIOL 201 or equivalent; permission of instructor) An overview of cellular and molecular neuroscience at the graduate level. Topics include: synthesis, processing and intracellular transport of macromolecules; development of the nervous system including neurogenesis, axonal pathfinding, synaptogenesis and myelination; neuronal survival and response to injury; generation and propagation of action potentials; neurotransmitters and synaptic transmission.

NEUR 631 PRINCIPLES OF NEUROSCIENCE 2. (3) (Prerequisite: Permission of instructor; basic knowledge of mechanisms of neurotransmission and signal transduction.) An overview of the structure, function and interaction of neuronal systems of vertebrates. Topics include basic neuroanatomy, coding and processing of sensory information (somatic sensory, visual and auditory systems), control of posture and voluntary movement, learning and memory, processing of language and speech, cerebral blood flow, the neuroendocrine system and neuroimmunology.

NEUR 695 MASTER'S THESIS RESEARCH 1. (3) Independent work under the direction of the student's supervisor.

NEUR 696 MASTER'S THESIS RESEARCH 2. (6) Independent work under the direction of the student's supervisor.

NEUR 697 MASTER'S PROJECT PROPOSAL. (9) (M.Sc. students only) Presentation of a written thesis proposal by the end 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 Advisory Committee which will also review the written proposal and communicate its recommendations to the student and the Graduate Studies Committee.

NEUR 698 MASTER'S SEMINAR PRESENTATION. (9) Student's presentation of a thesis research seminar. In this seminar, the student shall explain the direction of his/her research and present his/her findings to date. The presentation shall take approximately 30 to 45 minutes and shall be followed by a question period. This seminar will be attended by the Graduate Studies Committee, the student's Advisory Committee, and interested observers.

NEUR 699 MASTER'S THESIS SUBMISSION. (12) Submission of a Master's thesis.

NEUR 700 DOCTORAL CANDIDACY EXAMINATION. (0) A qualifying examination consisting of a formal presentation and oral examination of the thesis proposal. The questioning will pertain to the student's knowledge and understanding of his/her field of specialization in neuroscience as well as the research proposal. Its primary purpose is to evaluate the student's ability to carry out original scholarship. (The Candidacy Examination course is also conducted as part of the Transfer seminar for all students currently registered in the M.Sc. program who apply for transfer to the Ph.D.)

COURSES IN OTHER DEPARTMENTS

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

Biology

BIOL 532 Developmental Neurobiology Seminar. (3)
BIOL 588 Molecular/Cellular Neurobiology. (3)

Dentistry

DENT 654 Mechanisms and Management of Pain. (3)

Physiology

PHGY 520 Ion Channels. (3)
PHGY 556 Topics in Systems Neuroscience. (3)

Psychiatry

PSYT 500 Advances: Neurobiology of Mental Disorders. (3)
PSYT 630 Statistics for Neurosciences. (3)

Psychology

PSYC 526 Advances in Visual Perception. (3)
PSYC 710 Comparative and Physiological Psychology. (3)

55 Nursing

School of Nursing
Wilson Hall
3506 University Street
Montreal, QC H3A 2A7
Canada

Telephone: (514) 398-4151
Fax: (514) 398-8455
E-mail: recruitment.nursing@mcgill.ca
Web site: www.nursing.mcgill.ca

Associate Dean of Medicine and Director — S.E. French

Associate Director of Research — C.C. Johnston

55.1 Staff

Emeritus Professor

Elizabeth C. Logan; N., B.Sc.(Acad.), M.Sc.(Yale)

Professors

Nancy Frasure-Smith; B.A., Ph.D.(Johns H.) (part-time)
Susan E. French; N., B.N.(McG.), M.S.(Boston), Ph.D.(Tor.)
Laurie N. Gottlieb; N., B.N., M.Sc.(A.), Ph.D.(McG.)
(*Shaw Professor of Nursing*)
C. Celeste Johnston; N., M.S.(Boston), B.N., D.Ed.(McG.) (*James McGill Professor*)

Associate Professors

Franco Carnevale; N., B.Sc.(N), M.Sc.(A.), M.Ed., M.Sc., Ph.D.(McG.)
Linda Edgar; N., B.N.Sc.(Queen's), M.Sc.(A), Ph.D.(McG.)
Hélène Ezer; N., B.Sc.(N), M.Sc.(A.)(McG.) (*on leave 2002-03*)
Omama Mansi; N., B.Sc.N.(Alexandria), M.Sc.(A.)(McG.)
Carolyn J. Pepler; N., B.N.Sc.(Queen's), M.Sc.N.(Wayne St.), Ph.D.(Mich.) (part-time)
Judith Ritchie; N., M.N., Ph.D.(Pitt.)

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.)
Anita J. Gagnon; N., B.Sc.N., M.P.H., Ph.D.(McG.)
Carmen G. Loiselle; N., B.Sc.(N.)(Montr.), M.S., Ph.D.(Wis.-Madison)
Margaret Purden; N., B.Sc.(N), Ph.D.(McG.)

Lecturers

Madeleine M. Buck; N., B.Sc.(N), M.Sc.(A.)(McG.)
Kathryn Carnaghan-Sherrard; N., B.N., M.Sc.(A.)(McG.)
Cindy Dalton; N., B.Sc.(N.), M.Sc.(A.)(McG.)
Nancy Feeley; N., B.Sc.(N.), M.Sc.(A.), Ph.D.(McG.)
Shari Patricia Gagné; N., B.Sc.N.(Ott.), M.Sc.(A.)(McG.)
Anne Gilchrist; N., B.Sc., M.Sc.(A.)(McG.)
Catherine P. Gros; N., B.Sc.(Mass.), M.Sc.(A.)(McG.) (part-time)

Associate Member

Robin Cohen

55.2 Programs Offered

Master's Programs

Two types of Master's degrees are offered: Master of Science (Applied) and Master of Science (with thesis). These programs are designed to prepare clinicians and researchers for the expanding function of nursing within the health care delivery system.

Master of Science (Applied)

The objective of this program is to prepare specialists in nursing able to participate in the development, implementation and management of services in all domains of health care. Opportunity is provided for the advanced clinical study of nursing, and for incor-

porating research and evaluation methods in the investigation of nursing problems.

Master of Science (with thesis) (not offered 2003-04).

Doctoral Studies in Nursing

The School of Nursing of McGill University and the Faculté des Sciences Infirmières of the Université de Montréal offer a joint doctorate program leading to a Ph.D. in Nursing. This program is offered in English at McGill.

The program is designed to train researchers who will make a contribution to the advancement of knowledge in the field of nursing and assume a leadership role both in the profession and in the health care system.

55.3 Admission Requirements

Master's Programs

Non-Canadian applicants shall normally be required to submit documented proof of competency in oral and written English, e.g., TOEFL (600 minimum on the paper-based test, 250 minimum on the computer-based test) or equivalent.

GRE (Graduate Record Examination) general test results may be required in individual circumstances.

Nurse applicants

Applicants for the Master's degree must have completed a bachelor's degree in nursing with a minimum GPA of 3.0 on a scale of 4.0. This preparation must be comparable to that offered in the bachelor's program at McGill. Experience in nursing is suggested. An introductory statistics course (3 credits) is required.

Nurses with a general B.Sc. or B.A. (comparable to the McGill undergraduate degrees) may be considered on an individual basis.

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 must obtain a special authorization for graduate nurse students from the Order of Nurses of Quebec.

Non-nurse applicants (direct entry Master's students)

Applicants holding a B.Sc. or B.A., which includes a number of prerequisite courses, may be admitted to a Qualifying Year. Upon successful completion of their studies, candidates may apply directly to the Master's program. (Persons prepared in another professional discipline or in nursing are not eligible for this program.) A minimum GPA of 3.0 on a scale of 4.0 is required for entry.

Ph.D. Program

Applicants admitted to the Doctoral program through McGill University must satisfy the following conditions:

1. hold a Master of Science in Nursing or equivalent;
2. GPA of 3.3 or high B standing;
3. demonstrated research ability;
4. be accepted by a faculty member who has agreed to serve as the thesis adviser;
5. submit a 5-page outline of proposed research including literature review and abbreviated methods sections;
6. submit letters of references from two professors who are familiar with the candidate's work and research aptitude;
7. submit a curriculum vitae;
8. submit two official copies of academic transcripts of undergraduate and graduate records;
9. be eligible to hold nursing registration in Quebec;
10. submit results of the Graduate Record Examination General Test, taken within the past 5 years.

55.4 Application Procedures

Application for admission to any of these programs is made on application forms available from the Graduate Program Office in the School of Nursing. Applications must be completed according to the instructions that accompany the forms.

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

Deadline for receipt of application for September admission is March 1 for International applicants; March 31 for Canadian applicants. All documents required for admission should be submitted by this deadline.

55.5 Program Requirements

MASTER'S PROGRAMS

The general rules concerning higher degrees apply. (See the Graduate and Postdoctoral Studies Office General Information and Regulations.) A minimum of two years of study is required for the Masters programs.

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.

Non-nurse applicants must complete their qualifying year and the Master's program of study on a full-time basis, i.e., total of three years.

M.Sc. (thesis) (50 credits) (not offered 2003-04)

M.Sc. (Applied)

(48 credits - nurse students; 52 credits - direct entry students)

First Year

(24 credits - nurse students; 28 credits - direct entry students)

Fall Term

| | | |
|------------|-----|--|
| NUR2 611D1 | (3) | Seminar in Nursing |
| NUR2 612 | (3) | Research Methods in Nursing 1 |
| NUR2 614D1 | (3) | Clinical Laboratory-Nursing 1 |
| NUR2 623 | (3) | Clinical Assessment and Therapeutics (direct entry students only) |

Winter Term

| | | |
|------------|-----|-------------------------------|
| NUR2 611D2 | (3) | Seminar in Nursing |
| NUR2 614D2 | (3) | Clinical Laboratory-Nursing 1 |
| NUR2 627 | (3) | Nursing Practicum |

Fall or Winter Term

one 3-credit Statistics course

and, nursing students only,

one 3-credit complementary course chosen in consultation with the advisor.

Summer Term

| | | |
|----------|-----|--|
| NUR2 616 | (4) | Advanced Clinical Skills (direct entry students only) |
|----------|-----|--|

Second Year (24 credits)

Fall Term

| | | |
|------------|-----|--|
| NUR2 620 | (2) | Current Theories of Nursing |
| NUR2 621D1 | (3) | Seminar in Nursing 2 |
| NUR2 624 | (4) | Clinical Laboratory in Nursing 2 |
| NUR2 626 | (3) | Current Developments in Nursing Education & Administration. |

Winter Term

| | | |
|------------|-----|----------------------------------|
| NUR2 615 | (3) | Health Care Evaluation |
| NUR2 621D2 | (3) | Seminar in Nursing 2 |
| NUR2 625 | (6) | Clinical Laboratory in Nursing 3 |

QUALIFYING YEAR (41 credits)

(non-nurse applicants entering with B.A. or B.Sc.)

Fall Term

| | | |
|------------|-----|--|
| NUR1 222 | (1) | McGill Model of Nursing |
| NUR2 511D1 | (3) | Practice of Nursing Part 1 |
| NUR2 514D1 | (5) | Clinical Laboratory in Nursing 2 complementary courses* |

Winter Term

NUR1 235 (4) Health and Physical Assessment
NUR2 511D2 (3) Practice of Nursing Part 1
NUR2 514D2 (5) Clinical Laboratory in Nursing
2 complementary courses*

Summer Term

NUR2 512 (8) Practice and Theory in Nursing

***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 on-line application to the Master's of Science (Applied) by the application deadline.

Ph.D. PROGRAM

Each student's program is designed with the research director and thesis supervisor, taking into account the student's previous academic preparation, needs and research interests. The requirements for the doctoral degree are:

1. A minimum of 18 credits beyond the Master's level. Courses and seminars in research design, issues of measurement, advanced nursing, development of theory in nursing, advanced statistics and complementary course(s) in the student's major field of study are compulsory. The student's program is decided in consultation with the faculty advisor.
2. Successful completion of the Ph.D. comprehensive examination.
3. Oral defense of the thesis proposal.
4. Dissertation and oral examination.
5. Two years of full-time residence. A student who has obtained a Master's degree at McGill University or at an approved institution elsewhere, and is proceeding in the same subject to a Ph.D. degree, may on the recommendation of the School, be registered in the second year of the Ph.D. program.

55.6 Courses

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

Details of the courses to be offered in the current year are also available from the School.

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.

- Denotes courses not offered in 2003-04.

QUALIFYING PROGRAM

NUR1 222 MCGILL MODEL OF NURSING. (1) This introductory course provides an overview of the history and the philosophical and theoretical tenets underlying the core concepts of the Model. Students are introduced to McGill's perspective on health, family, learning, and collaborative nursing through a study of selected theoretical and research papers.

NUR1 235 HEALTH AND PHYSICAL ASSESSMENT. (4) This course will develop basic knowledge and skills required to do a health history and to carry out basic physical assessment in infants, children, and adults.

NUR2 511D1 PRACTICE OF NURSING PART 1. (3) A study of selected concepts related to the practice of nursing including health, family, normative life transitions and interpersonal interaction. The major focus is on developing an understanding of human behaviour using the process of scientific inquiry. Special emphasis is placed on the observation of people in their physical and social environments and on the analysis of clinical data as the basis for the development of innovative nursing approaches.

NUR2 511D2 PRACTICE OF NURSING PART 1. (3)

NUR2 512 PRACTICE AND THEORY IN NURSING. (8) Learning to nurse patients in acute care settings, who are experiencing a variety of common illness-related problems.

NUR2 514D1 CLINICAL LABORATORY IN NURSING. (5) Learning to nurse through field experiences with individuals and families in the community and in acute care settings. The focus is on the application of knowledge and theory in practice and includes the testing and analysis of nursing approaches. Students work with clients and families experiencing a variety of life events including aging, birth and parenting as well as acute illness and hospitalization.

NUR2 514D2 CLINICAL LABORATORY IN NURSING. (5)

GRADUATE PROGRAM

NUR2 611D1 SEMINAR IN NURSING. (3) A critical study of selected concepts in nursing and health related to individuals and families. An introduction to the study of concepts and theories relevant to nursing.

NUR2 611D2 SEMINAR IN NURSING. (3)

NUR2 612 RESEARCH METHODS IN NURSING 1. (3) Basic knowledge and skills needed to conduct research. The philosophy and principles of scientific inquiry, research design, sampling, techniques of data collection, ethics, and incorporating research into practice are discussed with emphasis for nursing.

NUR2 614D1 CLINICAL LABORATORY - NURSING 1. (3) Field experience in nursing to test and develop concepts critical to the health of individuals and families. The examination of theories relevant to nursing practice in the clinical field.

NUR2 614D2 CLINICAL LABORATORY - NURSING 1. (3)

NUR2 615 HEALTH CARE EVALUATION. (3) An evaluation of educational and health care systems with particular reference to the nursing input in problems of health, health care and health care delivery. Evaluative research includes qualitative and quantitative approaches to assessing health status and quality of care.

NUR2 616 ADVANCED CLINICAL SKILLS. (4) Supervised clinical experiences in health care agencies are aimed at developing competence in technical and family nursing skills at an advanced level. Experience is determined on an individual basis according to learning needs and the student's area of interest.

NUR2 620 CURRENT THEORIES OF NURSING. (2) (Prerequisites: NUR2 611, NUR2 614 or equivalent) Current theories of nursing e.g. Orem, Roy, King, Rogers are examined along with their implications for practice, curriculum, administration, and research. The internal and external adequacy of these theories will be evaluated using selected schema. Critical analysis of issues and problems of theories in a practice discipline will be undertaken.

NUR2 621D1 SEMINAR IN NURSING 2. (3) An opportunity for investigation of some of the critical problems in nursing as related to the student's area of inquiry. Particular emphasis is placed on theory development in nursing.

NUR2 621D2 SEMINAR IN NURSING 2. (3)

NUR2 623 CLINICAL ASSESSMENT AND THERAPEUTICS. (3) (Prerequisites: PATH 300; PHGY 201, PHGY 202 or equivalent.) Development of skills in the medical-nursing assessment and management of patients and families dealing with chronic and life-threatening illnesses. Includes instruction in history-taking and physical assessment.

NUR2 624 CLINICAL LABORATORY IN NURSING 2. (4) Field experience in nursing, incorporating extensive assessment, experimentation and evaluation of differing nursing approaches.

NUR2 625 CLINICAL LABORATORY IN NURSING 3. (6) Field experience in nursing, incorporating extensive assessment, experimentation and evaluation of differing nursing approaches.

NUR2 626 CURRENT DEVELOPMENTS IN NURSING EDUCATION & ADMINISTRATION. (3) An examination of theories of learning and organizational behaviour as related to the preparation of nurses for the delivery of health care services. Implications of these theories for the assessment, development, and evaluation of nursing programs will be investigated.

NUR2 627 NURSING PRACTICUM. (3) Research, administrative or teaching projects in nursing are defined by interested faculty and developed with students. The goal is to promote and enhance scholarly activity and productivity. At completion, there should be some final product such as a manuscript, a data collection system set-up, or the synthesis of pilot data.

NUR2 701 COMPREHENSIVE EXAMINATION. (1)

NUR2 702 RESEARCH DESIGN. (3) The logic and procedures of both qualitative and quantitative research designs are examined with particular emphasis on their appropriateness for addressing nursing and health problems. Issues specific to the design of nursing and health care studies are explored. Included in the types of designs analyzed are: experimental and quasi-experimental, ethnographic, grounded theory and evaluative.

NUR2 703 ISSUES OF MEASUREMENT. (3) An examination of the underlying theories of measurement and techniques for assessing the validity and reliability of data collection instruments. Issues related to the development and/or utilization of instruments to measure target variables in nursing and health research are addressed.

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.

M.Sc. (Distance Education) program:

Telephone: (514) 398-6989

Fax: (514) 398-7153

E-mail: dist.occh@mcgill.ca

Web site: www.mcgill.ca/occh/programs/distance

Coordinator (M.Sc. Distance Education) — K. Murphy

56.1 Staff

Emeritus Professor

J.C. McDonald; M.D., B.S.(Lond.), M.Sc.(Harv.), F.R.C.P.(C)

Professors

R. Fuhrer; M.Sc., Ph.D.(U.C.S.F.)

C. Infante-Rivard; M.D.(Montr.), M.P.H.(UCLA), Ph.D.(McG.), F.R.C.P.(C) (*James McGill Professor*)

G. Thériault; M.D.(Laval), M.I.H., Dr. P.H.(Harv.)

Associate Professors

A. Dufresne; B.Sc., M.Sc.(Que.), Ph.D.(McG.)

P. Héroux; B.Sc.(Laval), M.Sc., Ph.D.(I.N.R.S.)

T. Kosatsky; M.D.(Man.), M.P.H.(Emory) (PT)

M. Rossignol; B.Sc., M.D.(Sher.), M.Sc.(McG.), F.R.C.P.(C)

Assistant Professors

S. Martin; B.A., M.D.(Tor.), M.Sc.A.(McG.) (PT)

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

Lecturers

G. Desbiens, P. Dubé, J.P. Gauvin

Associate Member

B. Case (*RVH-Pathology*)

Adjunct Professors

D. Amre (Hôpital Ste-Justine); I. Arnold (Alcan);

S. Arnold (Consultant); P. Auger (Montreal Chest Hospital);

M. Baillargeon (Montreal Chest Hospital); L. DeGuire, L. Drouin,

P. Robillard, S. Stock (Direction de la santé publique); A. Dembe

(U. of Massachusetts); D. Gautrin (Hôpital Sacré-Coeur); C. Martin

(U. of West Virginia); B. Pant (Concordia); G. Perrault, C.

Tremblay (Santé Publique-Montréal); W. Wood (Environmental Safety Office, McGill)

56.2 Programs Offered

The Department of Occupational Health offers two graduate degree programs: a doctorate (Ph.D.) and Master (M.Sc.A) in occupational health sciences. The Master's program is available on campus or in distance education format.

M.Sc. Applied Program (Full-time) (Resident) (on campus)

The objective of this program is to train and enable competent health and hygiene professionals to work in occupational health programs by evaluating the work environment and work hazards and by proposing appropriate methods of prevention and control.

M.Sc. Applied Program (Distance Education)

A three and one-half year program leading to the degree of Master of Science Applied in Occupational Health Sciences – M.Sc.(A). This program is also offered for professional interest, for details please contact the Coordinator.

Ph.D. Program

The objective of this program is to train independent researchers in the field of work environment and health.

56.3 Admission Requirements

Non-Canadian applicants whose mother tongue is not English and who have not completed an undergraduate degree using the English language are required to submit documented proof of competency in oral and written English, by appropriate exams e.g., TOEFL (Test of English as a Foreign Language) with a minimum score of 600, or 250 on the computerized test.

M.Sc. Applied Program (Full-time) (Resident) (on campus)

Candidates should have completed, with high academic standing, a bachelor of science degree or its equivalent in a discipline rele-

56 Occupational Health

Department of Occupational Health

Purvis Hall

1020 Pine Avenue West

Montreal, QC H3A 1A2

Canada

Web site: www.mcgill.ca/occh

Chair — R. Fuhrer

M.Sc. (Resident) and Ph.D. programs:

Telephone: (514) 398-4229

Fax: (514) 398-4503

E-mail: graduate.occh@mcgill.ca

Coordinator (M.Sc. Resident/Ph.D.) — S. Larivière

vant to occupational health or hygiene such as: chemistry, engineering, environmental sciences, physics; medicine, nursing and other health sciences with a standing equivalent to a minimum Cumulative Grade Point Average (CGPA) of 3.0 out of 4. High grades are expected in courses considered by the Department to be preparatory to the graduate program.

M.Sc. Applied Program (Distance Education)

Candidates must hold an M.D., a bachelor's degree in nursing, or a B.Sc. (any major). They must have maintained at least a 3.0 on 4.0 grade point average.

Those who hold a B.Sc. must be Industrial Hygienists with at least three years of experience in industrial hygiene and/or safety. In the case of medical doctors and nurses, priority will be given to candidates with two or more years of experience in occupational health.

Ph.D. Program

Candidates must hold a M.Sc. degree or its equivalent in occupational health sciences, or in a relevant discipline, such as: community health, environmental health, epidemiology, chemistry, engineering, physics, or health sciences (medicine, nursing, etc.).

56.4 Application Procedures

Application forms are available on-line at www.mcgill.ca/applying/graduate.

M.Sc. Applied Program (Full-time) (Resident) (on campus)

Candidates must submit with their application two official copies of their university transcripts, two letters of reference, a copy of their curriculum vitae and a letter describing their background (occupational health, occupational hygiene, worker safety, etc.) as well as a \$60(Cdn) application fee.

Eligible candidates may be invited for an interview with members of the Admissions Committee of the Department.

Applications are accepted for Fall term only.

M.Sc. Applied Program (Distance Education)

Candidates must submit with their application two official transcripts from their university of graduation, two letters of recommendation, a copy of their résumé, a letter describing their career plan, the reasons for their enrolment, and how they plan to accommodate their study time within their work schedule as well as a \$60(Cdn) application fee.

Ph.D. Program

Candidates must submit with their application two official copies of their university transcripts (undergraduate and graduate), two letters of reference (or completed special forms), a copy of their curriculum vitae and a letter describing their field of interest as well as a \$60(Cdn) application fee.

Candidates must also submit with their application an outline of their scientific interests, indicating the field and the topic of their proposed research. Each student will be assigned to one academic staff member of the Department, who will act as his/her supervisor, who will guide him/her in the preparation of a definite research protocol.

56.5 Program Requirements

It is highly recommended to have access to a computer and the Internet as some of the course material is most readily available by accessing the Web.

M.Sc. APPLIED PROGRAM (FULL-TIME) (RESIDENT) (ON CAMPUS)

Teaching is organized in eight 3-credit courses and one 6-credit course totalling 30 credits. Promotion to the following term is dependent upon passing grade. A comprehensive examination is held at the end of the course program.

After successfully completing the course requirements and passing the comprehensive examination, students must carry out

an extended project (15 credits). The project requires students to identify an issue in their area of specialization, to review the present state of knowledge relevant to that issue, and either to carry out a survey to assess a particular work situation and make recommendations, or to devise a research protocol to extend knowledge in the area and to carry out a preliminary study to assess the feasibility of the protocol proposed.

Normally, students extend the duration of their project into the Fall term by registering for an additional session.

Required Courses (30 credits)

| | | |
|------------|-----|-------------------------------------|
| OCCH 602 | (3) | Occupational Health Practice |
| OCCH 603 | (3) | Work and Environment Epidemiology 1 |
| OCCH 604 | (3) | Monitoring Occupational Environment |
| OCCH 605D1 | (3) | Physical Health Hazards |
| OCCH 605D2 | (3) | Physical Health Hazards |
| OCCH 608 | (3) | Biological and Chemical Hazards |
| OCCH 612 | (3) | Principles of Toxicology |
| OCCH 614 | (3) | Topics in Occupational Health |
| OCCH 615 | (3) | Occupational Safety Practice |
| OCCH 616 | (3) | Occupational Hygiene |
| OCCH 600 | | Comprehensive Examination |

Project Component – Required (15 credits)

| | | |
|----------|------|--|
| OCCH 699 | (15) | Project Occupational Health and Safety |
|----------|------|--|

M.SC. APPLIED PROGRAM (DISTANCE EDUCATION)

The Master distance education program takes three and one-half years to complete.

The first part (3 years) 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.

On-campus Practicums may be held at the discretion of each professor. These sessions are held in Montreal on the McGill University Campus. Their aim is to offer students additional specific learning activities. Each course has a final examination at the end of the term. Participation in the practica is an essential component of the program.

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

| | | |
|----------|-----|--|
| OCCH 602 | (3) | Occupational Health Practice |
| OCCH 603 | (3) | Work and Environment Epidemiology 1 |
| OCCH 604 | (3) | Monitoring Occupational Environment |
| OCCH 608 | (3) | Biological and Chemical Hazards |
| OCCH 612 | (3) | Principles of Toxicology |
| OCCH 615 | (3) | Occupational Safety Practice |
| OCCH 616 | (3) | Occupational Hygiene |
| OCCH 617 | (3) | Occupational Diseases |
| OCCH 624 | (3) | Social and Behavioural Aspects - Occupational Health |
| OCCH 625 | (3) | Work and Environment Epidemiology 2 |
| OCCH 626 | (3) | Basics: Physical Health Hazards |
| OCCH 627 | (3) | Work Physiology and Ergonomics |
| OCCH 630 | (3) | Occupational Disease for OHNS |
| OCCH 635 | (3) | Environmental Risks to Health |
| OCCH 600 | | Comprehensive Examination |

Each course has a final examination at the end of the term. Students must obtain at least B- (65%) in each course in the program. Students who fail one course will be invited to withdraw from the program. Special circumstances can be examined.

Project Component – Required (15 credits)

| | | |
|----------|------|--|
| OCCH 699 | (15) | Project Occupational Health and Safety |
|----------|------|--|

PH.D. PROGRAM

Three years of resident study are required for this program.

Students are required to take course OCCH 706 Occupational Health and Hygiene Seminars (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 within 18 months of registration.

A thesis committee will be established to ensure proper supervision and coverage of the different fields of expertise as required.

56.6 Courses

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

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

□ Denotes limited enrolment

● Denotes courses not offered in 2003-04.

OCCH 600 COMPREHENSIVE EXAMINATION. (0)

□ **OCCH 602 OCCUPATIONAL HEALTH PRACTICE. (3)** This course analyzes the functions, structure and organization of occupational health programs and services.

□ **OCCH 603 WORK AND ENVIRONMENT EPIDEMIOLOGY 1. (3)** This course provides students with basic knowledge of epidemiology and statistics as applied to occupational health.

OCCH 604 MONITORING OCCUPATIONAL ENVIRONMENT. (3) Principles and practices of environmental and biological monitoring of workplace hazards are addressed. Familiarization with instrumentation and calibration procedures is undertaken. Students learn to identify workplace health hazards, develop effective sampling strategies, use industrial hygiene equipment and interpret results of exposure measurements.

OCCH 605D1 PHYSICAL HEALTH HAZARDS. (3) (Students must also register for OCCH 605D2) (No credit will be given for this course unless both OCCH 605D1 and OCCH 605D2 are successfully completed in consecutive terms) Properties, mechanisms of action and health effects of physical agents in the workplace and in the general environment: electromagnetic risks, noise and vibration, ionizing radiation, ventilation and thermal environment. Administrative, engineering and medical control methods, exposure standards and safety measures for these agents.

OCCH 605D2 PHYSICAL HEALTH HAZARDS. (3) (Prerequisite: OCCH 605D1) (No credit will be given for this course unless both OCCH 605D1 and OCCH 605D2 are successfully completed in consecutive terms)

□ **OCCH 608 BIOLOGICAL AND CHEMICAL HAZARDS. (3)** This course will acquaint the student with the physical, chemical, and toxicological properties of common industrial products, important industrial processes and their associated health and safety hazards and the control measures.

□ **OCCH 612 PRINCIPLES OF TOXICOLOGY. (3)** Selected topics, including acute, subacute and chronic toxicity assessment, pharmacokinetics and pharmacodynamics, mutagenicity, carcinogenicity and teratogenicity.

● **OCCH 614 TOPICS IN OCCUPATIONAL HEALTH. (3)**

□ **OCCH 615 OCCUPATIONAL SAFETY PRACTICE. (3)** Principles of safety and loss prevention; incident investigations and analyses, occupational safety management tools; loss recognition; safety standards, guidelines and legislation. Selected topics include: fire prevention; workshop, tool and machine safety; fall protection; laboratory safety; confined space entry; safe work permit systems; and materials handling.

□ **OCCH 616 OCCUPATIONAL HYGIENE. (3)** An introduction to the principles and practices of industrial hygiene designed to provide the students with the knowledge required to identify health and safety hazards in the workplace.

OCCH 617 OCCUPATIONAL DISEASES. (3) Review of occupational health problems structured around target organs: respiratory, musculo-skeletal, skin, cardiovascular, mental disorders and aggressive agents: trauma, physical agents, solvents and metals and infectious agents. Also covered are occupational cancer, conditions associated with hypo- and hyperbaric environments, mutagenicity, teratogenicity and reproduction disorders, pre-employment, period examination and medical activities in the workplace.

OCCH 624 SOCIAL AND BEHAVIOURAL ASPECTS - OCCUPATIONAL HEALTH. (3) This course explores the social science of occupational health practice, and describes influences on that practice of recent political, social and economic changes in the workforce and at the workplace; the theory of health promotion; management skills; and evaluation methods.

OCCH 625 WORK AND ENVIRONMENT EPIDEMIOLOGY 2. (3) Combined with OCCH 608 to prepare students to evaluate the relations between exposure to workplace contaminants and health. The course involves the multidisciplinary analysis of four problems: Work-related cancer; Musculo-skeletal problems; Biological hazards; Chemical intoxication.

OCCH 626 BASICS: PHYSICAL HEALTH HAZARDS. (3) Properties, mechanisms of action and health effects of physical agents in the workplace: thermal environment, noise and vibration, electromagnetism and ionizing radiation. Engineering control methods, exposure standards and safety measures for physical agents. Basics of monitoring workers for health impacts. Control of airborne contaminants using ventilation-based dilution methods.

OCCH 627 WORK PHYSIOLOGY AND ERGONOMICS. (3) Provide students with basic knowledge of physiological and psychological work requirements, ergonomic approach to work-related health problems and application of this type of approach to preventive and corrective measures.

OCCH 630 OCCUPATIONAL DISEASES FOR OHNS. (3) Designed to meet independent and specific needs of occupational health nurses, it examines potential pathologies in the workplace, and subsequent disease outcomes. Focus is on an evidence-based approach to assessment, nursing diagnosis, appropriate interventions in the identification, management of occupational diseases. Worker screening strategies and disease prevention activities are introduced.

● **OCCH 635 ENVIRONMENTAL RISKS TO HEALTH. (3)**

OCCH 699 PROJECT OCCUPATIONAL HEALTH AND SAFETY. (15) Under supervision, the student will identify an issue relevant to occupational health and report on work accomplished (i) to review the present state of knowledge and (ii) to conduct a survey and make recommendations or to devise a study proposal and to carry out a preliminary feasibility study.

May be offered as: OCCH 699D1 and OCCH 699D2.

PH.D. COURSES

OCCH 700 COMPREHENSIVE EXAMINATION. (0)

● **OCCH 706 PH.D SEMINAR ON OCCUPATIONAL HEALTH AND HYGIENE. (2)**

OCCH 706D1 PH.D SEMINAR ON OCCUPATIONAL HEALTH AND HYGIENE. (1) (Students must also register for OCCH 706D2) (No credit will be given for this course unless both OCCH 706D1 and OCCH 706D2 are successfully completed in consecutive terms) (OCCH 706D1 and OCCH 706D2 together are equivalent to OCCH 706) A critical appraisal of the occupational health sciences literature which addresses issues in hygiene, safety, epidemiology and toxicology. Students will develop a critical sense of the literature and increase their understanding of different research paradigms.

OCCH 706D2 PH.D SEMINAR ON OCCUPATIONAL HEALTH AND HYGIENE. (1) (Prerequisite: OCCH 706D1) (No credit will be given for this course unless both OCCH 706D1 and OCCH 706D2 are successfully completed in consecutive terms) (OCCH 706D1 and OCCH 706D2 together are equivalent to OCCH 706) See OCCH 706D1 for course description.

M.SC.(A) APPLIED PROGRAM (RESIDENT) COURSES

Students with a strong interest in ergonomics could take course OCCH 627 Work Physiology and Ergonomics given in the Distance Education program as an additional course. This is not a required course for the resident program students and will not exempt students from taking all the required courses in the resident program.

Those with a strong interest in risk assessment are invited to take the summer course EPIB 668 Special Topics 1. This is not a required course and will not exempt the resident program or distance education program students from taking all the required courses in their respective programs. For more information on this course, please contact the Summer Program Office at tel: (514) 398-3973 or e-mail: summer.epid@mcgill.ca or refer to their Web site: www.mcgill.ca/epi-biostat.

57 Otolaryngology

Department of Otolaryngology
Montreal Children's Hospital
2300 Tupper Street
Montreal, QC H3H 1P3
Canada

Telephone: (514) 934-4344
Fax: (514) 934-4342
Web site: www.mcgill.ca/ent

Chair — M.D. Schloss

57.1 Staff

Emeritus Professor

J.D. Baxter; M.D.,C.M., M.Sc.(McG.), F.R.C.S.(C)

Professors

S. Frenkiel; B.Sc., M.D.,C.M.(McG.), F.R.C.S.(C)
A. Katsarkas; M.D.(Thess.), M.Sc.(Otol.), F.R.C.S.(C)
M.D. Schloss; M.D.(Br.Col.), F.R.C.S.(C)
T.L. Tewfik; M.D.(Alex.), F.R.C.S.(C)

Associate Professors

M.J. Black; M.D.,C.M.(McG.), F.R.C.S.(C)
N. Fanous; M.B., BCH.(Cairo), F.R.C.S.(C)
W.R.J. Funnell; B.Eng., M.Eng., Ph.D.(McG.)
J. Manoukian; M.B., Ch.B.(Alex.), F.R.C.S.(C)
W.H. Novick; M.D.(Queen's), F.R.C.S.(C)
B. Segal; B.Sc., B.Eng., M.Eng., Ph.D.(McG.)
R.S. Shapiro; M.D., C.M.(McG.), F.R.C.S.(C)

Assistant Professors

F. Chagnon; M.D.C.M.(McG.), F.R.C.S.(C)
I. Fried; M.D.(Dal.), F.R.C.S.(C)
M. Hier; M.D.,C.M.(McG.), F.R.C.S.(C)
K. Kost; M.D., C.M.(McG.), F.R.C.S.(C)
R. Lafleur; M.D.(Ott.), F.R.C.S.(C)
M.-L. Lessard; M.D.(Laval), F.R.C.S.(C)
J. Rappaport; M.D.(Dal.), F.R.C.S.(C)
L. Rochon; M.D.(Sher.), F.R.C.P.(C)
M. Samaha; M.D.(Queen's), F.R.C.S.(C)
G. Sejean; M.D.(Beirut), F.R.C.S.(C)
R. Sweet; M.D.,C.M.(McG.)
L. Tarantino; M.D.(Naples), F.R.C.S.(C)
A.G. Zeitouni; M.D.(Sher.), M.Sc.(Otol.), F.R.C.S.(C)

Lecturers

A. Finesilver; M.D.,C.M.(McG.), F.R.C.S.(C)

J. Rothstein; M.D.,C.M.(McG.), F.R.C.S.(C)

Adjunct Professors

M. Desrosiers, J.-J. Dufour

57.2 Program Offered

The Master of Science degree in Otolaryngology trains otolaryngologists for clinical or basic-science research in Otolaryngology.

57.3 Admission Requirements

Admission to the M.Sc. program requires acceptance by a research supervisor, and the proposed program must be approved by the Departmental Research Committee.

All applicants must be otolaryngologists or they should be currently enrolled in a residency program leading to certification in Otolaryngology.

57.4 Application Procedures

Applications require the following documentation:

1. completed application form and personal statement form;
2. letters of reference from two professors;
3. two official copies of academic transcripts;
4. application fee: \$60;
5. results of Test of English as a Foreign Language (TOEFL) (minimum of 550 on the paper-based test or 213 on the computer-based test) if undergraduate and medical training were carried out in a language other than English or French.

Prospective students should contact research supervisors individually.

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

57.5 Program Requirements

The M.Sc. program comprises a minimum of 45 credits as follows:

Required Courses (12 credits)

- OTOL 602 (3) Physiology, Histopathology and Clinical Otolaryngology 1
OTOL 612 (3) Physiology, Histopathology and Clinical Otolaryngology 2
OTOL 603 (3) Advanced Scientific Principles of Otolaryngology 1
OTOL 613 (3) Advanced Scientific Principles of Otolaryngology 2

Complementary Course (3 credits)

- EPIB 607 (3) Principles of Inferential Statistics in Medicine or equivalent

Thesis Component – Required (30 credits)

- OTOL 690 (3) Thesis 1
OTOL 691 (3) Thesis 2
OTOL 692 (6) Thesis 3
OTOL 693 (6) Thesis 4
OTOL 694 (12) Thesis 5

When appropriate, courses OTOL 602, OTOL 612, OTOL 603 or OTOL 613 may be replaced by other basic-science or clinical (500-level or higher) courses of relevance to Otolaryngology, as recommended or approved by the Department.

Students aiming to acquire an interdisciplinary background will be expected to take additional elective courses, at the undergraduate level if necessary.

57.6 Graduate Courses

Students preparing to register should consult the Web at www.mcgill.ca/minerva (click on Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to

press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.

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

OTOL 602 PHYSIOLOGY, HISTOPATHOLOGY AND CLINICAL OTOLARYNGOLOGY 1. (3) (6 hours/week) University and hospital rounds and seminars presenting various topics in Clinical Otolaryngology.

OTOL 603 ADVANCED SCIENTIFIC PRINCIPLES - OTOLARYNGOLOGY 1. (3) (1.5 hours/week) Lectures in advanced basic-science topics of relevance to the otolaryngologist.

OTOL 612 PHYSIOLOGY, HISTOPATHOLOGY AND CLINICAL OTOLARYNGOLOGY 2. (3) (6 hours/week) University and hospital rounds and seminars presenting various additional topics in Clinical Otolaryngology.

OTOL 613 ADVANCED SCIENTIFIC PRINCIPLES - OTOLARYNGOLOGY 2. (3) (1.5 hours/week) Lectures in additional basic-science topics of relevance to the otolaryngologist.

OTOL 690 M.Sc. THESIS 1. (3) A literature search and research proposal under supervision of the research supervisor that leads to a written proposal.

OTOL 691 M.Sc. THESIS 2. (3) Supervised training and research in connection with the Master's thesis.

OTOL 692 M.Sc. THESIS 3. (6) Independent research in connection with the Master's thesis.

OTOL 693 M.Sc. THESIS 4. (6) A seminar and written report to be presented to an ad hoc committee describing appropriate progress at the end of the first year of training.

