This PDF excerpt of Programs, Courses and University Regulations is an archived snapshot of the web content on the date that appears in the footer of the PDF.
Archival copies are available at www.mcgill.ca/study

This publication provides guidance to prospects, applicants, students, faculty and staff.

1. McGill University reserves the right to make changes to the information contained in this online publication - including correcting errors, altering fees, schedules of admission, and credit requirements, and/or cancelling particular courses or programs - without prior notice.
2. In the interpretation of academic regulations, the Senate is the final authority.
3. Students are responsible for informing themselves of the University's procedures, policies and regulations, and the specific requirements associated with their degree, diploma, or certificate sought.
4. All students registered at McGill University are considered to have agreed to act in accordance with the University's procedures, policies and regulations.
5. Although advice is readily available on request, the responsibility of selecting the appropriate courses for graduation must ultimately rest with the student.
6. Not all courses are offered every year and changes can be made after publication. Always check the Minerva Class Schedule link at https://banweb.mcgill.ca/pban1/bwckschd.p_disp_dyn_sched for the most up-to-date information on whether a course is offered.
7. The academic publication year begins at the start of the Fall semester and extends through to the end of the Winter semester of any given year. Students who begin study at any point within this period are governed by the regulations in the publication which came into effect at the start of the Fall semester.
8. Notwithstanding any other provision of the publication, it is expressly understood by all students that McGill University accepts no responsibility to provide any course of instruction, program or class, residential or other services including the normal range of academic, residential and/or other services in circumstances of utility interruptions, fire, accident, strike, work stoppages, labour disputes, war, insurrection, the operation of law or acts of God or any other cause (whether similar or dissimilar to those enumerated) which reasonably prevent their provision.

Note: Throughout this publication, "you" refers to students newly admitted, readmitted or returning to McGill.

Publication Information

Published by

Enrolment Services
McGill University
3415 McTavish Street
Montreal, Quebec, H3A 0C8
Canada

McGill University reserves the right to make changes to the information contained in this publication - including correcting errors, altering fees, schedules of admission and credit requirements, and re

1 Dean's Welcome

To Graduate Students and Postdoctoral Fellows

I am extremely pleased to welcome you to McGill University. Our world-class scholarly community includes over 250 doctoral and master's degree programs, and is recognized for excellence across the full range of academic disciplines and professions. Graduate and Postdoctoral Studies (GPS) collaborates with the Faculties and other administrative and academic units to provide strategic leadership and vision for graduate teaching and research across the University. GPS also oversees the admission and registration of graduate students, disbursing graduate fellowships, supporting postdoctoral fellows, and facilitating the graduation process, including the examination of theses. GPS has partnered with Enrolment Services to offer streamlined services in a one-stop location at Service Point.

McGill is a student-centred research institution that places singular importance upon the quality of graduate education and postdoctoral training. As Associate Provost (Graduate Education), as well as Dean of Graduate and Postdoctoral Studies, I work closely with the Faculties, central administration, graduate students, professors, researchers, and postdoctoral fellows to provide a supportive, stimulating, and enriching academic environment for all graduate students and postdoctoral fellows.

McGill is ranked as one of Canada's most intensive research universities and among the world's top 25. We recognize that these successes come not only from our outstanding faculty members, but also from the quality of our graduate students and postdoctoral fellows. I welcome you into the community into which we are very happy to welcome you.

I invite you to join us in advancing this heritage of excellence at McGill.

Martin Kreiswirth, Ph.D.
Associate Provost (Graduate Education)1 0 0 1 140.558 537.ocation at

Note: For inquiries regarding specific graduate programs, please contact the appropriate department.

2.3 General Statement Concerning Higher Degrees

Graduate and Postdoctoral Studies (GPS) oversees all programs leading to graduate diplomas, certificates, and higher degrees with the exception of some programs in the School of Continuing Studies. It is responsible for admission policies, the supervision of graduate students, and for recommending to Senate those who may receive the degrees, diplomas, and certificates.

3 Important Dates 2012 2013

For all dates relating to the academic year consult www.mcgill.ca/importantdates

4 Graduate Studies at a Glance

4.1 Graduate and Postoctoral Degrees Offered by Faculty

McGill University offers graduate and postdoctoral programs in the following units (organized by their administering home faculty):

Faculty of Agricultural and Environmental Sciences	Degrees Available
section 11.1 Agricultural Economics	M.Sc.
section 11.2 Animal Science	M.Sc., M.Sc.A., Ph.D.
section 11.3 Bioresource Engineering	M.Sc., M.Sc.A., Ph.D., Graduate Certificate
section 11.4 Biotechnology	M.Sc.A., Graduate Certificate
section 11.5 Dietetics and Human Nutrition	M.Sc., M.Sc.A., Ph.D., Graduate Diploma
section 11.6 Food Science and Agricultural Chemistry	M.Sc., Ph.D.
section 11.7 Natural Resource Sciences	M.Sc., Ph.D.
section 11.8 Parasitology	M.Sc., Ph.D.
section 11.9 Plant Science	M.Sc., M.Sc.A., Ph.D., Graduate Certificate

Faculty of Arts	Degrees Available
: Anthropology	M.A., Ph.D.
: Art History	M.A., Ph.D.
Classics see History and Classical Studies	N/A
: Communication Studies	M.A., Ph.D.
: East Asian Studies	M.A., Ph.D.
: Economics	M.A., Ph.D.
: English	M.A., Ph.D.
: French Language and Literature	M.A., Ph.D.
: Geography	M.A., Ph.D.
: History and Classical Studies	M.A., Ph.D.
: Institute for the Study of International Development	N/A
: Islamic Studies	M.A., Ph.D.

Faculty of Arts	Degrees Available
: Jewish Studies	M.A.
: Languages, Literatures, and Cultures	M.A., Ph.D.
: Linguistics	M.A., Ph.D.
: Mathematics and Statistics	M.A., Ph.D.
: Philosophy	M.A., Ph.D.
: Political Science	M.A., Ph.D.
: Psychology	M.A., Ph.D.
: Quebec Studies / Études sur le Québec	N/A
: Faculty of Medicine Faculty of Medicine	N/A
: Social Work	M.S.W., Ph.D.
: Sociology	M.A., Ph.D.

School of Dentistry	Degrees Available
: Dentistry	M.Sc.

Desautels Faculty of Management	Degrees Available
: Desautels Faculty of Management	M.B.A., M.B.A. with Integrated B.C.L./LL.B., M.D./M.B.A., M.B.A./Japan, E.M.B.A., M.M.M., M.M., Ph.D., Graduate Certi cate, Diploma

Faculty of Education	Degrees Available
: Educational and Counselling Psychology	M.A., M.Ed., Ph.D., Graduate Diploma
: Information Studies	M.L.I.S., Ph.D., Graduate Certi cate, Graduate Diploma
: Integrated Studies in Education	M.A., Ph.D., Graduate Certi cate
: Kinesiology and Physical Education	M.A., M.Sc.

Faculty of Engineering	Degrees Available
: Architecture	M.Arch., Ph.D.
: Chemical Engineering	M.Eng., Ph.D.
: Civil Engineering and Applied Mechanics	M.Sc., M.Eng., Ph.D.
: Electrical and Computer Engineering	M.Eng., Ph.D.
: Mechanical Engineering	M.Sc., M.Eng., Ph.D.
: Mining and Materials Engineering	M.Sc., M.Eng., Ph.D., Graduate Diploma
Degr	M.U.P.

Faculty of Medicine	Degrees Available
: Communication Sciences and Disorders	M.Sc., M.Sc.A., Ph.D.
: Epidemiology and Biostatistics	M.Sc., Ph.D., Graduate Diploma
: Human Genetics	M.Sc., Ph.D.
: Medical Physics	M.Sc.
: Medicine, Experimental	M.Sc., Ph.D., Graduate Diploma
: Medicine, Family (Option)	N/A
: Microbiology and Immunology	M.Sc., Ph.D.
: Neuroscience (Integrated Program in)	M.Sc., Ph.D.
: Occupational Health	M.Sc.A., Ph.D.
: Otolaryngology - Head and Neck Surgery	M.Sc.
: Pathology	M.Sc., Ph.D.
: Pharmacology and Therapeutics	M.Sc., Ph.D.
: Physiology	M.Sc., Ph.D
: Psychiatry	M.Sc.
: Surgery, Experimental (Division of Surgical Research)	M.Sc., Ph.D., Graduate Diploma

Ingram School of Nursing	Degrees Available
: Nursing	M.Sc.A., Ph.D., Graduate Certificate, Graduate Diploma

School of Physical and Occupational Therapy	Degrees Available
: Physical and Occupational Therapy	M.Sc., M.Sc.A., Ph.D., Graduate Certificate

Faculty of Religious Studies	Degrees Available
: Religious Studies	M.A., S.T.M., Ph.D.

Schulich School of Music	Degrees Available
: Schulich School of Music	M.A., M.Mus., D.Mus., Ph.D., Graduate Diploma

Faculty of Science	Degrees Available
: Atmospheric and Oceanic Sciences	M.Sc., Ph.D.
: Biology	M.Sc., Ph.D.
: Chemistry	M.Sc., M.Sc.A., Ph.D.
: Computer Science	M.Sc., Ph.D.
: Earth and Planetary Sciences	M.Sc., Ph.D.
: Geography	M.Sc., Ph.D.
: Mathematics and Statistics	M.Sc., Ph.D.
: Physics	M.Sc., Ph.D.
: Psychology	M.Sc., Ph.D.

4.2 Master's Degrees and Prerequisites

The following list shows all of the master's degrees available at McGill, along with their prerequisites. See Section 4.3 Master's Degree Programs and Specializations for more information on specific programs and options.

Program	Thesis/Non-Thesis	Options
Professional	Non-Thesis	Design Studio, Design Studio Directed Research
Post-professional	Non-Thesis	Architectural History and Theory, Cultural Mediations and Technology, Urban Design and Housing

Master of Arts (M.A.)

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

Program Areas	Thesis/Non-Thesis	Options
Anthropology	Thesis, Non-Thesis	Development Studies, Environment, Gender and Women's Studies (Thesis)
Art History	Non-Thesis	Gender and Women's Studies (Non-Thesis)
Classics	Thesis, Non-Thesis	N/A
Communication Studies	Thesis, Non-Thesis	Gender and Women's Studies (Thesis)
Music Music Technology	Thesis, Non-Thesis	N/A
Music Musicology	Thesis, Non-Thesis	Gender and Women's Studies (Thesis)
Music Theory	Thesis, Non-Thesis	Gender and Women's Studies (Thesis)
Philosophy	Thesis	Bioethics

Program Areas	Thesis/Non-Thesis	Options
Political Science	Thesis, Non-Thesis	Development Studies, European Studies (Thesis)
		Development Studies, European Studies, Gender and Women's Studies, Social Statistics (Non-Thesis)
Psychology	Thesis	N/A
Religious Studies	Thesis, Non-Thesis	Bioethics, Gender and Women's Studies (Thesis)
Russian	Thesis	N/A
Second Language Education	Thesis, Non-Thesis	Gender and Women's Studies (Thesis)
Sociology	Thesis, Non-Thesis	Development Studies, Environment, Gender and Women's Studies, Medical Sociology, Neotropical Environment (Thesis)
		Development Studies, Gender and Women's Studies, Medical Sociology, Social Statistics (Non-Thesis)
Teaching and Learning	Non-Thesis	English or French Second Language, English Language Arts, Mathematics, Science and Technology, Social Sciences

Master of Business Administration and Management Degrees (M.B.A., M.M., M.M.M.)

A program leading to the degree of Master of Business Administration (M.B.A.) is offered in the following concentrations:

Program	Thesis/Non-Thesis	Options
M.B.A.	Non-Thesis	Finance, General Management, Global Strategy and Leadership, Marketing, Technology and Innovation (Non-Thesis)
M.B.A. with B.C.L. and LL.B.	Non-Thesis	Finance, General Management, Global Strategy and Leadership, Marketing, Technology and Innovation (Non-Thesis)
M.D./M.B.A.	Non-Thesis	N/A
M.B.A./Japan	Non-Thesis	Finance, General Management, Global Strategy and Leadership, Marketing, Technology and Innovation (Non-Thesis)
E.M.B.A.	Non-Thesis	N/A
M.M.M.	Non-Thesis	N/A
M.M./IMPM	Non-Thesis	N/A
M.M./IMPMHL	Non-Thesis	N/A

Master of Education (M.Ed.)

Program	Thesis/Non-Thesis	Options
Educational Psychology	Non-Thesis	N/A

Master of Engineering (M.Eng.)

Program	Thesis/Non-Thesis	Options
Aerospace Engineering	Non-Thesis	N/A
Biomedical Engineering	Thesis, Non-Thesis	Bioinformatics (Thesis)
Chemical Engineering	Non-Thesis	Environmental Engineering (Non-Thesis)
Civil Engineering	Thesis, Non-Thesis	Environmental Engineering (Non-Thesis)
Electrical Engineering	Thesis, Non-Thesis	Computational Science and Engineering (Thesis)
Mechanical Engineering	Thesis, Non-Thesis	Computational Science and Engineering (Thesis)
Mining and Materials Engineering	Thesis, Non-Thesis	Environmental Engineering (Non-Thesis)

Master of Laws (LL.M.)

Program	Thesis/Non-Thesis	Options
Law	Thesis, Non-Thesis	Bioethics, European Studies (Thesis) Air and Space Law, Environment, Comparative Law (Thesis and Non-Thesis)

Master of Library and Information Studies (M.L.I.S.)

The Graduate School of Library and Information Studies offers a postgraduate professional program in librarianship. Two years of full-time study or the equivalent are required.

Program	Thesis/Non-Thesis	Options
Information Studies	Non-Thesis	N/A

Master of Music (M.Mus.)

Program	Thesis/Non-Thesis	Options
Music Composition	Non-Thesis	N/A
Performance	Thesis	Vocal Pedagogy, Jazz Performance, Early Music, Orchestral Instruments and Guitar, Collaborative Piano, Piano, Opera and Voice, Organ and Church Music, Conducting
Sound Recording	Non-Thesis	N/A

Master of Sacred Theology (S.T.M.)

A program leading to the degree of Sanctae Theologiae Magister (S.T.M.) is given in the Faculty of Religious Studies. This degree is primarily for those who intend to enter the ministry of the Christian Church or another religious institution, or to proceed to teaching in a Master's of Arts program (thesis and non-thesis) is also available.

Program	Thesis/Non-Thesis	Options
Religious Studies	Non-Thesis	N/A

Master of Science (M.Sc.)

Program Areas	Thesis/Non-Thesis	Options
Agricultural Economics	Thesis	N/A
Animal Science	Thesis	N/A
Atmospheric and Oceanic Science	Thesis	Environment (Thesis)
Biochemistry	Thesis	Bioinformatics, Chemical Biology (Thesis)
Biology	Thesis	Bioinformatics, Environment, Neotropical Environment
Bioresource Engineering	Thesis, Non-Thesis	Environment, Neotropical Environment (Thesis) Integrated Water Resource Management (Non-Thesis)
Biostatistics	Thesis, Non-Thesis	N/A
Cell Biology	Thesis	N/A
Chemistry	Thesis	Chemical Biology
Civil Engineering	Thesis	N/A
Communication Sciences and Disorders	Thesis	N/A
Computer Science	Thesis, Non-Thesis	Bioinformatics, Computational Science, Engineering (Thesis)
Dental Science	Thesis, Non-Thesis	Oral and Maxillofacial Surgery (Thesis)
Earth and Planetary Sciences	Thesis	Environment
Entomology	Thesis	Environment, Neotropical Environment
Epidemiology	Thesis	N/A
Experimental Medicine	Thesis	Bioethics, Environment, Family Medicine
Experimental Surgery	Thesis	Surgical Research

Program Areas	Thesis/Non-Thesis	Options
Food Science and Agricultural Chemistry	Thesis, Non-Thesis	Food Safety (Non-Thesis)
Genetic Counselling	Non-Thesis	N/A
Geography	Thesis	Environment, Neotropical Environment
Human Genetics	Thesis	Bioethics, Bioinformatics
Human Nutrition	Thesis	N/A
Kinesiology and Physical Education	Thesis, Non-Thesis	N/A
Mathematics and Statistics	Thesis, Non-Thesis	Bioinformatics, Computational Science and Engineering
Mechanical Engineering	Thesis	N/A
Medical Radiation Physics	Thesis	N/A
Microbiology	Thesis	Environment
Microbiology and Immunology	Thesis	N/A
Mining and Materials Engineering	Thesis	N/A
Neuroscience	Thesis	N/A
Otolaryngology	Thesis	N/A
Parasitology	Thesis	Bioinformatics, Environment
Pathology	Thesis	N/A
Pharmacology	Thesis	Chemical Biology
Ph	Thesis	N/A

Program	Thesis/Non-Thesis	Options
Occupational Therapy	Non-Thesis	N/A
Physical Therapy	Non-Thesis	N/A
Plant Science	Non-Thesis	N/A

Master of Social Work (M.S.W.)

The M.S.W. degree represents a second level of professional study in which students build competence in a chosen field of practice.

Program	Thesis/Non-Thesis	Options
Social Work	Thesis, Non-Thesis	N/A
Joint Master of Social Work with B.C.L. and LL.B.	Non-Thesis	N/A

Master of Urban Planning

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

Program	Thesis/Non-Thesis	Options
Urban Planning	Thesis, Non-Thesis	Transportation Planning, Urban Design (Non-Thesis)

4.4 Doctoral Degrees

The following section lists the doctoral degrees available at McGill, along with their prerequisites. See section 4.4.1 Doctoral Degree Programs and Specializations for specific programs and options for doctoral degrees.

Degree		Prerequisites
Doctor of Civil Law	D.C.L.	B.C.L. or LL.B. and usually LL.M. See Law.
Doctor of Music	D.Mus.	M.A. in Composition (D.Mus. in Composition) or a master's degree in Performance, and professional and teaching experience (D.Mus. in Performance). See Music.
Doctor of Philosophy	Ph.D.	An undergraduate degree relevant to the subject chosen for graduate work. Some departments require all Ph.D. candidates to hold a master's degree in the same subject. Departments may recommend that candidates of undoubted promise should be allowed to proceed directly to the Ph.D. degree without being required to submit a master's thesis.

4.4.1 Doctoral Degree Programs and Specializations

Doctor of Civil Law (D.C.L.)

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

Program	Options	Offered by Faculty/School
Law	Air and Space Law, Comparative Law	Faculty of Law

Doctor of Music (D.Mus.)

The Doctor of Music degree is offered in Composition. The Doctoral thesis consists of a musical composition of major dimensions together with a written analysis of the work. The composition is presented by the candidate in concert. The regulations set forth for the Ph.D. generally apply also to the D.Mus.

The Doctor of Music degree is also offered in Performance. It is offered to professional musicians who wish to teach at the university level and to develop a specialization in a particular repertoire, approach, or discipline (music history, music theory, music education and pedagogy, or music technology).

Program	Options	Offered by Faculty/School
Music	Composition, Performance Studies	Schulich School of Music

Doctor of Philosophy Degrees

Programs leading to the degree of Doctor of Philosophy are offered in the following areas:

Program	Options	Offered by Faculty/School
Animal Science	Bioinformatics	Faculty of Agricultural and Environmental Sciences
Anthropology	Neotropical Environment	Faculty of Arts
Architecture	N/A	Faculty of Engineering
Art History	Gender and Women's Studies	Faculty of Arts
Atmospheric and Oceanic Sciences	N/A	Faculty of Science
Biochemistry	Bioinformatics, Chemical Biology	Faculty of Medicine
Biology	Bioinformatics, Developmental Biology, Environment, Neotropical Environment	Faculty of Science
Biomedical Engineering	Bioinformatics	Faculty of Medicine
Bioresource Engineering	Environment, Neotropical Environment	Faculty of Agricultural and Environmental Sciences
Biostatistics	N/A	Faculty of Medicine
Cell Biology	N/A	Faculty of Medicine
Chemical Engineering	N/A	Faculty of Engineering
Chemistry	Chemical Biology	Faculty of Science
Civil Engineering	N/A	Faculty of Engineering
Classics	N/A	Faculty of Arts
Communication Sciences and Disorders	Language Acquisition	Faculty of Medicine
Communication Studies	Gender and Women's Studies	Faculty of Arts
Computer Science	Bioinformatics	Faculty of Science
Counselling Psychology	N/A	Faculty of Education
Earth and Planetary Sciences	Environment	Faculty of Science
Economics	N/A	Faculty of Arts
Educational Psychology	N/A	Faculty of Education
Educational Studies	Gender and Women's Studies, Language Acquisition	Faculty of Education
Electrical Engineering	N/A	Faculty of Engineering
English	N/A	Faculty of Arts
Entomology	Environment, Neotropical Environment	Faculty of Agricultural and Environmental Sciences
Epidemiology	N/A	Faculty of Medicine
Experimental Medicine	Environment	Faculty of Medicine
Experimental Surgery (Surgical Research)	N/A	Faculty of Medicine
Food Science and Agricultural Chemistry	N/A	Faculty of Agricultural and Environmental Sciences
French Language and Literature	Gender and Women's Studies	Faculty of Arts
Geography	Environment, Gender and Women's Studies, Neotropical Environment	Faculty of Arts, Faculty of Science
German	N/A	Faculty of Arts
Hispanic Studies	N/A	Faculty of Arts
History	N/A	Faculty of Arts
Human Genetics	Bioinformatics	Faculty of Medicine
Human Nutrition	N/A	Faculty of Agricultural and Environmental Sciences
Information Studies	N/A	Faculty of Education

Program	Options	Offered by Faculty/School
Psychiatry	N/A	Faculty of Medicine
Urban Planning	N/A	Faculty of Engineering

4.5 Postdoctoral Research

See section 8 Postdoctoral Research for information about postdoctoral research at McGill University.