OTOL 694 M.Sc. THESIS 5. (12) Independent study in connection with the Master's thesis. Presentation of results at a departmental seminar, or at a scientific meeting. Completion and final acceptance of the M.Sc. Thesis by the Department and the Graduate and Postdoctoral Studies Office.

58 Parasitology

Institute of Parasitology
Macdonald Campus
21,111 Lakeshore Road
Sainte-Anne-de-Bellevue, QC H9X 3V9
Canada

Telephone: (514) 398-7722

Fax: (514) 398-7857

E-mail: pargrsec@po-box.mcgill.ca

Web site: www.mcgill.ca/parasitology

Director — T.W. Spithill

58.1 Staff

Professors

Gaétan M. Faubert; B.Sc.(Sher.), M.Sc.(Montr.), Ph.D.(McG.)

Roger Prichard; B.Sc., Ph.D.(N.S.W.) (*CP Professor of Biotechnology*) (*James McGill Professor*)

Terence W. Spithill; B.Sc., Ph.D.(Monash) *Canada Research Chair in Immunoparasitology*

Associate Professors

Robin N. Beech; B.Sc.(Nott.), Ph.D.(Edin.)

Kris Chadee; B.Sc.(Winn.), M.Sc.(Man.), Ph.D.(McG.)

Elias Georges; B.Sc., Ph.D.(McG.)

Paula Ribeiro; B.Sc., Ph.D.(York)

Marilyn E. Scott; B.Sc.(U.N.B.), Ph.D.(McG.)

Assistant Professor

Armando Jardim; B.Sc., Ph.D.(Vic. B.C.)

Lecturer

James M. Smith, B.Sc.(N.E. London Polytechnic), Ph.D.(McG.)

Associate Members

Mark A. Curtis (*Natural Resource Sciences, Wildlife Biology*);

Gregory J. Matlashewski (*Medicine, Microbiology and Immunology*);

Manfred E. Rau (*Natural Resource Sciences, Entomology*);

Mary Stevenson (*Medicine, Experimental Medicine*);

Brian Ward (*Medicine, Experimental Medicine*)

58.2 Programs Offered

M.Sc. and Ph.D. degrees in Parasitology, and Graduate Certificate in Biotechnology.

The Institute of Parasitology teaches and researches the phenomenon of parasitism of man and livestock. Current research involvement includes the biology, biochemistry, pharmacology, control, ecology, epidemiology, immunology, molecular biology, neurobiology, and population and molecular genetics of parasitic organisms, viruses and cancer cells.

The Institute is housed in its own building adjacent to the Macdonald Campus Library, and has well equipped laboratories. The Institute has its own animal rooms and has access to large animal facilities at Macdonald farm. The Institute is affiliated to the McGill Centre for Tropical Diseases at the Montreal General Hospital.

Staff at the Institute of Parasitology also coordinate a 15-credit Graduate Certificate in Biotechnology.

58.3 Admission Requirements

Candidates for either the M.Sc. or the Ph.D. degree should possess a Bachelor's degree in the biological or medical sciences with a minimum cumulative grade point average of 3.2/4.0 (second class-upper division). High grades are expected in courses considered by the academic unit to be preparatory to the graduate program. Previous experience in parasitology is not essential.

Candidates for the Graduate Certificate in Biotechnology must possess a Bachelor's degree in Biological Sciences or equivalent with a minimum cumulative grade point average of 3.0/4.0 or 3.2/4.0 GPA in the last two full-time years of university study and prerequisites or equivalents. Prerequisites or equivalents: Students are required to have sufficient background in Biochemistry, Cellular Biology and Molecular Biology, equivalent to at least a 200-level course (300-level course for Molecular Biology) at McGill University.

58.4 Application Procedures

Applicants for graduate studies through academic units in the Faculty of Agricultural and Environmental Sciences must forward supporting documents to:

Student Affairs Office (Graduate Studies)

Macdonald Campus of McGill University

21,111 Lakeshore

Sainte-Anne-de-Bellevue, QC H9X 3V9

Canada

Telephone: (514) 398-7925

Fax: (514) 398-7968

E-mail: grad@macdonald.mcgill.ca

Applications will be considered upon receipt of a completed application form, \$60 application fee, all official transcripts, two signed original letters of reference on official letterhead of originating institution, and (if required) proof of competency in oral and written English by appropriate exams. DOCUMENTS SUBMITTED WILL NOT BE RETURNED.

Deadlines – Applications, including all supporting documents must reach the Student Affairs Office no later than June 1 (March 1 for International) for the *Fall Term (September)*; October 15 (July 1 for International) for the *Winter Term (January)*; February 15 (November 1 for International) for the *Summer Term (May)*. It may be necessary to delay review of the

applicant's file until the following admittance period if application materials including supporting documents are received after these dates. International applicants are advised to apply well in advance of the deadline because immigration procedures may be lengthy. Applicants are encouraged to make use of the on-line application form available on the Web at www.mcgill.ca/applying/graduate

Application Fee (non-refundable) – A fee of \$60 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: on-line 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.

Transcripts – Two official copies of all 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 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) 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, are required. It is the applicant's responsibility to arrange for these letters to be sent.

Competency in English – Non-Canadian applicants whose mother tongue is not English and who have not completed an undergraduate degree using the English language are required to submit documented proof of competency in oral and written English, by appropriate exams, e.g., TOEFL (minimum score 550 on the paper-based test, 213 on the computer-based test) or 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.

Financial aid is very limited and highly competitive. It is suggested that students give serious consideration to their financial planning before submitting an application.

Acceptance to all programs depends on a staff member agreeing to serve as the student's supervisor and the student obtaining financial support. Normally, a student will not be accepted unless adequate financial support can be provided by the student and/or the student's supervisor. Academic units cannot guarantee financial support via teaching assistantships or other funds.

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 Graduate and Postdoctoral Studies Office minimum CGPA of 3.0/4.0. The course(s) to

be taken in a *Qualifying Program* will be prescribed by the academic unit concerned. *Qualifying students* are registered in graduate studies, **but not as candidates for a degree**. Only one qualifying year is permitted. **Successful completion of a qualifying program does not guarantee admission to a degree program.**

58.5 Program Requirements

M.Sc. Degree

Candidates are required to write a research proposal in the second term of their registration to fulfill the requirements of PARA 600. While in the Institute, all students are required to register and participate in the seminar courses PARA 606 and PARA 607. Seminar speakers include students, professors and invited guests. Although emphasis in the graduate program is on research, satisfactory completion of two compulsory 3-credit graduate courses (PARA 635 and PARA 655) is required in the first year of study. Other course work in related subjects may be required, depending upon the candidates' background and research orientation. In total, a minimum of 14 credits of course work is required and a thesis (courses PARA 687, PARA 688, PARA 689). The minimum requirement of the M.Sc. degree is 46 credits.

Ph.D. Degree

In the first year of the doctoral program, the candidates must successfully complete a written thesis proposal and make an oral presentation on their proposed research to fulfill PARA 700. Satisfactory completion of graduate courses PARA 635 and PARA 655 is required. While in the Institute, all students are required to participate in the seminar courses (PARA 710 and PARA 711).

Graduate Certificate in Biotechnology

For the Graduate Certificate in Biotechnology, students are required to complete 15 credits of courses offered within the Faculties of Agricultural and Environmental Sciences, Medicine, and Science.

Required Courses (10 credits)

| | | |
|----------|-----|----------------------------------|
| BIOT 505 | (3) | Selected Topics in Biotechnology |
| BTEC 620 | (4) | Biotechnology Laboratory 1 |
| BTEC 621 | (3) | Biotechnology Management |

Complementary Courses (6 credits)

Two courses chosen from the following:

General Topics

| | | |
|----------|-----|---|
| ANSC 622 | (3) | Selected Topics in Molecular Biology |
| BIOL 468 | (3) | Topics in Human Genome |
| BIOL 524 | (3) | Topics in Molecular Biology |
| BIOL 551 | (3) | Molecular Biology: Cell Cycle |
| BTEC 501 | (3) | Bioinformatics |
| BTEC 691 | (3) | Biotechnology Practicum |
| EXMD 511 | (3) | Joint Venturing with Industry |
| EXMD 602 | (3) | Techniques in Molecular Genetics |
| EXMD 610 | (3) | Biochemical Methods in Medical Research |

Health

| | | |
|----------|-----|----------------------------|
| MIMM 466 | (3) | Viral Pathogenesis |
| PARA 635 | (3) | Cell Biology and Infection |
| PHGY 518 | (3) | Artificial Cells |

Environment and Food

| | | |
|----------|-----|-------------------------------------|
| ABEN 530 | (3) | Fermentation Engineering |
| CELL 500 | (3) | Techniques Plant Molecular Genetics |
| FDSC 535 | (3) | Food Biotechnology |
| PLNT 600 | (3) | Plant-Microbe Interactions |

58.6 Courses

Students preparing to register should consult the Web at www.mcgill.ca/minerva (click on Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to

press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.

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

- ◆ Departmental approval required for registration.
- Denotes courses not offered in 2003-04.

The following advanced undergraduate courses are available for graduate students in Parasitology.

AEBI 202 CELLULAR BIOLOGY. (3) (Winter) (3 hours of lectures per week) Organization and function of intercellular organelles in eukaryotic cells. Protein synthesis and control of protein transport within the cell. Cell division and DNA replication. Energy metabolism and electron transport. Signal transduction and transmembrane signalling. Differentiation of cells and cancer. Function and components of the immune system.

AEMA 306 MATHEMATICAL METHODS IN ECOLOGY. (3) (3 hours of lectures per week) (Prerequisite: AEBI 205 or permission. Corequisite: AEMA 310 or permission) An introduction to mathematical and graphical tools for use in ecology. Representation and interpretation of data and associated statistics in graphs and tables; theoretical modelling in plant and animal ecology, including difference and differential equation models. Introduction to stability analysis and probability theory. Emphasis is placed on graphical techniques.

FDSC 211 BIOCHEMISTRY 1. (3) (Fall) (3 lectures) (Corequisite: FDSC 230) Biochemistry of carbohydrates, lipids, proteins, nucleic acids; enzymes and coenzymes. Introduction to intermediary metabolism.

PARA 400 EUKARYOTIC CELLS AND VIRUSES. (3) (4 hours of lectures per week) (Prerequisite: CELL 204) The basic principles of molecular biology and the underlying molecular basis for various methodologies in molecular biology are covered. The molecular genetic basis for viral infections and tumorigenesis will be covered as examples of the use of molecular genetic approaches to address biological problems.

PARA 410 ENVIRONMENT AND INFECTION. (3) (2 lectures per week) (Prerequisite: BIOL 111 or AEBI 120 or equivalent) Infectious pathogens of humans and animals and their impact on the global environment are considered. The central tenet is that infectious pathogens are environmental risk factors. The course considers their impact on the human condition and juxtaposes the impact of control and treatment measures and environmental change.

PARA 438 IMMUNOLOGY. (3) (2 lectures per week) (Prerequisite: AEBI 202 or permission of instructor) An in-depth analysis of the principles of cellular and molecular immunology. The emphasis of the course is on host defense against infection and on diseases caused by abnormal immune responses.

WILD 410 WILDLIFE ECOLOGY. (3) (Winter) (3 hours of lectures per week) (Prerequisite: AEBI 205 or permission) Ecological processes and theories in animal populations. Interrelationships among biological processes, biotic and abiotic factors, and life history strategies. Topics include population dynamics, optimization strategies, predation, habitat selection, risks and decision making, and social behaviour. Application of problem-solving approach to wildlife ecology through individual and group work.

Courses for Higher Degrees

BIOT 505 SELECTED TOPICS IN BIOTECHNOLOGY. (3) (Fall) Current methods and recent advances in biological, medical, agricultural and engineering aspects of biotechnology will be described and discussed. An extensive reading list will complement the lecture material.

◆ **BTEC 501 BIOINFORMATICS.** (3) (2 lectures and 1 laboratory per week) This course introduces the application of computer software for analysis of biological sequence information. An emphasis is placed on the biological theory behind analytical techniques, the algorithms used and methods of developing a statistical framework for various types of analysis.

BTEC 502 BIOTECHNOLOGY ETHICS AND SOCIETY. (3) Examination of particular social and ethical challenges posed by modern biotechnology such as benefit sharing, informed consent in the research setting, access to medical care worldwide, environmental safety and biodiversity and the ethical challenges posed by patenting life.

BTEC 620 BIOTECHNOLOGY LABORATORY 1. (4) (one 8-hour lab per week) Practical training in contemporary methods of molecular and cellular biology. Intended for students with background in molecular biology, biochemistry, or a related area, who are already familiar with theoretical principles of recombinant DNA technologies. Topics include: polymerase chain reaction (PCR), methods for gene cloning and mutagenesis, eukaryotic and prokaryotic gene expression systems, protein purification and methods of eukaryotic cell culture.

BTEC 621 BIOTECHNOLOGY MANAGEMENT. (3) (one 3-hour lecture per week) Topics relevant to the management of research in industry are presented by experts working in industry. This course highlights the differences existing between research done in an academic environment and research done within industry.

BTEC 691D1 BIOTECHNOLOGY PRACTICUM. (1.5) (Prerequisite: BTEC 620) (Students must also register for BTEC 691D2) (No credit will be given for this course unless both BTEC 691D1 and BTEC 691D2 are successfully completed in consecutive terms) (BTEC 691D1 and BTEC 691D2 together are equivalent to BTEC 691) The cooperating employer and the instructor (or designate) will develop an individualized practicum experience program of at least 12 weeks duration for each student.

BTEC 691D2 BIOTECHNOLOGY PRACTICUM. (1.5) (Prerequisite: BTEC 691D1)

PARA 600 THESIS PROPOSAL FOR M.Sc. (4) Comprises a written document outlining the proposed research objectives.

May be offered as: PARA 600D1 and PARA 600D2.

PARA 606 PARASITOLOGY SEMINAR. (2) A seminar series in which students present seminars covering topics in parasitology, in areas relevant to their research interests. Students register for the course in their second term of residency. Attendance and participation are compulsory for M.Sc. students.

PARA 607 PARASITOLOGY RESEARCH SEMINAR. (2) This is a required course for M.Sc. students. A seminar course in which students registered at the Institute of Parasitology present seminars on the results of their thesis research. Students register for the course in the final term prior to thesis submission.

PARA 635 CELL BIOLOGY AND INFECTION. (3) (Prerequisite: students with some background in molecular biology) Research articles will be the primary source of information. This course will cover new principles in cell biology. In particular, the mechanisms by which gene expression is regulated through signal transduction pathways initiated at the cell surface will be presented.

PARA 655 HOST-PARASITE INTERACTIONS. (3) Lectures, tutorials and laboratory demonstrations of the principal factors which affect levels of parasite infection and treatment of infections in humans and animals. The integration and management of the host-parasite relationship in terms of transmission, population dynamics, environmental management, behaviour, immune responses, pathology, and pharmacology to decrease parasitic disease.

● **PARA 665 SPECIAL TOPICS IN PARASITOLOGY.** (3)

PARA 687 THESIS RESEARCH 1. (10)

PARA 688 THESIS RESEARCH 2. (10)

PARA 689 THESIS RESEARCH 3. (12)

PARA 700 THESIS PROPOSAL FOR PH.D. (0) Comprises a written document outlining the proposed research objectives.

May be offered as: PARA 700D1 and PARA 700D2.

PARA 710 PARASITOLOGY PH.D. SEMINAR 1. (2) This first seminar is a review of the scientific literature in the topic area of the thesis research.

PARA 711 PARASITOLOGY PH.D. SEMINAR 2. (2) A seminar series in which students present seminars covering topics in parasitol-

ogy in areas relevant to their research interests. Attendance and participation are compulsory.

59 Pathology

Department of Pathology
Duff Medical Building
3775 University Street
Montreal, QC H3A 2B4
Canada

Telephone: (514) 398-7192 Ext. 00481 or 00494

Fax: (514) 398-7446

E-mail: gradstudies.pathology@mcgill.ca

Web site: www.mcgill.ca/pathology

Chair — C.C. Compton

Director of Graduate Program — E. Zorychta

59.1 Staff

Professors

M.N. Burnier Jr.; M.D., M.Sc., Ph.D.(Brazil)
C.C. Compton; B.A. M.D., Ph.D.(Harv.)
A.M.V. Duncan; B.Sc.(Queen's), Ph.D.(Edin.)
A. Ferenczy; B.A., B.Sc., M.D.(Montr.)
R. Fraser; B.Sc., M.D., C.M.(McG.), M.Sc.(Glas.), F.R.C.P.(C)
D. Haegert; M.D.(Br.Col.), F.R.C.P.(C)
Q.A. Hamid; M.D.(Mosul), Ph.D.(Lond.) (*James McGill Professor*)
(*joint appoint. with Medicine*)
J.R. Jass; M.B.B.S., M.D.(Lond.), F.R.C.Path
R.P. Michel; B.Sc., M.D., C.M.(McG.), F.R.C.P.(C)
J.B. Richardson; B.Sc., M.D., C.M., Ph.D.(McG.), F.R.C.P.(C)

Associate Professors

L. Alpert; M.D., Ph.D.(Tufts)
J. Arseneau; M.D.(Laval), F.R.C.P.(C)
M. Auger; M.D., C.M.(McG.), F.R.C.P.(C)
M.L. Brisson; B.A.(Paris), B.Sc., M.D.(Montr.)
B. Case; B.Sc., M.D., C.M., M.Sc.(McG.), Dipl. Occ. Hyg.,
F.R.C.P.(C)
M.F. Chen; M.B., B.S.(Monash), F.R.C.P.(C)
G. Domanowski; M.D.(N.Y.)
A. Gaiid; D.V.M.S.(Baghdad), Ph.D.(Lond.)
L.A. Oliva; M.D.(St. Domingue), F.R.C.P.(C)
R. Onerheim; M.D.(Alta.), F.R.C.P.(C)
L. Rochon; M.D.(Sher.), F.R.C.P.(C)
S. Tange; B.A., M.D.(Minn.)
K. Watters; B.Sc., M.D., C.M.(McG.), F.R.C.P.(C)
E.A. Zorychta; B.Sc.(St.F.X.), M.Sc., Ph.D.(McG.)

Assistant Professors

S. Albrecht; M.D.(Sher.), F.R.C.P.(C)
C. Bernard; M.D.(Sher.)
C. Catzavelos; M.D.(Cape Town), F.R.C.P.(C)
P.J. Chauvin; M.Sc.(W.Ont.), D.D.S.(McG.)
M.-C. Guiot; B.Sc., M.D.(Bordeaux)
F. Halwani; M.D.(Iran), Ph.D.(McG.), F.R.C.P.(C)
K. Khetani; M.B.B.S.(Aga Khan)
E. Lamoureux; B.Sc., M.D.(Montr.), F.R.C.P.(C)
A.T. Marcus; B.Sc., M.D., C.M.(McG.), F.R.C.P.(C)
V.A. Marcus; M.D., C.M.(McG.), F.R.C.P.(C)
J. Massé; M.D.(Sher.)
A.R. Mehio; M.D.(Leb.)
A. Nahal; M.D.(Aleppo)
V.-H. Nguyen; M.D.(Montr.), F.R.C.P.(C)
A. Pélouquin; M.D.(Sher.), F.R.C.S.(C), F.R.C.P.(C)
D. Pilavdzic; M.D.(Zagreb), F.R.C.P.(C)
L.A. Quenneville; M.Sc., M.D.(Sask.), F.R.C.P.(C)
I. Roy; B.Sc., M.D., C.M.(McG.), F.R.C.P.(C)
K. Sircar; M.D., C.M.(McG.), F.R.C.P.(C)
H. Srolovitz; B.Sc.(Pitt.), M.D.(Basle)
J. St. Cyr; M.D., C.M.(McG.), F.R.C.P.(C)

Adjunct Professor

T. Seemayer, University of Nebraska Medical Centre

59.2 Programs Offered

M.Sc. and Ph.D. degrees in Pathology.

The Pathology Department offers research training in a wide variety of areas such as atherosclerosis, immunology and transplantation, neoplasia, cell biology, pulmonary vascular and airways disease, pulmonary edema, neurodegenerative disorders, and smooth muscle pathophysiology.

Modern techniques and equipment include light, fluorescence and electron microscopy (both transmission and scanning), cell culture, advanced immunological, pharmacological, biochemical and physiological techniques, as well as morphometry and computers.

59.3 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.

Non-Canadian students may be required to take 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 contact the Teaching Office, Department of Pathology, for application forms and a departmental brochure containing the research interests of the academic staff.

59.4 Application Procedures

Applications will be considered upon receipt of:

1. application;
2. transcripts;
3. letters of reference;
4. \$60 application fee;
5. test results (GRE, TOEFL).

All information is to be submitted directly to the Pathology Teaching Office.

All applications will be evaluated by the Graduate Students Committee. Candidates found suitable must then be accepted by a research director, and adequate funding must be obtained for both personal support and research expenses.

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

59.5 Program Requirements

All students must take PATH 300 plus a course in statistics if they have not completed these requirements before admission.

Candidates with insufficient background in one of the biomedical sciences will be required to take specific courses to remedy the deficiency. These and additional courses which are relevant to the student's area of research will be chosen in consultation with the research director and Graduate Students Committee.

M.Sc. Program Requirements

The program consists of 45 credits, 30 credits obtained by laboratory work and submission of a thesis (PATH 690, PATH 691, PATH 692), with the remaining 15 course credits to be distributed as follows: PATH 613 or PATH 614, PATH 620, PATH 622, plus any two graduate level courses offered by the Department. A graduate course in another department may be substituted for

one of the Pathology graduate courses upon approval by the research director and Graduate Students Committee.

Ph.D. Program Requirements

Ph.D. candidates are required to complete courses PATH 613, PATH 614, PATH 620, PATH 622, PATH 701, plus any three graduate level courses offered by the Department, and any additional courses considered necessary by the research director or the Graduate Students Committee.

Candidates will be evaluated primarily on their ability to conduct independent research and submit a thesis, which must be defended orally.

59.6 Courses

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

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.

- Denotes courses not offered in 2003-04.

Advanced Undergraduate

PATH 300 HUMAN DISEASE. (3) (Winter) (Prerequisites: BIOL 200, BIOL 201 or BIOC 212, PHGY 209. Pre-/co-requisite: PHGY 210) Provides a fundamental understanding of the diseases prevalent in North America, for upper level students in the biological sciences. Includes: general responses of cells and organ systems to injury; assessment of individual diseases by relating the causes, symptoms, diagnosis, treatment and prevention to the primary biological abnormalities in each disorder.

Graduate Courses

The following courses are given in a variable sequence depending on the interests and requirements of graduate students enrolled in the Department.

PATH 607 BIOCHEMICAL PATHOLOGY. (3) Lectures and seminars covering a range of topics in the field of cytokine biology, the role of cytokines in disease pathogenesis and advanced molecular techniques in the expression and regulation of cytokines.

PATH 613 RESEARCH TOPICS IN PATHOLOGY. (3)

PATH 614 RESEARCH TOPICS IN PATHOLOGY. (3)

PATH 620 RESEARCH SEMINAR 1. (3)

PATH 622 RESEARCH SEMINAR 2. (3)

● **PATH 650 IMMUNOPATHOLOGY.** (3)

● **PATH 651 PATHOBIOLOGY OF ARTERIAL WALL.** (3)

PATH 653 READING AND CONFERENCE. (3) (Offered in conjunction with the Department of Human Genetics.) Cytogenetics is the science and art of making and analyzing chromosome preparations. This course focuses on human chromosomes, although methodologies and principles apply broadly to other species as well. Basic facts and mysteries about chromosomes will be explained and discussed in the light of clinical examples.

PATH 690 M.Sc.THESIS RESEARCH PROJECT 1. (9)

PATH 691 M.Sc.THESIS RESEARCH PROJECT 2. (9)

PATH 692 M.Sc. THESIS RESEARCH PROJECT 3. (12)

PATH 701D1 COMPREHENSIVE EXAMINATION - PH.D. CANDIDATES. (0) (Students must also register for PATH 701D2) (No credit will be given for this course unless both PATH 701D1 and PATH 701D2 are successfully completed in consecutive terms)

PATH 701D2 COMPREHENSIVE EXAMINATION - PH.D. CANDIDATES. (0) (Prerequisite: PATH 701D1) (No credit will be given for this course unless both PATH 701D1 and PATH 701D2 are successfully completed in consecutive terms)

60 Pharmacology and Therapeutics

Department of Pharmacology and Therapeutics
McIntyre Medical Sciences Building
3655 Promenade Sir-William-Osler, Room 1325
Montreal, QC H3G 1Y6
Canada

Telephone: (514) 398-3623

Fax: (514) 398-2045

E-mail: pmoore@pharma.mcgill.ca

Web site: www.medicine.mcgill.ca/pharma

Chair — H.H. Zingg

Chair, Graduate Committee — B.F. Hales

60.1 Staff

Emeritus Professor

T. Sourkes; Ph.D.(C'nell)

Professors

R. Capek; M.D., Ph.D.(Prague)

P.B.S. Clarke; M.A.(Cantab.), Ph.D.(Lond.)

B. Collier; Ph.D.(Leeds)

A.C. Cuello; M.D.(Buenos Aires), D.Sc.(Oxon), F.R.S.C.

B.F. Hales; Ph.D.(McG.)

P.J. McLeod; M.D.(Man.), F.R.C.P.(C)

J.B. Richardson; M.D.,C.M., Ph.D.(McG.)

B. Robaire; Ph.D.(McG.)

M. Szyf; Ph.D.(Hebrew Univ.)

D.R. Varma; M.D.(L'now), Ph.D.(McG.)

H.H. Zingg; M.D., Ph.D.(McG.)

Associate Professors

G. Almazan; Ph.D.(McG.)

B. Esplin; M.D.(Warsaw)

D. Maysinger; Ph.D.(S. Calif.)

S. Nattel; M.D. C.M.(McG.)

A.L. Padjen; M.D., Ph.D.(Zagreb)

A. Ribeiro-da-Silva; M.D., Ph.D.(Oporto)

H. Saragovi; Ph.D.(Miami)

B.I. Sasyniuk; Ph.D.(Man.)

J. Trasler; M.D., C.M., Ph.D.(McG.)

E. Zorychta; Ph.D.(McG.)

Assistant Professor

D. Bowie; B.Sc., Ph.D.(Lond.)

Associate Members

M. Alaoui-Jamali; Ph.D.(Sorbonne)

G. Batist; M.D., C.M.(McG.)

C. de Montigny; M.D., Ph.D.(Montr.), F.R.C.P.(C)

G. Di Batista; B.Sc., Ph.D.(Montr.)

P. Fiset; M.D.(Laval), F.R.C.P.S.(C)

S. Gauthier; M.D.(Montr.)

R. Prichard; Ph.D.(N.S.W.)

R. Quirion; Ph.D.(Sher.)

A. Tenenhouse; M.D.,C.M., Ph.D.(McG.)

Adjunct Professors

S. Chemtob, Y. de Koninck, L. Garofalo, J. Mancini, G.S. Robertson

60.2 Programs Offered

The Department of Pharmacology and Therapeutics offers training leading to M.Sc. (thesis), M.Sc. Applied (non-thesis) and Ph.D. degrees.

Pharmacology is a multi-disciplinary science which deals with all aspects of drugs and their interactions with living organisms. Thus, pharmacologists study the physical and chemical properties of drugs, their biochemical and physiological effects, mechanisms of action, pharmacokinetics and therapeutic and other uses. The Department offers broad exposure and training in both

basic and clinical research in areas of specialty ranging from neuropharmacology, reproductive, endocrine, receptor, cardiovascular, cancer, developmental, autonomic, clinical and biochemical pharmacology, molecular biology, to toxicology.

The present 35 full and affiliate members of the Department have research laboratories located in the McIntyre Medical Sciences Building and in a variety of hospitals, institutes and industry including the Douglas Hospital Research Center, Allan Memorial Institute, Montreal Children's Hospital, Montreal General Hospital, Royal Victoria Hospital, Montreal Heart Institute, Lady Davis Research Institute, Pfizer Canada and Merck Frosst Canada Inc. The participation of researchers from both industry and government ensures the relevance of the Department's applications-oriented training programs.

60.3 Admission Requirements

Candidates are required to hold a B.Sc. degree in a discipline relevant to the proposed field of study; those with the M.D., D.D.S. or D.V.M. degrees are also eligible to apply. A background in the health sciences is recommended, but programs in biology, chemistry, mathematics, and physical sciences may be acceptable.

Admission is based on a student's academic record, letters of assessment, and, whenever possible, interviews with staff members. Non-Canadian students are required to take the Graduate Record Examination Aptitude Test (GRE) and the Test of English as a Foreign Language (TOEFL) or the equivalents.

Inquiries relating to all aspects of graduate study should be directed to the Graduate Coordinator, Department of Pharmacology and Therapeutics as early as possible in each academic year.

60.4 Application Procedures

Applications will be considered upon receipt of:

1. Completed official McGill University application form; available via Internet at www.mcgill.ca/applying/graduate.
2. Curriculum vitae including a statement of research interests.
3. Two copies of official transcripts sent directly from all universities attended.
4. Two confidential letters of recommendation from professors or research-related employers (at least one should be from an academic known to the international scientific community).
5. Application fee (\$60 Canadian or U.S. Funds) payable by credit card for on-line applications; by money order, certified personal cheque, or bank draft enclosed with the official paper application form.
6. Official GRE and TOEFL scores (not required of applicants from Canada).

Applications and all documents should be submitted directly to the Graduate Co-ordinator, Mrs. Pam Moore, in the Department of Pharmacology.

Deadlines

September Admission:

Canadian/Permanent Resident applicants – June 1st
(including interviews with graduate committee members).
International applicants – March 1st.

January Admission:

Canadian/Permanent Resident applicants – October 1st
(including interviews with graduate committee members).
International applicants – August 1st.

60.5 Program Requirements

The objective of the M.Sc. (thesis) and Ph.D. degree training programs is to provide in-depth independent research experience in a specific area of pharmacology.

M.Sc. (Thesis) (45 credits)

In addition to a M.Sc. Thesis, the specific requirements are as follows:

1. Complete PHAR 601 Comprehensive Examination (9 credits)
2. Plus PHAR 712 Statistics for Pharmacologists (3 credits)
3. *PHAR 562 General Pharmacology 1 and PHAR 563 General Pharmacology 2 or their equivalent (6 credits)
*Students who have taken PHAR 562 and PHAR 563 as part of their undergraduate degree must register for PHAR 697 Thesis Preparation 1 (6 credits)
4. Two 700-level graduate courses in Pharmacology (3 credits each)

The M.Sc. program consists of 45 credits, a minimum of 18 credits are required in addition to thesis preparation courses PHAR 696, PHAR 698 and PHAR 699 (3, 9 and 12 credits respectively).

Ph.D. (Thesis)

Students enrolled in the Ph.D. program must successfully complete or be exempted from the same courses as for the M.Sc. degree, plus one additional 700-level graduate course (for total of three), in addition to a Ph.D. thesis.

M.Sc. (Applied) degree (Not offered during the 2003-04 year.)

The objective of the M.Sc. Applied program is to provide a broad exposure and training in Pharmacology, with two terms of courses and two of research, one of which may be completed during the summer.

The course requirements (45 credits) are as follows: PHAR 562 and PHAR 563, General Pharmacology 1 and 2, or their equivalents; PHAR 712, Statistics for Pharmacologists; PHAR 603, Drug Discovery and Development; one 700 level Pharmacology graduate course; PHAR 604, Advanced independent research project in pharmacology; PHAR 605, Advanced independent research project in applied pharmacology, plus three complementary courses to be chosen from options in Epidemiology, Experimental Medicine, Biotechnology, Bioethics, Biochemistry, Physiology, Microbiology and Immunology, Pathology, and Economics.

60.6 Courses for Higher Degrees

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

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

The following courses are designed primarily for graduate students in the Department, but may be attended by others under special circumstances. These courses are given in a rotational sequence and students may register according to their specific requirements and interests.

- Denotes courses not offered in 2003-04.

PHAR 601D1 COMPREHENSIVE. (4.5) (Students must also register for PHAR 601D2) (No credit will be given for this course unless both PHAR 601D1 and PHAR 601D2 are successfully completed in consecutive terms)

PHAR 601D2 COMPREHENSIVE. (4.5) (Prerequisite: PHAR 601D1) (No credit will be given for this course unless both PHAR 601D1 and PHAR 601D2 are successfully completed in consecutive terms)

May be offered as: **PHAR 601N1 and PHAR 601N2.**

PHAR 696 THESIS PREPARATION. (3)

PHAR 697 THESIS PREPARATION 1. (6)

PHAR 698 THESIS PREPARATION 2. (9)

PHAR 699 THESIS PREPARATION 3. (12)

- **PHAR 702 BIOCHEMICAL PHARMACOLOGY.** (3)

- **PHAR 703 NEUROPHARMACOLOGY.** (3)
- **PHAR 704 DRUG DISTRIBUTION, METABOLISM AND EXCRETION.** (3)

PHAR 705 CARDIOVASCULAR REGULATION AND DRUG ACTION. (3)
Homeostatic regulation of cardiovascular function and its modification by drugs.

- **PHAR 706 CHEMICAL MEDIATORS AND AUTONOMIC DRUGS.** (3)
- **PHAR 707 MOLECULAR PHARMACOLOGY.** (3)

PHAR 712 STATISTICS FOR PHARMACOLOGISTS. (3) Basic theoretical and practical aspects of statistics for pharmacologists.

PHAR 713 DEVELOPMENTAL PHARMACOLOGY. (3) Developmental changes that take place from fetal life to old age will be studied in the context of response to an array of drugs. Emphasis will be placed on the cell and molecular mechanisms by which drugs interfere with different stages of development and on the altered actions and handling of drugs.

- **PHAR 714 ENDOCRINE PHARMACOLOGY.** (3)

61 Philosophy

Department of Philosophy
Leacock Building, Room 908
855 Sherbrooke Street West
Montreal, QC H3A 2T7
Canada

Telephone: (514) 398-6060

Fax: (514) 398-7148

E-mail: info.philosophy@mcgill.ca

Web site: www.arts.mcgill.ca/programs/philosophy

Chair — R.P. Buckley

61.1 Staff

Emeritus Professors

R. Klibansky; M.A.(Oxon), D.Phil.(Heidel.), F.R.Hist. F.R.S.C.
(*John Frothingham Emeritus Professor of Logic and Metaphysics*)

A.T. McKinnon; M.A.(Tor.), Ph.D.(Edin.), B.D.(McG.), F.R.S.C.,
R.D., D.H.L.(St. Olaf) (*William C. Macdonald Emeritus Professor of Moral Philosophy*)

D. Norton; M.A.(Claremont), Ph.D.(Calif.), F.R.S.C.
C. Taylor; M.A., D.Phil.(Oxon), F.R.S.C.

Professors

M.A. Bunge; Ph.D.(LaPlata), F.R.S.C. (*John Frothingham Professor of Logic and Metaphysics*)

G. DiGiovanni; B.A., M.A., S.T.B., Ph.D.(Tor.)

S. McCall; B.A.(McG.), B.Phil., D.Phil.(Oxon)

Associate Professors

R.P. Buckley; Ph.D.(Louvain)

D. Davies; B.A.(Oxon), M.A.(Manit.), Ph.D.(W.Ont.)

M. Deslauriers; B.A.(McG.), M.A., Ph.D.(Tor.)

M. Hallett; B.Sc., Ph.D.(Lond.)

A. Laywine; B.A.(Ott.), M.A.(Montr.), Ph.D.(Chic.)

E. Lewis; B.A.(C'neil), 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 H.)

S. Stroud; A.B.(Harv.), Ph.D.(Prin.)

Assistant Professors

A. Al-Saji; M.A.(Louvain), Ph.D.(Emory)

R. Brown; B.A., M.Phil.(Camb.), Ph.D.(M.I.T.)

E. Carson; M.A.(McG.), Ph.D.(Harv.)

G. Mikkelsen; M.S., Ph.D.(Chic.) (*joint appoint. with McGill School of Environment*)

Adjunct Professors

S. Davis (Carl.)

I. Gold (Monash)

Auxiliary Professor

K. Arvanitakis; B.Sc, M.A., M.D., C.M.(McG.), D.Psy., C.I.P.C.,
C.C.M.Q., F.R.C.P., R.S.M.A.(UK) (Can. Institute of
Psychoanalysis)

Associate Members

C. Fraenkel (Jewish Studies), R. Hayes (Religious Studies),

L. Kaplan (Jewish Studies), A. Patten (Political Science)

61.2 Programs Offered

The Department offers courses of study leading to the Ph.D. in Philosophy. It also offers, in conjunction with the Biomedical Ethics Unit, a course of study leading to the M.A. degree in Bioethics.

61.3 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 required to submit scores of the Graduate Record Examination. Non-Canadian applicants whose mother tongue is not English and who have not completed an undergraduate degree from a recognized institution where English is the language of instruction are required to submit documented proof of competency in oral and written English (TOEFL score).

Students who hold an M.A. degree from another institution should apply for admission at the Ph.D. II level; such students will normally be required to complete two years of course work.

M.A. (Bioethics) Students applying to the Bioethics Specialty program must write an M.A. thesis proposal. All applications to this program must also receive the approval of the Director of the Specialty program. Students who apply for this program should note that they must participate in a practicum which continues beyond the end of their second term of classes.

61.4 Application Procedures

Ph.D.

The Department conducts its admission process once a year. Applications are accepted between October 15 and January 15 for September admission. The application deadline is January 15.

The on-line application form is available at www.mcgill.ca/applying/graduate.

Applications will be considered complete upon receipt of:

1. application form;
2. \$60 fee;
3. two (2) official transcripts of all post-secondary studies;
4. three (3) original letters of reference;
5. test results (GRE, TOEFL);
6. writing sample;
7. statement of intent.

All supporting documents are to be submitted to the Department of Philosophy.

M.A. specialization in Bioethics

Applications are made initially through the Biomedical Ethics Unit in the Faculty of Medicine, which administers the program and teaches the core courses.

Applicants must be accepted first by the Department of Philosophy and then by the Bioethics Graduate Studies Advisory Committee.

For information, please contact the Chair, Master's Specialization in Bioethics, Biomedical Ethics Unit, 3690 Peel Street, Montreal, QC, H3A 1W9. Telephone: (514) 398-6980. Fax: (514) 398-8349. E-mail: leigh.turner@mcgill.ca.

61.5 Program Requirements

The course work for the first four terms of the Ph.D. program will include two pro-seminars, in two of the following three areas: Value theory; Metaphysics and Epistemology; History of Philosophy. Each seminar will be led by two members of staff, and the grade for the seminar will be determined jointly by them. Each academic year, the Chair will invite joint proposals from staff for topics for the following year's pro-seminar and will, if necessary, choose among proposals, ensuring that the topics offered in successive years do not fall within the same area as defined above. The Chair will also consult with graduate students in Ph.D. I concerning the topic of the pro-seminar for the following year. The pro-seminar will normally be offered in the Fall term.

The course work taken towards completion of the requirements for the Ph.D. program must satisfy certain distribution requirements. Students must take at least two graduate courses in each of the following three areas: Value Theory; Metaphysics and Epistemology; History of Philosophy. Pro-seminars (6 credits each) may be counted in partial satisfaction of these requirements. The Graduate Director, in consultation with the student's advisory committee, will determine for which area(s) a given course may be counted. Students are entitled to appeal such decisions to the Department as a whole. No student may count a given course towards the satisfaction of the distribution requirements for more than one area.

By the end of the Ph.D. II year, a student must submit a research paper (the "candidacy paper" [3 credits]), which may be worked up from a paper written to fulfill the requirements of a graduate course, to a Thesis Advancement Committee consisting of at least two members of the staff of the Department. The membership of this committee will be determined by the Graduate Director in consultation with the student; it is anticipated that members of this committee would, in principle, direct the student's thesis. This committee assigns a grade to the student's paper and reviews her or his graduate performance; on the basis of its assessment and review, it recommends to the Department as a whole either to permit the student to continue with the Ph.D. program and undertake a thesis or to decline to permit the student to continue. Two necessary conditions for a positive recommendation are that the student (a) receive a grade of at least B+ on the candidacy paper, and (b) have at least a 3.5 GPA (on the undergraduate Grade Point scale) in the course work required for the program. The Department as a whole, taking into account the Thesis Advancement Committee's recommendation and the student's overall academic record in the program, decides whether to permit the student to continue.