Graduate Diplomas and Graduate Cer

Note: The master's degree must have been awarded before initial registration in the doctoral program; otherwise, the admission level will be at Ph.D. 1 and residency will be extended to three years. Once the level of admission is approved, it will not be changed after obtaining the master's degree if the date falls after registration in the program. If a previous awarded degree is a condition of admission, it must be fulfilled before registration in another program.

As a rule, no more than one-third of the McGill program formal coursework can be credited with courses from another university.

Comprehensive Examinations Doctoral

A comprehensive examination or its equivalent is usually held near the end of Ph.D. 2. The results of this examination determine whether or not students will be permitted to continue in their programs. The methods adopted for examination and evaluation and the areas to be examined are specified by departmental regulations approved by the Dean of Graduate and Postdoctoral Studies. It is the responsibility of students to inform themselves of these details at the commencement of their programs. For more information, see Programs, Courses and University Regulations> University Regulations and Resources> Graduate> Guidelines and Policies> : Ph.D. Comprehensives Policy.

Language Requirements Doctoral

Most graduate departments in the Faculties of Agricultural and Environmental Sciences, Education, Engineering, Management, Medicine, and Science do not require a language examination. Students should inquire in their departments if there are such requirements or whether any other requirements have been substituted for those relating to languages.

Graduate departments in the Faculties of Arts, Music, and Religious Studies usually require proficiency in one or two languages other than English. In all cases, **students should consult departmental regulations concerning language requirements**.

Language requirements for the Ph.D. degree are met through demonstrated reading knowledge. The usual languages are French, German, or Russian, but in particular instances another language may be necessary

All language requirements must be fulfilled and the grades reported **before** the submission of the thesis to GPS (Thesis Section).

Students must contact their departments to make arrangements to take the Language Reading Proficiency Examinations. Students may, however, demonstrate competence by a pass standing in two undergraduate language courses taken at McGill (see departmental regulations).

Candidates are advised to discharge their language requirements as early in their program as possible.

Students expecting to enrol in Professional Corporations in the province of Quebec are advised to become fluent in both spoken and written French.

Courses in French language are available at the English and French Language Centre. The teaching is intensive and class sizes are kept small. While undergraduate students are given preference, graduate students who are certain that they devote sufficient time to the work may enrol.

Thesis Doctoral

The thesis for the Ph.D. degree must display original scholarship, be expressed in good literate style and must be a distinct contribution to knowledge. **Formal notice of a thesis title and names of examiners must be submitted to the Thesis Section of GPS on the** Nomination of Examiners **form in accordance with the dates on** www.mcgill.ca/importantdates, **at the same time as the thesis is submitted**. The list of examiners must be approved by the Department Chair, the supervisor and the student. The Thesis Section of GPS should be notified of any subsequent change of title as early as possible. Guidelines and deadlines are available at www.mcgill.ca/gps/thesis/guidelines.

Seven copies of the thesis must be provided by the candidate. Of these, two copies will be retained by the University and five copies returned to the candidate. Some departments may require one or more additional copies. The final corrected copy is submitted electronically

Special regulations for the Ph.D. degree in particular departments are stated in the entries of those departments.

Thesis Oral Examination Doctoral

After the thesis has been received and approved, a final oral examination is held on the subject of the thesis and subjects intimately related to it. This is conducted in the presence of a Committee of at least five members presided over by a Pro-Dean nominated by Graduate and Postdoctoral Studies. The Chair of the candidate's department and the Thesis Supervisor are regularly invited to be members of the Committee; at least one member of the Committee is appointed from outside the candidate's department. Guidelines available at www.mcgill.ca/gps/thesis/guidelines

5.3 Ad Personam Programs (Thesis Option Only)

In very rare circumstances, an applicant who wishes to pursue a Master's (thesis option only) or Ph.D. studies of an interdisciplinary nature involving joint supervision by two departments, each of which is authorized by the Ministère de l'Éducation, du Loisir et du Sport (MELS) to offer its own graduate programs, may be admitted to an Ad Personam program. For more information, see http://secure.mcgill.ca/gradapplicants/apply/prepare#program and contact the relevant department.

5.4 Coursework for Graduate Programs, Diplomas, and Certificates

Upper-level undergraduate courses (excluding 500 level) may not be considered for degrees, diplomas, and certificates unless they are already listed as required courses in the approved program description. If an upper-level undergraduate course (excluding 500 level) is taken by a graduate student, it must come as a recommendation from the Graduate Program Director in the department. The recommendation must state if the undergraduate course is an additional requirement for the program (must obtain B- or better) or if the course is to be taken for the program (will be flagged as such on the record and fees will be charged). See document at www.mcgill.ca/gps/students/registration.

English and French language courses offered by the French Language Centre (Faculty of Arts) or the School of Continuing Studies may not be counted for course work credits toward a graduate program.

All substitutions for course work in graduate programs, diplomas, and certificates must be approved by GPS.

Courses taken at other institutions to be part of the requirements of a program of studies must be approved by GPS before registration. Double counting is not permitted.

6 Graduate Admissions and Application Procedures

Website: www.mcgill.ca/gradapplicants
Email: servicepoint@mcgill.ca

Deadline: Admission to graduate studies operates on a rolling basis; complete applications and their supporting documentation must reach departmental offices on or before the Date for Guaranteed Consideration specified by the department. To be considered for entrance fellowships, where available, applicants must verify the deadlines with individual departments. Meeting minimum admission standards does not guarantee admission.

6.1 Application for Admission

Revision, October 2012. Start of revision.

Application information and the online application form are available at www.mcgill.ca/gradapplicants/apply. Applicants (with some exceptions) are required to provide the names and email addresses of instructors familiar with their work and who are willing to provide letters of reference in support of the applicant. McGill will request the reference letters on behalf of the applicant. All applicants must themselves upload an unofficial copy of their complete academic record from each university-level

See www.mcgill.ca/gradapplicants/apply/prepare/requirements/international-degree-equivalency for information on grade equivalencies and degree requirements from countries in Europe and around the world. These equivalencies and requirements are provided for information only and are subject to change without notice.

Admission to graduate programs at McGill is highly competitive and the final decision rests with the Graduate Admissions Committee. Admission decisions are not subject to appeal or reconsideration.

Revision, October 2012. End of revision.

6.3 Application Procedures (for All Admissions Starting Summer 2013)

Revision, October 2012. Start of revision.

Application Checklist

All supplemental application materials and supporting documents must be uploaded directly to the McGill admissions processing system. See www.mcgill.ca/gradapplicants/apply/submitting-your-documents for information and instructions.

1. **Online Application for Admission form:** www.mcgill.ca/gradapplicants/apply/ready
2. **Application fee**: $100 for each form you submit (you may indicate two programs on each form), payable by credit card when you submit the form. Some programs may charge additional fees. If applicable these will be automatically generated when you submit the application form.
3. **Transcripts:** your complete record of study from each university-level institution you have attended to date. Uploaded copies will be considered as unofficial; final, official copies will be required once you are offered admission.

4ir286.42.

6.4 Admission Tests

Revision, October 2012. Star t of re vision.

Graduate Record Examination (GRE)

The Graduate Record Examination (GRE) (EducationTesting Service, Princeton, NJ 08540) consists of a verlyatiadvanced test in the candidates specialty and a general test of their attainments in seal basic elds of knowledge for which no special preparation is required or recommended. It is offered at many centres, including Montreal, seeral times a year; the entire examination takes about eight hours, and there is agistration fee. Refer to www.ets.org/gre for further information. Only some departments require applicants to write the GRE examination, but all applicants who have written either the general aptitude or the advced test are advised to ensure that of cial test results are sent to McGill d 0 81 T 1 8321 Tyvcianced tsubj 83es l 83isGRE)

anglophrneerer isncophrne). 8.1 Tf 10 0 1 67.52 661.341359.219ced t4. 8.1 Tf 1 0 0 1 67.52 661.18313690.02 cial testerc 0 1 128.5463641006133413362ced tvecanEnglish

6.6 Admission to a Qualifying Program

Some applicants whose academic grades and Standing entitle them to serious consideration for admission to graduate studies may be considered inadequately prepared in the subject selected may be admitted to a Qualifying Program for a Master's degree. The graduate-level courses to be taken in a Qualifying Program will be prescribed by the department concerned.

Qualifying students are registered in graduate studies, **but not as candidates for a degree**. Only one Qualifying year (i.e., two

6.11 Deferral of Admission

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

7 Fellowships, Awards, and Assistantships

Graduate and Postdoctoral Studies
(Fellowships and Awards Section)
James Administration Building, Room 400
845 Sherbrooke Street West
Montreal, QC H3A 0G4
Telephone: 514-398-3990
Fax: 514-398-2626
Website: www.mcgill.ca/gps/students/funding/students-postdocs

The Fellowships and Awards section of Graduate and Postdoctoral Studies provides processing services for many sources of support for Canadian and non-Canadian students, both new to McGill and continuing. Further information on these and other sources of funding can be found in various publications on the Fellowships and Awards web pages. The Graduate Fellowships and Awards Calendar lists all internal awards as well as numerous external awards.

Entrance Fellowships are awarded on the basis of the application for admission, upon nomination by academic departments. Most internal fellowships are awarded in this manner please contact the proposed academic department directly for further information.

Research assistantships, teaching assistantships, and stipends from professors' research grants are handled by individual academic departments at McGill. Fellowships, assistantships, and stipends are used to form funding packages for graduate students. All assistantship and stipend inquiries should be directed to departments.