Students who do not receive a positive recommendation but who satisfy Graduate and Postdoctoral Studies Office requirements (no courses below a B-minus and completion of 45 credits) will be recommended to the Graduate and Postdoctoral Studies Office by the Department to transfer from the Ph.D. program to the M.A. program.

M.A. specialization in Bioethics: The curriculum is composed of required courses (for 6 credits) offered in the Biomedical Ethics Unit, bioethics courses (3 credit minimum) offered by Philosophy and any graduate courses required or accepted by Philosophy for the granting of a Master's degree, for a total of 18 to 21 credits. A minimum of 45 credits is required including the thesis. For further information refer to the Bioethics entry.

61.6 Courses for Higher Degrees

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

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 not offered in 2003-04.

● **PHIL 506 SEMINAR: PHILOSOPHY OF MIND.** (3) (Prerequisite: PHIL 306.)

● **PHIL 507 SEMINAR: COGNITIVE SCIENCE.** (3) (Prerequisites: PHIL 306, PHIL 415 or written permission of the instructor) (

● **PHIL 510 SEMINAR: ADVANCED LOGIC 2.** (3) (Prerequisite: PHIL 310 or written permission of the instructor)

PHIL 511 SEMINAR: PHILOSOPHY OF LOGIC AND MATHEMATICS. (3) (Seminars are open only to graduate students and final year Philosophy Majors, Honours and Joint Honours students, except by written permission of the Department.)

PHIL 515 SEMINAR: PHILOSOPHY OF LANGUAGE. (3) (Prerequisite: PHIL 415 or written permission of the instructor) (Seminars are open only to graduate students and final year Philosophy Majors, Honours and Joint Honours students, except by written permission of the Department) An advanced course devoted to a topic in the philosophy of language.

PHIL 519 SEMINAR: EPISTEMOLOGY. (3) (Prerequisite: PHIL 420 or written permission of the instructor) (Seminars are open only to graduate students and final year Philosophy Majors, Honours and Joint Honours students, except by written permission of the Department.) An advanced course devoted to a topic in the theory of knowledge. Subject varies from year to year.

● **PHIL 521 SEMINAR: METAPHYSICS.** (3) (Prerequisite: PHIL 421 or written permission of the instructor)

PHIL 534 SEMINAR: ETHICS. (3) (Prerequisite: PHIL 334 or written permission of the instructor) (Seminars are open only to graduate students and final year Philosophy Majors, Honours and Joint Honours students, except by written permission of the Department)

PHIL 541 SEMINAR: PHILOSOPHY OF SCIENCE. (3) (Prerequisite: PHIL 441 or other requirements specified by the instructor) (Seminars are open only to graduate students and final year Philosophy Majors, Honours and Joint Honours students, except by written permission of the Department) An advanced course devoted to a topic in the philosophy of science.

● **PHIL 543 SEMINAR: MEDICAL ETHICS.** (3) (Prerequisite: PHIL 343 or written permission of the instructor) (Seminars are open only to graduate students and final year Philosophy Majors, Honours and Joint Honours students, except by written permission of the Department)

PHIL 544 POLITICAL THEORY. (3) (Seminars are open only to graduate students and final year Philosophy Majors, Honours and Joint Honours students, except by written permission of the Department)

● **PHIL 548 SEMINAR: PHILOSOPHY OF LAW.** (3) (Prerequisite: PHIL 348 or written permission of the instructor)

PHIL 551 SEMINAR: ANCIENT PHILOSOPHY 2. (3) (Prerequisite: at least one course in ancient philosophy and the specific requirements of individual instructors) (Seminars are open only to graduate students and final year Philosophy Majors, Honours and Joint Honours students, except by written permission of the Department) An advanced course on a philosopher or philosophical issue articulated in antiquity.

● **PHIL 556 SEMINAR: MEDIEVAL PHILOSOPHY.** (3) (Prerequisite: PHIL 345 or PHIL 357 or written permission of the instructor)

● **PHIL 560 SEMINAR: 17TH CENTURY PHILOSOPHY.** (3) (Prerequisite: PHIL 360 or written permission of the instructor)

PHIL 561 SEMINAR: 18TH CENTURY PHILOSOPHY. (3) (Prerequisite: PHIL 361 or written permission of the instructor) (Seminars are open only to graduate students and final year Philosophy Majors, Honours and Joint Honours students, except by written permission of the Department.) An advanced course on an eighteenth-century philosopher or philosophical issue.

PHIL 567 SEMINAR: 19TH CENTURY PHILOSOPHY. (3) (Prerequisite: PHIL 366 or PHIL 367 or written permission of the instructor) (Seminars are open only to graduate students and final year Philosophy Majors, Honours and Joint Honours students, except by written permission of the Department.) An advanced course on 19th-century philosophy or philosophical issue.

● **PHIL 570 SEMINAR: CONTEMPORARY ANALYTIC PHILOSOPHY.** (3) (Prerequisite: PHIL 370 or PHIL 415 or written permission of the instructor) (Seminars are open only to graduate students and final year Philosophy Majors, Honours and Joint Honours students, except by written permission of the Department.)

PHIL 575 SEMINAR: CONTEMPORARY EUROPEAN PHILOSOPHY. (3) (Prerequisite: PHIL 475 or written permission of the instructor) (Seminars are open only to graduate students and final year Philosophy Majors, Honours and Joint Honours students, except by written permission of the Department) An advanced course on contemporary European philosophy or some important issue in the Continental tradition.

● **PHIL 580 SEMINAR: PROBLEMS OF PHILOSOPHY 1.** (3)

● **PHIL 581 SEMINAR: PROBLEMS OF PHILOSOPHY.** (3)

● **PHIL 590 SEMINAR: SPECIAL TOPICS IN PHILOSOPHY.** (3) (Prerequisites: one course in philosophy) (Seminars are open only to graduate students and final year Philosophy Majors, Honours and Joint Honours students, except by written permission of the Department)

● **PHIL 602 SEMINAR: HISTORY OF PHILOSOPHY 2.** (3)

● **PHIL 604 SEMINAR: METAPHYSICS AND EPISTEMOLOGY 2.** (3)

PHIL 607 PRO-SEMINAR 1. (6) A series of seminars on selected topics designed for professional training to graduate students. Topics will be selected from the general area of Value Theory.

PHIL 682 PRO-SEMINAR 3. (6) A series of seminars on selected topics designed to provide professional training to graduate students. Topics will be selected from the general area of Metaphysics/Epistemology.

PHIL 685 FUNDAMENTALS OF LOGIC. (3) A course in intermediate logic for graduate students in Philosophy, covering such topics as axiomatic systems, formal semantics, consistency, completeness, the limitative results, intuitionistic logic, formal theories of truth, aspects of the development of logic.

PHIL 690 CANDIDACY PAPER. (3)

● **PHIL 693 M.A. THESIS RESEARCH.** (5) Submission of thesis topic and detailed bibliography.

● **PHIL 693D1 M.A. THESIS RESEARCH.** (2.5)

● **PHIL 693D2 M.A. THESIS RESEARCH.** (2.5)

● **PHIL 693N1 M.A. THESIS RESEARCH.** (2.5)

● **PHIL 693N2 M.A. THESIS RESEARCH.** (2.5)

PHIL 694 M.A. THESIS RESEARCH 2. (5) Detailed thesis proposal.

May be offered as:

PHIL 694D1 and PHIL 694D2, or PHIL 694N1 and PHIL 694N2.

● **PHIL 695 M.A. THESIS RESEARCH 3.** (14) Completion of thesis.

● **PHIL 695D1 M.A. THESIS RESEARCH 3.** (7)

● **PHIL 695D2 M.A. THESIS RESEARCH 3.** (7)

● **PHIL 695N1 M.A. THESIS RESEARCH 3.** (7)

● **PHIL 695N2 M.A. THESIS RESEARCH 3.** (7)

PHIL 705 GUIDED RESEARCH IN ETHICS. (3)

PHIL 706 GUIDED RESEARCH IN ETHICS. (3)

PHIL 710 GUIDED RESEARCH IN LOGIC. (3)

PHIL 711 GUIDED RESEARCH IN LOGIC. (3)

PHIL 720 GUIDED RESEARCH: PHILOSOPHY OF SCIENCE. (3)

PHIL 721 GUIDED RESEARCH: PHILOSOPHY OF SCIENCE. (3)

PHIL 730 GUIDED RESEARCH: PHILOSOPHY OF RELIGION. (3)

PHIL 731 GUIDED RESEARCH: PHILOSOPHY OF RELIGION. (3)

PHIL 740 GUIDED RESEARCH: ANCIENT PHILOSOPHY. (3)

PHIL 741 GUIDED RESEARCH: ANCIENT PHILOSOPHY. (3)

PHIL 750 GUIDED RESEARCH: MEDIEVAL PHILOSOPHY. (3)

PHIL 751 GUIDED RESEARCH: MEDIEVAL PHILOSOPHY. (3)

PHIL 760 GUIDED RESEARCH: HISTORY OF PHILOSOPHY. (3)

PHIL 761 GUIDED RESEARCH: HISTORY OF PHILOSOPHY. (3)

PHIL 770 GUIDED RESEARCH: PHILOSOPHY OF POLITICS. (3)

PHIL 771 GUIDED RESEARCH: PHILOSOPHY OF POLITICS. (3)

PHIL 780 GUIDED RESEARCH: EPISTEMOLOGY/METAPHYSICS. (3)

PHIL 781 GUIDED RESEARCH: EPISTEMOLOGY/METAPHYSICS. (3)

Several courses primarily philosophical in content are available in other departments. Note in particular the offerings in Classics, Jewish Studies, Islamic Institute, and Political Science.

62 Physical and Occupational Therapy

School of Physical and Occupational Therapy
3654 Promenade Sir-William-Osler
Montreal, QC H3G 1Y5
Canada

Telephone: (514) 398-4504

Fax: (514) 398-6360

E-mail: graduate.rehabilitation@mcgill.ca

Web site: www.medicine.mcgill.ca/spot

Director — Robert W. Dykes

Associate Director, Graduate Program — Diane St. Pierre

62.1 Staff

Professors

Hugues Barbeau; B.Sc.(P.T.), M.Sc., Ph.D.(Laval)

Robert W. Dykes; B.A.(UCLA), Ph.D.(Johns H.)

Erika Gisel; B.A.(Zur.), B.S.O.T., M.S., Ph.D.(Temple)

Sharon Wood-Dauphinee; B.Sc.(P.T.), Dip.Ed., M.Sc.A., Ph.D.(McG.)

Associate Professors

Katherine Berg; B.P.T., B.Sc.P.T., M.Sc.(Rehab Sc.), Ph.D.(McG.)

Joyce Fung; B.Sc.(P.T.)(Hong Kong Polytech. U), Ph.D.(McG.)

Eva Kehayia; B.A., M.A., Ph.D.(McG.)

Nicol Korner-Bitensky; B.Sc.(O.T.), M.Sc., Ph.D.(McG.)

Annette Majnemer; B.Sc.(O.T.), M.Sc., Ph.D.(McG.)

Nancy Mayo; B.Sc.(P.T.)(Queen's), M.Sc., Ph.D.(McG.) (*James McGill Professor*)

Patricia McKinley; B.A., M.A., Ph.D.(U.C.L.A.)

Diane St. Pierre; B.Sc.(P.T.)(McG.), M.Sc., Ph.D.(Montr.)

Assistant Professors

Sophie De Serres; B.Eng., M.Eng.(Ecole Polytech.), Ph.D.(Alta.)

Isabelle Gélinas; B.Sc.(O.T.)(Montr.), M.Sc.(Virginia),

Ph.D.(Rehab.Sc.)(McG.)

Anouk Lamontagne; B.Sc.(P.T.), M.Sc., Ph.D.(Laval)

Bernadette Nedelec; B.Sc.(O.T.), Ph.D.(Alta.)

Nicole Paquet; B.Sc.(P.T.), M.Sc.(Laval), Ph.D.(McG.)

Laurie Snider; B.Sc.(O.T.)(McG.), M.A.(Br.Col.), Ph.D.(Tor.)

62.2 Programs Offered

Master of Science (non-Thesis) in Rehabilitation Science

The program requires three terms of full-time residence study and can usually be completed within three to four terms. It is designed for graduates who hold a B.Sc. (or equivalent) in Physical or

Occupational Therapy or related health professions. Two years of clinical experience is recommended. The program trains health professionals to become consumers of research in order to promote evidence-based practice in rehabilitation science. The curriculum is made up of both required and elective courses and may also include a research project.

Master of Science in Rehabilitation Science

The full curriculum consists of approximately two years of study for graduates who hold a B.Sc. degree in one of the medical rehabilitation disciplines or a related field. The program consists of required and elective course work, a research proposal and a research thesis.

Doctorate in Rehabilitation Science

The Ph.D. program curriculum consists of three to four years of study, on average, for graduates with Master's level training in one of the medical rehabilitation disciplines or a related field. The program consists of required and elective course work, a comprehensive written examination, a research proposal and a doctoral thesis.

62.3 Admission Requirements

Master of Science in Rehabilitation Science

1. A B.Sc. degree or equivalent in physical or occupational therapy or related fields from a university of recognized reputation.
2. Evidence of a high academic achievement equivalent to a B standing, or a McGill CGPA of 3.0 (70-74%).
3. Prerequisite courses may be required in statistics, anatomy, physiology, psychology, sociology, neurophysiology or other areas, depending on the student's anticipated specialization.
4. Non-Canadian applicants whose mother tongue is not English and who have not completed an undergraduate degree using the English language are required to submit documented proof of competency in oral and written English, by appropriate exams, e.g., TOEFL. (Test of English as a Foreign Language) with a minimum score of 250 on the computer-based test (School requirement), or the International English Language Testing System (IELTS) with a minimum overall band score of 7.0.
5. The GRE Test is mandatory 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 each category. For enquiries about Graduate Records Examination, please contact GRE - Educational Testing Service, Princeton, NJ 08540, (609) 683-2002, www.gre.org. Applicants are responsible for ensuring that their scores are sent to the School of Physical and Occupational Therapy.

Master of Science (non-Thesis) in Rehabilitation Science

1. to 5. as above, plus
6. Two years of clinical experience is recommended.

Doctorate in Rehabilitation Science

1. An M.Sc. degree in a rehabilitation-related discipline from a university of recognized reputation.
2. Evidence of a high academic achievement equivalent to a B⁺ standing, or a McGill CGPA of 3.3 (75-79%) is required.
3. Proof of proficiency in English.
4. GRE Test with a minimum score of 600 in each category. The test is mandatory for the following applicants: those who do not have a B.Sc., M.Sc. or equivalent from a Canadian university; those who have been out of university for 5 years or more.

If a graduate student accepted into the M.Sc. program demonstrates superior performance in the first year, the Graduate Committee, in consultation with the thesis supervisor, may recommend waiving the M.Sc. thesis requirement, and allow the student to proceed directly to the Ph.D. program.

62.4 Application Procedures

Application forms for admission to graduate studies for the degree of M.Sc., M.Sc.(non-thesis), or Ph.D. in Rehabilitation Science may be requested directly from the School. An on-line application is available at www.mcgill.ca/applying/graduate.

Applications will be considered upon receipt of:

1. the completed application form (on-line or paper),
2. \$60 application fee,
3. a complete curriculum vitae,
4. a statement of purpose,
5. two copies of official transcripts,
6. two letters of reference,
7. test results (GRE, TOEFL), if required.

Deadlines:

- Canadian applicants – April 1
- International applicants – March 1

Documents are to be mailed directly to the Associate Director, Graduate Program, School of Physical and Occupational Therapy

62.5 Program Requirements

Elective Courses (for all programs)

In addition to courses offered by the School of Physical and Occupational Therapy, students may choose courses given in other units. A complete list of suitable electives can be obtained from the Graduate Program Coordinator.

Master of Science in Rehabilitation Science (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 616D1 | (.5) | Seminars in Rehabilitation Science |
| POTH 616D2 | (.5) | Seminars in Rehabilitation Science |
| 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 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 |

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.

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.

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
 (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 Associate 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

Group B, 15 credits, one of the following options:

Option 1, Directed Project:

- POTH 661 (7) Research Project 1
 POTH 662 (8) Research Project 2

Option 2:

no directed project, 5 additional courses

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)

- POTH 610* (3) Research Methodology
 POTH 614* (3) Selected Topics in Rehabilitation Science
 POTH 620 (3) Measurement in Rehabilitation 1
 POTH 630 (3) Measurement in Rehabilitation 2

Of the four required courses, at least two* will already have been completed by students with an M.Sc. in Rehabilitation Science from McGill.

Complementary Course (6 credits)

one of:

- POTH 602 (3) Educational Methodology
 EDPH 689 (3) Teaching & Learning in Higher Education

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 which pertain to the student's area of specialization; chosen by the student in consultation with his/her supervisor and upon approval of the Associate Director of the Graduate Program.

Comprehensive Examination

- POTH 701 Ph.D. Comprehensive Examination

The student must successfully pass a written comprehensive examination 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.

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.

62.6 Courses

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

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

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) (Restricted to on-campus students only.) A tutorial with directed practical experience in a clinical setting related to the student's clinical specialization, including curriculum development, and emphasizing current thought in rehabilitation.

POTH 604 CURRENT TOPICS IN PEDIATRICS. (3) (Prerequisite: POTH 260, or permission of instructors.) This course will provide an overview of current research in pediatrics.

POTH 610 RESEARCH METHODOLOGY. (3) (Prerequisite: PSYC 305 or EPIB 607, or EDPE 675 and EDPE 676, or equivalent) An advanced lecture and seminar course. The philosophy of scientific inquiry, principles of research design, and application of statistical techniques are discussed with special consideration given to research studies in health care and rehabilitation.

POTH 614 SELECTED TOPICS IN REHABILITATION SCIENCE. (3) (Restricted to on-campus students only.) A weekly lecture and seminar course taught by staff, designed to provide an overview of current research issues in rehabilitation.

POTH 616D1 SEMINARS IN REHABILITATION SCIENCE. (0.5) (Students must also register for POTH 616D2) (No credit will be given for this course unless both POTH 616D1 and POTH 616D2 are successfully completed in consecutive terms) A weekly seminar course given by staff and invited speakers in different areas of research related to rehabilitation science. Students are expected to participate by reading pertinent literature prior to seminars and asking questions at each seminar. Attendance is compulsory, and the course is graded pass/fail based on participation.

POTH 616D2 SEMINARS IN REHABILITATION SCIENCE. (0.5) (Prerequisite: POTH 616D1) (No credit will be given for this course unless both POTH 616D1 and POTH 616D2 are successfully completed in consecutive terms)

POTH 617 REHABILITATION SEMINARS. (0) A weekly seminar course given by staff and invited speakers in different areas of research related to rehabilitation science. Students are expected to participate by reading pertinent literature prior to seminars and asking questions at each seminar. Attendance is compulsory, and the course is graded pass/fail based on participation.

POTH 618 TOPICS IN REHABILITATION. (3) This is a directed reading course on a topic in rehabilitation science. The student will acquire extensive knowledge in the topic of interest and understand the strengths and limitations of the current body of work in the area.

POTH 620 MEASUREMENT: REHABILITATION 1. (3) (Prerequisite: POTH 222 and permission of instructor.) Theoretical and practical basis for utilization of electronic equipment for quantitative measurement in rehabilitation research. Ambulatory assistive devices, electronic plates and instrumentation to assess normal and pathological human movement will be used to demonstrate the application of theory and techniques for quantitative analysis of human performance. Recording, reduction and analysis of electromyographic, kinetic and kinematic data included.

POTH 622 PATHOKINESIOLOGY. (3) (Prerequisite: POTH 620) Principles and techniques of quantitative biomechanics to assess

abnormal human motor performance. Topics include the anthropometrics, kinematics, and kinetics of altered movement patterns that result from pathology of the nervous and musculoskeletal systems. Practical, experimental and clinical applications will be stressed.

POTH 630 MEASUREMENT: REHABILITATION 2. (3) (Prerequisite: EPIB 607 or PSYC 305 or equivalent.) Theoretical and practical basis for measurement in rehabilitation research. Introduction to measurement theory, scale development and related statistics, approaches and instruments used to assess outcomes in patients with musculoskeletal, neurological, cardiovascular, respiratory, psychiatric or psychologic conditions.

POTH 631 RESEARCH PROPOSAL. (3) The course covers issues involved in the development of a research protocol. The presentation of a written thesis proposal is required by the end of the course. This document will serve as the basis for an oral presentation to the student's Supervisory Committee which will also review the written proposal.

POTH 661 RESEARCH PROJECT 1. (7) (Campus students only.)

POTH 662 RESEARCH PROJECT 2. (8)

POTH 696 THESIS RESEARCH. (2)

POTH 697 THESIS RESEARCH 1. (6)

May be offered as: **POTH 697D1** and **POTH 697D2.**

POTH 698 THESIS RESEARCH 2. (9)

May be offered as: **POTH 698D1** and **POTH 698D2.**

POTH 699 THESIS RESEARCH 3. (12)

May be offered as: **POTH 699D1** and **POTH 699D2.**

POTH 701 Ph.D. COMPREHENSIVE. (0)

63 Physics

Department of Physics
Ernest Rutherford Physics Building
3600 University Street
Montreal, QC H3A, 2T8
Canada

Telephone: (514) 398-6485 (Graduate Information)

Fax: (514) 398-8434

E-mail: graduate.physics@mcgill.ca

Web site: www.physics.mcgill.ca

Chair — M. Grant

Director of Graduate Studies — S.K. Mark

63.1 Staff

Emeritus Professors

M.P. Langleben; B.Sc., M.Sc., Ph.D.(McG.), F.R.S.C.

E.R. Pounder; B.Sc., Ph.D.(McG.), F.R.S.C.

D.G. Stairs; B.Sc., M.Sc.(Queen's), Ph.D.(Harv.)

P.R. Wallace; B.A., M.A., Ph.D.(Tor.), F.R.S.C.

M.J. Zuckermann; M.A., D.Phil.(Oxon), F.R.S.C.

Post-Retirement

A.P. Contogouris; B.A.(Nat. Tech. Athens), Ph.D.(C'nell)

J.E. Crawford; B.A., M.A.(Tor.), Ph.D.(McG.)

J.K.P. Lee; B.Eng., M.Sc., Ph.D.(McG.)

D.G. Ryan; B.Sc., M.Sc.(Queen's), Ph.D.(Birm.)

Professors

J. Barrette; M.Sc., Ph.D.(Montr.)

C. Burgess; B.Sc.(Wat.), Ph.D.(Texas) (*James McGill Professor*)

S. Das Gupta; B.Sc., M.Sc.(Calc.), Ph.D.(McM.) (*William C.*

Macdonald Professor of Physics)

N.B. DeTakacsy; B.Sc., M.Sc.(Montr.), Ph.D.(McG.)

C. Gale; B.Sc.(Ott.), M.Sc., Ph.D.(McG.)

M. Grant; B.Sc.(P.E.I.), M.Sc., Ph.D.(Tor.) (*James McGill*

Professor)

H. Guo; B.Sc.(Sichuan), M.Sc., Ph.D.(Pitt.)

D. Hanna; B.Sc.(McG.), M.A., Ph.D.(Harv.)

R. Harris; B.A.(Oxon), Ph.D.(Sus)

C.S. Lam; B.Sc.(McG.), Ph.D.(M.I.T.) (*Ernest Rutherford*

Professor of Physics)

S. Lovejoy; B.Sc.(Cantab.), Ph.D.(McG.)

S.K. Mark; B.Sc., M.Sc., Ph.D.(McG.) (*William C. Macdonald*

Professor of Physics)

R.B. Moore; B.Eng., M.Sc., Ph.D.(McG.)

P.M. Patel; B.Sc., M.Sc.(Manc.), Ph.D.(Harv.)

D.H. Ryan; B.A., Ph.D.(Dub.)

J.O. Strom-Olsen; B.A., M.S., Ph.D.(Cantab.)

M. Sutton; B.Sc., M.Sc., Ph.D.(Tor.)

L. Vinet; B.Sc., M.Sc., Ph.D.(Montr.), Doctorat 3^e cycle(Paris VI)

(*joint appoint. with Mathematics and Statistics*)

Associate Professors

J. Cline; B.Sc.(Calif.), M.Sc., Ph.D.(Cal. Tech.)

F. Corriveau; Ph.D.(Zür.)

P. Grutter; Diploma, Ph.D.(Basel) (*William Dawson Scholar*)

V. Kaspi; B.Sc.(McG.), M.A., Ph.D.(Prin.) (*Canada Research*

Chair)

K. Ragan; B.Sc.(Alta.), Ph.D.(Geneva)

Assistant Professors

M. Hilke; B.Sc., M.Sc., Ph.D.(Geneva)

S. Jeon; B.Sc.(Korea), M.Sc., Ph.D.(Washington)

G. Moore; Ph.D.(Prin.)

A. Warburton; B.Sc.(Vic.), Ph.D.(Tor.)

P. Wiseman; B.Sc.(St. F.X.), Ph.D.(U. W. Ont.)

Lecturers

Z. Altounian, F. Buchinger

Associate Members

M. Mackey (Physiology), E. Podgorsak (Radiation Oncology),

D. Ronis (Chemistry)

63.2 Programs Offered

M.Sc. and Ph.D.

FIELDS OF RESEARCH

High-Energy Physics

Theoretical: The McGill high energy theorists have interests in a wide range of problems pertaining to all fundamental interactions: strong, electromagnetic, weak and gravitational. The research program extends from studies closely connected with experimental data to purely theoretical questions. Ongoing projects involve: particle phenomenology, quantum chromodynamics, electroweak baryogenesis, group theory, astroparticle physics, quantum gravity, grand unification and string theory.

Experimental High Energy Physics The experimental high energy physics group is engaged in a number of experiments at the research frontiers of the field, both in subatomic physics and in high energy astrophysics. These include:

– BaBar: The group played a major role in constructing installation and commissioning of the drift chamber. The full detector has been operational and taking data since summer 1999. The physics interests of the group center on CP violation in B-meson decays to CP eigenstates and in the determination of CKM matrix elements V_{cb} and V_{ub} .

– STACEE: Members of the group are currently constructing and installing a major air Cherenkov detector for the study of high energy gamma rays emitted by astrophysical objects such as supernova remnants and active galactic nuclei. The detector (located at Sandia National Labs in Albuquerque, New Mexico) operated and successfully observed the Crab Nebula, providing a proof-of-principle of this novel technique.

– ZEUS: A group working at the world's first electron-proton collider (HERA, at DESY, Hamburg) studies lepton-quark interactions at high energy. The physics topics of interest to the group include deep inelastic scattering (proton structure, for-

ward jet production and low-x physics) and flavour (strange, charm) production.

Thus, graduate students at the M.Sc. and Ph.D. levels are offered a strong program of research in a challenging and rapidly advancing field. Short term Master's projects are based mainly on instrumentation or data analysis conducted on Campus, while Ph.D. research may involve an extended stay at one of the world's major research laboratories.

Nuclear Physics

Theoretical: Transport equations for heavy ion collisions at intermediate energy; nuclear equation of state from heavy ion collisions; fragmentation at intermediate energy; electromagnetic probes in relativistic heavy ion collisions; effective lagrangians for hadronic systems at finite temperature; pion-nucleus interactions.

Experimental: Current research programs in experimental nuclear physics at McGill are focussed on two main axes:

- The study of heavy-ion reactions at relativistic energies to determine the properties of nuclear matter at high density. This program is being performed at the Brookhaven National Laboratory. McGill physicists are part of a major experiment at the heavy-ion collider RHIC at BNL.
- The study of ground state properties of unstable nuclei using laser spectroscopy techniques and ion traps. This work is being carried out using the Canadian Penning trap facility at the Argonne National Laboratory and at the accelerator ISOLDE (CERN), and the ISAC facility at TRIUMF.

Furthermore, the Nuclear Physics Group has an active in-house research program that applies the ion trap and laser techniques to the detection of trace quantities of material and contaminants, and to ion spectroscopy.

Condensed-Matter Physics

Theoretical: Programs of research are in progress on the properties of dilute alloys and amorphous metals, including magnetic systems and "spin-glasses"; on nonequilibrium characteristics of quantum devices; on kinetics of pattern formation during first order phase transitions, on structured fluids and polymers, on the statistical mechanics of biological membranes and growth problems; and on interface instabilities in dendritic crystal growth. Research is being done by nonlinear analysis and large-scale computational modelling.

Experimental: Lines of research include structural, transport, Mössbauer and other magnetic properties of metallic glasses and rapidly quenched metals, and certain crystalline metal alloys. Also included are major areas of activity in high resolution X-ray diffraction using synchrotrons to study the time evolution of non-equilibrium structures and to study thin films and buried interfaces, scanning tunneling and atomic force microscopy, and the rapidly expanding area of nanoscience.

Astrophysics

This group does research in radio and X-ray observation of neutron stars and ground-based gamma-ray astronomy. The research program in X-ray astrophysics uses various X-Ray observatories including the RXTE, Chandra and the XMM satellites. Among the scientific issues addressed in this program are the properties of young neutron stars, both pulsars and "magnetars", pulsar wind nebulae, and supernova remnants.

Nonlinear Variability in Geophysics

This group studies nonlinear dynamical processes in the atmosphere and other geophysical systems, especially those associated with turbulent, chaotic and extremely variable behaviour. Emphasis is placed on multifractal analysis and modelling as well as the development of new theories and techniques covering wide ranges of scale in time and space. Data from a variety of in situ and remotely sensed sources are used. This includes satellite data of the earth's atmosphere and surface as well as high quality precipitation data from the McGill Radar Weather Observatory.

63.3 Admission Requirements

M.Sc.

Normal requirement is a B.Sc. in Physics, or equivalent, with high standing.

Ph.D.

Normal requirement is a M.Sc. 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.

63.4 Application Procedures

An application package is available upon request. It includes a brochure with a detailed description of the research activities in the Department, application forms for admission to graduate studies and information concerning requirements for the M.Sc. and Ph.D. degrees. Inquiries should be addressed to the Graduate Coordinator.

Applications will be considered upon receipt of:

1. application
2. transcripts
3. letters of reference
4. \$60 application fee
5. test results (GRE, TOEFL).

All information is to be submitted to Paula Domingues, Department of Physics.

Applications and supporting documents should be submitted by:
February 1st – international applicants,
March 15th – Canadian applicants.

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

Financial Assistance

Subject to the availability of funds, financial assistance will be offered to students in the form of a bursary, Teaching and Research assistantships. For new students, financial support will be offered at the time of acceptance and arrival. Forms are given and filled out on registration day.

63.5 Program Requirements

M.Sc. (48 credits)

Candidates must successfully complete five 3-credit courses, plus PHYS 691, PHYS 692, PHYS 690 and PHYS 690D1/PHYS 690D2 (M.Sc. Thesis), in addition to all the other normal requirements of the Graduate and Postdoctoral Studies Office.

Ph.D.

Candidates must successfully complete two one-term courses and a Preliminary examination and submit a Ph.D. thesis, in addition to all the normal requirements of the Graduate and Postdoctoral Studies Office. (Courses taken as part of the M.Sc. program at McGill may be accepted as substitutes for the two required courses.) Normally one of the courses must be a 600 or 700-level course in the candidate's area of specialization.

63.6 Advanced Undergraduate and Graduate Courses

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

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.

- Denotes courses not offered in 2003-04.

PHYS 514 GENERAL RELATIVITY. (3) (Winter) (3 hours lectures) (Honours students, or permission of the instructor) Transition from special to general relativity. Non-Euclidian geometry. The basic laws of Physics in co-variant form, Einstein's equations. Gravitational waves; neutron stars; black holes; cosmology.

PHYS 521 ASTROPHYSICS. (3) (Fall) (3 hours) A quantitative course in galactic and extragalactic astrophysics. Topics include observational techniques, stars and stellar evolution, compact objects, galaxy structure, kinematics, evolution and cosmology.

PHYS 534 NANOSCIENCE AND NANOTECHNOLOGY. (3) (Fall) Topics include scanning probe microscopy, chemical self-assembly, computer modeling, and microfabrication/micromachining.

PHYS 551 QUANTUM THEORY. (3) (Fall) (3 hours lectures) (Honours students, or permission of the instructor) General formulation, scattering theory, WKB approximation, time-dependent perturbation, theory and applications, angular momentum, relativistic wave equations.

PHYS 557 NUCLEAR PHYSICS. (3) (Fall) (3 hours lectures) (Honours students, or permission of the instructor) General nuclear properties, nucleon-nucleon interaction and scattering theory, radioactivity, nuclear models, nuclear reactions.

PHYS 558 SOLID STATE PHYSICS. (3) (Fall) (3 hours lectures) (Honours students, or permission of the instructor) Properties of crystals, lattice vibrations and thermal properties of insulators, free electron model and band structure, semi-conductors, metals, optical properties.

PHYS 559 ADVANCED STATISTICAL MECHANICS. (3) (Fall) (3 hours lectures) (Honours students, or permission of the instructor) Self averaging and central-limit theorem; thermodynamic fluctuations; ensemble theory; surface roughening; broken symmetry and Goldstone's theorem; phase transitions; mean-field, Landau and Ornstein-Zernicke theory; Monte Carlo method; molecular dynamics; scaling; renormalization group; epsilon expansion; non-equilibrium theory.

PHYS 562 ELECTROMAGNETIC THEORY. (3) (Winter) (3 hours lectures) (Honours students, or permission of the instructor) Electrostatics, dielectrics, magnetostatics, timevarying fields, relativity, radiating systems, fields of moving charges.

PHYS 567 PARTICLE PHYSICS. (3) (Winter) (3 hours lectures) (Honours students, or permission of the instructor) Survey of elementary particles; hadrons, leptons and hardrons' constituents (quarks). Invariance principles and conservation laws. Detectors and accelerators. Phenomenology of strong, electromagnetic and weak interactions.

PHYS 606 SELECTED TOPICS: CONT. PHYSICS 1. (3)

PHYS 607 SELECTED TOPICS: CONT. PHYSICS 2. (3)

PHYS 610 ADVANCED QUANTUM MECHANICS. (3) (3 hours) Relativistic wave equations for spin-0, spin-1/2, and spin-1 particles. Review of Lagrangian and Hamiltonian formalisms for classical mechanics. Canonical, Feynman path-integral, and Schwinger external-source quantization techniques. Relativistic quantum field theories for free spin-0, spin-1/2, and spin-1 particles. Interactions, perturbation theory, and Feynman diagrams.

● **PHYS 614 ADVANCED ASTROPHYSICS 1.** (3) (Prerequisites: PHYS 521 or permission of instructor)

● **PHYS 615 ADVANCED ASTROPHYSICS 2.** (3) (Prerequisites: PHYS 521 or permission of instructor)

● **PHYS 616 MULTIFRACTALS AND TURBULANCE.** (3) (3 hours)

PHYS 618 QUANTUM THEORY OF SOLIDS. (3) (3 hours) Includes some of the following topics; excitations in solids, phonons, the electron gas, superconductivity and phase transitions.

PHYS 620 EXPERIMENTAL METHODS OF SUBATOMIC PHYSICS. (3) (3 hours) Basic techniques of experimentation in nuclear and particle physics. Accelerators, beam optics, detection systems, major experiments, Monte-Carlo simulation, data acquisition and data analysis.

● **PHYS 621 HIGH ENERGY ASTROPHYSICS.** (3) (Prerequisites: PHYS 567 or permission of instructor)

PHYS 634 SEMINAR IN ADVANCED MATERIALS. (3) (3 hours) A series of research-level seminars about topics of current interest in advanced materials. Topics include molecular and nanoelectronics, computational approaches to materials design and property predictions, new techniques in molecular and atomic imaging, advances in materials preparation, quantum device and quantum computing.

● **PHYS 658 ADVANCED CONDENSED MATTER.** (3) (3 hours)

PHYS 659 EXPERIMENTAL CONDENSED MATTER. (3) (3 hours) To obtain an active understanding of the principles, the possibilities and the limitations of various experimental techniques. Possible topics include vacuum and low-temperature techniques; transport, thermal, magnetization and de Haas van Alphen measurements; scattering techniques; Mossbauer spectroscopy, NMR, scanning probe microscopy, electron microscopy; surface science methods.

PHYS 673 THEORETICAL HIGH ENERGY PHYSICS. (3) (3 hours) Introduction to quantum field theory; perturbation theory and Feynman diagrams. Applications to quantum electrodynamics, quantum chromodynamics and electroweak (Weinberg-Salam) theory.

PHYS 690 M.Sc. THESIS. (24)

May be offered as: **PHYS 690D1 and PHYS 690D2.**

PHYS 691 THESIS PREPARATION. (3) Directed study of research papers and experimental or theoretical techniques in the student's designated area of research under the supervision of the graduate studies committee of the Department.

PHYS 692 THESIS PROJECT. (6) Independent work under the direction of the student's supervisor on a research problem in the student's designated area of research leading to a project report or seminar.

May be offered as: **PHYS 692D1 and PHYS 692D2.**

PHYS 700 PRELIMINARY PH.D. EXAMINATION. (0)

PHYS 719 SPECIAL TOPICS: SOLID STATE PHYSICS 2. (3) (3 hours) Specialized discussion of some current problems in solid state physics.

PHYS 730 SPECIAL TOPICS: HIGH ENERGY PHYSICS 1. (3) (3 hours) Specialized discussion of some current problems in theoretical particle physics.

● **PHYS 731 SPECIAL TOPICS: HIGH ENERGY PHYSICS 2.** (3) (3 hours)

● **PHYS 732 TOPICS IN ASTROPHYSICS 1.** (3) (Prerequisites: PHYS 521 or permission of instructor)

● **PHYS 733 TOPICS IN ASTROPHYSICS 2.** (3) (Prerequisites: PHYS 521 or permission of instructor)

64 Physiology

Department of Physiology
McIntyre Medical Sciences Building
3655 Promenade Sir-William-Osler
Montreal, QC H3G 1Y6
Canada

Telephone: (514) 398-4343

Fax: (514) 398-7452

Web site: www.medicine.mcgill.ca/physio

Chair — A. Shrier

Chair of Graduate Program — J. Orlowski

64.1 Staff

Emeritus Professor

Geoffrey Melvill Jones; B.A., M.A., M.B., B.Ch., M.D.(Cantab.)

Professors

Catherine Bushnell; B.A.(Maryland), M.A., Ph.D.(American U.)
(*Harold Griffith Professor of Anaesthesia*) (joint appoint. with Dentistry)

Thomas M.S. Chang; B.Sc., M.D., C.M., Ph.D.(McG.), F.R.C.P.(C)
Munroe W. Cohen; B.Sc., Ph.D.(McG.)

Ellis J. Cooper; B.Eng.(Sir G.Wms.), M.Sc.(Surr.), Ph.D.(McM.)

Mony Frojmovic; B.Sc., Ph.D.(McG.)

Leon Glass; B.S.(Brooklyn), Ph.D.(Chic.) (*Isadore Rosenfield Professor of Cardiology*)

Phil Gold; M.Sc., Ph.D., M.D., C.M.(McG.), F.R.C.P.(C.) (joint appoint. with Medicine)

David Goltzman; B.Sc., M.D., C.M.(McG.), F.R.C.P.(C) (*Antoine G. Massabki Professor of Medicine*) (joint appoint. with Medicine)

John Hanrahan; Ph.D.(Br.Col.)

Kresmir Krnjevic; B.Sc., Ph.D., M.B., Ch.B.(Edin.) (joint appoint. with Anaesthesia Research)

Wayne S. Lapp; M.S.A.(Tor.), Ph.D.(McG.)

Mortimer Levy; B.Sc., M.D., C.M.(McG.), F.R.C.P.(C) (joint appoint. with Medicine)

Michael Mackey; B.A., Ph.D.(Wash.) (*Joseph Morley Drake Professor of Physiology*)

Jacapo P. Mortola; M.D.(Milan)

John Orłowski; B.Sc.(McG.), M.Sc., Ph.D.(Queen's) (*James McGill Professor*)

Premysl Ponka; M.D., Ph.D.(Prague)

Alvin Shrier; B.Sc.(C'dia), Ph.D.(Dal.) (*Hosmer Professor of Physiology*)

Douglas G.D. Watt; M.D., Ph.D.(McG.)

Associate Professors

Kathleen Cullen; B.Sc.(Brown), Ph.D.(Chic.) (*William Dawson Scholar*)

Riaz Farookhi; B.Sc., M.Sc.(M.I.T.), Ph.D.(Tufts)

Mladen Glavinovic; B.Sc.(Zagreb), M.Sc.(Tor.), Ph.D.(McG.) (joint appoint. with Anaesthesia Research)

Michael Guevara; Ph.D.(McG.)

Sheldon Magder; M.D.(Tor.) (joint appoint. with Medicine)

Ursula Stochaj; Ph.D.(Cologne)

Teresa Trippenbach; M.D., Ph.D.(Warsaw)

Ann Wechsler; B.A.(Tor.), M.Sc., Ph.D.(McG.)

John White; B.Sc., M.Sc.(Car.), Ph.D.(Harv.)

Assistant Professor

Julie Desbarats; Ph.D.(McG.)

Adjunct Professors

Ray Caplan, Terence Herbert, James Henry, John Milton,

Serge Rossignol, Malmur Sairam

Associate Members

Anaesthesia: Steven Backman

Biomedical: Robert Kearney, Satya Prakash

Dentistry: James Lund

Medicine: Angel Alonso, Andrey Cybulsky, Samuel O. Freedman,

Abraham Fuks, Claude Gagnon, Raymond Gagnon,

Harry L. Goldsmith, Geoffrey Hendy, Peter T. Macklem, James

Martin, Shree Mulay, Mariana Newkirk, Barry Posner, Shafaat

Rabbani, Ian Shrier, J.Enrique Silva, Alan Sniderman, Mary

Stevenson, Simon Wing, Hans Zingg

Neurology and Neurosurgery: Albert Aguayo, Massimo Avoli,

Charles Bourque, Sal Carbonetto, Pierre Drapeau,

Daniel Guitton, Michael Rasminsky

Nephrology: Tomoko Takano

Ophthalmology: Curtis Baker

Otolaryngology: Bernard Segal

Pediatrics: Immanuela Moss

Psychiatry: Bernardo Dubrovsky, Christina Gianoulakis

64.2 Programs Offered

The Physiology Department offers training leading to M.Sc. and Ph.D. degrees. The scope of the ongoing research, and close connections with the McGill teaching hospitals, offer excellent opportunities for collaborations with hospital based scientists.

All graduate students in Physiology receive financial support. Any faculty member who agrees to supervise a student who does not hold a fellowship, is obliged to provide financial support.

64.3 Admission Requirements

Admission to the Graduate Program is based on an evaluation by the Graduate Student Admissions and Advisory Committee (GSAAC), and on being accepted by a research supervisor.

Candidates for the M.Sc. degree must hold a B.Sc. degree or its equivalent. Candidates who have completed an M.Sc. may be admitted directly to the Ph.D. program. M.Sc. students interested in a Ph.D., may transfer to the Ph.D. program after 12-18 months, if all of the transfer requirements have been fulfilled. The M.Sc. thesis requirement is then waived. Candidates with exceptional academic records may be considered to proceed directly to the Ph.D. degree from the B.Sc. degree.

The GRE General Test is required for anyone who does not have a degree from a Canadian University. The TOEFL is required for anyone whose university studies were completed in a language other than English outside of Canada. A minimum CGPA of 3.2 on 4.0 is required for a file to be considered.

64.4 Application Procedures

The GSAAC will only consider applications upon receipt of all of the following documentation:

1. application form;
2. personal statement;
3. CV;
4. letters of reference, not more than six months old, from two professors;
5. two official copies of all university transcripts;
6. \$60 application fee;
7. results of the GRE (Graduate Record Exam) General Test, for applicants whose undergraduate degree is not from a Canadian university.
8. results of the Test of English as a Foreign Language (TOEFL), minimum score of 600 on paper-based test (or 250 on computer-based test), if the undergraduate studies were carried out in a language other than English outside of Canada.

Applications should be submitted to the Graduate Secretary as early as possible in order to facilitate processing. However, no applications will be considered after the following deadlines:

September (Fall term):

March 1 (November 1 for International students)

January (Winter term):

October 1 (May 1 for International students)

Interested candidates should refer to the Department's Web site.

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

64.5 Program Requirements

M.Sc.

The M.Sc. program is comprised of a minimum of 49 credits:

| | | |
|----------|-----|---|
| PHGY 601 | (1) | M.Sc. Proposal Seminar |
| PHGY 602 | (3) | Literature Search and Research Proposal |
| PHGY 607 | (3) | Laboratory Research 1 |
| PHGY 608 | (3) | Laboratory Research 2 |
| PHGY 618 | (3) | Research Topics 1 |
| PHGY 619 | (3) | Research Topics 2 |
| PHGY 620 | (3) | Progress in Research |

PHGY 621 (12) Thesis 1
PHGY 622 (15) Thesis 2
PHGY 623 (3) M.Sc. Seminar

Additional course work may be required depending upon background of the candidate.

Students in the M.Sc. Program are required to:

1. fulfill the course requirements specified at the time of admission;
2. present a proposal seminar 3 months after starting the program, and a seminar based on the research project two months prior to submission of the thesis;
3. submit a thesis.

Each student will have a supervisory committee which will monitor the progress of the studies.

Transfer to the Ph.D Program

After 18 months students may transfer to the Ph.D. program if all of the transfer requirements have been fulfilled. This includes completion of the Ph.D. Preliminary Exam and the successful completion of a transfer seminar. The M.Sc. thesis requirement is then waived.

Ph.D.

Students in the Ph.D. Program are required to:

1. complete the Ph.D. Departmental Seminar Course and any other course requirements specified at the time of admission;
2. present a proposal seminar 3 months after starting the program, and a "work in progress" seminar every year until submission of the thesis;
3. pass the Ph.D. Preliminary Exam within 6-12 months of admission to the program;
4. submit a thesis and defend it orally.

Each student will have a supervisory committee which will monitor the progress of the studies.

64.6 Courses

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

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.

★ Denotes courses taught only in alternate years.

● Denotes courses not offered in 2003-04.

PHGY 502 EXERCISE PHYSIOLOGY. (3) (Winter) (Prerequisites: PHGY 311, PHGY 312, and PHGY 313) Behaviour of physiological processes in response to physical effort, in areas such as structural basis of muscle contraction, thermoregulation during exercise, mechanics and energetics of muscle contraction, fuel utilization, fatigue, physiological adjustments during exercise and influence of training.

PHGY 508 ADVANCED RENAL PHYSIOLOGY. (3) (Fall) (Open to advanced undergraduate and graduate students) Offered in conjunction with the Department of Medicine. Lectures and seminars will cover advanced concepts in selected areas of kidney physiology (glomerular and tubular function) as well as membrane and epithelial transport. Students will be expected to critically discuss selected experimental papers.

PHGY 513 CELLULAR IMMUNOLOGY. (3) (Winter) (3 hours lectures plus term paper) (Prerequisite: MIMM 314, or permission of the instructor) This course deals with cellular interactions, regulation

and effector mechanisms of the normal immune response in relation to diseases and pathogenic processes. It is taught at an advanced level.

● **PHGY 515 PHYSIOLOGY OF BLOOD 1.** (3) (Fall) (2 hours lecture plus 1 hour seminar weekly) (Prerequisite: PHGY 313 or PHGY 312 or permission of the instructor)

PHGY 516 PHYSIOLOGY OF BLOOD 2. (3) (Winter) (2 hours lecture plus 1 hour seminar weekly) Bone marrow hematopoiesis, with emphasis on regulation of stem cell proliferation and differentiation along hematopoietic pathways. Formation and differentiation of red and white blood cells and some of the diseases associated with hemopoiesis will be covered. Emphasis will be given to the molecular mechanisms involved in the normal and pathological conditions.

● **PHGY 517 ARTIFICIAL INTERNAL ORGANS.** (3) (Winter)

PHGY 518 ARTIFICIAL CELLS. (3) (Fall) Physiology, biotechnology, 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 520 ION CHANNELS.** (3) (Winter) (Offered in even numbered years) (1 1/2 hour lecture, 1 1/2 hour seminar) (Prerequisite: PHGY 311) (Priority to Graduate and Honours students; others by permission of instructors.) A discussion of the principal theories and interesting new developments in the study of ion channels. Based on a textbook, computer exercises and critical reading and presentation of research papers. Topics include: Properties of voltage- and ligand-gated channels, single channel analysis, structure and function of ion channels.

PHGY 531 TOPICS IN APPLIED IMMUNOLOGY. (3) (Winter) (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) (Restricted to U3 Physiology students, and graduate students in biomedical departments; others by permission of the instructor) Students will develop a working knowledge of cartilage and bone. Discussion topics will include: molecular and cellular environment of bone; heritable and acquired skeletal defects; research models used to study metabolic bone disease.

PHGY 552 CELLULAR AND MOLECULAR PHYSIOLOGY. (3) (Winter) (1 hour lecture, 2 hours seminar weekly) (Prerequisite: PHGY 311) (Preference will be given to Physiology Honours and Graduate students) Discussions of recent significant advances in our understanding of the gene products involved in diverse cellular signalling pathways. Topics will include cell-surface hormone receptors, nuclear steroid hormone receptors, and ion channels and transporters. Students will present and critically evaluate experimental approaches, results and interpretations of selected research publications.

PHGY 556 TOPICS IN SYSTEMS NEUROSCIENCE. (3) (Winter) (Permission of the instructor required.) (Not open to students who have taken PHGY 456) Topics of current interest in systems neurophysiology and behavioural neuroscience including: the neural representation of sensory information and motor behaviours, models of sensory motor integration, and the computational analysis of problems in motor control and perception. Students will be expected to present and critically discuss journal articles in class.

PHGY 601 M.Sc. PROPOSAL SEMINAR. (1)

PHGY 602 LITERATURE SEARCH AND RESEARCH PROPOSAL. (3)

PHGY 607 LABORATORY RESEARCH 1. (3)

PHGY 608 LABORATORY RESEARCH 2. (3)

PHGY 610 BIOPHYSICS. (3) (Prerequisite: permission of the instructor.) A series of seminars in selected topics in theoretical biology and biomathematics.

● **PHGY 618 RESEARCH TOPICS 1.** (3) (Enrolment limited to new M.Sc. and Ph.D. students in Physiology.)

● **PHGY 619 RESEARCH TOPICS 2.** (3)

PHGY 620 PROGRESS IN RESEARCH. (3)

PHGY 621 THESIS 1. (12)

PHGY 622 THESIS 2. (15)

PHGY 623 M.Sc. SEMINAR. (3)

PHGY 701D1 Ph.D. COMPREHENSIVE EXAMINATION. (3) (Students must also register for PHGY 701D2) (No credit will be given for this course unless both PHGY 701D1 and PHGY 701D2 are successfully completed in consecutive terms)

PHGY 701D2 Ph.D. COMPREHENSIVE EXAMINATION. (3) (Prerequisite: PHGY 701D1) (No credit will be given for this course unless both PHGY 701D1 and PHGY 701D2 are successfully completed in consecutive terms)

PHGY 702 Ph.D. PROPOSAL. (1)

PHGY 703 Ph.D. PROGRESS SEMINAR 1. (1)

PHGY 704 Ph.D. PROGRESS SEMINAR 2. (1)

PHGY 720 Ph.D. SEMINAR COURSE 1. (1) Required for Ph.D. students. Coordinated in conjunction with the weekly Departmental seminar series, students will meet for one hour before each seminar to critically discuss papers on the subject of the weekly seminar. Students will take turns introducing the papers and leading discussions on an overview of the research topic, some of the methodologies, results and conclusions.

PHGY 721 Ph.D. SEMINAR COURSE 2. (1) Required for Ph.D. students. Coordinated in conjunction with the weekly Departmental seminar series, students will meet for one hour before each seminar to critically discuss papers on the subject of the weekly seminar. Students will take turns introducing the papers and leading discussions on an overview of the research topic, some of the methodologies, results and conclusions.

PHGY 722 Ph.D. SEMINAR COURSE 3. (1) Required for Ph.D. students. Coordinated in conjunction with the weekly Departmental seminar series, students will meet for one hour before each seminar to critically discuss papers on the subject of the weekly seminar. Students will take turns introducing the papers and leading discussions on an overview of the research topic, some of the methodologies, results and conclusions.

PHGY 723 Ph.D. SEMINAR COURSE 4. (1) Required for Ph.D. students. Coordinated in conjunction with the weekly Departmental seminar series, students will meet for one hour before each seminar to critically discuss papers on the subject of the weekly seminar. Students will take turns introducing the papers and leading discussions on an overview of the research topic, some of the methodologies, results and conclusions.

PHGY 724 Ph.D. SEMINAR COURSE 5. (1) Required for Ph.D. students. Coordinated in conjunction with the weekly Departmental seminar series, students will meet for one hour before each seminar to critically discuss papers on the subject of the weekly seminar. Students will take turns introducing the papers and leading discussions on an overview of the research topic, some of the methodologies, results and conclusions.

PHGY 725 Ph.D. SEMINAR COURSE 6. (1) Required for Ph.D. students. Coordinated in conjunction with the weekly Departmental seminar series, students will meet for one hour before each seminar to critically discuss papers on the subject of the weekly seminar. Students will take turns introducing the papers and leading discussions on an overview of the research topic, some of the methodologies, results and conclusions.

COURSES OFFERED BY OTHER UNITS –**Department of Medicine, Division of Experimental Medicine:**

EXMD 502 Advanced Endocrinology. (3)

EXMD 503 Advanced Endocrinology. (3) (Winter)

EXMD 504 Biology of Cancer. (3)

EXMD 506 Advanced Applied Cardiovascular Physiology. (3)

EXMD 507 Advanced Applied Respiratory Physiology. (3)

EXMD 508 Advanced Topics in Respiration. (3)

EXMD 509 Gastrointestinal Physiology and Pathology. (3)

EXMD 615 Membrane Carbohydrates. (3)

Biomedical Engineering:

BMDE 519 Biomedical Signals and Systems. (3) (2-0-8)

65 Plant Science

Department of Plant Science
Macdonald Campus
21,111 Lakeshore Road
Sainte-Anne-de-Bellevue, QC H9X 3V9
Canada

Telephone: (514) 398-7851

Fax: (514) 398-7897

E-mail: plantscience@macdonald.mcgill.ca

Web site: www.mcgill.ca/plant

Chair — M.G. Fortin

65.1 Staff*Emeritus Professors*

R.H. Estey; B.Ed.(U.N.B.), M.S.(Maine), D.I.C.(Imp. Coll.),
B.Sc.(Agr.), Ph.D.(McG.), F.L.S.

W.F. Grant; B.A., M.A.(McM.), Ph.D.(Va), F.L.S.

W.E. Sackston; B.S.A.(Man.), M.Sc.(McG.), Ph.D.(Minn.),
F.C.P.S., F.A.P.S.

H.A. Steppler; B.S.A.(Man.), M.Sc., Ph.D.(McG.), F.A.I.C.

Professors

D.J.I. Buszard; B.Sc.(Bath), Ph.D.(Lond.)

P. Dutilleul; L.Sc., D.Sc.(Louvain)

D. Mather; B.Sc.(Agr.) (McG.), M.Sc., Ph.D.(Guelph)

D.L. Smith; B.Sc., M.Sc.(Acad.), Ph.D.(Guelph)

A.K. Watson; B.Sc.(Agr.), M.Sc.(Br.Col.), Ph.D.(Sask.)

Associate Professors

D.J. Donnelly; B.Sc.(Agr.) (McG.), M.Sc.(U.B.C), Ph.D.(S.Fraser)

M.G. Fortin; B.Sc.(Pl.Sc.), M.Sc.(Laval), Ph.D.(McG.) (*William*

Dawson Scholar)

S. Jabaji-Hare; B.Sc.(Beirut), M.Sc.(Guelph), Ph.D.(Wat.)

A.C. Kusalappa; B.Sc., M.Sc.(B'Loire), Ph.D.(Flor.)

K.A. Stewart; B.Sc.(Agr.)(Br.Col.), Ph.D.(R'dg)

M. Waterway; B.A.(Grand Rapids), M.S.(Wis.), Ph.D.(C'nell)

Assistant Professors

J. Bede; B.Sc.(Calg.), M.Sc., Ph.D.(Tor.)

S. deBlois; B.Sc.(Agr.)(McG), M.Sc., Ph.D.(Montr.)

P. Seguin; B.Sc.(Agr.), M.Sc.(McG), Ph.D.(Minn.)

Faculty Lecturers

C. Begg; B.Sc.(Agr.)(McG.), M.Sc.(Sask.), Ph.D.(McG.)

S. Lussier; B.Sc.(Agr.) (McG.)

K. McClintock; B.A.(Wellesley), B.Sc.(Agr), M.Sc.(McG.)

D. Wees; B.Sc.(Agr.), M.Sc.(McG.)

Associate Member

T.A. Johns (*Dietetics and Human Nutrition*)

Adjunct Professors

M.R. Bullen, T.L. Capson, S. Jenni, J.-F. Laliberté,

L. O'Donoghue

65.2 Programs Offered

The Department offers an M.Sc. and Ph.D. in Plant Science and provides for study in all fields of the plant sciences. Research facilities – both field and laboratory – are available for investigations in plant breeding, crop physiology, crop management, plant ecology, the epidemiology and biology of plant diseases, the physiology of diseased plants, cytogenetics, biosystematics, recombinant DNA technology, mycology, weed biology, tissue culture and plant biochemistry.

An advisory committee is named for each student, having the responsibility for developing the program of study appropriate to the student's background and area of specialization.

65.3 Admission Requirements

General

The minimum cumulative grade point average (CGPA) is 3.0/4.0 (second-class upper division) or a GPA of 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.

Ph.D.

Ph.D. candidates are required to have an M.Sc. degree in an area related to the chosen field of specialization for the Ph.D. program. Outstanding M.Sc. students may be permitted to transfer to the second year of the Ph.D program following one year of study.

65.4 Application Procedures

Applicants for graduate studies through academic units in the Faculty of Agricultural and Environmental Sciences must forward supporting documents to:

Student Affairs Office (Graduate Studies)
Macdonald Campus of McGill University
21,111 Lakeshore
Sainte-Anne-de-Bellevue, QC H9X 3V9
Canada

Telephone: (514) 398-7925
Fax: (514) 398-7968
E-mail: grad@macdonald.mcgill.ca

Applications will be considered upon receipt of a signed and completed application form, \$60 application fee, all official transcripts, two signed original letters of reference on official letterhead of originating institution, and (if required) proof of competency in oral and written English by appropriate exams. DOCUMENTS SUBMITTED WILL NOT BE RETURNED.

Deadlines – Applications, including all supporting documents must reach the Student Affairs Office no later than June 1 (March 1 for International) for the *Fall Term (September)*; October 15 (July 1 for International) for the *Winter Term (January)*; February 15 (November 1 for International) for the *Summer Term (May)*. It may be necessary to delay review of the applicant's file until the following admittance period if application materials including supporting documents are received after these dates. International applicants are advised to apply well in advance of the deadline because immigration procedures may be lengthy. Applicants are encouraged to make use of the on-line application form available on the Web at www.mcgill.ca/applying/graduate.

Application Fee (non-refundable) – A fee of \$60 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: on-line 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.

Transcripts – Two official copies of all 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 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) 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, are required. It is the applicant's responsibility to arrange for these letters to be sent.

Competency in English – Non-Canadian applicants whose mother tongue is not English and who have not completed an undergraduate degree using the English language are required to submit documented proof of competency in oral and written English, by appropriate exams, e.g., TOEFL (minimum score 550 on the paper-based test, 213 on the computer-based test) or 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.

Financial aid is very limited and highly competitive. It is suggested that students give serious consideration to their financial planning before submitting an application.

Acceptance to all programs depends on a staff member agreeing to serve as the student's supervisor and the student obtaining financial support. Normally, a student will not be accepted unless adequate financial support can be provided by the student and/or the student's supervisor. Academic units cannot guarantee financial support via teaching assistantships or other funds.

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 Graduate and Postdoctoral Studies Office minimum CGPA of 3.0/4.0. The course(s) to be taken in a *Qualifying Program* will be prescribed by the academic unit concerned. *Qualifying students* are registered in graduate studies, **but not as candidates for a degree**. Only one qualifying year is permitted. **Successful completion of a qualifying program does not guarantee admission to a degree program.**

65.5 Program Requirements

M.Sc.

Candidates must complete a 45-credit course and research program established by their advisory committee. The program will consist of:

1. Two 3-credit graduate level courses or their equivalent.
2. M.Sc. Thesis 1 PLNT 664.
3. M.Sc. Thesis 2 PLNT 665.

- M.Sc. Thesis 3 PLNT 666.
- Attendance at PLNT 665, PLNT 666, PLNT 767 and PLNT 768; and at invitational seminar (PLNT 690).
- Additional courses may be required at the discretion of the candidate's supervisory committee.

Plant Science M.Sc. research programs normally require two years for completion.

M.Sc. – Neotropical Environment

Candidates must complete a 45-credit course and research program established by their advisory committee. The program will consist of:

- Two 3-credit courses ENVR 610 and BIOL 640.
- One 3-credit course chosen from POLI 644, SOCI 565, ENVR 611, ENVR 612, ENVR 680, BIOL 553, BIOL 641, GEOG 498, AGRI 550.
- M.Sc. Thesis 1 PLNT 664.
- M.Sc. Thesis 2 PLNT 665.
- M.Sc. Thesis 3 PLNT 666.
- When in residence in Montreal, attendance at PLNT 665, PLNT 666, PLNT 690, PLNT 767 and PLNT 768; when in residence in Panama, participation at the STRI seminar series.
- Participation in the MSE-Panama Symposium Presentation in Montreal is also required.
- Additional courses may be required at the discretion of the candidate's supervisory committee.

Plant Science research programs normally require two years for completion.

Ph.D.

Students will follow the program of study established by their advisory committee. This program will consist of:

- Ph.D. comprehensive examination PLNT 701, which must be taken within one year of registering.
- Ph.D. Thesis 1 PLNT 766.
- Ph.D. Thesis 2 PLNT 767.
- Ph.D. Thesis 3 PLNT 768.
- Other courses deemed necessary for the chosen area of specialization.
- Attendance at all thesis progress and program reports (PLNT 665, PLNT 666, PLNT 767 and PLNT 768) and at invitational seminar (PLNT 690).

Students who have taken their M.Sc. degree at McGill University will be required to spend one term in study at another research institution.

Ph.D. – Neotropical Environment

Students will follow the program of study established by their advisory committee. This program will consist of:

- Ph.D. comprehensive examination PLNT 701, which must be taken within one year of registering.
- Ph.D. Thesis 1 PLNT 766.
- Ph.D. Thesis 2 PLNT 767.
- Ph.D. Thesis 3 PLNT 768.
- Two required courses: ENVR 610 and BIOL 640.
- One course chosen from POLI 644, SOCI 565, ENVR 611, ENVR 612, ENVR 680, BIOL 553, BIOL 641, GEOG 498, AGRI 550.
- When in residence in Montreal, attendance at all thesis progress and program reports: PLNT 665, PLNT 666, PLNT 690, PLNT 767 and PLNT 768; when in residence in Panama, participation at the STRI seminar series.
- Participation in the MSE-Panama Symposium Presentation in Montreal is also required.
- Additional courses may be required at the discretion of the candidate's supervisory committee.

Students who have taken their M.Sc. degree at McGill University will be required to spend one term in study at another research institution.

65.6 Courses for Higher Degrees

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

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

- Denotes courses not offered in 2003-04.

AEMA 610 STATISTICAL METHODS 2. (3) (3 lectures and one 2-hour lab) (Prerequisite: AEMA 310 or equivalent) Principles of linear models, multiple regression equations and classification models. Introduction to Analysis of Variance and common statistical designs used in agricultural and environmental sciences. Emphasis on balanced and unbalanced designs and data structures; their analysis and tests of statistical significance.

AEMA 611 EXPERIMENTAL DESIGNS. (3) (3 lectures and 1 conference) (Prerequisite: AEMA 310 or equivalent) (Given in alternate years) General principles of experimental design, split-plot designs, spatial heterogeneity and experimental design, incomplete block designs and unbalanced designs, analysis of repeated measures, multivariate and modified univariate analyses of variance, central composite designs.

AEMA 614 TEMPORAL AND SPATIAL STATISTICS. (3) (3 hours lectures) (Prerequisite: AEMA 310 or equivalent) (Given in alternate years) Temporal statistics: analysis in the time domain, Box-Jenkins forecasting methodology, analysis in the frequency domain, periodogram analysis. Spatial statistics: mapping, autocorrelation analysis, geostatistics. Statistical inference with autocorrelated sample data.

CELL 500 TECHNIQUES PLANT MOLECULAR GENETICS. (3) Plant biotechnology, recombinant DNA techniques, transgenic plant generation (genetically modified plants) as well as gene and gene product analysis.

- **CELL 501 PLANT MOLECULAR BIOLOGY AND GENETICS.** (3)

PLNT 525 ADVANCED MICROPROPAGATION. (3) (One 3-hour lecture) A detailed study of the principles and techniques of plant micro propagation. Includes lectures, laboratories, discussion sessions and visits to local laboratories. Evaluation is based on contribution to discussions, laboratory reports and an individualized project.

PLNT 535 PLANT BREEDING. (3) (Given in alternate years) Principles and practices of plant breeding, including reproduction of crop plants; plant hybridization; sources of genetic variation; selection methods used for self- and cross-pollinated crops and for clonally reproduced crops; breeding for diseases and pest resistance; applications of biotechnology in plant breeding.

PLNT 600 PLANT-MICROBE INTERACTIONS. (3) (3 hours) This course examines in detail the advances in several areas of plant-microbe research; signalling (recognition phenomena) and regulatory interactions between plants and microbes (including symbionts), biochemical and molecular plant response to biotic and abiotic stress and mechanisms of defense reactions.

PLNT 604 VEGETABLE CROPS. (3) Discussion and reading assignments on the application of plant physiology and other sciences to the production of vegetable crops.

- **PLNT 614 ADVANCED PLANT BREEDING.** (3)

PLNT 619 CROP PHYSIOLOGY. (3) (3 hours conference) Growth and development of crops, with emphasis on canopy structure and arrangement, light interception, temperature, water and salt stress.

PLNT 622 BIOLOGICAL CONTROL OF WEEDS. (3) Directed reading and discussion on the use of plant-feeding organisms and disease to reduce the density of undesirable vegetation in favour of more useful plant species.

PLNT 623 BIOCHEMISTRY AND PHYSIOLOGY OF HERBICIDES. (3) Mechanisms of penetration, translocation, selectivity and modes of action of herbicides and their interactions with the environment.

● **PLNT 626 BIOCHEMISTRY AND PHYSIOLOGY OF PLANT LIPIDS.** (3) (2 hours lectures)

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 633 PLANT PATHOGENIC FUNGI.** (3)

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 rate of disease development. Disease forecasting and timing fungicide application. Management of crop diseases, including chemical and biological control. Immunological and molecular techniques to detect pathogens.

● **PLNT 636D1 EPIDEMIOLOGY AND MANAGEMENT OF PLANT DISEASE.** (1.5)

● **PLNT 636D2 EPIDEMIOLOGY AND MANAGEMENT OF PLANT DISEASE.** (1.5)

PLNT 650 ADVANCED SYSTEMATIC BOTANY. (3) This course deals with the literature and philosophy of plant classification, processes of speciation in higher plants, sources and interpretation of data, biosystematic methods and plant nomenclature.

● **PLNT 662 LABORATORY RESEARCH METHODS PLANT SCIENCE.** (3) (3 hours lab)

PLNT 664 M.Sc. THESIS 1. (12) Written and oral presentation of thesis proposal to the research supervisory committee.

PLNT 665 M.Sc. THESIS 2. (12) Oral presentation of a proposal to the department and progress report on the thesis research project to the supervisory committee.

PLNT 666 M.Sc. THESIS 3. (15) Preparation and submission of an acceptable thesis. Oral presentation of the thesis research to the department.

PLNT 670 SPECIAL TOPICS. (3) (2 hours seminar) This course is designed to develop seminar presentation skills in graduate students. The course consists of instruction on audio-visual preparation, speaking style, and organization of content, plus practice presentations by students.

PLNT 690 RESEARCH HORIZONS IN PLANT SCIENCE. (0) A series of seminars presented by invited speakers, staff and senior graduate students. The topics are selected to integrate the many fields of plant science.

May be offered as: PLNT 690D1 and PLNT 690D2, or PLNT 690N1 and PLNT 690N2.

PLNT 691D1 RESEARCH HORIZONS IN PLANT SCIENCE. (0) (Students must also register for PLNT 691D2) (No credit will be given for this course unless both PLNT 691D1 and PLNT 691D2 are successfully completed in consecutive terms) A series of seminars presented by invited speakers, staff and senior graduate students. The topics are selected to integrate the many fields of plant science.

PLNT 691D2 RESEARCH HORIZONS IN PLANT SCIENCE. (0) (Prerequisite: PLNT 691D1) (No credit will be given for this course unless both PLNT 691D1 and PLNT 691D2 are successfully completed in consecutive terms)

May be offered as: PLNT 691N1 and PLNT 691N2.

PLNT 701 DOCTORAL COMPREHENSIVE EXAMINATION. (0)

May be offered as: PLNT 701D1 and PLNT 701D2, or PLNT 701N1 and PLNT 701N2.

PLNT 766 Ph.D. THESIS 1. (0) Written and oral presentation of thesis proposal to the research supervisory committee.

May be offered as: PLNT 766D1 and PLNT 766D2.

PLNT 767 Ph.D. THESIS 2. (0) Oral presentation of a proposal to the Department and progress report on the thesis research project to the supervisory committee.

May be offered as: PLNT 767D1 and PLNT 767D2.

PLNT 768 Ph.D. THESIS 3. (0) Preparation and submission of an appropriate final thesis. Oral presentation of the thesis research and thesis defense to the Faculty.

PLNT 770 SPECIAL TOPICS 2. (3) Prescribed reading, conference and practical work on selected topics in the student's area of specialization.

66 Political Science

Department of Political Science
Stephen Leacock Building
855 Sherbrooke Street West
Montreal, QC H3A 2T7
Canada

Telephone: (514) 398-4800

Fax: (514) 398-1770

Web site: www.arts.mcgill.ca/programs/polisci

Chair — T.B.A.

Director of Graduate Program — Richard Schultz

66.1 Staff

Emeritus Professors

James Mallory; B.A., M.A.(UNB), LL.B.(Edin.), M.A.(Dal.)

Baldev Raj Nayar; B.A., M.A.(Punj.), M.A., Ph.D.(Chic.)

Professors

Mark R. Brawley; B.A., M.A., Ph.D.(U.C.L.A.)

Michael Brecher; B.A.(McG.), M.A., Ph.D.(Yale), F.R.S.C.

(R.B. Angus Professor of Economics and Political Science)
(on leave winter 2004)

Rex Brynen; B.A.(Vic.,B.C.), M.A., Ph.D.(Calg.)

Elisabeth Gidengil; B.A.(Lond.), M.A.(N.Y.), Ph.D.(McG.)

Christopher Manfredi; B.A., M.A.(Calg.), M.A., Ph.D.(Claremont)
(on leave 2003-04)

T. V. Paul; B.A., M.A.(Kerala), M.Phil.(J. Nehru U.), M.A.,
Ph.D.(U.C.L.A.) *(James McGill Professor)*

Filippo Sabetti; B.A.(McM.), Ph.D.(Ind.)

Richard Schultz; B.A.(York), M.A.(Manc.), Ph.D.(York) *(James McGill Professor)*

Harold M. Waller; M.S.(Northwestern), Ph.D.(Georgetown) *(on leave 2003-04)*

Associate Professors

Arun Agrawal; B.A.(Delhi), M.B.A.(Indian Inst. of Mgmt), M.A.,
Ph.D.(Duke) *(William Dawson Scholar)*

Jerome H. Black; B.A.(Tor.), M.A.(Kent & Roch.), Ph.D.(Roch.)
(on leave winter 2004)

Barbara Haskel; A.M., Ph.D.(Harv.)

Antonia Maioni; M.A.(Carl.), Ph.D.(Northwestern) *(William Dawson Scholar)*

Hudson Meadwell; B.A.(Man.), M.A., Ph.D.(Duke)

Samuel J. Noumoff; B.A.(Clark), M.A., Ph.D.(N.Y.)

Philip Oxhorn; B.A.(Redlands), M.A.(Cant.), Ph.D.(Harv.) *(on leave 2003-04)*

Alan Patten; M.A., Ph.D.(Oxf.) *(William Dawson Scholar)*

Stephen Saideman; B.A.(Oberlin), M.A., Ph.D.(U.C., San Diego)
(Canada Research Chair)

Narendra Subramanian; B.A.(Prin.), M.A., Ph.D.(M.I.T.)

Assistant Professors

Catherine Lu; Ph.D.(Tor.)

Stuart Soroka; B.A.(Queen's), M.A.(Carl.), Ph.D.(U.B.C.)

Dietlind Stolle; M.A.(Claremont), Ph.D.(Prin.)

66.2 Programs Offered

The Department offers programs leading to the M.A. (with or without thesis) and Ph.D. degrees. These programs combine depth of specialization in a particular field with breadth of knowledge in related fields. The staff offers courses and supervises research on most of the important areas of political science. Students may specialize in any of the following: Canadian Government and Politics; Comparative Politics of Developed or Developing Countries, Political Theory and International Relations.

The Department awards a number of teaching assistantships each year and students who are admitted to the graduate program are automatically considered for such an award. The announcements listing the positions expected to be available will be posted by October 15 for Winter Term courses and March 31 for Fall and Full Year courses.

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.

66.3 Admission Requirements

All applicants, including those who have done their undergraduate work at McGill, must submit at least two letters of reference. Transcripts from all universities attended must be sent to the Department.

Master's

Students holding a B.A. degree may be eligible for admission to the M.A. program. Preparation equivalent to a McGill Honours Program in Political Science is desirable. Students who have 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 to the Master's Program or Qualifying term or year.

Non-Canadian students from countries where English is not the first language and who have not studied at a university in which teaching is conducted in English must submit TOEFL scores. A minimum score of 600 on the paper-based test (250 on the computer-based test) is required for admission. Files will not be considered unless TOEFL scores are received before the application deadline.

GRE information booklets and, when appropriate, TOEFL information booklets are included in the application package mailed to prospective students. For more information, consult the following Web sites: www.gre.org and www.toefl.org.

66.4 Application Procedures

Applications will be considered upon receipt of:

1. application form.
2. original transcripts;
3. two letters of reference;
4. \$60 application fee;
5. test results: TOEFL (if applicable) and GRE (for Ph.D. applicants);
6. personal statement (one page);
7. sample of writing (Ph.D. only).

All applications should be submitted to the Graduate Coordinator in the Department of Political Science.

The deadline for applications for admission to the Department is January 31.

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

66.5 Program Requirements

Requirements for the M.A. Degree (45 credits)

Students may select Option A (Thesis Option) or Option B (Research Project Option) in completing M.A. degree requirements. Students may switch from one option to the other while completing their coursework.

In addition, the Department offers an M.A. Research Project Option in Social Statistics.

A. Thesis Option

There are two requirements:

1. Five one-term courses (5 x 3 credits). Where special requirements of a student's area of concentration so warrant, the Director of Graduate Program may allow one of these courses to be taken at the upper undergraduate level. The substitution of one course outside Political Science in related disciplines may also be allowed if it is appropriate to the program.
2. 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.

B. Research Project Option

1. Seven one-term courses (7 x 3 credits). Where special requirements of a student's area of concentration so warrant, the Director of Graduate Program may allow one of these courses to be taken at the upper undergraduate level. The substitution of up to two courses outside Political Science in related disciplines may also be allowed if appropriate to the program.
2. A research paper to demonstrate proficiency in research. The research paper 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.

For both of the above options, all students must take one of the following and preferably both:

- POLI 616 or POLI 617 or POLI 561
- OR POLI 612 or a suitable more advanced course.

M.A. Project Option in Social Statistics

The 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.

Entrance to this option is by application to the Social Statistics Option Committee *subsequent to acceptance into the Department program*.

All students must take one of the following and preferably both:

- POLI 616 or POLI 617 or POLI 561
- OR POLI 612 or a suitable more advanced course.

In addition, students MUST take POLI 688 Research Seminar in Social Statistics (or equivalent).

Candidates for the M.A. degree follow a program approved on an individual basis by the Department. All students who wish to be considered for the Ph.D. program are evaluated on the basis of their M.A. program. Only a small number of students are permitted to go on for their doctorate and students currently enrolled in the M.A. program must formally re-apply for admission into the Ph.D. program. A pass for the M.A. degree does not necessarily imply permission to proceed to the doctorate.

Requirements for the Ph.D. Degree

Superior applicants, normally understood as students who are at least in the top 10 percent of their graduating class or who have a CPGA of at least 3.5 or its equivalent, will be eligible for admission into the Ph.D. track and receive a Ph.D. degree after successfully completing the requirements of the Ph.D. track. These are:

A. Successful completion of thirteen 3-credit courses.

B. Distribution of Courses:

1. Two major fields in political science (satisfied by four courses and a written comprehensive examination in each field, as well as one integrated oral comprehensive examination covering both major fields).
 2. One minor field (satisfied by two courses). Minor fields can be in any one of the five fields offered by the Department. Students may also petition the Graduate Committee to approve as a minor some special combination of courses which is suitable to a particular student's planned course of study.
 3. An additional 3-credit course in either of the student's major fields or minor field, according to what best meets the particular student's needs.
 4. Students are required to take one 700-level Ph.D. Research Seminar in each major field, as part of the four course requirement. In each of these 700-level seminars, students are expected to complete a paper which focuses on a clearly defined research problem and is comparable in scope to an article in a professional journal. The papers should demonstrate the student's familiarity with the relevant scholarly work and his/her ability to carry out research and organize the results of the research. Each paper will be evaluated by two faculty members in the Department.
 5. Methodology Requirements: All students are required to take at least one of the following POLI 616 or POLI 617 or POLI 561 and POLI 612 or a suitable more advanced course. Students who are given an exemption from a methodology course requirement because of course work completed prior to entering the M.A.-Ph.D. program will still be required to complete thirteen 3-credit courses.
- C. Advanced Research Tools: The Department feels that it is essential that its Ph.D. students demonstrate a high level of proficiency in one of the two principal research tools of modern political science: languages or quantitative methods. Language Requirement: Students must pass an advanced-level translation test from a language other than English. In selecting a language to fulfill this requirement, the student must demonstrate in writing how the chosen language is related to the research. Quantitative Methods: To fulfill this requirement, students must complete a course in advanced statistical methods. For additional information, students should consult the "Information Bulletin for Ph.D. Program".
- D. All students in the Ph.D. program are expected to take their written comprehensives and their oral comprehensive in the second term of their third year in the program. Students are expected to have completed all of their required course work in their major and minor fields, as well as their methodology requirement (13 one-term courses), by no later than the end of the first term of their third year.
- E. Students are expected to submit dissertation proposals by the end of the second term of their third year in the program.
- F. The student must write a doctoral dissertation which makes an original contribution to knowledge in the discipline.