A small number of citizens from countries whose governments have entered into agreements on tuition fees with Quebec may be exempted from the supplemental tuition fees normally required of international students. All French citizens and a limited number of citizens of countries in the list, which can be found at www.mels.gouv.qc.ca/sections/publications/index.asp?page=che&id=1039, are eligible for such exemptions. For more information and the necessary application materials, see this MELS website: www.mels.gouv.qc.ca/international/index_en.asp?page=progExemp

ii. Each academic unit hosting Postdocs should clearly identify Postdocs needs and the means by which they will be met by the unit.

iii. Each academic unit should assess the availability of research supervision, facilities, office space, and research funding before recruiting Postdocs.

iv. Some examples of responsibilities of the department are:

to verify the Postdoc's eligibility period for registration;

to pro

10 Information on Research Policies and Guidelines, Patents, Postdocs, Associates, Trainees

Refer to Programs, Courses and University Regulations> University Regulations and Resources> Graduate> : Research Policy and Guidelines, Patents, Postdocs, Associates, Trainees for information on the following:

- Policy on Research Ethics
- Regulations on Research Policy
- Policy on Research Integrity
- Guidelines for Research Involving Human Subjects
- Guidelines for Research with Animal Subjects
- Policy on Intellectual Property
- Regulations Governing Conflicts of Interest
- Safety in Field Work
- Office of Sponsored Research
- Postdocs
- Research Associates

11 Academic Programs

The programs and courses in the following sections have been approved for the 2012 2013 session as listed, but the Faculty reserves the right to introduce changes as may be deemed necessary or desirable.

11.1 Agricultural Economics

11.1.1 Location

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

Telephone: 514-398-7820
Email: agr.econ@mcgill.ca
Website: http://agrecon.mcgill.ca

11.1.2 About Agricultural Economics

For program information please see section 11.7 Natural Resource Sciences

11.1.3 Agricultural Economics Faculty

Program Director

J.C. Henning

Associate Professors

J.C. Henning; B.Sc., Ph.D.(Guelph)

P.J. Thomassin; B.Sc.(Agr.)(McG.), M.S., Ph.D.(Hawaii Pac.)

Assistant Professors

N. Kosoy; B.Sc.(Univ. Simon Bolivar), M.Sc.(Kent), M.Sc., Ph.D.(Univ Autonoma de Barcelona)

A. Naseem; B.Sc.(McG.), M.Sc.(Penn.), M.A., Ph.D.(Mich.)

11.2 Animal Science

11.2.1 Location

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

Telephone: 514-398-7794
Fax: 514-398-7964
Email: animal.science@mcgill.ca
Website: www.mcgill.ca/animal

11.2.2 About Animal Science

The Department of Animal Science provides exciting challenges to graduate students in the areas of Biotechnology and Molecular Biology Genetics, Nutrition, and Reproductive Physiology as they relate, not only to livestock production but also leading into the fields of human nutrition and medicine via animal models for human disease, infertility and obesity. Official options in Biotechnology are also available. Departmental researchers have excellent wet-lab facilities at their disposal; large-animal studies can be carried out at the Large Animal Research Unit on the Macdonald campus, where other livestock species are available for research trials as well. Research can make use of the Small Animal Research Unit for studies involving rodent animal models, guinea pigs, neonatal piglets, and rabbits. Expertise is available in applied information systems, management-software development, and large-scale data analyses. Close collaboration with the Quebec Centre for Expertise in Dairy Production (AAQ) allows for large-scale data-mining projects, software development, and the production of advising tools for the industry. The Department also has significant expertise in food safety, environmental studies related to animal production, and global food security. Our staff's many connections via research networks allow for rich learning environments for our graduate students.

section 11.2.5 Master of Science (M.Sc.), Animal Science (Thesis) (45 credits)

Four one-semester courses and two seminar courses at the postgraduate level complement an area of research (resulting in a thesis) under the supervision of one of our staff, many of whom are leaders in their respective fields. Entrance to this program is highly competitive, requiring an excellent B.Sc. and letters of reference. Graduates of this program are well prepared for careers in the animal, the dairy, pharmaceutical sectors, and many varied fields in biotechnology.

section 11.2.6 Master of Science, Applied (M.Sc.A.), Animal Science (Non-Thesis) (45 credits)

This non-thesis degree is oriented to animal scientists already working in industry or government, to undergraduate students inspired by concepts in sustainable and integrated animal agriculture, to project leaders interested in animal resource management, and to farmers. The program provides graduate training in applied areas of animal production with a view toward integrating technology and management in animal production with allied areas of agricultural resource utilization.

section 11.2.7 Doctor of Philosophy (Ph.D.), Animal Science

Since the Ph.D. is primarily a research degree, the amount of coursework required will normally be considerably less than is the case for the M.Sc. It depends on the background of the individual student and must be approved by the student's Advisory Committee. At a minimum, it includes two seminar courses at the graduate level and the Ph.D. Comprehensive Examination as an admission to candidacy for the Ph.D. As with the M.Sc. (Thesis), admission is based on an excellent track record. Suitable candidates are encouraged to contact potential supervisors within their chosen area of interest. Applicants should, however, be aware that no professor is in a position to accept students without formal approval of the application by the Graduate Admissions Committee.

section 11.2.8 Doctor of Philosophy (Ph.D.), Animal Science – Bioinformatics

Bioinformatics research lies at the intersection of biological/medical sciences and mathematics/computer science/engineering. The intention of the Bioinformatics Option is to train students to become researchers in this interdisciplinary field. This includes the development of strategies for experimental

11.2.3 Animal Science Admission Requirements and Application Procedures

11.2.3.1 Admission Requirements

Revision, October 2012. Start of revision.

M.Sc. (Thesis)

Candidates are required to have either a bachelor's degree in Agriculture or a B.Sc. degree in an appropriate, related discipline with an equivalent cumulative grade point average of 3.0/4.0 (second class upper division) or 3.2/4.0 during the last two years of full-time university study. High grades are expected in courses considered by the academic unit to be preparatory to the graduate program.

M.Sc. (Applied)

All candidates are required to have a B.Sc. degree or equivalent.

Ph.D.

Candidates are normally required to have an M.Sc. degree in an area related to the chosen field of specialization for the Ph.D. program.

Qualifying Students

Some applicants whose academic grades and standing entitle them to serious consideration for admission to graduate studies may be considered inadequately prepared in the subject selected may be admitted to a Qualifying program in which they must meet the Graduate and Postdoctoral Studies 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 considered 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.**

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

11.2.3.2 Application Procedures

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

See section 6.3 Application Procedures (for All Admissions Starting Summer 2013) for detailed application procedures.

11.2.3.2.1 Additional Requirements

The items and clarifications below are additional requirements set by this department:

Acceptance to all programs depends on a staff member agreeing to serve as the student's supervisor and the student obtaining financial support.
The GRE is not required, but it is highly recommended.

11.2.3.3 Dates for Guaranteed Consideration

Canadian	International	Special/Exchange/Visiting
Fall: June 30	Fall: March 15	Same as Canadian/International
Winter: Sept. 15	Winter: Sept. 15	Same as Canadian/International
Summer: N/A	Summer: N/A	N/A

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 the Dates for Guaranteed Consideration. International applicants are advised to apply well in advance of these dates because immigration procedures may be lengthy.

Revision, October 2012. End of revision.

11.2.4 Animal Science Faculty

Chair

Kevin M. Wade

Emeritus Professors

R.B. Buckland; B.Sc.(Ag.), M.Sc.(McG.), Ph.D.(Md.)

E.R. Chavez; Ing.Agr(Chile), M.Sc., Ph.D.(Davis)

E. Donefer; B.Sc., M.Sc.(C'nell), Ph.D.(McG.)

Emeritus Professors

B.R. Downey; D.V.M.(Tor.), Ph.D.(McG.)

U. Kühnlein; B.Sc.(Fed. Inst. of Tech., Zurich), Ph.D.(Geneva)

J.E. Moxley; B.Sc.(Agr), M.Sc.(McG.), Ph.D.(C'nell)

S. Touchburn; M.S.A.(Br. Col.), Ph.D.(Ohio St.)

Professors

J.F. Hayes; B.Agr.Sc., M.Agr.Sc.(Dublin), Ph.D.(N. Carolina St.)

X. Zhao; B.Sc., M.Sc.(Nanjing), Ph.D.(C'nell) (James McGill Professor)

Associate Professors

V. Bordignon; D.V.M.(URCAMP, Brazil), M.Sc.(UFPel, Brazil), Ph.D.(Montr.)

R.I. Cue; B.Sc.(Newcastle, UK), Ph.D.(Edin.)

S. Kimmins; B.Sc.(Dal.), M.Sc.(Nova Scotia Ag.), Ph.D.(Dal.) (CRC Chair, Tier 2)

H. Monardes; Ing.Agr.(Concepcion, Chile), M.Sc., Ph.D.(McG.)

A.F. Mustafa; B.Sc., M.Sc.(Khartoum), Ph.D.(Sask.)

L.E. Phillip; B.Sc.(Agr.), M.Sc.(Agr.)(McG.), Ph.D.(Guelph)

K.M. Wade; B.Sc.(Agr.), M.Sc.(Agr.)(Dublin), Ph.D.(C nell)

D. Zadworny; B.Sc., Ph.D.(Guelph)

Assistant Professors

M. Chénier; B.Sc.(Laval), M.Sc.(Quebec), Ph.D.(McG.)

R. Duggavathi; B.V.Sc., M.V.Sc.(Bangalore), Ph.D.(Sask.)

Adjunct Professors

H. Baldassarre, R. Lacasse, D. Lefebvre, B. Murphy

11.2.5 Master of Science (M.Sc.); Animal Science (Thesis) (45 credits)

Thesis Courses (31 credits)

ANSC 680	(7)	M.Sc. Thesis 1
ANSC 681	(7)	M.Sc. Thesis 2
ANSC 682	(7)	M.Sc. Thesis 3
ANSC 683	(10)	M.Sc. Thesis 4

Required Courses (14 credits)

12 credits of coursework at the 500 level or higher approved by the student's advisory committee, and seminars.

ANSC 695	(1)	Animal Science Seminar 1
ANSC 696	(1)	Animal Science Seminar 2

Advanced undergraduate courses may be considered for graduate credit if appro

11.2.6 Master of Science , Applied (M.Sc.A.); Animal Science (Non-Thesis) (45 credits)

The program aims to provide graduate training in applied areas of animal production with a view toward integrating technology and management in animal production with allied areas of agricultural resource utilization.