Ph.D. – Neotropical Environment candidates who choose the Language Requirement referred to in item C above, must fulfill that requirement in Spanish. They must also include the following courses as part of their program: ENVR 610 and BIOL 640, and one of POLI 644, SOCI 565, ENVR 611, ENVR 612, ENVR 680, BIOL 553, BIOL 641, GEOG 498, AGRI 550;

Transfer students and students with Master's degrees from other universities: Transfer students will be treated as M.A. students who change tracks. Previous course work at the graduate level can be applied towards the requirements of the program, provided the Admission Committee is confident that the quality of such work is on par with McGill standards. Students transferring into the M.A.-Ph.D. track must fulfill a minimum residency requirement of two years, including a minimum of 6 courses and at least one 700-level Ph.D. research paper. All students will be required to pass the comprehensive written and oral exams.

66.6 Courses for Higher Degrees

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

Undergraduate Courses for Qualifying Program and Graduate Students.

When it is appropriate to their programs, graduate students may take an undergraduate course approved by the Director of Graduate Studies. These courses are listed in the Faculty of Arts section of the *Undergraduate Programs Calendar* and in the annual course list prepared by the Department in the fall.

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 not offered in 2003-04.

POLI 099 TEACHING METHODS. (3) This registration is available to graduate students at the M.A. or Ph.D. level who have satisfactorily completed work as a Teaching Assistant for at least a two-thirds appointment over the course of two semesters.

POLI 521 SEMINAR: CANADIAN POLITICS AND GOVERNMENT. (3) (Open to graduate students, final year Honours students, and other advanced undergraduates with the permission of the instructor) (Prerequisite: At least one 300 or 400-level course in Canadian Politics) Selected problems of Canadian socio-economic and political structures; political culture; constitutional development, and governmental structure. Topic for 2003-04: Constitutional Politics.

POLI 522 SEMINAR: DEVELOPING AREAS. (3) (Prerequisite: At least one upper level course in the politics of developing areas) (Open to graduate students, final year Honours students, and other advanced undergraduates with the permission of the instructor) A research seminar dealing with experiences of various developing countries. Examines the intersections of visions of gender and community; the interactions between mobilization along gender and community lines; the gendered nature and cultural coding of various policy initiatives. Greater emphasis given to concerns and actions of women, and to visions of community based on religion and race. Students are expected to undertake a research project. Topic for 2003-04: Power, Marginality, Resistance.

POLI 524 SEMINAR: DEVELOPED AREAS. (3) (Prerequisite: At least one upper-level course in the politics of developed areas) (Open to graduate students, final year Honours students, and other advanced undergraduates with the permission of the instructor) Topic for 2003-04: Passage to Modernity and Democratic Transformation in Comparative Perspective.

POLI 561 SEMINAR: POLITICAL THEORY. (3) (Prerequisite: At least one upper level course in political philosophy) (Open to graduate students, final year Honours students, and other advanced undergraduates with the permission of the instructor) A topic in political philosophy such as democracy, liberty, property or nationalism, or a political philosopher, is studied to enable students to research a topic in depth, to present their papers to the seminar, and to

engage in and profit from discussion and debate. Topic for 2003-04: Justice and Reconciliation.

POLI 575 SEMINAR: INTERNATIONAL POLITICS. (3) (Open to graduate students and final year Honours students only) A research seminar dealing with topics in the field of international politics. Topic for 2003-04: Domestic and International Politics of Separatism.

POLI 599 INTERNSHIP: POLITICAL SCIENCE. (3) (Fall and Winter) (Open, with permission, to final year Honours and Joint Honours students, and graduate students. This course does not count as a 500-level seminar under the Honours requirements) The internship shall consist of a minimum of 150 hours of work over a period of 12 weeks, plus a major research project based on the internship. The major project will ordinarily consist of a major research paper, plus a substantial written record of the work conducted during the internship.

POLI 612 EMPIRICAL METHODS. (3) Fundamental principles of empirical research, in which the emphasis will be placed on acquainting the student with the techniques most commonly used by political scientists. The topics include the design of research projects, procedure in carrying out research, problems of measurement, survey research, scaling, data processing, and data analysis.

POLI 613 SELECTED THEMES: POLITICAL THEORY. (3) A seminar on a theme in contemporary political theory or in the history of political theory.

POLI 616 MODERN POLITICAL ANALYSIS. (3) An introduction to the concepts underlying modern approaches to the study of politics. The scope of the discipline will be delineated and the foundations of empirical research, including the philosophy and methodology of science especially as these apply to social science, will be considered. Various alternatives and critiques will be presented and evaluated.

POLI 617 PROBLEMS IN POLITICAL THEORY. (3) An introduction to central normative issues in the study of politics. The seminar consists of lectures, oral presentations, discussion and research papers.

● **POLI 619 IMMIGRANTS / REFUGEES / MINORITIES.** (3)

● **POLI 620 SOCIETY AND POLITICS IN CANADA.** (3)

POLI 621 INTERPRETING CANADIAN POLITICAL PROCESS. (3) Strategies for studying the Canadian political process. Pluralist, Marxist and state autonomist approaches for analysing the relative significance and inter-relationships of basic components of the Canadian political system. Although one purpose of the course is to survey the literature on individual topics, a broader purpose is to employ individual research strategies to develop conclusions about the nature, distribution, and exercise of power in Canada.

● **POLI 622 ADVANCED TOPICS CANADIAN POLITICS.** (3)

● **POLI 623 JUDICIAL POLITICS AND THE CONSTITUTION.** (3)

● **POLI 625 COMPARATIVE POLICY ANALYSIS.** (3)

POLI 628 COMPARATIVE POLITICS. (3) An introduction for graduate students to the sub-discipline of comparative politics. The logic of comparative analysis as well as a number of alternative paradigms for analyzing and comparing political systems and processes.

POLI 629 TOPICS IN POST-SOVIET POLITICS. (3) This course will incorporate discussions of concrete political processes and events, but will focus primarily on theories in comparative politics that might help us understand changes currently underway in the former Soviet Union. Students will continuously assess the value of these theories as methods of understanding change in the former Soviet Union.

● **POLI 630 TOPICS IN EUROPEAN POLITICS.** (3)

POLI 632 VOTING BEHAVIOR/PUBLIC OPINION. (3) A critical examination of major debates within the comparative literature on voting behavior and public opinion. The work discussed will draw primarily on research conducted in the United States, Canada and Western Europe.

POLI 635 THEORIES OF U.S. POLITICS. (3) A critical examination of some of the major theoretical analyses of U.S. politics. The course will focus on several key issues in the study of American political life, including distribution of power, the policy process, state and society, and bargaining and coalition building.

● **POLI 636 APPROCHES THEOR:POLITIQUE QUE.** (3) (This course will be conducted both in English and French; a reading knowledge and an ability to understand the two languages is recommended)

● **POLI 639 POLITICS OF DEVELOPED AREAS.** (3)

POLI 640 MIDDLE EAST POLITICS. (3) Examination of political and socio-economic development in the Middle East, with particular emphasis on the Arab world. Topics to be addressed include state formation and consolidation; Arab nationalism; civil society and state-society relations; the politics of Islam; petro-politics; the political economy of economic liberalization; and future patterns of political change.

POLI 641 POLITICAL CHANGE IN SOUTH ASIA. (3) This course examines major political and social changes in South Asia. Explores such topics as colonialism and nationalism; trends in mass mobilization and electoral politics; regime changes; economic policies and their impact; and conflicts over authority patterns, policy agendas, and national boundaries.

POLI 642 AFRICAN POLITICS. (3) Selected problems in contemporary comparative African politics and political thought. The work of the seminar centres around research papers prepared and presented by participants.

● **POLI 643 POLITICS OF IDENTITY.** (3)

● **POLI 646 POLITICS OF DEVELOPING AREAS.** (3)

POLI 647 POLITICAL DEVELOPMENT: NEW NATIONS. (3) Incorporation of subordinate groups into national systems in the developing countries of Africa, Asia, and Latin America. Specific topics include state formation, the emergence of civil society, modernization and dependency theories, alternative development models, democracy, authoritarianism, sustainable development and gender.

● **POLI 648 LATIN AMERICAN POLITICS.** (3)

POLI 649 MASS APPROACH POLITICAL DEVELOPMENT: CHINA. (3) The strategy of political and socio-economic development in contemporary China. Topics include: cultural and ideological foundations of socialization. The consequences of the disintegration of the USSR and the socialist countries of Europe, and the balance sheet of the post-1978 reform.

POLI 650 SEMINAR IN PEACEBUILDING. (3) An examination of transitions from civil war to peace, and the role of external actors (international organizations, bilateral donors, non-governmental organizations) in support of such transitions. Topics will include the dilemmas of humanitarian relief, peacekeeping operations, refugees, the demobilization of ex-combatants, transitional elections, and the politics of socio-economic reconstruction.

POLI 651 THE EU AND POLITICAL INTEGRATION. (3) Theories from both comparative and international politics will be drawn upon to analyze the development, politics, institutions and policies of the EU. The internal political economy and external relations of the EU will be analyzed.

POLI 671 INTERNATIONAL RELATIONS THEORY. (3) This course is designed to give students a thorough background in the basic theories and models used in International Relations. It emphasizes breadth, in order to ground students in the variety of approaches employed in the field of international politics.

POLI 672 INTERNATIONAL POLITICAL ECONOMY. (3) For students in international and comparative politics, a course in IPE in two senses: 1) the use of the economic model of purposive behaviour to examine international phenomena; 2) the politics of global economic issues such as production, trade, finance, debt, technology transfer, economic coordination. Connections between domestic political economies and the IPE, alternative strategies of state adjustment to a changing IPE.

● **POLI 673 INTERNATIONAL POLITICS NORTH-SOUTH RELATIONS.** (3)

● **POLI 676 PSYCHOLOGY AND POLITICS.** (3) (Prerequisites: No previous course work in psychology is required. In addition to political science graduate students who are specializing in international relations and, subject to limitations of class size, this seminar is open to other interested political science graduate students and third year honours undergraduates in political science, history and psychology.)

POLI 677 INTERNATIONAL CRISIS, CONFLICT, WAR. (3) This seminar is designed to explore the literature on the concepts of international crisis, conflict and war. Discussions will focus on: research designs and methods; decision-making models; crisis/conflict management; bargaining in crisis; UN and superpower crisis intervention; deterrence and war prevention; theories of war; and polarity, war, crisis and stability.

● **POLI 678 STATE BEHAVIOUR.** (3)

POLI 679 INTERNATIONAL SECURITY: CONFLICT AND CO-OPERATION. (3) Covers theoretical and historical literature on international security, strategy, war, and cooperation. Includes systemic, societal and normative explanations of war, peace, security, and change.

POLI 688 SEMINAR ON SOCIAL STATISTICS. (3) Special topics on social statistics and presentations of ongoing research by students pursuing M.A. Option in Social Statistics in any of the participating disciplines.

POLI 690 READING IN POLITICAL SCIENCE. (3) A graduate student may take a one-term reading course per academic year in a particular field and under the supervision of a member of staff.

POLI 691 BIBLIOGRAPHIC METHODS 1. (6) Research-related skills and the production of a research bibliography.

POLI 692 BIBLIOGRAPHIC METHODS 2. (6) Advanced research-related skills and the production of a research bibliography.

POLI 693 M.A. RESEARCH PROPOSAL. (3)

POLI 694 RESEARCH PREPARATION 1. (3)

POLI 695 RESEARCH PREPARATION 2. (3)

POLI 696 RESEARCH PREPARATION 3. (3)

POLI 697 RESEARCH PREPARATION 4. (3)

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. **May be offered as: POLI 698D1 and POLI 698D2.**

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.

May be offered as: POLI 699D1 and POLI 699D2.

POLI 701 PH.D. GENERAL WRITTEN EXAMINATION FIRST FIELD. (0)

POLI 702 PH.D. GENERAL WRITTEN EXAMINATION SECOND FIELD. (0)

● **POLI 715 ISSUES IN CONTEMPORARY POLITICAL PHILOSOPHY.** (3)

POLI 728 RESEARCH SEMINAR IN COMPARATIVE POLITICS. (3) (Suggested prerequisites: POLI 612 and POLI 628) (Topic for 2003-04: Social Capital and Social Change in Comparative Perspective.) 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)

POLI 778 RESEARCH SEMINAR - INTERNATIONAL POLITICS. (3) 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) A research seminar on a topic that is not covered in the regular seminars, but which is of interest to a group of students and a faculty member. The exact topic for the research papers will be determined by mutual agreement among students and faculty members involved.

POLI 781 READING SEMINAR. (3) A research seminar on a topic that is not covered in the regular seminars, but which is of interest to a group of students and a faculty member. The exact topic for the research papers will be determined by mutual agreement among students and faculty members involved.

POLI 799 PH.D. ORAL COMPREHENSIVE EXAMINATION. (0)

67 Psychiatry

Department of Psychiatry
1033 Pine Avenue West
Montreal, QC H3A 1A1
Canada

Telephone: (514) 398-4176

Fax: (514) 398-4370

E-mail: msc.psychiatry@mcgill.ca

Web site: www.med.mcgill.ca/psychiatry/mscprog.htm

Chair — J. Paris

Chair of Graduate Program — M. Leyton

67.1 Staff

Emeritus Professors

B.E. Murphy; M.D.(Tor.), Ph.D.(McG.)
T.L. Sourkes; M.Sc.(McG.), Ph.D.(C'nell)

Professors

F. Abbott; B.Sc.(Trent), M.Sc., Ph.D.(McG.)
L. Annable; B.Sc.(Liver.), Dipl. in Stat.(Edin.)
C. Benkelfat; M.D.(Rabat)
P. Boksa; B.Sc., Ph.D.(Montr.)
G. Chouinard; B.A., M.D.(Montr.), Dipl.Psych.(McG.)
C. de Montigny; B.A., M.D., Ph.D.(Montr.)
M. Dongier; M.D.(Aix-Marseille), Dipl.Psych.(McG.)
F.R. Ervin; B.S.(Texas), M.D.(Tulane)
N. Frasure-Smith; B.A., Ph.D.(Johns H.)
S. Gauthier; B.A., M.D.(Montr.)
H.A. Guttman; M.D.(Geneva)
L.T. Hechtman; B.Sc., M.D., C.M.(McG.)
L.J. Kirmayer; B.Sc., M.D., C.M., Dipl.Psych.(McG.)
S. Lal; M.B., B.S.(Lond.), Dipl.Psych.(McG.)
E.P. Lester; M.D.(Athens); Dipl.Psych.(McG.)
M.J. Meaney; B.A.(Loyola), M.A., Ph.D.(C'dia.) (*James McGill Professor*)
K. Minde; M.D.(Munich), M.A.(Col.)
V.N.P. Nair; M.B., B.S.(Kerala), D.P.M.(Mys.)
J.C. Negrete; M.D.C.M., (Tucuman) Dipl.Psych.(McG.)
R. Palmour; B.A., Ph.D.(Texas)
J. Paris; M.D., C.M.(McG.)
J.C. Perry; M.D.(Duke)
G. Pinard; B.A.(Loyola), M.D., Dipl.Psych.(Montr.)
J. Poirier; Ph.D.(Montr.)
R. Quirion; B.Sc., M.Sc., Ph.D.(Sher.)
J.J. Sigal; B.Sc., B.Ed.(Alta.), M.A., Ph.D.(Montr.)
H. Steiger; Ph.D.(McG.)
A. Young; B.A., M.A., Ph.D.(Penn.)
S. Young; B.A.(Oxon), M.Sc., Ph.D.(Lond.)

Associate Professors

E.E. Corin; Ph.D.(Louvain)
 G. Debonnel; M.D.(Lyon)
 B.O. Dubrovsky; M.D.(Buenos Aires)
 C. Gianoulakis; B.Sc.(Sir G.Wms.), Ph.D.(Rutgers)
 K. Gill; B.Sc.(Br.Col.), M.A., Ph.D.(C'dia)
 A. Gratton; Ph.D.(C'dia)
 S. King; M.Ed., Ph.D.(Va.)
 D. Pedersen; M.D.(Buenos Aires)
 J. Rochford; M.A.(Queen's), Ph.D.(C'dia)
 C. Rousseau; M.D.(Sher.), M.Sc.(McG.)
 L.K. Srivastava; B.Sc., M.Sc.(Alld.), Ph.D.(New Delhi)
 R. Tempier; M.D.(Aix-Marseille II)
 C.-D. Walker; B.Sc., Ph.D.(Geneva)
 M. Zoccolillo; B.Sc.(New Orleans), M.D.(Norfolk)

Assistant Professors

L. Beauclair; B.Sc., M.D.(Laval)
 P. Beaudry; M.D.(Sher.), Dipl.Psych.(McG.)
 S. Beaulieu; M.D./Ph.D.(Laval)
 D. Bloom; B.Sc.(Regina), M.D.(Queen's)
 D. Boivin; Ph.D.(Montr.)
 D. Charney; M.D., C.M.(McG.)
 J.B. Debruille; M.D.(Paris), Ph.D.(U Pierre et Marie Curie)
 M. Elie; M.D., C.M.(McG.)
 G. Galbaud du Fort; M.D., Ph.D.(Paris) (*joint appoint. with
 Epidemiology and Biostatistics*)
 D. Groleau; B.Sc., M.Sc., Ph.D.(Montr.)
 R. Joober; M.D.(France), Ph.D.(Tunisia)
 S. Kar; Ph.D.(Lond.)
 M. Lepage; Ph.D.(Quebec)
 M. Leyton; Ph.D.(C'dia)
 S. Lupien; Ph.D.(Montr.)
 M. Perreault; Ph.D.(Montr.)
 D. Sookman; Ph.D.(C'dia)
 G. Turecki; M.D.(Brazil), Ph.D.(McG.)
 S. Williams; Ph.D.(Montr.)

Associate Member

R.O. Pihl (Psychology)

Adjunct Professors

P. Blier, L. Gaston, C. Mercier, S. Welner

67.2 Programs Offered

Master of Science (M.Sc.)

The M.Sc. program in Psychiatry is designed (1) to provide a mechanism for the training of medical scientists who intend to pursue a research career in psychiatry and (2) to provide a focus for basic science or social science students wishing to obtain advanced training in areas particularly relevant to psychiatric research. Students in this program receive no clinical training in psychiatry.

67.3 Admission Requirements

A B.Sc., B.A., B.N. or M.D. degree.

A strong background in science and/or social science, as demonstrated by academic achievement equivalent to a GPA of 3.3 (on a 4 point scale).

A written statement of purpose, describing the specific reasons for seeking a Master of Science degree in Psychiatry.

An outline of the proposed thesis research, to be written by the prospective student in collaboration with an appropriate research supervisor.

Two letters of reference.

Proficiency in written English or French.

67.4 Application Procedures

Applications will be considered upon receipt of:

1. a completed application form;
2. two official transcripts;
3. two letters of reference;
4. Cdn \$60.00 application fee;
5. written agreement from the proposed research supervisor, and student's statement of purpose

All information is to be submitted directly to the Graduate Secretary at the address above.

Deadlines:

January (Winter term): August 1

May (Summer term): December 15

September (Fall term): March 1

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

67.5 Program Requirements

Formal coursework: The M.Sc. in Psychiatry requires 45 credits, of which 36 are Thesis Research and 9 are to be taken in graduate level courses approved by the student's Supervisory Committee. These courses are selected on the basis of the area of research interest and the background of the student, and shall include a course in statistical analysis, if this is not presented upon admission.

Original research. Each student shall complete an original investigation of a scope appropriate to the presentation of a Master's Thesis. This thesis will be reviewed by the Supervisory Committee prior to its submission to the Graduate and Postdoctoral Studies Office, and shall then be reviewed by external referees according to the usual regulations of the Graduate and Postdoctoral Studies Office.

Supervisory Committees. The M.Sc. in Psychiatry is administered by a the Graduate Training Committee, which meets with each student during the first term of residence to assign a Supervisory Committee composed of the research supervisor plus 2-4 other faculty who are knowledgeable about the student's research area and who can advise both on appropriate coursework and on the thesis research project. The student will meet with this committee at least once during each year of matriculation for the purpose of evaluating academic and research progress of the student. The Supervisory Committee will also act as a resource body for the student, both with respect to academic and administrative matters.

Residence. Three terms of full-time study. No part-time study allowed.

67.6 Courses

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

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.

PSYT 500 ADVANCES: NEUROBIOLOGY OF MENTAL DISORDERS. (3) (Winter) (3 hours) (Open to U3 and graduate students only.) (Graduate Studies: strongly recommended for M.Sc. students in Psychiatry.) Current theories on the neurobiological basis of most well known mental disorders (e.g. schizophrenia, depression, anxiety, dementia). Methods and strategies in research on

genetic, physiological and biochemical factors in mental illness will be discussed. Discussion will also focus on the rationale for present treatment approaches and on promising new approaches.

PSYT 502 BRAIN EVOLUTION AND PSYCHIATRY. (3) (Fall) (Prerequisites: BIOL 115 or equivalent as authorized by instructor) The course will focus on the transcendental importance of evolution of nervous systems for normal and pathological behavior. Studies of allometric brain growth and recent evolutionary theories of brain organization as they relate to normal and abnormal behavior will be emphasized.

PSYT 610 DIPLOMA EVALUATION: WRITTEN. (0)

PSYT 611 DIPLOMA EVALUATION: ORAL. (0)

PSYT 630 STATISTICS FOR NEUROSCIENCES. (3) Statistics needed for analysing the types of data generated in a laboratory setting, with emphasis on the neurosciences, will be covered. Hypothesis testing, parametric and non-parametric statistics will be studied with a practical approach, using data generated by the students. Computer analysis will be introduced.

PSYT 691 THESIS RESEARCH 1. (12)

PSYT 692 THESIS RESEARCH 2. (12)

PSYT 693 THESIS RESEARCH 3. (12)

PSYT 696 SPECIAL TOPICS IN PSYCHIATRY. (3) Supervised reading and discussion of selected issues and topics in contemporary psychiatry. Students will be responsible for assigned readings and for preparation of a graded paper.

PSYT 711 CULTURAL PSYCHIATRY. (3) (Prerequisites: Knowledge of psychiatry and anthropology) Topics covered: cross-national epidemiological and ethnographic research of major and minor psychiatric disorders; culture-bound syndromes and idioms of distress; culture, emotion and social interaction; psychological and symbolic healing; mental health of immigrants and refugees; psychiatric theory and practice as cultural constructions; methods of cross-cultural research.

PSYT 713 PSYCHIATRIC EPIDEMIOLOGY. (3) (Prerequisites: EPIB 606 or equivalent or permission of instructor.) An overview of the applications of epidemiology in psychiatry, including instruments and methods used in community studies; major recent population surveys of psychiatric disorders; study of treatment-seeking, pathways to care and use of services; interaction between psychological distress and physical health; methods used in specific populations; evaluation of treatment.

68 Psychology

Department of Psychology
Stewart Biological Sciences Building, Room W8/38
1205 Avenue Docteur Penfield
Montreal, QC H3A 1B1
Canada

Telephone: (514) 398-6124 / 398-6100

Fax: (514) 398-4896

E-mail: gradapp@psych.mcgill.ca

Web site: www.psych.mcgill.ca

Chair — K.B.J. Franklin

68.1 Staff

Emeritus Professors

A.S. Bregman; M.A.(Tor.), Ph.D.(Yale)

V. Douglas; B.A.(Qu.), M.A., M.S.W., Ph.D.(Mich.)

W.E. Lambert; M.A.(Colgate), Ph.D.(N. Carolina), F.R.S.C.

A.A.J. Marley; B.Sc.(Birm.), Ph.D.(Penn.)

R. Melzack; B.Sc., M.Sc., Ph.D.(McG.) (*E.P. Taylor Emeritus Professor of Psychology*)

P. Milner; B.Sc.(Leeds), M.Sc., Ph.D.(McG.)

Professors

F.E. Aboud; B.A.(Tor.), M.A., Ph.D.(McG.)

I.M. Binik; B.A.(N.Y.U.), M.A., Ph.D.(Penn.)

A. Chaudhuri; B.Sc., M.Sc.(Tor.), Ph.D.(U.C.Berk.) (*James McGill Professor*)

B. Ditto; B.S.(Iowa), Ph.D.(Ind.)

K.B.J. Franklin; B.A., M.A.(Auck.), Ph.D.(Lond.)

F.H. Genesee; B.A.(W.Ont.), M.A., Ph.D.(McG.)

J. Mogil; B.Sc.(Tor.), Ph.D.(U.C. LA) (*E.P. Taylor Professor of Psychology*)

D.S. Moskowitz; B.S.(Kirkland), M.A., Ph.D.(Conn.)

Y. Oshima-Takane; B.A.(Tokyo Women's Christian U.), M.A.(Tokyo), Ph.D.(McG.)

D.J. Ostry; B.A.Sc., M.A.Sc., Ph.D.(Tor.)

C. Palmer; B.Sc.(Mich.), M.Sc.(Rutgers), Ph.D.(C'nell)

M. Petrides; B.Sc., M.Sc.(Lond.), Ph.D.(Cantab.)

R.O. Pihl; B.A.(Lawrence), Ph.D.(Ariz.)

J.O. Ramsay; B.Ed.(Alta.), Ph.D.(Prin.)

B. Sherwin; B.A., M.A., Ph.D.(C'dia) (*James McGill Professor*)

T.R. Shultz; B.A.(Minn.), Ph.D.(Yale)

Y. Takane; B.L., M.A.(Tokyo), Ph.D.(N. Carolina)

D.M. Taylor; M.A., Ph.D.(W.Ont.)

N. White; B.A.(McG.), M.A., Ph.D.(Pitt.)

D.C. Zuroff; B.A.(Harv.), M.A., Ph.D.(Conn.)

Associate Professors

A.G. Baker; B.A.(Br.Col.), M.A., Ph.D.(Dal.)

M. Baldwin; B.A.(Tor.), M.A., Ph.D.(Wat.)

D. Donderi; B.A., B.Sc.(Chic.), Ph.D.(C'nell.)

R. Koestner; B.A., Ph.D.(Roch.)

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.)

G. O'Driscoll; B.A.(Wellesley), Ph.D.(Harv.) (*William Dawson Scholar*)

Z. Rosberger; B.Sc.(McG.), M.A., Ph.D.(C'dia) (Part-time)

Assistant Professors

J. Abela; B.A.(Brown), M.A., Ph.D.(Penn.)

I. Bradley; B.Sc., M.Sc.(Tor.), Ph.D.(Wat.) (Part-time)

M-H. Ho; B.Sc., M.Phil.(Chinese U. of Hong Kong); M.Sc., Ph.D.(Ill.)

B. Knauper; Dr.phil.(Germany)

D.J. Levitin; A.B.(Stan.), M.S., Ph.D.(Oregon) (*Bell Professor of Psychology and E-Commerce*)

K. Nader; B.Sc., Ph.D.(Tor.)

D. Titone; B.A.(N.Y.), M.A., Ph.D.(SUNY at Binghamton)

Lecturers

N. Allard; R. Amsel

Associate Members

F. Abbott (*School of Nursing, Psychiatry*)

C. Baker, F.A.A. Kingdom, K. Mullen, R. Hess (*McGill Vision Research Centre*)

T. Coderre (*Anesthesia*)

M. Jones-Gotman, B. Milner, T. Paus, W. Sossin, V. Sziklas, R. Zatorre (*Montreal Neurological Institute*)

H. Steiger (*Douglas Hospital Research Centre*)

Adjunct Professors

M. Bruck, S. Bursein, F. Cramer-Azima, P. Delisle, C. Garson, P. Gregoire, L.A. Petitto, M. Shapiro, D. Sookman, M. Spevack, A. Surkis, P. Zelazo

Part-Time Appointments

J. Armony, J-M. Assaad, V. Bohbut, J. Legallais, M. Lepage, M. Leyton, S. Lupien, Z. Pleszweski, C. Zaccchia

68.2 Programs offered

M.A. and M.Sc. degrees may be awarded in Experimental Psychology, but only as a stage in the Ph.D. in Experimental Psychology program.

Ph.D. in Clinical Psychology (there is no M.A. or M.Sc. program).

The aim of the Experimental program is to provide students with an environment in which they are free to develop skills and expertise that will serve during a professional career of teaching and research as a psychologist. Course work and other requirements are at a minimum. Success in the program depends on the student's ability to organize unscheduled time for self-education. Continuous involvement in research planning and execution is considered a very important component of the student's activities. Students are normally expected to do both Master's and Doctoral study.

The Clinical program adheres to the scientist-practitioner model and as such is designed to train students for careers in university teaching or clinical research, and for service careers – working with children or adults in a hospital, clinical, or educational setting. Most of our clinical graduates combine service and research roles. While there are necessarily many more course requirements than in the experimental program, the emphasis is again on research training. There is no Masters program in Clinical Psychology; students are expected to complete the full program leading to a doctoral degree.

Research interests of members of the Psychology Department include animal learning, behavioural neuroscience, clinical, child development, cognitive science, health psychology, psychology of language, perception, quantitative psychology, social psychology, and personality psychology.

Facilities for advanced research in a variety of fields are available within the Department itself. In addition, arrangements exist with the Departments of Psychology at the Montreal Neurological Institute, Allan Memorial Institute, Douglas Hospital, Jewish General Hospital, Lakeshore General Hospital, Lethbridge Rehabilitation Centre, MacKay Centre, Montreal Children's Hospital and the Montreal General Hospital, to permit graduate students to undertake research in a hospital setting.

For full information about all programs and financial aid, and for application forms, contact the Graduate Program Co-ordinator, Department of Psychology.

Ph.D. Option in Language Acquisition (LAP)

Information about this option is available from the Department and on the Web at: www.psych.mcgill.ca/lap.html.

68.3 Admission Requirements

Admission to the graduate program depends on an evaluation of students' research interests and their aptitude for original contributions to knowledge and, if applicable, for professional contributions in the applied field.

The usual requirement for admission is an Honours or Majors degree (B.A. or B.Sc.) in Psychology. This usually includes an introductory course plus twelve courses in psychology (each equivalent to three term hours). Courses in experimental psychology, the theoretical development of modern ideas in psychology, and statistical methods as applied to psychological problems (equivalent to an introductory course) are essential. Applicants' knowledge of relevant biological, physical, and social sciences is considered.

Applicants who hold a Bachelor's degree but who have not met these usual requirements should consult the Graduate Program Director to determine which (if any) courses must be completed before an application can be considered. Students with insufficient preparation for graduate work may register as special students in the Faculty of Arts or the Faculty of Science, and follow an appropriate course of study. Such registration requires the permission of the Department but carries no advantage with respect to a student's eventual admission to graduate studies.

68.4 Application Procedures

Applicants must submit to the Graduate Program Secretary in Psychology:

1. a completed application form;

2. two official copies and one photocopy of all university transcripts;
3. three letters of recommendation, preferably from professors of psychology;
4. a fee of \$60, in Canadian funds, by credit card, or certified cheque or money order made payable to McGill University;
5. a completed application summary sheet for the Psychology Department;
6. a personal statement with their full name outlining their interests in psychology and their career goals; and
7. official reports and a photocopy of scores on the General and Subject Graduate Record Examination (GRE).

All applicants must take the GRE if they have studied at an English speaking University. Canadians who have not studied in English are not required to submit either GRE or TOEFL. Non-Canadians whose first language is not English and who have not studied at university in English must take the Test of English as a Foreign Language (TOEFL). Canadian citizens are not required to take the TOEFL.

Applicants should note that the deadline for many scholarships and fellowships is about four months earlier than the application deadline and that applications for fellowships and scholarships should be submitted through their home university.

The application deadline is January 1st.

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

68.5 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 the dissertation forms the major part of the evaluation at the Ph.D. level.

All Ph.D. 2 and 3 students must register for at least one graduate seminar each term (see course numbers PSYC 710 to PSYC 758); the seminars are conducted by different staff members each year and their content changes accordingly.

A special (doctoral) comprehensive examination is written in one of the following areas of psychology: clinical, behavioral neuroscience, learning and motivation, personality and social psychology, development and language, perception and cognition, quantitative and individual differences, or any other appropriate area.

Ph.D. students in clinical psychology must fulfill similar requirements to Ph.D. students in the experimental program and must also take a variety of specialized courses which include practicum and internship experiences.

The Department of Psychology does not ordinarily require an examination in a foreign language. It should be noted, however, that all students planning to practice in clinical psychology in the province of Quebec will be examined on their proficiency in French before being admitted to the professional association.

68.6 Courses

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

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.

● Denotes courses not offered in 2003-04.

● **PSYC 501 AUDITORY PERCEPTION.** (3) (2 lectures)

● **PSYC 503 COMPUTATIONAL PSYCHOLOGY.** (3)

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 422, 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) (Prerequisites: PSYC 337, PSYC 429 and permission of the instructor.)

● **PSYC 510 STATISTICAL ANALYSIS OF TESTS.** (3) (3 lectures)

● **PSYC 511 INFANT COMPETENCE.** (3) (1, 3 hour seminar) (Prerequisites: PSYC 351 or PSYC 352 or PSYC 353 or PSYC 380 or PSYC 450 and permission of instructor)

● **PSYC 522 NEUROCHEMISTRY AND BEHAVIOUR.** (3) (2 lectures) (Prerequisites: any two of the following PSYC 308, PSYC 311, PSYC 318, ANAT 321, PHGY 314, BIOL 306) (Restrictions: Not open to students who have taken or are taking PHAR 562)

PSYC 526 ADVANCES IN VISUAL PERCEPTION. (3) (Fall) (2 lectures) We examine in detail the structure of the visual system, and its function as reflected in the perceptual abilities and behaviour of the organism. Parallels are also drawn with other sensory systems to demonstrate general principles of sensory coding.

● **PSYC 528 VULNERABILITY TO DEPRESSION.** (3) (Prerequisite: PSYC 337 or PSYC 412 or permission of instructor. Requires departmental approval.)

● **PSYC 529 MUSIC COGNITION.** (3) (Prerequisites: PSYC 212, PSYC 213, PSYC 204 (or equivalent))

PSYC 530 APPLIED TOPICS IN DEAFNESS. (3) (Prerequisite: PSYC 340 or PSYC 316 or equivalent. Permission of instructor) Covers fundamental topics in deafness (sensory, perceptual, cognitive, social, linguistic, education and health issues) from an applied psychological perspective. Lectures and seminar presentations plus field work involving ASL/LSQ.

● **PSYC 531 STRUCTURAL EQUATION MODELS.** (3) (one 2-hour lecture plus one lab) (Prerequisite: PSYC 435, PSYC 651, or equivalent, or permission of instructor)

PSYC 532 COGNITIVE SCIENCE. (3) (Fall) (Prerequisites: Admission to the Cognitive Science Minor or permission of instructor. Students should ideally have some cognitive science background in at least two disciplines) The multi-disciplinary study of intelligent systems. Problems in vision, memory, categorization, choice, problem solving, cognitive development, syntax, language acquisition, and rationality. Rule-based and connectionist approaches.

● **PSYC 533 INTERNATIONAL HEALTH PSYCHOLOGY.** (3) (Prerequisite: PSYC 305 and PSYC 215 or PSYC 429 or PSYC 304 or ANTH 227.) (Departmental permission required.)

● **PSYC 534 COMMUNITY PSYCHOLOGY.** (3) (Prerequisites: PSYC 337 and PSYC 338 or permission of instructor) (Open to Graduate students or U3 undergraduates in Psychology) (Enrolment limited)

● **PSYC 535 ADVANCED TOPICS IN SOCIAL PSYCHOLOGY.** (3) (Prerequisites: PSYC 215, PSYC 333 and one additional course from the social and personality area of specialization, or PSYC 380. Departmental permission required.) (Graduate Students, enrolment limited)

● **PSYC 536 CORRELATIONAL TECHNIQUES.** (3) (Winter) (Prerequisites: PSYC 204 and PSYC 305 or their equivalents, and MATH 133 or equivalent. Requires departmental approval.)

PSYC 561 METHODS: DEVELOPMENTAL PSYCHOLINGUISTICS. (3) (3 hour lectures) (Prerequisites: PSYC 340, PSYC 343 and PSYC 305 or permission of instructor) (Graduate students, limited enrolment) An examination of various approaches and methods used in investigations of the development of language and communication. The following approaches are discussed along with the representative studies: A case study approach, observational-correlational approach versus experimental-manipulative approach, cross sectional design versus longitudinal design, ethnographic approach.

PSYC 601 MASTER'S COMPREHENSIVE. (6) Reference number for comprehensive examination written by all first-year graduate students.

May be offered as: **PSYC 601D1** and **PSYC 601D2.**

PSYC 615D1 DIAGNOSTIC METHODS (CHILDREN). (1.5)

PSYC 615D2 DIAGNOSTIC METHODS (CHILDREN). (1.5)

PSYC 616D1 PRACTICUM - CHILD DIAGNOSTICS. (1.5)

PSYC 616D2 PRACTICUM - CHILD DIAGNOSTICS. (1.5)

PSYC 617D1 DIAGNOSTIC METHODS (ADULTS). (1.5)

PSYC 617D2 DIAGNOSTIC METHODS (ADULTS). (1.5)

PSYC 618D1 PRACTICUM - ADULT DIAGNOSTICS. (1.5)

PSYC 618D2 PRACTICUM - ADULT DIAGNOSTICS. (1.5)

PSYC 620D1 PRACTICUM IN PSYCHOTHERAPY. (3) A professional training course including dealing with patients under supervision, and a "case conference" seminar.

PSYC 620D2 PRACTICUM IN PSYCHOTHERAPY. (3)

PSYC 625 RESEARCH: CLINICAL PSYCHOLOGY. (3) (Summer)

May be offered as: **PSYC 625D1** and **PSYC 625D2.**

PSYC 630 PSYCHOPATHOLOGY. (3) Review of major types of psychopathology with emphasis on research findings.

PSYC 641D1 BEHAVIOR DEVIATIONS. (3) Appraisal and Modification. Psychotherapy, Theory and Research: traditional treatment modalities, cognitive therapy, family therapy, behaviour therapy, group therapy, etc.

PSYC 641D2 BEHAVIOR DEVIATIONS. (3)

PSYC 650 ADVANCED STATISTICS 1. (3) A course in advanced statistics with specialization in experimental design.

PSYC 651 ADVANCED STATISTICS 2. (3) A course in advanced statistics with specialization in multivariate techniques.

PSYC 660D1 PSYCHOLOGY THEORY. (3) Professors representing the various research areas within the Department discuss critical issues and developments within their fields of expertise.

PSYC 660D2 PSYCHOLOGY THEORY. (3)

● **PSYC 690 MASTERS RESEARCH 1.** (15) Development of research topic, study and review of previous literature, preliminary experimental and/or theoretical thesis research.

PSYC 690D1 MASTERS RESEARCH 1. (7.5) Development of research topic, study and review of previous literature, preliminary experimental and/or theoretical thesis research.

PSYC 690D2 MASTERS RESEARCH 1. (7.5)

● **PSYC 699 MASTERS RESEARCH 2.** (12) Continuation of PSYC 690. Further experimental and/or theoretical research. Data analysis (as needed). Writing of thesis.

PSYC 699D1 MASTERS RESEARCH 2. (6) Continuation of PSYC 690. Further experimental and/or theoretical research. Data analysis (as needed). Writing of thesis.

PSYC 699D2 MASTERS RESEARCH 2. (6)
May be offered as: PSYC 699N1 and PSYC 699N2.

PSYC 701 DOCTORAL COMPREHENSIVE EXAMINATION. (6)
May be offered as: PSYC 701D1 and PSYC 701D2.

PSYC 706 CLINICAL PRACTICUM. (15)
May be offered as: PSYC 706D1 and PSYC 706D2,
or PSYC 706J1, PSYC 706J2 and PSYC 706J3.

PSYC 707 CLINICAL INTERNSHIP 1. (15)
May be offered as: PSYC 707D1 and PSYC 707D2,
or PSYC 707J1, PSYC 707J2 and PSYC 707J3.

PSYC 708 CLINICAL INTERNSHIP 2. (15)
May be offered as: PSYC 708D1 and PSYC 708D2,
or PSYC 708J1, PSYC 708J2 and PSYC 708J3.

PSYC 709 LANGUAGE ACQUISITION ISSUES 1. (2)

PSYC 710 COMPAR&PHYSIOLOGICAL PSYCH. (3)

PSYC 711 COMPAR&PHYSIOLOGICAL PSYCH. (3)

PSYC 712 COMPAR&PHYSIOLOGICAL PSYCH. (3)

PSYC 713 COMPAR&PHYSIOLOGICAL PSYCH. (3)

PSYC 715 COMPAR&PHYSIOLOGICAL PSYCH. (3)

PSYC 722 PERSONALITY AND SOCIAL PSYCHOLOGY. (3)

PSYC 723 PERSONALITY AND SOCIAL PSYCHOLOGY. (3)

PSYC 724 PERSONALITY AND SOCIAL PSYCHOLOGY. (3)

PSYC 725 PERSONALITY AND SOCIAL PSYCHOLOGY. (3)

PSYC 726 PERSONALITY AND SOCIAL PSYCHOLOGY. (3)

PSYC 727 PERSONALITY AND SOCIAL PSYCHOLOGY. (3)

PSYC 728 CLINICAL PSYCHOLOGY. (3)

PSYC 729 CLINICAL PSYCHOLOGY. (3)

PSYC 730 CLINICAL PSYCHOLOGY. (3)

PSYC 731 CLINICAL PSYCHOLOGY. (3)

● **PSYC 732 CLINICAL PSYCHOLOGY.** (3)

● **PSYC 734 DEVELOPMENTAL PSYCHOLOGY AND LANGUAGE.** (3)

● **PSYC 736 DEVELOPMENTAL PSYCHOLOGY AND LANGUAGE.** (3)

PSYC 740 PERCEPTION AND COGNITION. (3)

PSYC 741 PERCEPTION AND COGNITION. (3)

PSYC 742 PERCEPTION AND COGNITION. (3)

PSYC 743 PERCEPTION AND COGNITION. (3)

PSYC 745 PERCEPTION AND COGNITION. (3)

PSYC 746 QUANTITATIVE AND INDIVIDUAL DIFFERENCES. (3)

PSYC 747 QUANTITATIVE AND INDIVIDUAL DIFFERENCES. (3)

PSYC 748 QUANTITATIVE AND INDIVIDUAL DIFFERENCES. (3)

PSYC 749 QUANTITATIVE AND INDIVIDUAL DIFFERENCES. (3)

PSYC 750 QUANTITATIVE AND INDIVIDUAL DIFFERENCES. (3)

PSYC 751 QUANTITATIVE AND INDIVIDUAL DIFFERENCES. (3)

PSYC 752D1 PSYCHOTHERAPY AND BEHAVIOUR CHANGE. (3) A practice-oriented course. Staff and students discuss current cases being treated with a variety of psychotherapeutic and behavioural change techniques.

PSYC 752D2 PSYCHOTHERAPY AND BEHAVIOUR CHANGE. (3)

● **PSYC 753 HEALTH PSYCHOLOGY SEMINAR 1.** (3)

● **PSYC 754 HEALTH PSYCHOLOGY SEMINAR 2.** (3)

● **PSYC 757 HEALTH PSYCHOLOGY SEMINAR 5.** (3)

PSYC 780 SPECIAL TOPICS IN CLINICAL PSYCHOLOGY. (6)

PSYC 798 TEACHING METHODS: PSYCHOLOGY 2. (3) Continuation of PSYC 797.

69 Quebec Studies/Études sur le Québec

Quebec Studies Program / Programme d'études sur le Québec
 Peterson Hall, Room 314
 3460 McTavish Street
 Montreal, QC H3A 1X9
 Canada

Telephone: (514) 398-3960

Fax: (514) 398-3959

Web site: www.arts.mcgill.ca/programs/qs

Director — Alain-G. Gagnon; B.A.(Que.), M.A.(S. Fraser),
 Ph.D.(Carl.)

In 1963-64 McGill University established a French Canada Studies Program. Some of the energies and resources of the Program are devoted to research on Quebec and French Canada. In 1992, the name of the program was changed to Quebec Studies to reflect its central focus.

The program is offered at the undergraduate level. Should their main field of study be Quebec, graduate students must apply to the relevant departments.

Graduate students taking courses dealing in whole or in part with Quebec, or who are studying Quebec as their special field of study, are welcome to make use of the facilities of the Quebec Studies Program.

En 1963-64, le programme d'études canadiennes-françaises fut créé à l'Université McGill. En collaboration avec les autres départements de l'Université, le programme a notamment pour but de développer la recherche sur divers aspects du Québec et du Canada français. Depuis 1992, l'appellation du programme a été modifiée pour celle de programme d'études sur le Québec afin de refléter clairement les objectifs poursuivis.

Les activités du programme se concentrent au premier cycle. Les étudiants qui désirent poursuivre des études en vue de l'obtention d'une maîtrise ou d'un doctorat portant sur le Québec ou le Canada français doivent s'adresser aux départements concernés.

Les étudiants dont les cours portent, en tout ou en partie, sur le Canada français ou qui se spécialisent dans ce domaine, sont toutefois invités à se prévaloir des services du programme d'études sur le Québec.

70 Religious Studies

Faculty of Religious Studies
 3520 University Street
 Montreal, QC H3A 2A7
 Canada

Telephone: (514) 398-4121

Fax: (514) 398-6665

Web site: www.mcgill.ca/religion

Dean, Faculty of Religious Studies — B. Barry Levy

70.1 Staff

Emeritus Professors

G.B. Baum; B.A.(McM.), M.A.(Ohio), D.Th.(Fribourg)
 D.J. Hall; B.A.(W.Ont.), M.Div., S.T.M., Th.D.(U.T.S., N.Y.),
 D.D.(Queen's), LL.D.(Wat.), D.D.(Presb. Coll.)
 J.C. McLelland; B.A.(McM.), M.A.(Tor.), B.D.(Knox, Tor.),
 Ph.D.(Edin.), D.D.(Mtl. Dio.Coll.), D.D.(Knox, Tor.)

Post-Retirement

R.C. Culley; B.A.(Tor.), B.D.(Knox, Tor.), M.A., Ph.D.(Tor.),
 D.D.(Mtl. Dio.Coll.)

Professors

M. Boutin; B.A., B.A., B.A., (Montr.), D.Th.(Munich)
 (J.W. McConnell Professor of Philosophy of Religion)

B. Barry Levy; B.A., M.A., B.R.E.(Yeshiva), Ph.D.(N.Y.U.)
A. Sharma; B.A.(Alld.), M.A.(Syr.), M.T.S., Ph.D.(Harv.) (*Henry Birks Professor of Comparative Religion*)
F. Wisse; Ing.(Utrecht), B.A., B.D.(Calvin, Mich.),
Ph.D.(Claremont)
K.K. Young; B.A.(Vt.), M.A.(Chic.), Ph.D.(McG.) (*James McGill Professor*)

Associate Professors

D.B. Farrow; B.R.E.(Providence), M.Div.(Grace), M.Th.(Regent),
Ph.D.(Lond.)
I.H. Henderson; B.A.(Manit.), B.D.(St. Andrews), M.A.(McM.),
D.Phil.(Oxon)
G.V. Hori; B.A.(York), M.A.(Tor.), Ph.D.(Stan.)
T. Kirby; B.A.(King's, Halifax); M.A.(Dal.); D.Phil.(Oxon)
P.G. Kirkpatrick; B.A.(McG.), M.Th.(Lond.), D.Phil.(Oxon)
G.S. Oegema; B.A., Th.D.(Free, Amsterdam); M.A., Ph.D.(Fretz
Berlin)

Assistant Professors

D.A. Arnold; Ph.D.(Chic.)
L.H. Sideris; B.A., M.A., Ph.D.(Ind.) (*joint appoint. with McGill
School of Environment*)
D. Soneji; M.A.(Manit.)

Associate Member

L. Turner (*Bioethics*)

70.2 Programs Offered

The Faculty of Religious Studies offers programs leading to the degrees of Master of Sacred Theology (S.T.M.), Master of Arts (M.A.) (thesis) and (non-thesis), and Doctor of Philosophy (Ph.D.).

The purpose of the M.A. (thesis) degree is to encourage advanced study and research in one of the disciplines of religious studies (see below) for those who wish to become scholars or teachers, or will be engaged in some field of religious or public service. An option in the M.A. (thesis) program is the M.A. in Religious Studies with specialization in Bioethics offered in collaboration with the Biomedical Ethics Unit, see section 9.

The M.A. without thesis is intended to ensure a student's well-rounded exposure to several religions and to several of the disciplinary approaches currently used in their academic study.

The S.T.M. is meant for those who intend to enter the ministry of the Christian Church or another religious institution, or proceed to a teaching career or to some form of social work. The S.T.M. program is fully accredited by the Association of Theological Schools in the U.S. and Canada.

The purpose of the Ph.D. program is to engage students in advanced academic studies normally in preparation for an academic career.

Adequate library facilities are available in the William and Henry Birks Building and elsewhere in the University for the courses listed, and for research.

Specializations are offered in the following disciplines:

Hebrew Bible and Old Testament Studies; New Testament Studies; Church History; Christian Theology; Philosophy of Religion; Religious Ethics; Hinduism; Buddhism.

The M.A. (thesis) with specialization in Bioethics is offered in conjunction with the Biomedical Ethics Unit.

70.3 Admission Requirements

Master of Arts (M.A.) (thesis)

Applicants must possess a B.A. with a Major or Honours in Religious Studies or a Bachelor of Theology (B.Th.), or a Master of Divinity (M.Div.) degree, normally with a minimum CGPA of 3.3/4.0 (B+) from an accredited university or college. Applicants with less than 30 appropriate credits in Religious Studies or Theology are normally required to take a Qualifying Program before entering the M.A.

Master of Arts (M.A.) (thesis) in Religious Studies with

specialization in Bioethics – for information contact the Chair, Master's Specialization in Bioethics, Biomedical Ethics Unit, 3690 Peel Street, Montreal, QC, H3A 1W9. Telephone: (514) 398-6980. Fax: (514) 398-8349. E-mail: leigh.turner@mcgill.ca.

Master of Arts (M.A.) (non-thesis)

Applicants must possess a B.A. with a Major or Honours in Religious Studies or a Bachelor of Theology (B.Th.), or a Master of Divinity (M.Div.) degree, normally with a minimum CGPA of 3.3/4.0 (B+) from an accredited university or college. Applicants with less than 30 appropriate credits in Religious Studies or Theology are normally required to take a Qualifying Program before entering the M.A.

Master of Sacred Theology (S.T.M.)

Applicants must possess a B.A., normally with at least a good second class standing (B+ or CGPA 3.3/4.0), in a major or honours program in religious studies or theology from an accredited university or college. Those who have a McGill B.Th. or an equivalent degree in addition to a B.A. degree with a second class standing may be admitted to the second year of the S.T.M. program.

Doctor of Philosophy (Ph.D.)

Entry into the doctoral program is limited to applicants who have earned an academic Master's degree in Religious Studies or Theology in a recognized graduate program, or those who have finished the course requirements of such a program, with a minimum CGPA of 3.5/4.0 (A-).

Advanced standing (Ph.D. 2) may be granted if the completed Master's level work is in the same area as that of the intended doctoral specialization and involved not less than six (6) courses (18 credits).

It is recommended that French and/or German be included in the bachelor's or master's work preceding doctoral study.

Applicants for doctoral programs are requested to submit a substantial sample of their scholarly writing (15-20 pages) with their application. The application should specify one of the specializations listed in section 70.2.

70.4 Application Procedures

Application forms for admission should be obtained from and submitted to the Graduate Admissions Office of the Faculty of Religious Studies.

The following items must be submitted before the application can be considered by the Faculty's Graduate Admissions Committee:

1. application form;
2. \$60 Application fee (credit card, certified cheque or money order);
3. two copies of the official transcripts of all post-secondary courses taken and degrees completed;
4. two academic letters of recommendation addressed to the Chair of the Graduate Admissions committee;
5. a statement of intent of approximately 500 words;
6. a sample of recent academic writing;
7. non-Canadian applicants whose mother tongue is not English are required to submit documented proof of competency in oral and written English, e.g., TOEFL (Test of English as a Foreign Language) with a minimum score of 577 on the paper-based test (233 on the computer-based test).

The application deadline for September admission is February 1 for funding consideration and March 1 for general admission. The deadline for January admission is November 1.

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

70.5 Program Requirements

Language Requirements

The Faculty of Religious Studies offers courses in primary text source languages, such as Biblical Hebrew, Aramaic, Biblical Greek, Coptic, Sanskrit, Pali, Tamil and classical literary Tibetan. The Faculty does not guarantee instruction in any languages other than those mentioned above. Therefore, if a student wishes to have a language such as French, German or Japanese counted as a second language, instruction may have to be sought outside the Faculty. The successful completion of at least twelve credits at the post-secondary level in a language course, or successful completion of a language examination administered by the appropriate member of the Faculty, will constitute evidence of the student's having the required reading knowledge of the language in question.

M.A.

Students are required to give their area committee evidence of reading knowledge of a scholarly language other than English. This language may be either a modern language in which there is a significant amount of scholarship relevant to the student's area of research, or a classical language relevant to the student's area of research. If a classical language is chosen, it must be in addition to any prerequisite language for the area in question.

Ph.D.

Students are required to give their area committee evidence of reading knowledge of two languages other than English. These languages must be chosen from modern languages in which there is a significant amount of scholarship relevant to the student's area of research or classical languages relevant to the student's area of research.

Research in some disciplines, or on certain thesis topics, may require proficiency in more than two languages besides English. In that case, additional language requirements may be stipulated by the supervisor.

S.T.M.

The S.T.M. program has no language requirement.

MASTER OF ARTS (M.A.) (thesis) (48 credits)

The normal residence requirement is three terms of full-time resident study. Students may apply to do the third term during the summer of their first year. Students may also register on a half-time basis.

Candidates are required to complete satisfactorily a minimum of six, one-term courses (18 credits) and write a thesis (30 credits) embodying the results of their research. The minimum pass mark in courses is B- for M.A. students.

Research may be undertaken in the areas of specialization listed in section 70.2.

All students must consult with an adviser in the chosen area of study for selection of courses before registration.

Candidates who have studied only one major religious tradition before entering the M.A. program should do some course work in another major religious tradition. It may prove appropriate for a student to take one or more graduate seminars in other McGill Departments, e.g., in Jewish Studies, Classics, Philosophy, East Asian Studies, Islamic Studies. Access is also possible to courses in the other universities in Montreal.

For language requirements, see above.

A thesis proposal (approved by the supervisor) must be submitted to the Graduate Committee for approval.

The dissertation may be submitted at the end of the third term provided all course work and language requirements have been successfully completed. Candidates must complete the degree within three years of initial full-time registration. A maximum one year extension may be granted.

Required Courses (33 credits)

RELG 602 (3) Theory in Religious Ethics
RELG 668 (3) Thesis Research 1
RELG 669 (3) Thesis Research 2

RELG 698 (12) Thesis Research 3

RELG 699 (12) Thesis Research 4

Complementary Courses (15 credits)

15 credits selected from the 500- or 600-level courses accepted by the Faculty of Religious Studies for the granting of a Master's degree.

Master of Arts (M.A.) (thesis) in Religious Studies with specialization in Bioethics

The curriculum is composed of required courses (for 6 credits) offered in the Biomedical Ethics Unit, bioethics courses (6 credit minimum) offered by the base faculty or department and any graduate courses required or accepted by a base faculty for the granting of a Master's degree, for a total of 21 credits. A minimum of 45 credits is required including the thesis.

Registration Requirements: Depending upon the requirements of the base discipline, a minimum of three terms is required for completion of the program, including course work and thesis.

Thesis Supervision: Thesis supervision for students in the specialization is provided by a participating faculty member in the program. Those students whose supervisors are not appointed to a student's base discipline will have a co-supervisor appointed from the base discipline. Thesis examination will be conducted according to the base discipline norms.

Required Courses – Biomedical Ethics Unit (6 credits)

BIOE 680 (3) Bioethical Theory

BIOE 681 (3) Bioethics Practicum

Required Courses – for students based in the Faculty of Religious Studies (6 credits)

RELG 571 (3) Religion and Medicine

RELG 602 (3) Theory in Religious Ethics

Complementary Courses (9 credits)

The remaining credits are to be taken in any graduate courses required or accepted by the base faculty for the granting of a Master's degree

Thesis Component – Required (24 credits)

BIOE 690 (3) M.Sc. Thesis Literature Survey

BIOE 691 (3) M.Sc. Thesis Research Proposal

BIOE 692 (6) M.Sc. Thesis Research Progress Report

BIOE 693 (12) M.Sc. Thesis

MASTER OF ARTS (M.A.) (non-thesis) (45 credits)

The normal residence requirement is three terms of full-time resident study. Students may apply to do the third term during the summer of their first year. Students may also register on a part-time basis.

The program requires completing a total of 45 credits taken at the 500 and 600 level. The student is required to take 36 credits in course work, normally by taking four courses per term for three terms. The minimum pass mark in courses is B- for M.A. students.

For language requirements, see above.

All students must consult with a faculty adviser for selection of courses before registration.

The remaining 9 credits are to be earned by writing three research papers, each based on a reading list. Of these papers, one is to be in one specific religious tradition, a second in another religious tradition different from the first, and the third in methods used in the comparative study of religions. Each of these papers is worth three credits and each is graded on a PASS/FAIL basis.

Required Courses (15 credits)

RELG 555 (3) Honours Seminar

RELG 602 (3) Theory in Religious Ethics

RELG 660 (3) M.A. Research Paper 1

RELG 661 (3) M.A. Research Paper 2

RELG 662 (3) M.A. Research Paper 3

Complementary Courses (30 credits)

10 courses selected from the 500- or 600-level courses accepted by the Faculty of Religious Studies for the granting of a Master's degree.

MASTER OF SACRED THEOLOGY (S.T.M.) (48 credits)

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 Joint Board of Theological Colleges 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 session. 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. 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 70.2.

Related courses are also available in other departments.

The S.T.M. has no language requirement.

DOCTOR OF PHILOSOPHY (PH.D.)

Residency for a candidate admitted to Ph.D. I is 3 consecutive years (6 terms) of full-time study and research. Half-time study may be permitted upon request. Residency for candidates admitted to Ph.D. II is 2 consecutive years (4 terms). In the doctoral program, students must be registered on a full-time basis for one more year after completion of the residency requirement (i.e., Ph.D. 4 year) before becoming additional session students until the completion of the program.

Candidates admitted to Ph.D. 1 take a minimum six graduate seminars during their first year and four seminars during their Ph.D. 2 year; those admitted to Ph.D. 2 must take a minimum of four graduate seminars. If possible, two seminars should be in their area of specialization, and at least one should be at the 700-level.

Supervision: One of the professors in the area of specialization acts as program adviser of each candidate in that area until a thesis supervisor is selected. Candidates must meet with their adviser or supervisor prior to registration to select their courses and to obtain advice concerning the requirements they are obliged to meet (e.g., courses, modern languages, ancient languages, and comprehensive examinations). A thesis proposal (approved by the supervisor) must be submitted to the Religious Studies Graduate committee for approval by the time the course work is finished, or as soon as possible afterwards. The candidate is expected to be present for the discussion of the proposal. The thesis should be submitted by the end of the Ph.D.7 year. Further registration will not be allowed after Ph.D. 7 without prior approval of the Faculty of Religious Studies and the Graduate and Postdoctoral Studies Office.

Comprehensive Examinations These examinations are designed to ensure that candidates are adequately prepared to undertake the research required for a doctoral thesis and to teach university-level courses in their chosen field. They are meant to

test students' competence in: 1) their chosen field, 2) one or two cognate areas. The latter are areas related to the chosen field and are to be determined by the supervisor in consultation with the candidate. Comprehensives may take the form of a written examination, a major essay, a project, an oral examination, or a combination of these.

Doctoral Colloquium (Doktorklub) As one of their requirements all Ph.D. students in residence shall attend the monthly graduate colloquium, at which time a student's thesis project is formally presented and discussed.

70.6 Courses Offered

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

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.

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

- Denotes courses not offered in 2003-04.

AREA A (BIBLICAL)

RELG 520 BIBLICAL THEOLOGY. (3) (Fall and Winter) (Limited to S.T.M. students.) Tutorials and guided reading in the field of Biblical Theology.

- **RELG 601 STUDIES: BIBLICAL APOCALYPTIC.** (3)

- **RELG 604 FORMATION: POST-EXILIC JUDAISM.** (3)

RELG 605 INTERPRETERS OF RELIGION AND FAITH OF ANCIENT ISRAEL. (3) A study of how the biblical tradition has been analyzed and evaluated by outstanding scholars. Topic for 2000: Walter Brueggemann's Theology of the Old Testament.

- **RELG 606 STUDIES IN BIBLICAL POETRY.** (3)

- **RELG 607 STUDIES: BIBLICAL NARRATIVE TRADITIONS.** (3)

RELG 611 PAULINE THEOLOGY. (3) A study of the nature, background, origins, development and expression of the theological ideas in the Pauline literature and the connection between these ideas and other early Christian thought.

- **RELG 613 THE MINISTRY OF JESUS.** (3)

- **RELG 618 THE CHURCH IN THE NEW TESTAMENT.** (3)

JWST 510 JEWISH BIBLE INTERPRETATION 1. (3) (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) (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.

AREA B (HISTORICAL AND THEOLOGICAL)

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 531 CHRISTIAN THEOLOGY. (3) (Fall and Winter) Limited to S.T.M. studies. Tutorials and guided reading in the field of Christian Theology.

- **RELG 532 HISTORY OF CHRISTIAN THOUGHT 1.** (3) (Prerequisite: At least six (6) credits at the 300-level in Christianity or the Christian Bible.) (Not open to students who have taken RELG 320)

- **RELG 533 HISTORY OF CHRISTIAN THOUGHT 2.** (3) (Prerequisite: At least six (6) credits at the 300-level in Christianity or the Christian Bible.) (Not open to students who have taken RELG 327)

- **RELG 625 CREEDS AND CONFESSIONS.** (3)

- **RELG 626 REFORMATION: SECULAR DIMENSIONS.** (3)

RELG 630 THEOLOGICAL FOUNDATIONS. (3) Readings and discussions of theologians from the formative periods of Christian thought, with attention to the history of philosophy, ethics and dogma.

- **RELG 631 THEOLOGY OF THE CROSS.** (3)

- **RELG 633 THE THEOLOGY OF KARL BARTH.** (3)

RELG 634 MOVEMENTS IN CONTEMPORARY THEOLOGY. (3) Readings and discussion of theologians of the first half of the twentieth century, especially the Niebuhrs, Barth, Brunner, Tillich, Bonhoeffer and other representatives of "Neo-Orthodoxy".

- **RELG 635 CHRISTOLOGY AND ECCLESIOLOGY.** (3)

- **RELG 636 THEOLOGICAL METHOD.** (3)

RELG 683 RESEARCH IN CHRISTIAN THEOLOGY. (3) Theologies of Religious Pluralism.

AREA C (RELIGION AND CULTURE)

RELG 540 PHILOSOPHY OF RELIGION. (3) (Winter) (Limited to S.T.M. students.) Tutorials and guided reading in the field of Philosophy of Religion.

- **RELG 541 THEOLOGICAL ETHICS.** (3) (Fall and Winter) (Limited to S.T.M. students.)

RELG 571 RELIGION AND MEDICINE. (3) (Winter) A study of the resources of major world religions (Judaism, Christianity, Islam, Hinduism, Buddhism, Taoism and Shinto) for thinking about ethical issues related to modern medicine, e.g., health, illness, suffering; new reproductive technologies; genetic engineering; euthanasia; palliative care; animal research; transplants.

- **RELG 641 MODERN PHILOSOPHY OF RELIGION.** (3)

RELG 642 PHILOSOPHY OF RELIGION IN TWENTIETH CENTURY. (3) Intuition, Concept, Experience.

RELG 643 PROBLEMS: PHILOSOPHY OF RELIGION. (3) Faith and skepticism.

- **RELG 672 VALUE SYSTEMS - CHRISTIAN PERSPECTIVE.** (3)

- **RELG 673 INTERPRETERS OF CHRISTIAN VALUES.** (3)

RELG 684 RESEARCH IN PHILOSOPHY OF RELIGION 1. (3)

RELG 745 MEANING AND INTERPRETATION. (3) (This course is available only to students in Ph.D. 2 or higher) An interdisciplinary seminar on hermeneutical problems.

AREA D (COMPARATIVE STUDY)

ISLA 531D1 SURVEY DEVELOPMENT OF ISLAMIC THOUGHT. (3) (Fall) (3 hours) A survey of the development of the major intellectual traditions of Islamic civilization in medieval and modern times.

ISLA 531D2 SURVEY DEVELOPMENT OF ISLAMIC THOUGHT. (3) (Winter) (Prerequisite: ISLA 531D1)

RELG 546 INDIAN PHILOSOPHY. (3) (Fall) (Prerequisites: 6 credits in Indian religions, philosophy of religion, philosophy, or permission of the instructor) Introduction to the orthodox systems of Hindu Philosophy leading up to Vedanta i.e. Nyaya, Vaisesika, Sankhya, Yoga and Mimamsa, which will include discussion of such topics as: grounds for belief and disbelief in God, the nature of revelation, means of knowledge, etc.

- **RELG 547 HINDU PHILOSOPHY 2.** (3) (Prerequisites: 6 credits in Indian religions, philosophy of religion, philosophy, or permission of the instructor)

- **RELG 548 INDIAN BUDDHIST PHILOSOPHY.** (3) (Prerequisites: RELG 252 or RELG 342 or permission of instructor)

- **★ RELG 549 EAST ASIAN BUDDHIST PHILOSOPHY.** (3) (Prerequisites: RELG 253 and RELG 342 or RELG 344 or approval of instructor)

RELG 550 COMPARATIVE RELIGION. (3) (Winter) (Limited to S.T.M. students.) Tutorials and guided reading in the field of Comparative Religion.

- **RELG 552 ADVAITA VEDANTA.** (3) (Fall) (Prerequisites: 6 credits in Indian religions)

- **RELG 553 RELIGIONS OF SOUTH INDIA 1.** (3) (Winter) (Prerequisite: 6 credits in Indian religions)

- **★ RELG 554 RELIGIONS OF SOUTH INDIA 2.** (3) (Winter) (Prerequisite: RELG 553)

RELG 555 HONOURS SEMINAR. (3) (Winter) (For Religious Studies Honours students or with permission of the Chair of the Religious Studies B.A. Committee) Current trends in the study of religion, including the approaches of critical theory, feminism, post-modernism, and post-colonialism.

RELG 556 ISSUES IN BUDDHIST STUDIES. (3) (Winter) (Prerequisite: permission of instructor) A graduate seminar taught by the Numata Visiting Professor on critical issues in contemporary Buddhist Studies. Emphasis will be placed on the intensive application of different methods - philological, philosophical or social scientific - to some area of modern Buddhist research.

RELG 557 ASIAN ETHICAL SYSTEMS. (3) (Fall) (Prerequisites: RELG 252, RELG 253, or permission of instructor) An examination of the ethical ideals that have evolved in Asia with reference to Hinduism, Buddhism, Confucianism, and Taoism. Issues to be explored include competing views of the individual's duties to social and political institutions, the individual's right to non-conformity, the relationship between morality and metaphysics, and a comparison of moral principles in theistic and atheistic contexts.

RELG 651 INDIAN BUDDHIST EPISTEMOLOGY. (3) (Prerequisite: two years of Sanskrit or Pali, or permission of the instructor)

- **RELG 655 BUDDHIST EPISTEMOLOGY.** (3) (Prerequisite: RELG 651)

RELG 657D1 INTRODUCTORY SANSKRIT. (3)

RELG 657D2 INTRODUCTORY SANSKRIT. (3)

- **RELG 658 JAPANESE BUDDHIST PHILOSOPHY.** (3)

- **RELG 751 TUTORIAL ON A SELECTED TOPIC.** (3)

- **RELG 751D1 TUTORIAL ON A SELECTED TOPIC.** (1.5)

- **RELG 751D2 TUTORIAL ON A SELECTED TOPIC.** (1.5)

- **RELG 752 TUTORIAL ON A SELECTED TOPIC.** (6)

- **RELG 752D1 TUTORIAL ON A SELECTED TOPIC.** (3)

- **RELG 752D2 TUTORIAL ON A SELECTED TOPIC.** (3)

SPECIAL STUDIES*

RELG 680 OLD TESTAMENT RESEARCH. (3)

RELG 681 RESEARCH IN NEW TESTAMENT. (3)

RELG 682 RESEARCH: HISTORY OF CHRISTIANITY. (3)

RELG 685 RESEARCH IN ETHICAL PROBLEMS. (3)

RELG 687 RESEARCH IN COMPARATIVE RELIGION 1. (3)

- **RELG 690D1 OLD TESTAMENT RESEARCH.** (3)

- **RELG 690D2 OLD TESTAMENT RESEARCH.** (3)

- **RELG 692D1 RESEARCH: HISTORY OF CHRISTIANITY.** (3)

- **RELG 692D2 RESEARCH: HISTORY OF CHRISTIANITY.** (3)

M.A. RESEARCH (NON-THESIS)

RELG 660 M.A. RESEARCH PAPER 1. (3)

RELG 661 M.A. RESEARCH PAPER 2. (3)

RELG 662 M.A. RESEARCH PAPER 3. (3)

M.A. RESEARCH (THESIS)

RELG 688 THESIS RESEARCH 1. (3)

RELG 689 THESIS RESEARCH 2. (3)

RELG 698 THESIS RESEARCH 3. (12)

May be offered as: **RELG 698D1** and **RELG 698D2**, or **RELG 698N1** and **RELG 698N2**.

RELG 699 THESIS RESEARCH 4. (12)

May be offered as: **RELG 699D1** and **RELG 699D2**, or **RELG 699N1** and **RELG 699N2**.

OTHER COURSES

RELG 602 THEORY IN RELIGIOUS ETHICS. (3) Basic theories in philosophical and religious ethics.

● **RELG 603 PRIMARY TEXT: AKKADIAN.** (3) (Prerequisite: Basic reading knowledge of Akkadian or permission of instructor.)

RELG 621 PATRISTIC STUDIES. (3) (Restrictions: M.A., STM, or Ph.D. students only.) Selected texts of patristic theology and history of the early Christian Church from Irenaeus to Boethius.

● **RELG 629 PRIMARY TEXT: ARAMAIC.** (3) (Prerequisite: Basic reading knowledge of Aramaic or permission of instructor)

● **RELG 640 PRIMARY TEXT: BIBLICAL HEBREW.** (3) (Prerequisite: Basic reading knowledge of Biblical Hebrew or permission of instructor.)

● **RELG 649 PRIMARY TEXT: COPTIC.** (3) (Prerequisite: RELG 280 or equivalent; Basic reading knowledge of Coptic or permission of instructor)

● **RELG 654 PRIMARY TEXT: JAPANESE.** (3) (Prerequisite: Basic reading knowledge of Japanese or permission of instructor)

RELG 657D1 INTRODUCTORY SANSKRIT. (3)

RELG 657D2 INTRODUCTORY SANSKRIT. (3)

● **RELG 659 PRIMARY TEXT: PALI.** (3) (Prerequisite: Basic reading knowledge of Pali or permission of instructor)

● **RELG 665 PRIMARY TEXT: SANSKRIT 1.** (3) (Prerequisite: Basic reading knowledge of Sanskrit or permission of instructor)

● **RELG 666 PRIMARY TEXT: SANSKRIT 2.** (3) (Prerequisite: Basic reading knowledge of Sanskrit or RELG 665 or permission of instructor)

● **RELG 669 PRIMARY TEXT: TIBETAN.** (3) (Prerequisite: RELG 357 or permission of the instructor)

● **RELG 697 RESEARCH IN COMPARATIVE RELIGION.** (6)

● **RELG 697D1 RESEARCH IN COMPARATIVE RELIGION.** (3)

● **RELG 697D2 RESEARCH IN COMPARATIVE RELIGION.** (3)

RELG 701 COMPREHENSIVE EXAMINATION. (0)

May be offered as: **RELG 701D1** and **RELG 701D2**.

RELG 702 COMPREHENSIVE EXAMINATION. (0)

May be offered as: **RELG 702D1** and **RELG 702D2**.

RELG 703 COMPREHENSIVE EXAMINATION. (0)

May be offered as: **RELG 703D1** and **RELG 703D2**.

71 Russian and Slavic Studies

Department of Russian and Slavic Studies
688 Sherbrooke Street West, Suite 425
Montreal, QC H3A 3R1
Canada

Telephone: (514) 398-3639

Fax: (514) 398-1748

E-mail: russian.slavicstudies@mcgill.ca

Web site: www.mcgill.ca/russian

Chair — Paul M. Austin

Graduate Director — Laura Beraha

71.1 Staff

Associate Professors

P.M. Austin; M.A.(C'nell), B.A., Ph.D.(Tor.)

L. Beraha; B.A., M.A., Ph.D.(McG.)

L. Parts; M.A., Ph.D.(Columbia)

T. Patera; M.Sc.(Moscow), M.A., Ph.D.(McG.)

71.2 Programs Offered

Master's and Ph.D. in Russian

Two fields of graduate work are recognized – Russian language and Russian literature respectively. However, due to the smaller size of the Department, it must be stressed that our specialties lie mostly in the area of Russian literature.

Ph.D. Language Tests

Ph.D. candidates in other departments who require Russian for research and in satisfaction of the language requirement should contact the Department for recommended courses.

71.3 Admission Requirements

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

The minimum academic requirement is normally a high standing in Honours Russian (or equivalent). Further, the Department must be convinced that the candidate for admission has an aptitude for research work and will be able to make an original contribution to knowledge.

A working knowledge of French is recommended for the Ph.D. program.

Any necessary preparation to fulfill these requirements will be offered within the Department or elsewhere at McGill. On a reciprocal basis certain graduate courses may be taken by arrangement at the Université de Montréal.

71.4 Application Procedures

Applications will be considered upon receipt of:

1. application form;
2. two certified copies of all university transcripts;
3. two letters of recommendation;
4. \$60 application fee;
5. test results – GRE (recommended); TOEFL (required of all candidates whose mother tongue is not English and who have not completed an undergraduate degree using the English language);
6. a sample of written work;
7. statement of academic intent.

All information must be submitted to the Graduate Coordinator, Department of Russian and Slavic Studies.

Deadline: March 1.

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

71.5 Program Requirements

Original research work and the scholarly qualities of the thesis are the principal criteria for conferring a graduate degree in Russian.

Master's

The M.A. requirements are 48 credits comprised of:

18 credits in graduate courses in Russian and Slavic Studies

30 credits in M.A. thesis courses:

RUSS 691 (6 credits); RUSS 692 (24 credits)

Ph.D.

Details of the requirements for the Ph.D. degree may be obtained by applying directly to the Graduate Coordinator.

71.6 Courses

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

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.

- Denotes courses not offered in 2003-04.

RUSS 510 HIGH STALINIST CULTURE. (3) (Fall) (Given in English) Novels, films, art, architecture, pageantry, rhetoric and routine of the Stalinist 1930s-40s, including socialist realism as an aesthetic doctrine, utopian blueprint, target of parody, amalgam of a sub-merged avantgarde and state-controlled pop culture, precursor of the postmodernist simulacrum, self-proclaimed international style and/or uniquely Russian 20th-century project.

RUSS 619 TOPICS IN LITERARY THEORY. (3)

- **RUSS 670D1 RUSSIAN LITERATURE OF 18TH CENTURY.** (3)
- **RUSS 670D2 RUSSIAN LITERATURE OF 18TH CENTURY.** (3)

RUSS 681D1 SEMINAR RUSSIAN ROMANTICISM. (3)

RUSS 681D2 SEMINAR RUSSIAN ROMANTICISM. (3)

RUSS 684 YURI TRIFONOV AND HIS TIMES. (3)

RUSS 685 NEW VOICES IN RUSSIAN POST-SOCIALIST. (3)

RUSS 691 M.A. THESIS PROPOSAL. (6)

May be offered as: **RUSS 691D1** and **RUSS 691D2.**

RUSS 692 M.A. THESIS. (24)

May be offered as: **RUSS 692D1** and **RUSS 692D2.**

RUSS 701D1 PH.D. COMPREHENSIVE EXAMINATION. (0)

RUSS 701D2 PH.D. COMPREHENSIVE EXAMINATION. (0)

RUSS 720D1 FIRST SEMINAR ON SPECIAL TOPICS. (3)

RUSS 720D2 FIRST SEMINAR ON SPECIAL TOPICS. (3)

RUSS 721D1 SECOND SEMINAR ON SPECIAL TOPICS. (3)

RUSS 721D2 SECOND SEMINAR ON SPECIAL TOPICS. (3)

RUSS 722D1 THIRD SEMINAR ON SPECIAL TOPICS. (3)

RUSS 722D2 THIRD SEMINAR ON SPECIAL TOPICS. (3)

RUSS 790D1 RUSSIAN LANGUAGE REQUIREMENT - PH.D. (0)

RUSS 790D2 RUSSIAN LANGUAGE REQUIREMENT - PH.D. (0)

72 Social Studies of Medicine

Department of Social Studies of Medicine
3647 Peel Street, 2nd Floor
Montreal, QC H3A 1X1
Canada

Telephone: (514) 398-6033
Fax: (514) 398-1498
E-mail: ssom@mcgill.ca
Web site: www.mcgill.ca/ssom

Chair — Allan Young

72.1 Staff

Professors

Margaret Lock; B.Sc.(Leeds), M.A., Ph.D.(Calif.) (*Marjorie Bronfman Professor of Social Studies in Medicine*)

George Weisz; M.A., Ph.D.(SUNY), Dr. 3rd Cy(Paris) (*Cotton-Hannah Professor of the History of Medicine*)

Allan Young; M.A.(Wash.), B.A., Ph.D.(Penn.)

Associate Professors

Alberto Cambrosio; M.A.(Sher.), Ph.D.(Montr.)

Faith E. Wallis; M.A., M.L.S.(McG.), Ph.D.(Tor.)

Assistant Professor

Thomas Schlich; M.D.(Marburg), Ph.D.(Freiburg)

72.2 Programs Offered

The Department (SSOM) offers graduate studies in three programs:

- one in medical anthropology, given jointly with the Department of Anthropology;
- one in medical history, given jointly with the Department of History; and
- one in medical sociology, given jointly with the Department of Sociology.

In each program, the student may work towards the M.A. and Ph.D. degrees. All degrees are awarded by the relevant Faculty of Arts department. For further information regarding those departments, please consult the Anthropology, History, or Sociology sections.

The Department (SSOM) is interdisciplinary, having faculty in the fields of medical anthropology, medical history, and medical sociology. In its programs of graduate studies, it attempts to provide two things: a training that is solidly grounded in the discipline of the chosen program, i.e., in anthropology, history or sociology; and, through seminars and interaction with Department members and other graduate students, exposure to the other disciplines that are represented in the Department. The Department aims to instill in its graduates a combination of disciplinary competence and interdisciplinary perspective.

72.3 Admission Requirements

M.A. in Medical Anthropology

The program is open to students with backgrounds in the social sciences, the medical professions, or the medical sciences.

M.A. in the History of Medicine

Candidates must have a background in either history (Honours B.A. in History, or equivalent) or a degree in one of the health professions.

M.A. in Medical Sociology

The program is open to students with a background in social sciences, health professions or health sciences. It aims to prepare candidates for a career of teaching and research in medical sociology, and there is consequently a preference for applicants with the potential to proceed to the doctoral degree.

Ph.D. Programs

Candidates for a Ph.D. will normally have taken their M.A. in the same field. Please refer to the appropriate Department – Anthropology, History, or Sociology.

72.4 Application Procedures

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

M.A. in Medical Anthropology

Admission is granted by a joint admissions committee made up of representatives from Anthropology and SSOM.

For details concerning applications, teaching assistantships, fellowships, etc. see Department of Anthropology.

M.A. in the History of Medicine

Application is made directly to the History Department. For details see Department of History.

M.A. in Medical Sociology

Admission is granted by a joint admissions committee made up of representatives from Sociology and SSOM. For details concern-

ing applications, teaching, assistantships, fellowships, etc., see Department of Sociology.