Research Project (15 credits)

ANSC 643	(3)	Project 1
ANSC 644	(3)	Project 2
ANSC 645	(3)	Project 3
ANSC 646	(3)	Project 4
ANSC 647	(3)	Project 5

Complementary Courses (30 credits)

15-30 credits from the following:

AEMA 610	(3)	Statistical Methods 2
ANSC 504	(3)	Population Genetics
ANSC 530	(3)	Experimental Techniques in Nutrition
ANSC 551	(3)	Carbohydrate and Lipid Metabolism
ANSC 552	(3)	Protein Metabolism and Nutrition
ANSC 560	(3)	Biology of Lactation
ANSC 565	(3)	Applied Information Systems
ANSC 600	(3)	Advanced Eukaryotic Cells and Viruses
ANSC 604	(3)	Advanced Animal Biotechnology
ANSC 605	(3)	Estimation: Genetic Parameters
ANSC 606	(3)	Selection Index and Animal Improvement
ANSC 622	(3)	Selected Topics in Molecular Biology
ANSC 635	(3)	Vitamins and Minerals in Nutrition
ANSC 636	(3)	Analysis - Animal Breeding Research Data
ANSC 691	(3)	Special Topic: Animal Sciences
ANSC 692	(3)	Topic in Animal Sciences 1

0-15 credits selected from 500- and 600-level courses from across the Faculty (with the possibility of up to 9 credits from outside the Faculty if deemed appropriate by the supervisor).

11.2.7 Doctor of Philosophy (Ph.D.); Animal Science

Since the Ph.D. is primarily a research degree, the amount of coursework required will depend on the background of the individual student, and must be approved by the student's advisory committee.

Thesis

A thesis for the doctoral degree must constitute original scholarship and must be a distinct contribution to knowledge. It must show familiarity with previous work in the field and must demonstrate ability to plan and carry out research, organize results, and defend the approach and conclusions in a scholarly manner. The research presented must meet current standards of the discipline; as well, the thesis must clearly demonstrate that the research advances knowledge in the field. Finally, the thesis must be written in compliance with norms for academic and scholarly discussion and for publication in the public domain.

Required Courses

ANSC 701	(0)	Doctoral Comprehensive Examination

Two seminar courses at the 500, 600, or 700 level.

11.2.8 Doctor of Philosophy (Ph.D.); Animal Science - Bioinformatics

Thesis

A thesis for the doctoral degree must constitute original scholarship and must be a distinct contribution to knowledge. It must show familiarity with previous work in the field and must demonstrate ability to plan and carry out research, organize results, and defend the approach and conclusions in a scholarly manner. The research presented must meet current standards of the discipline; as well, the thesis must clearly demonstrate how the research advances knowledge in the field. Finally, the thesis must be written in compliance with norms for academic and scholarly discussion and for publication in the public domain.

Required Courses (5 credits)

ANSC 701	(0)	Doctoral Comprehensive Examination
ANSC 797	(1)	Animal Science Seminar 3
ANSC 798	(1)	Animal Science Seminar 4
COMP 616D1	(1.5)	Bioinformatics Seminar
COMP 616D2	(1.5)	Bioinformatics Seminar

Complementary Courses (6 credits)

Two courses chosen from the following:

BINF 621	(3)	Bioinformatics: Molecular Biology
BMDE 652	(3)	Bioinformatics: Proteomics
BTEC 555	(3)	Structural Bioinformatics
COMP 618	(3)	Bioinformatics: Functional Genomics
PHGY 603	(3)	Systems Biology and Biophysics

Additional courses at the 500, 600, or 700 level may be required at the discretion of the candidate's supervisory committee.

11.3 Bioresource Engineering

11.3.1 Location

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

Telephone: 514-398-7774
Fax: 514-398-8387
Email: susan.gregus@mcgill.ca
Website: www.mcgill.ca/bioeng

11.3.2 About Bioresource Engineering

The Department offers M.Sc. and Ph.D. research programs in various areas of bioresource engineering including: plant and animal environments; ecological engineering (ecosystem modelling, design, management, and remediation); resources management (hydrology, irrigation, drainage, water quality); agricultural machinery, mechatronics, and robotics; food engineering and bio-processing; post-harvest technology; waste management and protection of the environment; bio-energy; and artificial intelligence. The Department also offers a Graduate Certificate in Bioresource Engineering (Integrated Water Resources Management). The Department has well equipped laboratories for conducting research in all these areas.

The interdisciplinary nature of bioresource engineering often requires candidates for higher degrees to work in association with, or attend courses given by, a number of other departments at both the McGill University Macdonald campus and the downtown campus.

section 11.3.5 Master of Science (M.Sc.); Bioresource Engineering (Thesis) (46 credits)

This option for the M.Sc. degree is oriented toward individuals who intend to develop a career in bioresource engineering research.

section 11.3.6 Master of Science (M.Sc.); Bioresource Engineering (Thesis) Environment (46 credits)

The Environmental option is coordinated through the McGill School of Environment (MSE). This option is intended for students who want to take an interdisciplinary approach in their graduate research on en

section 11.3.15 Doctor of Philosophy (Ph.D.); Bioresource Engineering Neotropical Environment

This is a research-based degree with a team of co-advisers from McGill and Latin America with the requirements of a one-year residency in Panama or tropical Latin America, three interdisciplinary courses, at least two of them focusing on North-South issues, proficiency in Spanish or Portuguese, one-time off-campus (Panama) fees, and the possibility of NEO-specific fellowships. Only the accredited professors listed on the NEO website can accept students in the option.

section 11.3.16 Graduate Certificate in Bioresource Engineering Integrated Water Resources Management (15 credits)

The Graduate Certificate in Integrated W

Graduate Program Director

G.S.V. Raghavan

Associate Graduate Program Director

V. Orsat

Emeritus Professor

R.S. Broughton; B.S.A., B.A.Sc.(UT), S.M.(MIT), Ph.D.(McG.), LL.D.(Dal.)

Professor (Post-Retirement)

R. Kok; B.E.Sc., Ph.D.(W.Ont.)

Professors

C.A. Madramootoo; B.Sc.(Agr.Eng.), M.Sc., Ph.D.(McG.) (James McGill Professor)

E. McKyes; B.Eng., M.Eng., Ph.D.(McG.)

S.O. Prasher; B.Tech., M.Tech.(Punj.), Ph.D.(B.Col.), LL.D.(Dal.) (James McGill Professor)

G.S.V. Raghavan; B.Eng.(B'lore), M.Sc.(Guelph), Ph.D.(Colo. St.), D.Sc.A.(UT) (James McGill Professor)

Associate Professors

V.I. Adamchuk; B.Sc.(Kiev, Ukraine), M.Sc., Ph.D.(Purd.)

M.O. Ngadi; B.Eng.(Agr.Eng.), M.A.Sc., Ph.D.(Dal.Tech.) (William Dawson Scholar)

Assistant Professors

J. Adamowski; B.Eng.(RMC), M.Phil.(Camb.), M.B.A.(WUT, LBS, HEC, NHH), Ph.D.(Warsaw)

G. Clark; B.Sc.(Alta.), M.Sc., Ph.D.(McG.)

M. Lefsrud; B.Sc.(Sask.), M.Sc.(Rutg.), Ph.D.(UT)

V. Orsat; B.Sc., M.Sc., Ph.D.(McG.)

Adjunct Professors

ok; B.E.Sc.,10 G 324 29ET 67(Coa))Tj 0.9804 0.92VVector.), S.M.(MI3827742156 0.843 (enn.))Tj 1 0 1 0842156 0.843oulouse)Dal.6

Research/Professional Associates

D. Lyew; B.Sc., M.Sc., Ph.D.(McG.)

S. Sotocinal; B.Sc.(Phil.), M.Sc., Ph.D.(McG.)

Technical

S. Mankteloow

11.3.5 Master of Science (M.Sc.); Bioresource Engineering (Thesis) (46 credits)

This option for the M.Sc. degree is oriented toward individuals who intend to develop a career in bioresource engineering research.

Thesis Courses (32 credits)

BREE 691	(4)	M.Sc. Thesis 1
BREE 692	(4)	M.Sc. Thesis 2
BREE 693	(4)	M.Sc. Thesis 3
BREE 694	(4)	M.Sc. Thesis 4
BREE 695	(4)	M.Sc. Thesis 5
BREE 696	(4)	M.Sc. Thesis 6
BREE 697	(4)	M.Sc. Thesis 7
BREE 698	(4)	M.Sc. Thesis 8

Required Courses (5 credits)

BREE 651	(1)	Departmental Seminar M.Sc. 1
BREE 652	(1)	Departmental Seminar M.Sc. 2
BREE 699	(3)	Scientific Publication

Complementary Courses (9 credits)

500-, 600-, or 700-level courses in bioresource engineering and other fields to be determined in consultation with the Research Director

11.3.6 Master of Science (M.Sc.); Bioresource Engineering (Thesis) Environment (46 credits)

Thesis Courses (32 credits)

BREE 691	(4)	M.Sc. Thesis 1
BREE 692	(4)	M.Sc. Thesis 2
BREE 693	(4)	M.Sc. Thesis 3
BREE 694	(4)	M.Sc. Thesis 4
BREE 695	(4)	M.Sc. Thesis 5
BREE 696	(4)	M.Sc. Thesis 6
BREE 697	(4)	M.Sc. Thesis 7
BREE 698	(4)	M.Sc. Thesis 8

Required Courses (11 credits)

BREE 651	(1)	Departmental Seminar M.Sc. 1
BREE 652	(1)	Departmental Seminar M.Sc. 2

BREE 699	(3)	Scientific Publication
ENVR 610	(3)	Foundations of Environmental Policy
ENVR 650	(1)	Environmental Seminar 1
ENVR 651	(1)	Environmental Seminar 2
ENVR 652	(1)	Environmental Seminar 3

Complementary Courses (3 credits)

Chosen from the following:

ENVR 519	(3)	Global Environmental Politics
ENVR 544	(3)	Environmental Measurement and Modelling
ENVR 620	(3)	Environment and Health of Species
ENVR 622	(3)	Sustainable Landscapes
ENVR 630	(3)	Civilization and Environment
ENVR 680	(3)	Topics in Environment 4

or another 500-, 600-, or 700-level course recommended by the advisory committee and approved by the Environment Option Committee.