Ph.D. Programs

Please refer to the appropriate Department – Anthropology, History, or Sociology.

72.5 Program Requirements

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.

For Anthropology courses, see Department of Anthropology. For SSOM seminars, see below.

M.A. in Medical Anthropology with thesis (48 credits)

Required Courses (42 credits)

HSSM 605 (3) Medical Anthropology
ANTH 615 (3) Seminar in Medical Anthropology
ANTH 694 (6) M.A. Thesis Tutorial 1
ANTH 695 (6) M.A. Thesis Tutorial 2
ANTH 699 (24) M.A. Thesis

Complementary Courses (6 credits)

Two Anthropology courses.

M.A. in Medical Anthropology, without thesis (45 credits)

Required Courses (45 credits)

HSSM 605 (3) Medical Anthropology
ANTH 615 (3) Seminar in Medical Anthropology
ANTH 602 (3) Theory 1
ANTH 609 (6) Proseminar in Anthropology
ANTH 611 (3) Research Design
ANTH 660 (3) Research Methods
ANTH 665 (3) Quantitative Methods
ANTH 685 (3) Research Tutorial 1
ANTH 686 (3) Research Tutorial 2
ANTH 696 (15) M.A. Research Paper

M.A. IN THE HISTORY OF MEDICINE

The M.A. degree in Medical History does not have a thesis option.

The program requires the completion of 48 credits, composed of three full-year graduate seminars, plus a major research paper, (30 credits) (HIST 691, HIST 692 in the first year and HIST 693, HIST 694 in the second year).

Graduate seminars offered in the History of Medicine include

HIST 619 (3) Ancient Medicine Seminar 1
HIST 620 (3) Ancient Medicine Seminar 2
HIST 636 (3) Medieval Medicine Seminar 1
HIST 637 (3) Medieval Medicine Seminar 2

For SSOM seminars, see below.

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)

SOCI 504 (3) Quantitative Methods 1
SOCI 540 (3) Qualitative Research Methods
SOCI 580 (3) Social Research Design and Practice
SOCI 652 (3) Current Sociological Theory

Complementary Courses (6 credits)

one of the following two courses:

SOCI 515 (3) Medicine and Society
SOCI 538 (3) Selected Topics in Sociology of Biomedical Knowledge

plus one course in the History of Medicine.

Thesis Component – Required (30 credits)

SOCI 690 (3) M.A. Thesis 1
SOCI 691 (6) M.A. Thesis 2
SOCI 692 (3) M.A. Thesis 3
SOCI 693 (3) M.A. Thesis 4
SOCI 695 (15) M.A. Thesis 6

M.A. in Medical Sociology (non-thesis) (45 credits)

This includes 21 credits of course work and a research paper based on original research (24 credits).

Required Courses (12 credits)

SOCI 652 (3) Current Sociological Theory
SOCI 580 (3) Design and Practice of Social Research
SOCI 504 (3) Seminar: Quantitative Methods I
SOCI 540 (3) Qualitative Research Methods

Complementary Courses (9 credits)

one of the following two courses:

SOCI 515 (3) Medicine and Society
SOCI 538 (3) Selected Topics in the Sociology of Biomedical Knowledge

plus two courses in the Social Studies of Medicine, one of which must be in the History of Medicine.

Research Component – Required (24 credits)

SOCI 696 (3) Research Paper 1
SOCI 697 (3) Research Paper 2
SOCI 698 (6) Research Paper 3
SOCI 699 (12) Research Paper 4

PH.D. PROGRAMS

For information on the doctoral programs, please refer to the appropriate Department – Anthropology, History, or Sociology.

72.6 SSOM Courses

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

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.

● Denotes courses not offered in 2003-04.

● HSSM 603D1 MEDICINE IN 19TH AND 20TH CENTURY. (3)
● HSSM 603D2 MEDICINE IN 19TH AND 20TH CENTURY. (3)

HSSM 604 HISTORY OF MEDICINE. (3) Tutorial.

HSSM 605 MEDICAL ANTHROPOLOGY. (3)

HSSM 606 MEDICAL ANTHROPOLOGY TUTORIAL. (3)

HSSM 609 SOCIAL SCIENCES OF MEDICINE. (3) Tutorial.

● HSSM 610 SOCIOLOGY OF MEDICINE. (3)

HSSM 611 SOCIOLOGY OF BIOMEDICAL KNOWLEDGE. (3)

● HSSM 612D1 MEDICINE AND THE SCIENTIFIC REVOLUTION 1500-1700. (3)

● HSSM 612D2 MEDICINE AND THE SCIENTIFIC REVOLUTION 1500-1700. (3)

● HSSM 614D1 HISTORY OF MEDIEVAL MEDICINE. (3)

● HSSM 614D2 HISTORY OF MEDIEVAL MEDICINE. (3)

73 Social Work

School of Social Work
Wilson Hall
3506 University Street
Montreal, QC H3A 2A7
Canada

Telephone: (514) 398-7070

Fax: (514) 398-4760

Web site: www.mcgill.ca/socialwork

Director — T.B.A.

Acting Director — Estelle Hopmeyer

73.1 Staff

Emeritus Professor

David E. Woodsworth; B.A., Dipl.S.W.(Tor.), M.A.(Mich.),
Ph.D.(Brandeis)

Professors

Peter Leonard; B.Sc., M.Sc., Dipl. Mental Health(Lond.)
James Torczyner; B.H.L.(Yeshiva), M.S.W., D.S.W.(Calif.)
Barry Trute; B.A.(Sask.), M.S.W.(McG.), Ph.D.(Calif.) (*Philip S.
Fisher Professor of Social Work*)

Associate Professors

Ben Zion Dalfen; B.A., M.S.W., Dip. Adv. Soc. Wk. Practice(McG.)
Linda Davies; B.S.W., M.S.W.(McG.), Ph.D.(N. Lond. Poly.)
Sydney Duder; B.Sc., M.S.W., Dipl. Adv. Soc. Wk. Practice,
Ph.D.(McG.)
Estelle Hopmeyer; B.A., M.S.W.(McG.)
Julia Krane; B.A.(Ott.), B.S.W.(McG.), M.S.W., Ph.D.(Tor.)
Carol Cumming Speirs; B.A.(Sir G.Wms.), M.S.W.(McG.)
Ingrid Thompson; B.A.(Sir G.Wms.), M.S.W.(McG.),
Ph.D.(Cantab.)

Assistant Professors

Shari Brotman; B.S.W., M.S.W.(McG.), Ph.D.(Tor.)
Lindsay John; B.A.(Guelph), M.S.W.(W. Laur.), M.Sc.(McM.),
Ph.D.(Tor.)
Lucyna Lach; B.A., M.S.W.(Tor.)
Margaret-Ann Smith; B.A.(Montr.), M.S.W.(McG.)
Samantha Wehbi; B.A.(York), M.S.W.(Tor.), Ph.D.(McG.)
Robin Wright; B.A./B.S.W.(McM.), M.S.W., Ph.D.(Tor.)

Coordinator of Field Education

Francine Granner

73.2 Programs Offered

Master of Social Work, a Joint M.S.W. and Law degree, and a Ph.D. program offered jointly with Université de Montréal.

The McGill School of Social Work is a member of the International Association of Schools of Social Work, the Canadian Association of Schools of Social Work, and of the Rassemblement des Unités de Formation Universitaire en Travail Social du Québec.

The School of Social Work is a professional school whose primary objective is to prepare students for careers and for leadership in the fields of social work and social welfare.

M.S.W. Program

M.S.W. students should develop an understanding of the social theories which inform practice. The goal of the program is to educate students so that they may contribute not only to established social services but also to new and less developed areas of service provision. Through this degree students should develop critical and innovative approaches to practice competence and to policy analysis.

The global objective of the Master's program is the provision of advanced professional training by means of integrated learning experiences. At a more specific level, the educational goals are to develop:

1. deepened and advanced competence in practice and research;
2. a capacity for critical understanding of social theory, social problems and emergent issues, population groups in need, institutional structures, and policy initiatives and processes.

Joint Ph.D. Program in Social Work

The Schools of Social Work at the Universities of Montréal and McGill offer a third cycle joint program in social work and social policy.

Students are free to seek admission from either university. Students accepted into the program have access to the resources offered by both schools.

73.3 Admission Requirements

M.S.W. Program

Students who have successfully completed a B.S.W., with a minimum B average (GPA 3.0/4.0), may be admitted to the Master of Social Work program. Normally they will have had professional experience in social service work, **or** related experience, subsequent to obtaining the B.S.W.

As a general rule, students admitted to the M.S.W. program will have completed course work in statistics and in research methods at the undergraduate level.

Joint M.S.W./Law Program

Students must apply separately for admission to each Faculty, specifying their interest in this joint degree. Students must meet or surpass the requirements for admission to both the M.S.W. program and to Law and must submit a brief statement explaining their interest in this joint program.

Joint Ph.D. Program

Students are free to seek admission to either McGill or the Université de Montréal. Students accepted into the program have access to the resources offered by both schools.

Applicants applying to the joint Ph.D. program must hold a Master's degree in social work or, exceptionally, a Bachelor's degree in social work with a Master's degree in a related subject from an accredited program. Candidates must be proficient in French and English to be able to understand teaching and class discussion in both languages and to carry out necessary reading.

Criteria considered in weighing applications include:

- 1) demonstrated intellectual ability and critical capacity;
- 2) relevant experience;
- 3) admissibility and quality of the student's project.

73.4 Application Procedures

Applications are available on-line by mid-September from the School of Social Work Web site. The deadline to apply is February 1.

Applications will be considered upon receipt of all required documents.

International applicants are required to submit documented proof of competency in English, e.g., TOEFL (Test of English as a Foreign Language) minimum score of 550 on the paper-based test (213 on the computer-based test) or an equivalent test. Applicants from the U.S.A. are exempt.

All documents must be submitted to the School of Social Work, attention: Ms. Lillian Iannone, Student Affairs Coordinator.

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

73.5 Program Requirements

MASTER OF SOCIAL WORK

The M.S.W. is a second cycle of professional study in which students pursue programs at an advanced level, building upon their first professional degree (B.S.W.) and their subsequent practice experience.

Each student works out a study plan in consultation with her/his academic advisor in relation to the student's identified study goals. Broadly speaking, these include Child and Family Welfare, Health and Well-Being through the Life Cycle, and Community Development.

There are two options, practice (non-thesis, including a practicum and independent study project) and thesis (thesis, no practicum). 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).

M.S.W. (Non-Thesis Option) (45 credits)

This option is designed for students who are interested in developing skills in specialized practice and policy analysis.

Required Courses (24 credits)

SWRK 612 (3) Knowledge, Values and Practice
SWRK 650 (3) Field Work Practicum 1
SWRK 651 (3) Field Work Practicum 2
SWRK 660 (6) Field Work Practicum 3
SWRK 690 (9) Independent Study Project

Note: Students without the ability to use French may find their choice of Field Work placements restricted.

Complementary Course (3 credits)

one of the following research methods courses:

SWRK 615 (3) Applied Clinical Research
SWRK 633 (3) Program Evaluation
SWRK 643 (3) Quantitative Research Methods
SWRK 653 (3) Qualitative Research Methods

Elective Courses (18 credits)

18 credits from SWRK 500- or 600-level courses. Up to 6 credits in total may be taken outside of the department.

M.S.W. (Thesis Option) (45 credits)

This option is designed for students who have strong research interests.

Required Courses (33 credits)

SWRK 612 (3) Knowledge, Values and Practice
SWRK 643 (3) Quantitative Research Methods
SWRK 698 (12) Thesis Research 1
SWRK 699 (15) Thesis Research 2

Complementary Course (3 credits)

one of the following research methods courses:

SWRK 615 (3) Applied Clinical Research
SWRK 633 (3) Program Evaluation
SWRK 653 (3) Qualitative Research Methods

Elective Courses (9 credits)

9 credits from SWRK 500- or 600-level courses. Up to 6 credits in total may be taken outside of the department.

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 academic 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 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. When residency

requirements are complete, students may, if necessary, register for additional sessions for research advising only.

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 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 DEGREE IN SOCIAL WORK AND LAW (M.S.W./B.C.L./L.L.B.)

The M.S.W. degree (non-thesis option) may also be taken in combination with Law.

It is expected that students will complete the joint degree in three calendar years (rather than the four calendar years it would take to attain both degrees separately).

Students will take 114 course credits over the three calendar year period:

Eighty-seven (87) credits of Law courses;

Twenty-seven (27) credits will consist of regular Social Work courses (including a 12-credit practicum to be completed during the summer of the first or second year). Students in the joint Social Work/Law program are required to take course SWRK 612 Knowledge, Values and Practice, and one of the research methods courses.

Twelve (12) credits will consist of a major social work-law research paper to be jointly credited in both degree programs. The research paper is a key component of this joint degree proposal.

JOINT Ph.D. PROGRAM IN SOCIAL WORK

The Schools of Social Work at the Universities of Montreal and McGill have established a third cycle joint program in social work and social policy in order to respond to the pressing needs for professors, social policy analysts and researchers in Canada and Quebec. This bilingual program presents characteristics unique among Canadian doctoral programs in social work.

Specifically, this program aims to:

1. Prepare graduates for careers in university teaching and research, in policy development, in evaluation of practice, in intervention, consultation, or management of human services;
2. Permit students to acquire the ability to apply scientific methods of research to the study of normative, analytical, and methodological questions;
3. Stimulate original research on pressing social concerns; and
4. Facilitate exchanges among academics in a bilingual (French and English) and multicultural perspective.

Of particular value and importance is the opportunity for students to be exposed throughout their program to the multicultural and multiracial character of Montreal.

The program consists of 90 credits – 15 course credits (five 3-credit courses), and the remainder (75) for the comprehensive examination and the dissertation. Candidates needing additional knowledge of research methods may be required to take additional courses.

Duration of Program

Regulations of both universities will be interpreted in a flexible way in order to remain as equitable as possible for all students.

McGill Graduate and Postdoctoral Studies Regulations prescribe a minimum of two years' residence after the Master's degree for a doctoral degree.

73.6 Courses

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

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

- Denotes courses not offered in 2003-04.

- **SWRK 530 SOCIAL PERSPECTIVES ON AGING 1.** (3) (Limited to U3 and M.S.W. students)

- **SWRK 531 SOCIAL PERSPECTIVES ON AGING 2.** (3) (Summer) (School of Social Work: Limited to U3 and M.S.W. students)

SWRK 532 INTERNATIONAL SOCIAL WORK. (3) (Winter) (Limited to B.S.W. U3, Special B.S.W. and M.S.W. students) Discussion based upon intensive study and reports on problems in selected countries. Emphasis on identifying major social problems, understanding the social forces bearing on those problems and considering appropriate professional approaches to aid in their solution.

SWRK 539 CHRONIC AND TERMINAL ILLNESS. (3) (Winter) (Limited to B.S.W. U3, Special B.S.W. and M.S.W. students) A seminar to examine practice with persons living with chronic and terminal illnesses. Needs of families, caretakers, health care workers and the gay community are studied.

SWRK 600 PRACTICE WITH WOMEN AS MOTHERS. (3) This course will explore maternal subjectivity and its implications for clinical practice with mothers and families. We will examine how social work intervention has tended to reproduce traditional attitudes towards mothers and consider the development of alternative social relations in our practice with mothers.

SWRK 601 CONSTRUCTION OF SUBJECTIVITY. (3) This course will present a critical approach to understanding how personality is constructed within the major social relations of class, gender and race. Relevance to students' research and practice interests will be explored.

SWRK 604 CRITICAL ISSUES: SOCIAL POLICY. (3) With the erosion of the contemporary welfare state, analysts have argued that state responsibility for social and economic well-being has been shifted to the private sphere, notably families. This course explores how social policies and practices contribute to this shift, and how gender, class and inequalities are thereby reinforced.

SWRK 606 PRACTICE IN CHILD WELFARE. (3) Reflection on current practices in child welfare. An overview of contemporary theoretical frameworks and students' experiences in the field will form the basis of class discussion. Topics include: the construction of abuse and neglect; the risk ethos, families'/mothers' experiences of child welfare services; the reflective practitioner and resistance.

- **SWRK 608 SEMINAR IN CORRECTIONS.** (3)

SWRK 609 HEALTH AND SOCIAL WORK. (3) An examination of major social work policy and practice issues bearing on health, including: ethics, legal issues, medicalization, health as an industry, uses of epidemiology and health economics. Practice questions will include crisis intervention, multidisciplinary teamwork in hospital settings, and emerging issues for social workers in health.

SWRK 610 FAMILY TREATMENT. (3) (Prerequisite: SWRK 622) An advanced seminar on techniques and practice of current therapies.

- **SWRK 611 SUBSTITUTE CARE: CHILD/ADOLESCENT.** (3)

SWRK 612 KNOWLEDGE, VALUES AND PRACTICE. (3) (Required course) Introduction of the current debate about the status of knowledge in the social sciences, especially issues of scientific objectivity, cultural differences and their implications for social work practice.

- **SWRK 615 APPLIED CLINICAL RESEARCH.** (3)

SWRK 622 FAMILY ASSESSMENT AND TREATMENT. (3) A seminar on current techniques of family diagnosis and therapy.

SWRK 623 COUPLE COUNSELLING. (3) Triadic perspective on couple counselling. Topics include: value issues; origins of intimate conflict; characteristics of troubled couples; presenting couple complaints; separation; treatment techniques: alliances, coalitions, hierarchies, third party positioning, neutrality, secrets, counsellor symmetry and power, resistance.

SWRK 624 COMMUNITY ORGANIZATION. (3) The aim of this course is to develop an understanding of the organizing process at the grass-roots level. Emphasis is placed upon community power and conflict, the development of organizing strategies and the application of such strategies in groups and movements dedicated to social change.

SWRK 627 SOCIAL WORK PRACTICE WITH GROUPS. (3) This seminar will explore topics related to social work practice with groups including concepts of race, culture, gender and sexual orientation; authority and empowerment, ethical issues in practice; work with hard to reach and involuntary populations; termination and evaluation. It will be concerned with both theoretical issues and intervention strategies.

SWRK 628 VIOLENCE AGAINST WOMEN. (3) Discussion of the psychological, social and political factors which create and maintain a society where male violence against the women they love occurs. A feminist theoretical perspective will be developed and analyzed. Treatment approaches will be considered focussing on interventional strategies to help both the battered and the batterers.

SWRK 631 SUPERVISION/MANAGEMENT. (3) Every human service organization is characterized by the need to manage people, information and resources. This course will provide an overview of the nature and function of these fundamental supervision and management processes.

SWRK 633 PROGRAM EVALUATION. (3) The theoretical and practical problems involved in evaluating the impact of social work services and social welfare programs. Topics include goal definition, comparison of experimental and non-experimental designs, data sources, qualitative and quantitative approaches, and outcome measures.

SWRK 635 ADVANCED CLINICAL PRACTICE. (3) Advanced clinical seminar to develop detailed, assessment theories, skills that apply to direct work - primarily with children and young adults. Critical examination of child meta-psychology, attachment and British object relations theories in light of research and current Canadian realities. Students expected to provide current practice examples for analysis and discussion.

SWRK 636 TUTORIAL IN SOCIAL WORK. (3) An individual or small group tutorial in which students will work independently in conjunction with the instructor. The student will undertake a major project related to the area of specialization.

SWRK 642 TUTORIAL SOCIAL WELFARE. (3) This tutorial permits students to pursue studies in special areas not covered in other courses offered, or to study in greater depth subjects covered in earlier work. Emphasis is on the content, operation and analysis of social welfare programs.

SWRK 643 QUANTITATIVE RESEARCH METHODS. (3) A comparative review of the research methods and data sources that are used in social work and social welfare, with consideration of the statistical methods and computer programs that are appropriate for each. Topics will include experimental and nonexperimental designs, questionnaire construction, data analysis and reporting research.

- **SWRK 646 EMPLOYEE ASSISTANCE PROGRAMS.** (3)

- **SWRK 646D1 EMPLOYEE ASSISTANCE PROGRAMS.** (1.5)

- **SWRK 646D2 EMPLOYEE ASSISTANCE PROGRAMS.** (1.5)

SWRK 648 SPECIAL TOPICS IN SOCIAL WORK. (3) This course will be offered from time to time to deal with topics of current interest in social work, that are not covered in other courses. Specific content will differ from year to year.

SWRK 649 SPECIAL TOPICS IN SOCIAL WELFARE. (3) This course will be offered from time to time to deal with topics of current interest in social welfare, that are not covered in other courses. Specific content will differ from year to year.

SWRK 650 FIELD WORK PRACTICUM 1. (3) Supervised educational experience in social work practice integrating practice with theoretical knowledge characteristic of the specialized field. Individual and group instruction. Involves approximately 115 hours of work in a field setting.

SWRK 651 FIELD WORK PRACTICUM 2. (3) Supervised educational experience in social work practice integrating practice with theoretical knowledge characteristic of the specialized field. Individual and group instruction. Involves approximately 115 hours of work in a field setting.

SWRK 653 QUALITATIVE RESEARCH METHODS. (3) Qualitative methodologies concerned with description and interpretation of social phenomena, including participant observation, structured and unstructured interviewing. Student research projects will form the basis for class discussion.

SWRK 655 SEMINAR ON AGING. (3) Advanced graduate seminar which focuses on a critical examination of historical and contemporary theories and practice models in gerontological social work. Specific content will vary from year to year to allow for in-depth explorations of current topics in aging such as women, ethno-racial communities and health and disability. Particular emphasis will be placed on issues of caregiving in each of these larger topic areas.

● **SWRK 656 ALTERNATIVE SERVICE ORGANIZATIONS.** (3)

SWRK 657 MENTAL HEALTH POLICY AND PRACTICE. (3) The definition and management of madness during the last 200 years or so of Western societies. Focuses upon relevant dimensions of intellectual and social history, particularly the histories of what we now think of as mental health professions. Particular attention is paid to the history of current controversies about involuntary commitment, chemotherapy, and so forth.

● **SWRK 658 MODELS OF DIRECT PRACTICE.** (3)

SWRK 660 FIELD WORK PRACTICUM 3. (6) (Involves approximately 220 hours of work in a field setting) Supervised educational experience in social work practice integrating practice with theoretical knowledge characteristic of the specialized field. Individual and group instruction. Involves approximately 115 hours of work in a field setting.

SWRK 663 SOCIAL WORK APPLIED TO ALCOHOLISM. (3) This course provides information needed for social work treatment of alcoholism. It concentrates on the following issues: 1) the development and definition of alcoholism; 2) theories of alcoholism; 3) assessment of the alcoholic; and 4) intervention.

SWRK 664 MULTICULTURAL CONTEXT PRACTICE. (3) This course will examine current theory in "multicultural" social work and explore alternative models of practice based on anti-racist/anti-oppression principles. Of special interest in this course are the issues of access and equity in human services. Students are encouraged to develop critical analyses and to develop projects based on practice issues.

SWRK 668 LIFE-THREATENING ILLNESS AND BEREAVEMENT. (3) This seminar addresses the psycho-social concerns of patients and family members living with life threatening illness. An interdisciplinary theoretical perspective is combined with clinical practice interventions. Topics discussed include phases of the illness (diagnosis, chronic, terminal), bereavement, suicide, euthanasia, AIDS and cultural factors related to illness. Special attention will be given to the role of the social worker.

SWRK 669 DISABILITY AND REHABILITATION. (3) This seminar focusses on social work practice with individuals who experience various disabilities. It examines the societal reaction to disability and the history of these values and attitudes and provides an overview of historical and contemporary perspectives regarding intervention. As well, it critically reviews and analyzes recent legislation and advances in the integration of the disabled into the

social contexts of the family, school, work force, community, and society at large.

SWRK 690 INDEPENDENT STUDY PROJECT. (9) An independent study project on a topic of interest in a comprehensive and creative fashion. The project is completed by the student following initial guidance from her/his advisor. It systematically examines a theoretical, substantive or empirical matter, using appropriate methodology.

May be offered as: SWRK 690D1 and SWRK 690D2.

SWRK 691 SOCIAL WORK / LAW INDEPENDENT STUDY PROJECT. (12) Students will produce an essay consisting of: 1) identifying a substantive area which integrates core legal and social work knowledge; 2) analyzing the legal and behavioural science information in each substantive area; 3) developing and applying relevant theoretical frameworks; 4) developing research questions to be examined by qualitative or quantitative methods; 5) integrating research findings.

May be offered as: SWRK 691D1 and SWRK 691D2.

SWRK 698 THESIS RESEARCH 1. (12) Independent research work under the direction of a supervisor.

May be offered as: SWRK 698D1 and SWRK 698D2.

SWRK 699 THESIS RESEARCH 2. (15) Independent research work under the direction of a supervisor.

May be offered as: SWRK 699D1 and SWRK 699D2.

SWRK 701 COMPREHENSIVE EXAMINATION. (0) (Open only to students in the joint Social Work Ph.D. program)

SWRK 720 THOUGHT AND THEORY DEVELOPMENT IN SOCIAL WORK. (3) (Open only to students in the joint Social Work Ph.D. program) The purpose of this seminar is to explore the origins and historical development of social work theory. Included in the analysis of this development will be the impact of material, cultural and ideological shifts within society in general and social welfare in particular. Attention will also be given to the effect of changes within relevant social science disciplines on the process of social work theory development and its relation to intervention.

SWRK 721 DISSERTATION SEMINAR. (3) (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 722 ADVANCED SEMINAR: SOCIAL WORK INTERVENTION.** (3) (Open only to students in the joint Social Work Ph.D. program)

SWRK 723 ADVANCED SEMINAR ON SOCIAL POLICY. (3) (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) (Open only to students in the joint Social Work Ph.D. program) Problems encountered in the use of quantitative methods in social work research. Types of quantitative research useful in social welfare policy analysis and discussion of yield from alternative analytic methods.

SWRK 725 ADVANCED QUALITATIVE RESEARCH METHODS AND DATA ANALYSIS. (3) (Open only to students in the joint Social Work Ph.D. program) Review of the principal methods comprised under the area of qualitative research and problems related to the utilization of those methods. Particular attention to analysis arising from these methods.

SWRK 726 INDEPENDENT STUDY. (3) (Open only to students in the joint Social Work Ph.D. program)

74 Sociology

Department of Sociology
Stephen Leacock Building
855 Sherbrooke Street West, Room 712
Montreal, QC H3A 2T7
Canada

Graduate Program and Admission Information:
Telephone: (514) 398-6847
Fax: (514) 398-3403
E-mail: graduate.sociology@mcgill.ca
Web site: www.mcgill.ca/sociology

Acting Chair — Suzanne Staggenborg
Graduate Program Director — Morton Weinfeld
Graduate Admissions Director — Axel van den Berg

74.1 Staff

Emeritus Professor

Maurice Pinard; B.A., LL.L., M.A.(Montr.), Ph.D.(Johns H.),
F.R.S.C.

Professors

John A. Hall; B.A.(Oxon), M.A.(Penn. St.), Ph.D.(L.S.E.) (*James McGill Professor*)
Michael Smith; B.A.(Leic.), M.A., Ph.D.(Brown)
Suzanne Staggenborg; B.A.(Miami), M.A.(Wash.), Ph.D.
(Northwestern)
Axel P.M. van den Berg; Kand.Doc.(Amsterdam), Ph.D.(McG.)
Morton Weinfeld; B.A.(McG.), Ed.M., Ph.D.(Harv.)
(*Chair, Canadian Ethnic Studies*)

Associate Professors

Lucia Benaquisto; B.A.(S.U.N.Y., Albany), A.M. Ph.D.(Harv.)
Alberto Cambrosio; M.A.(Sher.), Ph.D.(Montr.) (*Social Studies of Medicine*)
Uli Locher; V.D.M.(Berne), S.T.M., Ph.D.(Yale)
Anthony Masi; A.B.(Colgate), M.A., Ph.D.(Brown)
James Ron; B.A.(Stan.), M.A., Ph.D.(Berkeley) (*Canada Research Chair in Conflict and Human Rights*)
(*on leave 2003-04*)
Steven L. Rytina; B.G.S., Ph.D.(Mich.)
Donald von Eschen; A.B.(Beloit), M.A.(Chic.), Ph.D.(Johns H.)

Assistant Professor

Giovani Burgos; B.A.(SUNY, Albany), M.A., Ph.D.(Ind.)
Kathleen Fallon; B.A.(Calif.), M.A., Ph.D.(Ind.)
Jennifer Fosket; B.A.(Hills College), Ph.D.(Calif.)
John (Jack) Sandburg; B.A.(Hunter), Ph.D.(Mich.)
Elaine Weiner; B.A.(Grinnell College); M.A.(Fla.)

Associate Members

David Aberbach (*Jewish Studies*),
Gregory Baum (*Religious Studies*)

Adjunct Professors

Catherine Montgomery, Rodney Nelson

74.2 Programs Offered

The Department offers training leading to the degrees of Master of Arts in Sociology (thesis and non-thesis options), Master of Arts in Medical Sociology with the Social Studies of Medicine Department (thesis and non-thesis options), and the Doctor of Philosophy in Sociology.

Theses and dissertations are normally supervised in one of the following areas of Department research concentration: states and social movements; economy and society; social inequality (class, ethnicity and gender) and deviance and social control.

Availability of Funding

Prospective students may apply for a variety of fellowships administered by the University, through research-granting agencies in Quebec, Canada, or in their home countries. Other sources of funding include private companies, agencies, foundations, other provincial and federal government agencies, as well as foreign governments and organizations. Detailed information on other funding sources is available on the McGill Web site, www.mcgill.ca/gps/fellowships.

The Department offers a limited number of teaching assistantships of \$3,328 per term. Teaching assistantships require 12 hours of work per week in the Fall and Winter terms. Students who wish to be considered for such assistantships should inform the Graduate Admissions Director, Leacock 712, in writing and preference will be given to those dossiers completed by February 15th.

A limited number of differential fee waivers are also available for international students. Several research assistantships may be available from faculty members.

74.3 Admission Requirements

Applicants must have a Bachelor's degree with a standing equivalent to a Cumulative Grade Point Average (CGPA) of 3.3 or better out of a possible 4.0. The degree may be either in Sociology – in which case it should be equivalent to the Honours B.A. degree at McGill – or it may be in another relevant social science. In the latter case, applicants may be required to take some additional Sociology courses to fill gaps in their background.

The strength of an applicant's academic record is of primary importance in consideration of an applicant's dossier. For a detailed description of courses open to graduates and undergraduates, and of preparation required of McGill University honours students, candidates should consult the *Undergraduate Programs Calendar* via on the Web at www.mcgill.ca.

All applicants are asked to submit two letters of recommendation and two certified copies of their university-level grades along with an example of their written work. Applicants who have received a Master's degree at a university other than McGill should submit a copy of their thesis or evidence of equivalent research experience with their application for admission. The applicant's dossier must be completed by February 15th to be considered for the McGill Awards Competition and the internal Teaching Assistantship competition.

Applicants not registered at Canadian universities must submit with their applications the results of the Verbal and Quantitative aptitude tests of the Graduate Record Examination. Canadian students are also encouraged to submit the results of this test with their application. Arrangements to take the Graduate Record Examination should be made directly with the Educational Testing Service, Box 955, Princeton, New Jersey 08540, USA. The Test of English as a Foreign Language (TOEFL) is also required of all non-Canadian students whose mother tongue is not English. The minimum acceptable score for the TOEFL exam is 580 on the paper-based test or 237 on the computer-based test.

Candidates who lack sufficient preparation in the social sciences, but whose academic record justifies consideration for eventual admission to the Master's graduate program, must register for a qualifying year during which they are required to take courses to broaden their knowledge of sociology. Candidates must achieve a final mark of at least a B in these courses and an average in all courses of at least B+; in general, they must, in the opinion of the Department, have achieved sufficient preparation in the subject matter of sociology before they will be allowed to proceed with graduate work. All candidates are expected to have taken courses in statistics, research methods and sociological theory at the undergraduate level.

The program of study is designed to give students an advanced understanding of a major field in sociology, of current methods of sociological research, and of some principal theoretic issues in the discipline. Three terms of residence study is the minimum requirement for a Master's degree.

M.A. in Medical Sociology

The program is open to students with a social sciences, health professions or health sciences background. It is interdisciplinary in nature and includes required courses offered by both participating departments as well as a research thesis based on original research. For additional information concerning this program, please consult the Social Studies of Medicine section or the Web site, www.mcgill.ca/ssom.

74.4 Application Procedures

Please note that the dossier must be complete with ALL of the following information before the applicant will be considered for entrance to the graduate program:

1. Application form.
2. Statistics, Theory, Methods form.
3. Two certified copies of undergraduate and graduate level transcripts. Please provide an official translation if the original is not in English or French.
4. Two letters of reference on the departmental forms enclosed with the graduate application package.
5. Test results (Graduate Record Examination (GRE) / Test of English as a Foreign Language (TOEFL) (if applicable) minimum score: 580 on the paper-based test or 237 on the computer-based test.
6. Statement of Academic Background - a brief statement of the applicant's interests and the areas of sociology he/she wishes to study at McGill.
7. One or two samples of written work. This can be in the form of a graded paper or a chapter from a thesis and must be at least 15 typewritten pages in length translated into English or French.
8. M.A. Option Form (for M.A. applicants only).
9. \$60 application fee (certified cheque, money order or credit card payment).
10. Two address labels which will serve to acknowledge both the receipt of the application and the decision taken by the Graduate Committee.

Applicants may apply using one of three formats:

1. on-line (Web) Application
www.mcgill.ca/applying/graduate
2. Adobe Acrobat PDF Application
www.arts.mcgill.ca/programs/sociology/grad/admissions.html
3. Paper Application
www.arts.mcgill.ca/programs/sociology/grad/admissions.html

Applications can be obtained by contacting the Graduate Secretary, Department of Sociology at (514) 398-6847, sending a fax to (514) 398-3403, an e-mail to graduate.sociology@mcgill.ca or sending a request in writing to the Sociology Department.

M.A. in Medical Sociology

Admission is granted by a joint admissions committee made up of representatives from Sociology and Social Studies of Medicine.

74.5 Program Requirements

M.A. PROGRAM OPTIONS

The M.A. degree has six options:

- non-thesis option consisting of seven required courses plus a research paper;
- thesis option with five required courses and a thesis;
- thesis option in Medical Sociology, which requires six courses plus a thesis;
- non-thesis option in Medical Sociology which requires seven courses plus a research paper;
- non-thesis option in Social Statistics which requires seven courses (supplemented by further statistical courses) plus a statistics-based research paper;

- thesis option in Neotropical Environment.

Although the non-thesis option requires more course work, students taking this option are likely to obtain the M.A. more rapidly than those in the thesis option because of the difficulty and length of time involved in completing an M.A. thesis. The expectation is that most students will choose the non-thesis Master's program so as to progress more quickly, especially those wishing to pursue a doctoral degree. The programs are described in more detail below.

M.A. Degree Program Non-Thesis Option (45 credits)

Required Courses (12 credits)

All students must have taken, or take during the first year of the program, the following four courses:

- SOCI 504 (3) Quantitative Methods 1
- SOCI 540 (3) Qualitative Research Methods
- SOCI 580 (3) Social Research Design and Practice
- SOCI 652 (3) Current Sociological Theory

Should a student be granted an exemption from any one or more of these courses by the Graduate Studies Committee, another substantive seminar must be substituted in its place.

Elective Courses (9 credits)

Students are required to choose three elective courses, one of which may be in a cognate field, subject to the approval of the Graduate Committee.

Research Paper Component – Required (24 credits)

- SOCI 696 (3) Research Paper 1 (first term)
- SOCI 697 (3) Research Paper 2 (second term)
- SOCI 698 (6) Research Paper 3 (third term)
- SOCI 699 (12) Research Paper 4 (third term)

The research paper will normally, but not necessarily, flow out of a paper written for one of the graduate seminars or an independent reading course. Comparable to an article in a professional journal, the paper ought to focus on a clearly defined research problem, demonstrating familiarity with the most important relevant scholarly work and the ability to carry out research and organize the results of the research. This paper is expected to be no more than 30 pages in length, exclusive of footnotes and bibliography.

M.A. Degree Program Thesis Option (48 credits)

Required Courses (12 credits)

All students must have taken, or take during the first year of the program, the following four course:

- SOCI 504 (3) Quantitative Methods 1
- SOCI 540 (3) Qualitative Research Methods
- SOCI 580 (3) Social Research Design and Practice
- SOCI 652 (3) Current Sociological Theory

Should a student be granted an exemption from any one or more of these courses by the Graduate Committee, another course must be substituted in its place.

Elective Courses (3 credits)

Students are required to choose one course, which may be in a cognate field, subject to the approval of the Graduate Committee.

Thesis Component – Required (33 credits)

- SOCI 690 (3) M.A. Thesis 1 (first term)
- SOCI 691 (6) M.A. Thesis 2 (second term)
- SOCI 692 (3) M.A. Thesis 3 (second term)
- SOCI 693 (3) M.A. Thesis 4 (second term)
- SOCI 694 (18) M.A. Thesis 5 (third term)

To provide students with some research experience, all candidates must present a thesis based on their own research. While not necessarily requiring an exhaustive review of work in the particular field of study, or a great deal of original scholarship, the thesis must show familiarity with previous work in the field and must normally demonstrate the ability to carry out research and to organize results, all of which must be presented in good literary style. The thesis will consist of between 50-75 pages of text, exclusive of footnotes and bibliography, which must be completed no later than August 31st of the second year in the program.

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 complete normal program course requirements under the M.A. non-thesis program, 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).

M.A. Degree in Medical Sociology

The Department offers M.A. programs in Medical Sociology which are given jointly by the Sociology Department and the Department of Social Studies in Medicine. Both the thesis and non-thesis options are available.

Sociology/NeoTropical Environment M.A. Program

McGill University and the Smithsonian Tropical Research Institute (STRI) are joining forces to offer graduate studies in neotropical environment. These are offered as options within existing programs in Biology, Bioresource Engineering, Geography, Political Science, Plant Science, Renewable Resources, and Sociology. Advisors will be McGill professors and STRI scientists. The degrees are granted by McGill University.

Students must meet the Graduate and Postdoctoral Studies Office admission requirements, enter through one of the participating departments and meet the requirements of that unit. In addition, to meet the option requirements, students will take two core courses (ENVR 610A and BIOL 640). These specific NEO courses will be taught in Panama. Students also take one of POLI 644; SOCI 565, ENVR 611, ENVR 612, ENVR 680, BIOL 553, BIOL 641, GEOG 498, AGRI 550. The thesis fieldwork must be conducted in Latin America on a topic approved by the NEO coordinating committee.

REQUIREMENTS FOR THE PH.D. DEGREE

A minimum of three years of study is required. There is one year of course work consisting of six courses. It is important to note that students admitted without any one or more of the required courses or their equivalent at the M.A. level (SOCI 580, SOCI 652, SOCI 504, and SOCI 540) will be expected to make up any deficiencies in addition to the regular course requirements.

Course Requirements: Ph.D. students are required to take six additional courses, the only required course being SOCI 505 Quantitative Methods 2. The other five courses can be chosen from among the elective courses listed in the Sociology Department course offerings.

Examination Requirements: Ph.D. Candidates must take examinations in two subfields of sociology. These fields will be chosen from the Department's areas of specialization.

Examinations must be completed and the student's candidacy for the degree established no later than the end of the third year of graduate study.

Language Requirement: Ph.D. Candidates must demonstrate ability to read French with high proficiency or to read another language relevant to their field of research. The language requirement should be met by the end of the third year and may be satisfied by taking an approved French language course at the English and French Language Centre at McGill, or by a written examination in the Department or by exemption.

Thesis Requirement: Ph.D. Candidates are required to submit a thesis on an approved topic. The topic must be approved by a dissertation proposal committee convened by the student's dissertation supervisor. The thesis should be completed within five years after the initial residency period of two years.

Further details on the requirements and regulations for the thesis and the fields in which the Department is prepared to direct

research may be obtained from the Sociology Web site at www.mcgill.ca/sociology and at www.mcgill.ca/gps.