11.3.7 Master of Science (M.Sc.); Bioresource Engineering (Thesis) Neotropical Environment (46 credits)

Thesis (32 credits)

BREE 691	(4)	M.Sc. Thesis 1
BREE 692	(4)	M.Sc. Thesis 2
BREE 693	(4)	M.Sc. Thesis 3
BREE 694	(4)	M.Sc. Thesis 4
BREE 695	(4)	M.Sc. Thesis 5
BREE 696	(4)	M.Sc. Thesis 6
BREE 697	(4)	M.Sc. Thesis 7
BREE 698	(4)	M.Sc. Thesis 8

Required Courses (11 credits)

BIOL 640	(3)	Tropical Biology and Conservation
BREE 651	(1)	Departmental Seminar M.Sc. 1
BREE 652	(1)	Departmental Seminar M.Sc. 2
BREE 699	(3)	Scientific Publication
ENVR 610	(3)	Foundations of Environmental Policy

Note: P

Required Courses (8 credits)

BREE 651	(1)	Departmental Seminar M.Sc. 1
BREE 652	(1)	Departmental Seminar M.Sc. 2
ENVR 610	(3)	Foundations of Environmental Policy
ENVR 650	(1)	Environmental Seminar 1
ENVR 651	(1)	Environmental Seminar 2
ENVR 652	(1)	Environmental Seminar 3

Complementary Courses (25 credits)

3 credits from the following courses below:

ENVR 519	(3)	Global Environmental Politics
ENVR 544	(3)	Environmental Measurement and Modelling
ENVR 620	(3)	Environment and Health of Species
ENVR 622	(3)	Sustainable Landscapes
ENVR 630	(3)	Civilization and Environment
ENVR 680	(3)	Topics in Environment 4

or another course at the 500, 600, or 700 level recommended by the advisory committee and approved by the Environment Option Committee.

22 additional credits of 500-, 600-, or 700-level courses chosen in consultation with the academic adviser

11.3.11 Master of Science, Applied (M.Sc.A.); Bioresource Engineering (Non-Thesis) Neotropical Environment (45 credits)

Research Project (12 credits)

BREE 671	(6)	Project 1
BREE 672	(6)	Project 2

Required Courses (8 credits)

BIOL 640	(3)	Tropical Biology and Conservation
BREE 651	(1)	Departmental Seminar M.Sc. 1
BREE 652	(1)	Departmental Seminar M.Sc. 2
ENVR 610	(3)	Foundations of Environmental Policy

Note: Participation in the MSE-Panama Symposium presentation in Montreal is required.

Complementary Courses (25 credits)

3 credits (one elective course), at the 500-level or higher, on environmental issues to be chosen in consultation with and approved by the student's supervisor and the Neotropical Environment Options Director

22 additional credits of 500-, 600-, or 700-level courses chosen in consultation with the academic adviser

11.3.12 Master of Science, Applied (M.Sc.A.); Bioresource Engineering (Non-Thesis) Environmental Engineering (45 credits)

This inter-departmental graduate program leads to a master's degree in Environmental Engineering. The objective of the program is to train environmental professionals at an advanced level. The program is designed for individuals with an undergraduate degree in engineering. This non-thesis degree falls within the M.Eng. and M.Sc. programs which are offered in the Departments of Bioresource, Chemical, Civil, and Mining, Metals, and Materials Engineering.

Research Project (6 credits)

BREE 671*	(6)	Project 1
BREE 672	(6)	Project 2

* BREE 671 may also be taken as part of this requirement.

Required Courses (9 credits)

BREE 533	(3)	Water Quality Management
CHEE 591	(3)	Environmental Bioremediation
CIVE 615	(3)	Environmental Engineering Seminar

Complementary Courses (19 credits)

Data Analysis Course

3 credits from the following:

AEMA 611	(3)	Experimental Designs 1
CIVE 555	(3)	Environmental Data Analysis
PSYC 650	(3)	Advanced Statistics 1

Toxicology Course

3 credits from the following:

OCCH 612	(3)	Principles of Toxicology
OCCH 616	(3)	Occupational Hygiene

Water Pollution Engineering Course

4 credits from the following:

CIVE 651	(4)	Theory: Water / Wastewater Treatment
CIVE 652	(4)	Biological Treatment: Wastewaters
CIVE 660	(4)	Chemical and Physical Treatment of Waters

Air Pollution Engineering Course

3 credits from the following:

CHEE 592	(3)	Industrial Air Pollution Control
MECH 534	(3)	Air Pollution Engineering

or an approved 500-, 600-, or 700-level alternative course.

Environmental Impact Course

3 credits from the following:

GEOG 501	(3)	Modelling Environmental Systems
GEOG 551	(3)	Environmental Decisions

or an approved 500-, 600-, or 700-level alternative course.

Environmental Policy Course

3 credits from the following:

Environmental Polic

BREE 752	(0)	Departmental Seminar Ph.D. 2
BREE 753	(0)	Departmental Seminar Ph.D. 3
BREE 754	(0)	Departmental Seminar Ph.D. 4
ENVR 610	(3)	Foundations of Environmental Policy
ENVR 650	(1)	Environmental Seminar 1
ENVR 651	(1)	Environmental Seminar 2
ENVR 652	(1)	Environmental Seminar 3

Complementary Courses

One course chosen from the following:

ENVR 519	(3)	Global Environmental Politics
ENVR 544	(3)	Environmental Measurement and Modelling
ENVR 620	(3)	Environment and Health of Species
ENVR 622	(3)	Sustainable Landscapes
ENVR 630	(3)	Civilization and Environment
ENVR 680	(3)	Topics in Environment 4

or another course at the 500, 600, or 700 level recommended by the advisory committee and approved by the Environment Option Committee.

Doctor of Philosophy (Ph.D.);

11.4.3 Biotechnology Admission Requirements and Application Procedures

11.4.3.1 Admission Requirements

Revision, October 2012. Start of revision.

Candidates for the Graduate Certificate and the M.Sc.(Applied) 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 for the Graduate Certificate, and a minimum of 3.2/4.0 CGPA for the M.Sc.(A.), as well as prerequisites or equivalents. Prerequisites or equivalents: applicants are required to have sufficient background in biochemistry, cellular biology and molecular biology, preferably at an advanced level for the Master's Applied.

Qualifying Students

BIOT 505	(3)	Selected Topics in Biotechnology
BTEC 501	(3)	Bioinformatics
BTEC 619	(4)	Biotechnology Laboratory 2
BTEC 620	(4)	Biotechnology Laboratory 1
BTEC 621	(3)	Biotechnology Management

Complementary Courses (12 credits)

3 credits in Ethics at the 500 level or higher, selected in consultation with the academic adviser

9 credits at the 500 level or higher, selected within the Faculties of Agricultural and Environmental Sciences, Medicine, Science, or Management in consultation with the academic adviser of the program in line with the interests of the student.

11.4.6 Graduate Certificate in Biotechnology (16 credits)

Required Courses (10 credits)

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

Complimentary Courses (6 credits)

11.5 Dietetics and Human Nutrition

11.5.1 Location

School of Dietetics and Human Nutrition
Macdonald-Stewart Building, Room MS2-039
McGill University, Macdonald Campus
21,111 Lakeshore Road
Sainte-Anne-de-Bellevue, QC H9X 3V9
Canada

Telephone: 514-398-7762
Fax: 514-398-7739
Email: lise

M.Sc. Thesis and M.Sc. Applied (Project or Practicum)

Applicants must be graduates of a university of recognized reputation and hold a B.Sc. degree or equivalent to a McGill degree in a subject closely related to the one selected for graduate work. Applicants must have at least a cumulative grade point average (CGPA) in McGill University's credit equivalency of 3.2/4.0 (second class upper division) during their bachelor's degree program. All eligible candidates to the M.Sc. (Applied) program may select the project option; those who have completed a dietetic internship and six months work experience are eligible to apply for a practicum option.

Ph.D.

Applicants must be graduates of a university of recognized reputation and hold a B.Sc. and M.Sc. degree or equivalent to a McGill degree in a subject closely related to the one selected for graduate work. Applicants must have at least a cumulative grade point average (CGPA) in McGill University's credit equivalency of 3.2/4.0 (second class upper division) during their bachelor's and master's degree programs.

Graduate Diploma in R.D. Credentialing

For information on admission requirements, applicants must contact Maureen Rose in the School of Dietetics and Human Nutrition.

Qualifying Students

Some applicants whose academic grades and Standing entitle them to serious consideration for admission to graduate studies may be considered inadequately prepared in the subject selected may be admitted to a Qualifying program that will meet the School's minimum CGPA of 3.2 out of 4.0. The courses to be taken in a Qualifying program will be prescribed by the academic unit. Qualifying students are registered in graduate studies **but not as candidates for a degree**. Only one Qualifying year (two terms) is permitted. **Successful completion of a Qualifying program does not guarantee admission to a degree program. Students must re-apply for admission to a degree program.**

Financial Aid **Financial aid is very limited and highly competitive. It is suggested that students give serious consideration to their financial planning before submitting an application.** Normally, a student will not be accepted unless adequate financial support can be provided by the student and/or the student's supervisor. While the school cannot guarantee financial support, teaching assistantships and other scholarships may be available on a

11.5.3.2 Application Procedures

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

See section 6.3 Application Procedures (for All Admissions Starting Summer 2013) for detailed application procedures.

11.5.3.2.1 Additional Requirements

The items and clarifications below are additional requirements set by this department:

Final acceptance to the M.Sc. (Thesis) and Ph.D. programs depends on a member agreeing to serve as the student's supervisor. A supervisor is not required for acceptance to the M.Sc. (Applied) program.

Graduate Record Exam (GRE). The GRE is required for all applicants to the School of Dietetics and Human Nutrition who are submitting non-Canadian and non-U.S. transcripts.

11.5.3.3 Dates for Guaranteed Consideration

Canadian	International	Special/Exchange/Visiting
Fall: March 15	Fall: March 15	Fall: March 15
Winter: October 15	Winter: September 15	Winter: Same as Canadian/International
Summer: March 1	Summer: January 15	Summer: Same as Canadian/International

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 the Dates for Guaranteed Consideration. International applicants are advised to apply well in advance of these dates because immigration procedures may be lengthy.

Revision, October 2012. End of revision.

11.5.4 Dietetics and Human Nutrition Faculty

Director

Kristine G. Koski

Professor Emerita

Harriet V. Kuhnlein; B.S.(Penn. St.), M.S.(Ore. St.), Ph.D.(Calif.), D.Sc.(h.c.) (joint appt. with Faculty of Medicine)

Professors

Luis B. Agellon; B.Sc., Ph.D.(McM.) (Canada Research Chair)

Tim A. Johns; B.Sc.(McM.), M.Sc.(B.Col.), Ph.D.(Mich.) (joint appt. with Plant Science)

Associate Professors

Katherine Gray-Donald; B.Sc., Ph.D.(McG.), R.D. (Joint appt. with Epidemiology and Biostatistics, Faculty of Medicine)

Kristine G. Koski; B.S., M.S.(Wash.), Ph.D.(Calif.), R.D. (Joint appt. with the Division of Experimental Medicine, Faculty of Medicine)

Stan Kubow; B.Sc.(McG.), M.Sc.(Tor.), Ph.D.(Guelph)

Grace S. Marquis; B.A.(Ind.), M.Sc.(Mich. St.), Ph.D.(C'nell) (Canada Research Chair)

Louise Thibault; B.Sc., M.Sc., Ph.D.(Laval), Dt. P.

Hope Weiler; B.A.Sc.(Guelph), Ph.D.(McM.), R.D.C. (Canada Research Chair)

Linda J. Wykes; B.Sc., M.Sc., Ph.D.(T.) (William Dawson Scholar)

Faculty Lecturers

Mary Hendrickson-Nelson; B.A.(St. Benedict), B.Sc.(Minn.), M.Sc.(Colo. St.), Dt. P.

Sandy Phillips; B.Sc., M.Sc.(A.)(McG.), Dt. P. (University Coordinator, Professional Practice (Stage) in Dietetics)

Hughes Plourde; B.Sc.(McG.), M.Sc.(Mont.), Dt. P.

Maureen Rose; B.Sc., M.Ed., Ph.D.(McG.), Dt. P.

Professional Associate

Linda Jacobs Stacey; B.Sc.(Mt. St. Vin.), M.Sc., Ph.D.(McG.), R.D., B.C. (Associate Dean of Students)

Associate Members

Anaesthesia: Franco Carli, Ralph Latterman, Thomas Schricker

Food Science & Agricultural Chemistry: Selim Kermasha

Kinesiology: Ross Andersen

Medicine: Louis Beaumier, Stéphanie Chevalier, Réjeanne Gougeon, L. John Hoffer, Larry Lands, Errol B. Marliss, José Morais, Celia Rodd, Thomas Schricker, Jean-François Yale

Parasitology: Marilyn E. Scott

Adjunct Professors

Laurie Chan (Ott.)

Kevin A. Cockell (Health Canada)

11.5.5 Master of Science (M.Sc.); Human Nutrition (Thesis) (45 credits)

Thesis Courses (31 credits)

NUTR 680	(6)	Human Nutrition M.Sc. Thesis 1
NUTR 681	(6)	Human Nutrition M.Sc. Thesis 2
NUTR 682	(9)	Human Nutrition M.Sc. Thesis 3
NUTR 683	(10)	Human Nutrition M.Sc. Thesis 4

Required Courses (2 credits)

NUTR 695	(1)	Human Nutrition Seminar 1
NUTR 696	(1)	Human Nutrition Seminar 2

Complementary Courses (12 credits)

3 credits in graduate-level statistics

3 credits in statistics at the 500 level or higher

3 credits in research methods at the 500 level or higher

12 credits of course work, at the 500 level or higher, in Nutrition, Animal Science, or Food Science chosen in consultation with the student's supervisor

Elective Courses (9 credits)

9 credits of 500-level or higher courses in consultation with the student's academic adviser or supervisor

11.5.8 Graduate Diploma in Registered Dietitian Credentialing (30 credits)

The Graduate Diploma is open to students who have completed a graduate degree with the School of Dietetics and Human Nutrition including NUTR 513 Credentialing in Dietetics.

Required Courses (30 credits)

NUTR 612	(8)	Graduate Professional Practice 2 Management
NUTR 613	(14)	Graduate Professional Practice 3 Clinical Nutrition
NUTR 614	(8)	Graduate Professional Practice 4 Community Nutrition

11.5.9 Doctor of Philosophy (Ph.D.); Human Nutrition

Thesis

A thesis for the doctoral degree must constitute original scholarship and must be a distinct contribution to knowledge. It must show familiarity with previous work in the field and must demonstrate ability to plan and carry out research, organize results, and defend the approach and conclusions in a scholarly manner. The research presented must meet current standards of the discipline; as well, the thesis must clearly demonstrate that the research advances knowledge in the field. Finally, the thesis must be written in compliance with norms for academic and scholarly expression and for publication in the public domain.

Required Courses

NUTR 701	(0)	Doctoral Comprehensive Examination
NUTR 797	(1)	Human Nutrition Seminar 3
NUTR 798	(1)	Human Nutrition Seminar 4

11.6 Food Science and Agricultural Chemistry

11.6.1 Location

Department of Food Science and Agricultural Chemistry
Macdonald-Stewart Building, Room MS1-034
Macdonald Campus of McGill University
21,111 Lakeshore Road
Sainte-Anne-de-Bellevue, QC H9X 3V9
Canada

Telephone: 514-398-7898
Fax: 514-398-7977
Email: foodscience@mcgill.ca
Website: www.mcgill.ca/foodscience

11.6.2 About Food Science and Agricultural Chemistry

The Department of Food Science and Agricultural Chemistry offers both M.Sc. (thesis and non-thesis) and Ph.D. programs. These programs provide training in evolving interdisciplinary areas of food quality, food safety, food chemistry, food biotechnology, functional ingredients, applied infrared spectroscopy, food processing, thermal generation of aromas and toxicants, marine biochemistry, and food toxicology. The Department has excellent infrastructure with all

major equipment necessary for conducting research in all these areas. Our graduate programs provide strong mentoring/advisory support while maintaining high flexibility for individual research projects.

section 11.6.5 Master of Science (M.Sc.); Food Science and Agricultural Chemistry (Non-Thesis) (45 credits)

The program offers advanced food science courses in a broad range of areas. It is suitable for students with a graduate degree in food science or a closely related discipline. Entry is possible from other disciplines; however, students will be expected to do a qualifying term or year to pick up relevant courses to orient themselves to food science. Students are required to complete a total of 45 credits (10 graduate courses, a seminar course, and a research project). Subsequent career paths include work with food industry and government agencies.

section 11.6.6 Master of Science (M.Sc.); Food Science and Agricultural Chemistry Food Safety (Non-Thesis) (45 credits)

This 45-credit program is offered to candidates who seek further specialization in the area of food safety but do not wish to pursue independent research. These credits are obtained through a combination of graduate courses. The residence time for the M.Sc. degree (non-thesis) is three academic terms.

section 11.6.7 Master of Science (M.Sc.); Food Science and Agricultural Chemistry (Thesis) (45 credits)

This program is a research-based degree in various areas related to food science for candidates entering the M.Sc. program without restrictions (i.e., not requiring a qualifying term/year); the M.Sc. degree consists of 45 graduate credits. These credits are obtained through a combination of graduate courses (15 credits) and a research thesis (30 credits). Entry into the M.Sc. (thesis option) also hinges on the availability of supervisory staff and

11.6.3.3 Dates for Guaranteed Consideration

Canadian	International	Special/Exchange/Visiting
Fall: June 30	Fall: March 1	Fall: Same as Canadian/International
Winter: Nov. 15	Winter: Sept. 15	Winter: Same as Canadian/International
Summer: March 30	Summer: Jan. 15	Summer: Same as Canadian/International

It may be necessary to delay review of the applicant

FDSC 525	(3)	Food Quality Assurance
FDSC 536	(3)	Food Traceability
FDSC 555	(3)	Comparative Food Law
NUTR 512	(3)	Herbs, Foods and Phytochemicals
OCCH 612	(3)	Principles of Toxicology
PARA 515	(3)	Water, Health and Sanitation

Elective Courses (6 credits)

At the 500 level or higher, and selected in consultation with the academic adviser

Master of Science (M.Sc.); Food Science and Agricultural Chemistry (Thesis) (45 credits)45 credits)

11.7 Natural Resource Sciences

11.7.1 Location

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

Telephone: 514-398-7890
Fax: 514-398-7990
Email: info.nrs@mcgill.ca
Website: www.mcgill.ca/nrs

11.7.2 About Natural Resource Sciences

The Department of Natural Resource Sciences offers programs leading to M.Sc. and Ph.D. degrees in Entomology (includes Environment and Neotropical Environment options), Microbiology (includes Bioinformatics and Environment options), Renewable Resources (includes Forest Science, Micrometeorology, Soil Science, and Wildlife Biology with Environment and Neotropical Environment options available) and an M.Sc. degree in Agricultural Economics. It is also possible for students to pursue doctoral studies through the Department of Economics in Agricultural Economics as a field of specialization. An interdisciplinary option in Bioinformatics for doctoral students is available.

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

Master of Science Degrees

section 11.7.5 Master of Science (M.Sc.); Agricultural Economics (Thesis) (46 credits)

This program provides students with applied economic concepts and tools to identify, define, and analyze economic problems affecting the performance of the agri-food sector and the environment. The ideal prior preparation is an undergraduate degree in Agricultural Economics or Economics, including undergraduate courses in intermediate economic theory (micro and macro), calculus, algebra, statistics, and econometrics.

Attention is given to the development of analytical skills in the broad areas of agricultural, environmental, and ecological economics. Students may specialize, by way of their research program, in agribusiness, development, finance, marketing and trade, policy, and resource economics. The program prepares graduates for rewarding careers in research, analysis, and decision-making in academia, private and NGO sectors, and government.

section 11.7.6 Master of Science (M.Sc.); Entomology (Thesis) (45 credits)

Please contact the Department for more information about this program.

section 11.7.7 Master of Science (M.Sc.); Entomology (Thesis) Environment (46 credits)

Please contact the Department for more information about this program.

section 11.7.8 Master of Science (M.Sc.); Entomology (Thesis) Neotropical Environment (48 credits)

Please contact the Department for more information about this program.

section 11.7.9 Master of Science (M.Sc.); Microbiology (Thesis) (45 credits)

Please contact the Department for more information about this program.

section 11.7.10 Master of Science (M.Sc.); Microbiology (Thesis) Environment (46 credits)

Please contact the Department for more information about this program.

section 11.7.11 Master of Science (M.Sc.); Renewable Resources (Thesis) (45 credits)

(Including Micrometeorology, Forest Science, Soil Science, and Wildlife Biology as areas of research)

section 11.7.12 Master of Science (M.Sc.); Renewable Resources (Thesis) Environment (46 credits)

Please contact the Department for more information about this program.

section 11.7.13 Master of Science (M.Sc.); Renewable Resources (Thesis) Neotropical Environment (48 credits)

Please contact the Department for more information about this program.

section 11.7.14 Master of Science (M.Sc.); Renewable Resources (Non-Thesis) Environmental Assessment (45 credits)

This program is under revision. Please contact the Department for more information.