74.6 Courses

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

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

All 300, 400 and 500-level Sociology courses listed in the Faculty of Arts Calendar are open to graduate students and can be taken for graduate credit provided appropriate work load adjustments are agreed upon with the instructor.

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

- Denotes courses not offered in 2003-04.

SOCI 504 QUANTITATIVE METHODS 1. (3) (Prerequisites: SOCI 350 and SOCI 461 or equivalents) Analysis of quantitative information, especially in large, survey-type, data sets. Use of computer programs such as SPSS and SAS. Topics include: cross tabulations with an emphasis on multi-dimensional tables, multiple correlation and regression, and, the relationship between individual and aggregate level statistical analyses. Special reference to demographic techniques.

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 510 SEMINAR IN SOCIAL STRATIFICATION. (3) (Prerequisites: SOCI 333 and SOCI 350 or equivalents) Recent theoretical and empirical developments in social stratification and inequality. The study of social class, with attention to the anomalous findings on heterogeneity in labour markets and the labour process, status attainment processes, and the socio-political and industrial attitudes of the working class. Students will prepare quantitative analysis of Canadian survey material as well as critical qualitative reviews.

- **SOCI 511 MOVEMENTS/COLLECTIVE ACTION.** (3)

- **SOCI 515 MEDICINE AND SOCIETY.** (3)

- **SOCI 516 ADVANCED PSYCHOLOGICAL SOCIOLOGY.** (3)

SOCI 520 MIGRATION AND IMMIGRANT GROUPS. (3) (Prerequisite: 15 credits in the Social Sciences) Review of the major demographic, economic and sociological theories of internal and international migration. The main emphasis will be on empirical research on migration and immigrant groups.

SOCI 530 SEX AND GENDER. (3) This seminar critically reviews theoretical perspectives and research on sex and gender in various domains of social life. It gives special emphasis to work which considers the meaning of gender and how it differs across time and place.

- **SOCI 535 SOCIOLOGY OF THE FAMILY.** (3)

SOCI 538 SELECTED TOPICS IN SOCIOLOGY OF BIOMEDICAL KNOWLEDGE. (3) The seminar will examine recent work in the sociology of biomedical knowledge. It will focus on the technological shaping of biomedical knowledge, i.e. on the impact of new technologies and equipments on the development of biomedical knowledge.

SOCI 540 QUALITATIVE RESEARCH METHODS. (3) (Restrictions: open to Sociology Honours students, and Sociology Major Concentration students with the instructor's permission) Qualitative methodology, mainly participant observation, structured and unstructured interviewing. Students begin a research project using these techniques and submit field notes once a week.

● **SOCI 545 SELECTED TOPICS.** (3)

SOCI 550 DEVELOPING SOCIETIES. (3) Comparison of alternative explanations of underdevelopment: the impact of social stratification, relations of domination and subordination between countries, state interference with the market. Alternative strategies of change: revolution, structural adjustment, community development and cooperatives. Students will write and present a research paper, and participate extensively in class discussion.

● **SOCI 560 GENDER AND ORGANIZATION.** (3)

● **SOCI 565 SOCIAL CHANGE IN PANAMA.** (3) (Prerequisites: SOCI 218 and SOCI 350 or equivalents.) (Corequisites: BIOL 473, ENVR 451 and ABEN 450.) (Restriction: location in Panama. Students must register for a full term in Panama.)

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) (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 590 CONFLICT AND STATE BREAKDOWN.** (3) (Open to graduate students in Sociology, Political Science, Anthropology, and History AND undergraduate students with permission of instructor.)

● **SOCI 627 POLITICAL SOCIOLOGY.** (3)

SOCI 629 ETHNICITY AND PUBLIC POLICY. (3) Major themes in the theoretical literature on ethnicity. Public policies with direct and indirect implications for inter-ethnic relations will be studied. Policies affecting areas such as language, education, immigration, employment and promotion, multiculturalism and welfare. Examples drawn from several multi-ethnic societies. Political, constitutional, and economic problems associated with these policy initiatives.

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 661 SEMINAR: SOCIOLOGY OF KNOWLEDGE.** (3)

● **SOCI 670 COMP URBANIZATION-THIRD WORLD.** (3)

● **SOCI 688 SEMINAR ON SOCIAL STATISTICS.** (3) (Restriction: open only to students in the M.A. Social Statistics Option, or with permission of instructor. Not open to students who have taken POLI 688, SOCI 668 or GEOG 688.)

SOCI 690 M.A. THESIS 1. (3) (Restriction: Open only to graduate students registered in the M.A. thesis program of the Sociology Department.) Exploratory thesis research for the selection of a thesis topic.

SOCI 691 M.A. THESIS 2. (6) (Restriction: Open only to graduate students registered in the M.A. thesis program of the Sociology Department.) Preparation, submission and approval of the thesis proposal by the student to his/her committee.

SOCI 692 M.A. THESIS 3. (3) (Restriction: Open only to graduate students registered in the M.A. thesis program of the Sociology Department.) Fieldwork and data analysis on the thesis. Progress report to the supervisor.

SOCI 693 M.A. THESIS 4. (3) (Restriction: Open only to graduate students registered in the M.A. thesis program of the Sociology Department.) Fieldwork and data analysis on the thesis. Progress report to the supervisor.

SOCI 694 M.A. THESIS 5. (18) (Restriction: Open only to graduate students registered in the M.A. thesis program of the Sociology Department.) Completion, submission, and approval of the M.A. Thesis by the committee and the Graduate and Postdoctoral Studies Office.

SOCI 695 M.A. THESIS 6. (15) (Open only to graduate students registered in the Medical Sociology thesis program.) Completion, submission, and approval of the M.A. Thesis by the committee and the Graduate and Postdoctoral Studies Office.

SOCI 696 RESEARCH PAPER 1. (3) (Restriction: Open only to graduate students registered in the M.A. thesis program of the Sociology Department.) Exploratory research for the selection of a research topic.

SOCI 697 RESEARCH PAPER 2. (3) Preparation, submission and approval of the proposal by the student to his/her supervisor.

SOCI 698 RESEARCH PAPER 3. (6) (Restriction: Open only to graduate students registered in the M.A. thesis program of the Sociology Department.) Fieldwork and data analysis on the research.

SOCI 699 RESEARCH PAPER 4. (12) Completion, submission and approval of the research paper by the committee.

SOCI 700 PH.D. AREA EXAMINATION 1. (0) (Restriction: Only open to Ph.D. students in the Sociology Department) The examination assesses the student's breadth of knowledge in one substantive area. This is the first of two required comprehensive examinations for the Ph.D. Program.

SOCI 701 PH.D. AREA EXAMINATION 2. (0) (Restriction: Only open to Ph.D. students in the Sociology Department) The examination assesses the student's breadth of knowledge in one substantive area. This is the second of two required comprehensive examinations for the Ph.D. Program.

SOCI 702 PH.D. PROPOSAL APPROVAL. (0) (Only open to Ph.D. students in the Sociology Department) Presentation and acceptance of the Ph.D. Proposal Defense by the student to the Department Proposal Committee.

SOCI 720 READING IN SOCIAL THEORY. (3)

SOCI 730 READING AND RESEARCH. (3)

75 Surgical Research

Department of Surgery (Division of Surgical Research)
Montreal General Hospital
1650 Cedar Avenue, Room C9-160
Montreal, QC H3G 1A4
Canada

Telephone: (514) 934-1934 ext. 42837

Fax: (514) 934-8289

E-mail: gradstudies.surgery@mcgill.ca

Web site: www.surgery-research.mcgill.ca

Director — L. Rosenberg

Associate Director — A. Philip

75.1 Staff

Professors

P. Brodt; B.Sc.(Bar-Ilan), M.Sc.(Ott.), Ph.D.(McG.)

R.C.-J. Chiu; M.B.(Taiwan), Ph.D.(McG.)

N.V. Christou; B.Sc., M.Sc., Ph.D., M.D., C.M.(McG.)

M.M. Elhilali; M.B., B.Ch., D.S., DU, M.Ch.(Cairo), Ph.D.(McG.)

G.M. Fried; B.Sc., M.D., C.M.(McG.)

C. Gagnon; B.Sc., M.Sc., Ph.D.(Montr.)

F. Glorieux; M.D.(Louvain), M.Sc.(Montr.), Ph.D.(McG.)

D.S. Mulder; M.D.(Sask.), M.Sc.(McG.)

A.R. Poole; B.Sc., Ph.D.(R'dg)

L. Rosenberg; M.Sc., M.D., Ph.D.(McG.)

P.J. Roughley; B.Sc., Ph.D.(Nott.)

H. Shennib; M.D.(Cairo), F.R.C.S.(C)
H.B. Williams; B.A.(Acadia), M.D.,C.M.(McG.)

Associate Professors

J. Barkun; M.D., M.Sc.(McG.)
O. Blaschuk; B.Sc.(Winn.), M.Sc.(Man.), Ph.D.(Tor.)
J.D. Bobyn; B.Sc., M.Sc.(McG.), Ph.D.(Tor.)
S. Chevalier; B.Sc., M.Sc., Ph.D.(Montr.)
D. Fleiszer; B.Sc., M.D., C.M.(McG.)
J.M. Laberge; M.D.(Laval)
C. Lee; M.D., M.Sc.(McG.), F.R.C.S.(C)
L. Lessard; B.Sc., M.D.(Laval), F.R.C.S.(C)
P. Metrakos; B.Sc., M.D.(McG.), F.R.C.S.(C)
J.S. Mort; B.Sc.(McG.), Ph.D.(McM.)
R. St.-Arnaud; Ph.D.(Laval)
J. Sampalis; M.Sc., Ph.D.(McG.)
T. Taketo-Hosotani; B.Sc., M.Sc., Ph.D.(Kyoto)
C.I. Tchervenkov; B.Sc., M.D.,C.M.(McG.), F.R.C.S.(C)
J.I. Tchervenkov; M.D.,C.M.(McG.), F.R.C.S.(C)
D. Zukor; B.Sc., M.D.,C.M.(McG.)

Assistant Professors

J. Antoniou; M.D.,C.M., Ph.D.(McG.), F.R.C.S.(C)
E. Chevet; M.Sc., Ph.D.(Paris)
M. Chevrette; B.Sc., M.Sc., Ph.D.(Laval)
D.C. Evans; B.A., M.D.,C.M.(McG.)
J. Faria; M.D.,C.M., M.Sc.(McG.), F.R.C.S.(C)
L. Feldman; M.D.,C.M., M.Sc.(McG.)
H. Flageole; M.D., M.Sc.(McG.)
R.C. Hamdy; M.Sc, M.D.(Egypt), F.R.C.S.(C)
E. Harvey; B.Sc.(Ont.) M.D.,C.M., M.Sc.(McG.)
K.J. Lachapelle; M.Sc., M.D.,C.M.(McG.)
E. Lee; B.A.(Boston), M.Sc., Ph.D.(McG.)
S. Meterissian; M.D.,C.M., M.Sc.(McG.)
M. Petropavlovskaja; M.Sc., Ph.D.(Moscow)
A. Philip; M.Sc., Ph.D.(McG.)
A.D. Recklies; B.Sc.(McG.), Ph.D.(McM.)
K. Shaw; M.D.,C.M., M.Sc.(McG.)
D. Shum-Tim; M.Sc., M.D.,C.M.(McG.)
T. Steffen, M.D.(Switz.), Ph.D.(McG.)
M. Tanzer; M.D.,C.M.(McG.), F.R.C.S.(C)

75.2 Programs Offered

The Department of Surgery offers graduate programs leading to M.Sc. and Ph.D. degrees.

The main research interests in the Department include projects in islet cell differentiation and islet transplantation, tissue engineering of cardiac muscle, immunopathogenesis of liver xenograft rejection; the biology of tissue repair and fibrosis; cartilage regeneration, osteoinduction and biomechanics; sepsis and multi-organ failure; biology of cancer; sexual dysfunction and prostate cancer; and surgical health outcomes.

A list of research directors and a description of their research topics, as well as application forms may be obtained from our Web site.

75.3 Admission Requirements

Graduate Diploma in Surgical Health Care Research

The program is open to all graduate students in the Division of Surgical Research, but is specifically designed for surgical residents who have allotted time during their residency training. To be accepted into the Graduate Diploma Program students must be accepted into the Division of Surgical Research; fulfill the minimum requirements for admission of the Graduate and Postdoctoral Studies Office; identify an acceptable and feasible research project; and identify an accredited faculty member willing to support the research and supervise the student. **The program is under the direction of Professor John Sampalis.**

M.Sc. Program

Usually a B.Sc., M.D. or D.V.M. degree, with a minimum CGPA of 3.2/4.0. Applications will be accepted from candidates sponsored

by a research supervisor willing to provide laboratory space and direction for their research work.

Ph.D. Program

Admission is usually from the M.Sc. program either upon completion of the M.Sc. degree, or by transfer from the first year of M.Sc. to the second year of Ph.D. studies. Request for such transfer is to be made in writing by the thesis supervisor during the candidate's first year of M.Sc. studies, not later than March 30th for students enrolled in September, or November 1st for those registered in January. **Transfer is granted on the basis of an examination administered by the student's Research Supervisory Committee.** Exceptional students with a minimum 3.5/4.0 CGPA may apply directly to the Ph.D. program.

Students with an M.Sc. degree from other departments or from other recognized universities whose M.Sc. topic is closely related to the subject of their Ph.D. research may be admitted directly into the Ph.D. program, at the level of Ph.D.2, at the discretion of the Department. Exceptional students with a Master's degree unrelated to their proposed research may be admitted to Ph.D.1.

75.4 Application Procedures

Applicants must submit a completed application form including a brief curriculum vitae, a short description of the proposed thesis research (prepared by the student and/or the prospective research director), \$60 (payable by credit card, certified cheque or money order to McGill University), as well as two copies of all academic transcripts and two letters of recommendation mailed directly to the Department. A letter of intent and a memorandum of agreement are also required from the prospective supervisor.

Deadline for receipt of complete applications:

Canadian applicants: April 1 for September (Fall term)
September 1 for January (Winter term)
International applicants: February 2 for September (Fall term)
August 1 for January (Winter term)

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

75.5 Program Requirements

Graduate Diploma in Surgical Health Care Research

(30 credits)

This diploma program consists primarily of coursework, however a research project must be completed to obtain the required 30 credits. The program is designed to be completed within one year.

Required Courses (18 credits)

EXSU 606 (3) Statistics for Surgical Research
EXSU 601 (6) Seminars in Surgical Research
EXSU 637 (9) Research Project

Complementary Courses (12 credits)

at least 3 credits from the following courses:

EPIB 631* (2) Pharmacoepidemiology 2
EPIB 633* (2) Pharmacoepidemiology 1
EPIB 656 (3) Health Care Technology Assessment
EPIB 679 (3) Special Topics 5
EXMD 631 (3) Topics in Economic Evaluation

* Must be taken in tandem for a total of four credits.

at least 9 credits from the following courses:

EPIB 606 (3) Introduction to Epidemiology
EPIB 607 (3) Inferential Statistics
EPIB 610 (3) Occurrence of Health Events in Population
EPIB 631* (2) Pharmacoepidemiology 2
EPIB 633* (2) Pharmacoepidemiology 1
EPIB 643 (1) Substantive Epidemiology 3
EPIB 655 (3) Epidemiology in Public Health
EPIB 668 (2) Special Topics 1
EXMD 631 (3) Topics in Economic Evaluation
POTH 630 (3) Measurement: Rehabilitation 2

* Must be taken in tandem for a total of four credits.

M.Sc. Program (48 credits)

The M.Sc. program consists of research work in preparation of a thesis and completion of required courses for a total of 48 credits. The program is to be completed during three terms; an additional term is assigned for the preparation of the thesis.

The course requirements for a total of 15 credits are as follows:

- EXSU 601 (6) Seminars in Surgical Research
- EXSU 606 (3) Statistics for Surgical Research
- EXSU 605 (3) Issues in Biomedical Research

A graduate level course in the student's specialty is also mandatory. Selection of the former and of additional courses, if required, will be in consultation with a Research Supervisory Committee appointed for each student.

The laboratory research component of the program is worth 33 credits.

Ph.D. Program

The minimum residence time in the program is three calendar years. In addition to the courses listed under the M.Sc. program, students are encouraged to select additional courses from allied disciplines relevant to their research topic. To graduate, candidates will also have to pass a predoctoral examination.

Predocctoral comprehensive examination: All Ph.D. students (admitted directly into the Ph.D. program, or those allowed to transfer from M.Sc.1 to Ph.D. 2 without writing an M.Sc. thesis) must take this examination.

The examination is to take place after 12 months of residence in the Ph.D. program, and will be administered by an expanded Research Supervisory Committee under its Chair. The examination will have two components: an oral presentation of the candidate's research project, as well as preparation of a report in writing on an assigned research publication, and its oral presentation. The candidate must receive a pass mark in both components to continue in the Ph.D. program.

75.6 Courses

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

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.

EXSU 601D1 SEMINARS IN SURGICAL RESEARCH. (3) (Students must also register for EXSU 601D2) (No credit will be given for this course unless both EXSU 601D1 and EXSU 601D2 are successfully completed in consecutive terms)

EXSU 601D2 SEMINARS IN SURGICAL RESEARCH. (3) (Prerequisite: EXSU 601D1) (No credit will be given for this course unless both EXSU 601D1 and EXSU 601D2 are successfully completed in consecutive terms)

EXSU 605 ISSUES IN BIOMEDICAL RESEARCH. (3) (2 hours/week) (Compulsory for students in the Department of Surgery and available to others by permission of the coordinators)

EXSU 606 STATISTICS FOR SURGICAL RESEARCH. (3) (2 hours/week) (Compulsory for students in the Department of Surgery and available to others by permission of the coordinators)

EXSU 637D1 RESEARCH PROJECT. (4.5) (

EXSU 637D2 RESEARCH PROJECT. (4.5)

EXSU 684 SIGNAL TRANSDUCTION. (3) (2 hours/week) (Open to graduate students with prerequisites and U3 undergraduates with special permission)

EXSU 690 M.Sc. RESEARCH 1. (4)

EXSU 691 M.Sc. RESEARCH 2. (4)

EXSU 692 M.Sc. RESEARCH 3. (4)

EXSU 693 M.Sc. THESIS. (21)

EXSU 700 COMPREHENSIVE EXAMINATION. (0)

76 Urban Planning

School of Urban Planning
Macdonald Harrington Building
815 Sherbrooke Street West
Montreal, QC H3A 2K6
Canada
Telephone: (514) 398-4075
Fax: (514) 398-8376
E-mail: admissions.planning@mcgill.ca
Web site: www.mcgill.ca/urbanplanning

Director — David F. Brown

76.1 Staff

Emerita Professor

Jeanne M. Wolfe; B.Sc.(Lond.), M.Sc.(W.Ont.), M.A.(McG.)

Professor

Jane Matthews-Glenn; B.A., LL.B.(Queen's), D.en droit (Strasbourg)

Associate Professors

David F. Brown; B.A.(Bishop's), M.U.P.(McG.), Ph.D.(Sheffield)
Raphaël Fischler; B.Eng.(Eindhoven), M.Sc., M.C.P.(M.I.T.), Ph.D.(Calif.)

Assistant Professors

Madhav G. Badami; B.Tech., M.S.(I.I.T., Madras) M.E.Des.(Calg.), Ph.D.(UBC) (*joint appoint. with McGill School of Environment*)
Lisa Bornstein; B.Sc.(U.C.Berk.), M.R.P.(C'nell), Ph.D.(U.C.Berk.)
Murtaza Haider; B.Sc.(Peshawar), M.A.Sc.(Tor.) (*joint appoint. with Civil Engineering*)

Associate Member

Gordon O. Ewing (Geography)

Adjunct Professors

David Farley, Mario Polèse

Instructor

François Dufaux; B.Arch.(Laval), M.U.P.(McG.)

Guest Lecturers

Cameron Charlebois, Luc Danielse, Marc Denhez, Andrew Hoffmann, Peter Jacobs, Brenda Lee, Léon Ploegaerts, Ray Tomalty, Alain Trudeau, Martin Wexler

76.2 Programs Offered

The objective of the School is to produce qualified professional urban planners for the public and the private sectors. Training is provided at the post-graduate level; the degree offered is the Master of Urban Planning (M.U.P.).

Upon completion of the two-year program of studies, graduates are expected to have acquired basic planning skills, a broad understanding of urban issues, and specialized knowledge in a field of their own choice.

The program of study offered by the School is fully recognized by the Ordre des Urbanistes du Québec (O.U.Q.) and the Canadian Institute of Planners (C.I.P.). Graduates can become full members of these professional organizations after meeting their internship requirements.

Modern urban planning developed into a profession in the early decades of the twentieth century, largely as a response to the appalling sanitary, social and economic conditions of rapidly developing industrial cities. Initially the disciplines of architecture, civil engineering and public health provided the nucleus of con-

cerned professionals; beautification schemes and infrastructure works marked the early stages of public intervention in the nineteenth century. Architects, engineers and public health specialists were joined by economists, sociologists, lawyers and geographers as the complexities of the city's problems came to be more fully understood and public pressure mounted for their solution. Contemporary urban and regional planning techniques for survey, analysis, design and implementation developed from an interdisciplinary synthesis of these various fields.

Today, urban planning can be described as the collective management of urban development. It is concerned with the welfare of communities, control of the use of land, design of the built environment, including transportation and communication networks, and protection and enhancement of the natural environment. It is at once a technical and a political process which brings together actors from the public, private and community spheres. Planners participate in that process in a variety of ways, as designers and analysts, advocates and mediators, facilitating the search for equitable and efficient solutions to urban development problems.

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.

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 firms. Their expertise ranges from historic preservation to traffic management, from housing development to computer imaging. They devote their efforts in increasing numbers to environmental planning and sustainable development.

The School is a partner in the Montreal Interuniversity "Group Urbanization and Development", a consortium recognized by CIDA as a Centre of Excellence, which is devoted to the study of urban problems and the formulation of policies in developing regions. Faculty and students collaborate actively with members of other McGill departments, notably Architecture, Geography, Civil Engineering and Law, and with colleagues at other institutions in Canada and abroad.

76.3 Admission Requirements

The M.U.P. degree is open to students holding a bachelor's degree or equivalent in Anthropology, Architecture, Economics, Engineering, Environmental Studies, Geography, Law, Management, Political Science, Social Work, Sociology or Urban Studies. Students from other backgrounds are considered for admission on an individual basis.

In addition to the documents for admission required by the Graduate and Postdoctoral Studies Office, the following must be submitted:

1. Statement of specific interest in the area of Urban Planning.
2. For architects only, a portfolio containing at least five (5) examples of architectural work accomplished in school and in practice. (Portfolios are not to exceed 8½" x 11" in size.)
3. For international students only. The minimum TOEFL requirement is 600 (paper-based test) or 250 (computer-based test).

The deadline for submitting applications and supporting material is March 1st.

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

Awards and Financial Assistance

For information regarding awards and financial assistance, please refer to the Graduate and Postdoctoral Studies Office *Graduate Fellowships and Awards Calendar*.

76.4 Program Requirements

The program in Urban Planning requires two years of study (69 credits). A three-month internship with a member of a recognized planning association is required.

Students are required to prepare a Supervised Research Project which may take the form of investigative research, an impact study, a development project or a plan. It may be undertaken jointly with another student.

Required Courses (51 credits)

| | | |
|-----------|-----|--------------------------------|
| PUB1 004* | (3) | Land Use Planning |
| URBP 604 | (6) | Planning Projects 3 |
| URBP 606 | (3) | Supervised Research Seminar |
| URBP 609* | (3) | Planning Graphics |
| URBP 612 | (3) | History and Theory of Planning |
| URBP 622 | (6) | Planning Project 1 |
| URBP 623 | (3) | Planning Projects 2 |
| URBP 628 | (6) | Practical Experience |
| URBP 630 | (3) | Supervised Research Project 1 |
| URBP 631 | (6) | Supervised Research Project 2 |
| URBP 632 | (6) | Supervised Research Project 3 |
| URBP 633 | (3) | Planning Methods |

Students who have completed the material for courses marked with an * may request permission from the instructor to substitute another course.

Complementary Courses (12 - 18 credits)

at least 12 credits, a minimum of 4 courses, must be selected from the following list. It is highly recommended that students complete at least one course in each of the disciplines: housing, transportation, environment and design.

| | | |
|----------|-----|-------------------------------------|
| ARCH 378 | (3) | Site Usage |
| ARCH 527 | (3) | Civic Design |
| ARCH 528 | (3) | History of Housing |
| ARCH 529 | (3) | Housing Theory |
| ARCH 550 | (3) | Urban Planning 1 |
| ARCH 551 | (3) | Urban Planning 2 |
| CIVE 540 | (3) | Urban Transportation Planning |
| GEOG 351 | (3) | Quantitative Methods |
| URBP 501 | (2) | Principles and Practice 1 |
| URBP 505 | (3) | Geographical Information Systems |
| URBP 605 | (3) | Graduate Seminar |
| URBP 607 | (3) | Reading Course: Urban Planning |
| URBP 614 | (3) | Urban Environmental Planning |
| URBP 616 | (3) | Selected Topics 1 |
| URBP 617 | (3) | Selected Topics 2 |
| URBP 618 | (3) | Selected Topics 3 |
| URBP 619 | (3) | Transportation and Land Development |
| URBP 620 | (3) | Computer Applications in Planning |
| URBP 621 | (3) | Theories of Urban Form |
| URBP 625 | (2) | Principles and Practice 2 |
| URBP 626 | (2) | Principles and Practice 3 |

Electives (0 - 6 credits)

Students may select additional courses that would be helpful in developing an in-depth knowledge of one or more subject areas in the field of planning. These courses must be at the 500 or 600 levels. They may be taken in any academic unit at McGill or at another university. Frequent choices are classes in real-estate analysis, urban geography, sociology, anthropology, law, politics, and environmental science. Students must confirm that the elective course(s) they select will be counted towards the MUP degree prior to registration.

76.5 Courses

Students preparing to register should consult the Web at www.mcgill.ca/minerva (click on Class Schedule) for the most up-to-date list of courses available; courses may have been added, rescheduled or cancelled after this Calendar went to

press. Class Schedule lists courses by term and includes days, times, locations, and names of instructors.

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

- Denotes courses not offered in 2003-04.

URBP 501 PRINCIPLES AND PRACTICE 1. (2) This six-week intensive course exposes students to issues and techniques that are applicable in diverse professional planning contexts. The subject matter, geographic area, scale of intervention and institutional location of planning varies from semester to semester. The course focuses on a specific case study and is taught by a visiting lecturer with professional experience in the selected subject matter.

URBP 505 GEOGRAPHIC INFORMATION SYSTEMS. (3) An introduction to fundamental geographic information system (GIS) concepts and a range of GIS applications in urban and regional planning.

URBP 506 ENVIRONMENTAL POLICY AND PLANNING. (3) (Restriction: This course is open to students in U3 and above) Analytical and institutional approaches for understanding and addressing urban and other environmental problems at various scales; characteristics of environmental problems and implications; political-institutional context and policy instruments; risk perception and implications; cost-benefit analysis, risk assessment, multiple-objectives approaches, life-cycle analysis; policy implementation issues; case studies.

● **URBP 507 PLANNING AND INFRASTRUCTURE.** (3) (Corequisites: Enrolment in full "Barbados Field Study Semester"; AGRI 413, AGRI 519 or CIVE 519 or URBP 519, AGRI 452 or CIVE 452.)

● **URBP 519 SUSTAINABLE DEVELOPMENT PLANS.** (6) (Corequisites: Enrolment in full "Barbados Field Study Semester"; AGRI 413, AGRI 519 or CIVE 519 or URBP 519, AGRI 452 or CIVE 452, URBP 507) (Restrictions: Not open to students who have taken AGRI 519 or CIVE 519.)

URBP 604 PLANNING PROJECTS 3. (6) (Prerequisites: Planning Projects I and II.) The second-year studio is designed to permit the study of planning problems in depth. Problems are chosen depending on the experience and research interests of the participants, or for their topical nature.

URBP 605 GRADUATE SEMINAR. (3) This seminar is directed to the needs of individual students. It focuses on topics of special interest not included in the curriculum. It is given by members of staff as a tutorial.

URBP 606 SUPERVISED RESEARCH SEMINAR. (3) The supervised research seminar consists of group conferences between students and staff, both to introduce and discuss the topic of professional ethics, and to permit the formulation and development of the students' research project.

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: explanation of urban phenomena, substantive theory, and theories of process.

URBP 614 URBAN ENVIRONMENTAL PLANNING. (3) Examination and evaluation of methodologies pertaining to the assessment of environmental impact in the urban context and the integration of diverse environmental elements directly within the urban planning process. Consideration is given to both theoretical and practical issues. The quality of recent professional reports is assessed.

URBP 616 SELECTED TOPICS 1. (3) Special topics related to Urban Planning will be presented by staff and visiting lecturers.

URBP 617 SELECTED TOPICS 2. (3) Special topics related to Urban Planning will be presented by staff and visiting lecturers.

URBP 618 SELECTED TOPICS 3. (3) Special topics related to Urban Planning will be presented by staff and visiting lecturers.

URBP 619 TRANSPORTATION AND LAND DEVELOPMENT. (3) Urban land development projects: design procedures and standards for internal traffic distribution, auto, truck and pedestrian access, parking requirements, and the development of transportation-related land-use controls. Methods for assessing the impact of land development projects on external traffic. Transportation/land-use relationships at the broader regional scale, with a review of land-use forecasting and allocation models and procedures for the coordination of comprehensive transportation/land-use planning.

● **URBP 620 COMPUTER APPLICATIONS IN PLANNING.** (3)

● **URBP 621 THEORIES OF URBAN FORM.** (3)

URBP 622 PLANNING PROJECT 1. (6) (studio) This studio introduces practical problems based on real world cases. Material covered includes: problem definition; data sources, collection and analysis; goal setting; the creative process; problem solving; and policy implications. Students work in interdisciplinary groups. Each studio terminates with an oral and graphic presentation of work to which expert critics are invited. Progress is evaluated according to performance in class, in the oral presentation, and on written reports.

URBP 623 PLANNING PROJECTS 2. (3) This studio introduces practical problems based on real world cases. Material covered includes: problem definition; data sources, collection and analysis; goal setting; the creative process; problem solving; and policy implications. Students work in interdisciplinary groups. Each studio terminates with an oral and graphic presentation of work to which expert critics are invited. Progress is evaluated according to performance in class, in the oral presentation, and on written reports.

URBP 625 PRINCIPLES AND PRACTICE 2. (2) This six-week intensive course exposes students to issues and techniques which are applicable in diverse professional planning contexts that vary in terms of their subject matter, location, scale and the role played by planners. The course focusses on a specific case study and is taught by a visiting lecturer with experience in the selected subject area. Course topics are systematically varied over a two-year cycle.

URBP 626 PRINCIPLES AND PRACTICE 3. (2)

URBP 628 PRACTICAL EXPERIENCE. (6) An internship related to the practice of urban planning is required. The practical experience must be of at least 3 months duration and be supervised by a professional in the planning field. An evaluation of the student's performance by the supervisor, as well as a short report by the student, forms the basis for assessment.

URBP 630 SUPERVISED RESEARCH PROJECT 1. (3) The Supervised Research Project is intended to focus a student's interests on a particular area of enquiry at the end of studies for a Master's Degree in Planning. It should ideally provide the transition into practice or more advanced studies. Joint research projects are allowed.

URBP 631 SUPERVISED RESEARCH PROJECT 2. (6) Continuation of the requirements for the Supervised Research Project.

URBP 632 SUPERVISED RESEARCH PROJECT 3. (6) Continuation of the requirements for the Supervised Research Project.

URBP 633 PLANNING METHODS. (3) (Priority given to Urban Planning Students) An introduction to quantitative methods that are commonly used in urban research and planning practice. Topics include municipal information systems, fieldwork techniques, survey design and analysis, analysis of spatial and temporal patterns, and the evaluation of policies and plans.

Courses offered jointly by the School and other academic units

ARCH 550 URBAN PLANNING 1. (3) (2-0-7) (Prerequisite: B.Sc.(Arch.) or permission of instructor) (Not normally open to Urban Planning students) Theory and practice. An examination of different basic approaches to urban planning with special reference to Quebec.

ARCH 551 URBAN PLANNING 2. (3) (2-1-6) (Prerequisite: ARCH 550) Urban design and project development, theory and practice. Detailed analysis of selected examples of the development process and of current techniques in urban design. Includes case studies from Quebec and elsewhere.

CIVE 433 URBAN PLANNING. (3) (3-1-5) (Prerequisites: CIVE 421 and MIME 310. Corequisite: CIVE 319) The City in History. The planning profession, evolution of planning in North America, Canada and Quebec. Planning theories, the general or master plan, planning processes and techniques, planning and design of residential subdivisions. Local planning issues, housing policies, planning laws.

CIVE 540 URBAN TRANSPORTATION PLANNING. (3) (3-1-5) (Prerequisite: CIVE 319 or permission of instructor.) Process and techniques of urban transportation engineering and planning, including demand analysis framework, data collection procedures, travel demand modelling and forecasting, and cost-effectiveness framework for evaluation of project and system alternatives.

GEOG 351 QUANTITATIVE METHODS. (3) (Fall) (3 hours) (Prerequisite: MATH 203 or permission of instructor) (Credit for other statistics courses may preclude credit for this course conversely.) Multiple regression and correlation, logit models, discrete choice models, gravity models, facility location algorithms, survey design, population projection.

PUB1 004 LAND USE PLANNING. (3) A comparative study of private and public control of land use and development, involving master plans, zoning bylaws, subdivision control, urban re-development, expropriation, and regional planning.

Index of Graduate Programs

| | |
|---|---------|
| Administration [Management] | 242 |
| Administration and Policy Studies [Education]. | 199 |
| Aerospace Engineering | 247 |
| Agricultural and Biosystems Engineering [Bioresource Engineering]. | 122 |
| Agricultural Economics | 98 |
| Air and Space Law. | 214 |
| Anatomy and Cell Biology | 99 |
| Animal Science | 101 |
| Anthropology | 104 |
| Anthropology, Medical [Anthropology]. | 104 |
| Anthropology, Medical [SSOM] | 321 |
| Architecture | 106 |
| Art History | 110 |
| Asian Studies, East | 152 |
| Atmospheric and Oceanic Sciences | 111 |
| | |
| Biochemistry | 114 |
| Bioethics [Biomedical Ethics Unit] | 116 |
| Bioethics [Experimental Medicine]. | 254 |
| Bioethics [Law]. | 214 |
| Bioethics [Philosophy] | 293 |
| Bioethics [Religious Studies] | 315 |
| Biology | 117 |
| Biomedical Engineering | 120 |
| Biotechnology [Parasitology] | 287 |
| | |
| Chemical Engineering | 125 |
| Chemistry. | 127 |
| Civil Engineering and Applied Mechanics | 131 |
| Clinical Research [Experimental Medicine] | 254 |
| Communication Sciences and Disorders | 136 |
| Communication Studies | 139 |
| Comparative Law | 214 |
| Composition [Music]. | 264 |
| Computer Applications in Music. | 264 |
| Computer Science | 141 |
| Counselling Psychology | 159 |
| Curriculum Studies [Education] | 199 |
| | |
| Dental Sciences | 144 |
| | |
| Earth and Planetary Sciences | 150 |
| East Asian Studies | 152 |
| Economic Policy Management. | 229 |
| Economics | 98, 154 |
| Education, Administration and Policy Studies | 199 |
| Education, Curriculum Studies. | 199 |
| Education, Literacy Studies | 199 |
| Education, Music | 264 |
| Education, Physical | 212 |
| Educational Psychology | 161 |
| Educational Studies | 199 |
| Electrical Engineering | 172 |
| Engineering, Aerospace. | 247 |
| Engineering, Agricultural and Biosystems [Bioresource Engineering] | 122 |
| Engineering, Biomedical | 120 |
| Engineering, Chemical | 125 |
| Engineering, Civil and Applied Mechanics | 131 |
| Engineering, Electrical | 172 |
| Engineering, Environmental [Bioresource Engineering] | 122 |

| | | | |
|--|----------|---|-----|
| Engineering, Environmental [Civil Engineering and Applied Mechanics] | 131 | Microbiology – see Natural Resource Sciences | 274 |
| Engineering, Mechanical | 247 | Microbiology and Immunology | 258 |
| Engineering, Mining | 260 | Mining Engineering | 260 |
| English | 178 | Music | 264 |
| Entomology – see Natural Resource Sciences | 274 | Music, Computer Applications in | 264 |
| Environmental Engineering [Bioresource Engineering] | 122 | Music Education | 264 |
| Environmental Engineering [Civil Engineering and Applied Mechanics] | 131 | Music Performance | 264 |
| Epidemiology and Biostatistics | 180 | Music Technology | 264 |
| Experimental Medicine | 254 | Music Theory | 264 |
| Experimental Surgery | 330 | Musicology | 264 |
| Food Science and Agricultural Chemistry | 183 | Neurological Sciences | 277 |
| French | 186 | Nursing | 280 |
| Genetic Counselling | 196 | Nutrition, Human | 147 |
| Geography | 188 | Occupational Health Sciences | 283 |
| German Studies | 190 | Oceanic and Atmospheric Sciences | 111 |
| Hispanic Studies | 192 | Oral and Maxillofacial Surgery | 144 |
| History | 194 | Otolaryngology | 286 |
| History of Medicine [History] | 194 | Parasitology | 287 |
| History of Medicine [SSOM] | 321 | Pathology | 290 |
| Human Genetics | 196 | Performance [Music] | 264 |
| Human Nutrition | 147 | Pharmacology and Therapeutics | 291 |
| Immunology, Microbiology and | 258 | Philosophy | 293 |
| International Masters Programs in Practising Management (IMPM) | 240 | Physical Education | 212 |
| Islamic Studies | 206 | Physics | 298 |
| Italian Studies | 208 | Physics, Medical Radiation | 253 |
| Jewish Studies | 210 | Physiology | 300 |
| Kinesiology | 212 | Planetary and Earth Sciences | 150 |
| Law | 214 | Plant Science | 303 |
| Law and M.B.A. [Law] | 214 | Political Science | 306 |
| Law and M.S.W. [Law] | 214 | Psychiatry | 310 |
| Law and M.S.W. [Social Work] | 323 | Psychology | 312 |
| Law, Air and Space | 214 | Psychology, Counselling | 159 |
| Law, Comparative | 214 | Psychology, Educational | 161 |
| Law/M.B.A. [Mgmt] | 234 | Psychology, School/Applied | 166 |
| Library and Information Studies | 221 | Rehabilitation Sciences | 295 |
| Linguistics | 227 | Religious Studies | 315 |
| Literacy Studies [Education] | 199 | Renewable Resources – see Natural Resource Sciences | 274 |
| M.B.A. | 229, 232 | Russian and Slavic Studies | 320 |
| M.B.A. and Law [Law] | 214 | School/Applied Psychology | 166 |
| M.B.A./Law [Mgmt] | 234 | Second Language Education | 201 |
| M.B.A./M.D. [Mgmt] | 234 | Social Work | 323 |
| M.D./M.B.A. [Mgmt] | 234 | Social Work and Law [Social Work] | 323 |
| Management | 229 | Sociology | 327 |
| Management, Economic Policy | 229 | Sociology, Medical [Sociology] | 327 |
| Management, International Masters Program in Practising (IMPM) | 240 | Sociology, Medical [SSOM] | 321 |
| Manufacturing Management [Management] | 229 | Sound Recording [Music] | 264 |
| Manufacturing Management [Mechanical Engineering] | 247 | Spanish – see Hispanic Studies | 192 |
| Mathematics and Statistics | 243 | Surgery, Experimental | 330 |
| Mechanical Engineering | 247 | Urban Planning | 332 |
| Medical Anthropology [Anthropology] | 104 | | |
| Medical Anthropology [SSOM] | 321 | | |
| Medical Radiation Physics | 253 | | |
| Medicine, Clinical Research | 254 | | |
| Medicine, Experimental | 254 | | |