Ph.D. Degrees in Entomology, Microbiology, or Renewable Resources

(Includes Micrometeorology, Forest Science, Soil Science, and Wildlife Biology)

section 11.7.15 Doctor of Philosophy (Ph.D.); Entomology

Please contact the Department for more information about this program.

section 11.7.16 Doctor of Philosophy (Ph.D.); Microbiology

Please contact the Department for more information about this program.

section 11.7.17 Doctor of Philosophy (Ph.D.); Renewable Resources

Please contact the Department for more information about this program.

section 11.7.18 Doctor of Philosophy (Ph.D.); Entomology Environment

Please contact the Department for more information about this program.

section 11.7.19 Doctor of Philosophy (Ph.D.); Entomology Neotropical Environment

Please contact the Department for more information about this program.

section 11.7.20 Doctor of Philosophy (Ph.D.); Microbiology Bioinformatics

Please contact the Department for more information about this program.

section 11.7.21 Doctor of Philosophy (Ph.D.); Microbiology Environment

Please contact the Department for more information about this program.

section 11.7.22 Doctor of Philosophy (Ph.D.); Renewable Resources Environment

Please contact the Department for more information about this program.

section 11.7.23 Doctor of Philosophy (Ph.D.); Renewable Resources Neotropical Environment

Please contact the Department for more information about this program.

11.7.3 Natural Resource Science Admission Requirements and Application Procedures

11.7.3.1 Admission Requirements

Revision, October 2012. Start of revision.

M.Sc. Thesis (Agricultural Economics)

Direct admission to the M.Sc. requires the completion of a B.Sc. in Agricultural Economics or a closely related area, with the equivalent cumulative grade point average of 3.0/4.0 (second class upper di

Candidates are required to have a bachelor's degree with an equivalent cumulative grade point average of 3.0/4.0 (second class upper division) or 3.2/4.0 during the last two years of full-time university study. High grades are expected in courses considered by the academic unit to be preparatory to the graduate program.

M.Sc. in Renewable Resources (Non-Thesis) Environmental Assessment Option

Applications are not being accepted for the 2012 2013 academic year; the program is under review.

Ph.D. Thesis (Entomology, Microbiology, Renewable Resources)

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.

Qualifying Students

Some applicants whose academic grades and standing entitle them to serious consideration for admission to graduate studies may be considered inadequately prepared in the subject selected may be admitted to a Qualifying program if they meet the Graduate and Postdoctoral Studies 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 considered 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.**

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

11.7.3.2 Application Procedures

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

See section 6.3 Application Procedures (for All Admissions Starting Summer 2012) for detailed application procedures.

11.7.3.2.1 Additional Requirements

The items and clarifications below

Emeritus Professors

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.(Wisc.), 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.(McGill); Wildlife Biology

P. Brown; B.A.(Haver.), M.A., Ph.D.(Col.); Environmental Policy and Ethics (joint appt. with Geography and McGill School of Environment)

J.W. Fyles; B.Sc., M.Sc.(U. Vic., BC), Ph.D.(Alta.); Forest Resources (Tomlinson Chair in Forest Ecology)

W.H. Hendershot; B.Sc.(U.T.), M.Sc.(McG.), Ph.D.(Br. Col.); Soil Science

Associate Professors

C. Buddle; B.Sc.(Guelph), Ph.D.(Alta.); Forest Insect Ecology

B. Côté; B.Sc., Ph.D.(Laval); Forest Resources

B.T. Driscoll; B.Sc., Ph.D.(McM.); Microbiology

G.B. Dunphy; B.Sc.(New Br.), M.Sc., Ph.D.(N d.); Entomology

J.C. Henning; B.Sc., Ph.D.(Guelph); Agricultural Economics

M. Humphries; B.Sc.(Manit.), M.Sc.(Alta.), Ph.D.(McGill); Wildlife Biology

D.J. Lewis; B.Sc., M.Sc., Ph.D.(N d.); Entomology

I.B. Strachan; B.Sc.(U.T.), M.Sc., Ph.D.(Qu.); Micrometeorology

P.J. Thomassin; B.Sc.(McG.), M.S., Ph.D.(Hawaii Pac.); Agricultural and Environmental Economics

J. Whalen; B.Sc.(Agr.)(Dal.), M.Sc.(McG.), Ph.D.(Ohio St.); Soil Science

T.A. Wheeler; B.Sc.(N d.), M.Sc., Ph.D.(Guelph); Entomology

L.G. Whyte; B.Sc.(Regina), Ph.D.(Vict.); Microbiology

Assistant Professors

E. Bennett; B.A.(Oberline Coll.), M.S., Ph.D.(Wis.); Ecosystem Ecology (joint appt. with McGill School of Environment)

S. Faucher; B.Sc., Ph.D.(Mont.); 0 j 0.9804 0.9216 Tr 50;

Adjunct Professors

D. Angers

G. Boivin

M.A. Bouchard

K. Fernie

C. Greer

D. Houle

J.P. Savard

E. Smith

G. Sunahara

C. Vincent

F. Whoriskey

11.7.5 Master of Science (M.Sc.); Agricultural Economics (Thesis) (46 credits)

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

Thesis Courses (27 credits)

AGEC 691	(6)	M.Sc. Thesis 1
AGEC 692	(3)	M.Sc. Thesis 2
AGEC 693	(6)	M.Sc. Thesis 3
AGEC 694	(6)	M.Sc. Thesis 4
AGEC 695	(6)	M.Sc. Thesis 5

Required Course

(1 credit)

AGEC 690	(1)	Seminar

Complementary Courses (18 credits)

6 credits, two theory courses chosen from:

AGEC 633	(3)	Environmental and Natural Resource Economics
ECON 610	(3)	Microeconomic Theory 1
ECON 611	(3)	Microeconomic Theory 2
ECON 620	(3)	Macroeconomic Theory 1
ECON 621	(3)	Macroeconomic Theory 2

3 credits, one quantitative methods course chosen from:

AEMA 610	(3)	Statistical Methods 2
ECON 525	(3)	Project Analysis
ECON 662	(6)	Econometrics
ECON 665	(3)	Quantitative Methods
MGSC 679	(3)	Applied Deterministic Optimization

9 credits, three 3-credit courses at the 500, 600, or 700 level, at least one of which must be in Agricultural Economics, chosen in consultation with the Agricultural Economics Adviser.

11.7.6 Master of Science (M.Sc.); Entomology (Thesis) (45 credits)

Thesis Courses (36 credits)

NRSC 691	(12)	M.Sc. Thesis Research 1
NRSC 692	(12)	M.Sc. Thesis Research 2
NRSC 693	(12)	M.Sc. Thesis Research 3

Required Courses (3 credits)

NRSC 643	(1)	Graduate Seminar 1
NRSC 644	(1)	Graduate Seminar 2
NRSC 651	(1)	Graduate Seminar 3

Complementary Courses (6 credits)

Two 3-credit courses at the 500, 600, or 700 level, normally one of these will be a course in statistics.

11.7.7 Master of Science (M.Sc.); Entomology (Thesis) Environment (46 credits)

Thesis Courses (36 credits)

NRSC 691	(12)	M.Sc. Thesis Research 1
NRSC 692	(12)	M.Sc. Thesis Research 2

11.7.8 Master of Science (M.Sc.); Entomology (Thesis) Neotropical Environment (48 credits)

Thesis Courses (36 credits)

NRSC 691	(12)	M.Sc. Thesis Research 1
NRSC 692	(12)	M.Sc. Thesis Research 2
NRSC 693	(12)	M.Sc. Thesis Research 3

Required Courses (9 credits)

BIOL 640	(3)	Tropical Biology and Conservation
ENVR 610	(3)	Foundations of Environmental Policy
NRSC 643	(1)	Graduate Seminar 1
NRSC 644	(1)	Graduate Seminar 2
NRSC 651	(1)	Graduate Seminar 3

Note: Participation in the MSE-Panama Symposium presentation in Montreal is also required.

Elective Courses (3 credits)

3 credits, at the 500-level or higher, on environmental issues to be chosen in consultation with and approved by the student's supervisor AND the Neotropical Environment Options Director

11.7.9 Master of Science (M.Sc.); Microbiology (Thesis) (45 credits)

Thesis Courses (36 credits)

NRSC 691	(12)	M.Sc. Thesis Research 1
NRSC 692	(12)	M.Sc. Thesis Research 2
NRSC 693	(12)	M.Sc. Thesis Research 3

Required Courses (3 credits)

NRSC 643	(1)	Graduate Seminar 1
NRSC 644	(1)	Graduate Seminar 2
NRSC 651	(1)	Graduate Seminar 3

Complementary Courses (6 credits)

Two 3-credit 500-, 600-, or 700-level courses; normally one of these will be a course in statistics.

11.7.10 Master of Science (M.Sc.); Microbiology (Thesis) Environment (46 credits)

Thesis Courses (36 credits)

NRSC 691	(12)	M.Sc. Thesis Research 1
NRSC 692	(12)	M.Sc. Thesis Research 2
NRSC 693	(12)	M.Sc. Thesis Research 3

Required Courses (7 credits)

ENVR 610	(3)	Foundations of Environmental Policy
ENVR 650	(1)	Environmental Seminar 1

ENVR 651	(1)	Environmental Seminar 2
ENVR 652	(1)	Environmental Seminar 3
NRSC 651	(1)	Graduate Seminar 3

Complementary Courses (3 credits)

One of the following courses:

ENVR 519	(3)	Global Environmental Politics
ENVR 544	(3)	Environmental Measurement and Modelling
ENVR 620	(3)	Environment and Health of Species
ENVR 622	(3)	Sustainable Landscapes
ENVR 630	(3)	Civilization and Environment
ENVR 680	(3)	Topics in Environment 4

or another 500-, 600-, or 700-level course recommended by the advisory committee and approved by the Environment Option Committee.

11.7.11 Master of Science (M.Sc.); Renewable Resources (Thesis) (45 credits)

Includes Micrometeorology, Forest Science, Soil Science and Wildlife Biology as areas of research.

Thesis Courses (36 credits)

NRSC 691	(12)	M.Sc. Thesis Research 1
NRSC 692	(12)	M.Sc. Thesis Research 2
NRSC 693	(12)	M.Sc. Thesis Research 3

Required Courses (3 credits)

NRSC 643	(1)	Graduate Seminar 1
NRSC 644	(1)	Graduate Seminar 2
NRSC 651	(1)	Graduate Seminar 3

Complementary Courses (6 credits)

Two 3-credit courses at the 500-level or higher recommended by the supervisory committee; one of which must be in quantitative methods/techniques.

11.7.12 Master of Science (M.Sc.); Renewable Resources (Thesis) Environment (46 credits)

Thesis Courses (33 credits)

NRSC 691	(12)	M.Sc. Thesis Research 1
NRSC 692	(12)	M.Sc. Thesis Research 2
NRSC 694	(9)	M.Sc. Thesis Research 4

Required Courses (7 credits)

ENVR 610	(3)	Foundations of Environmental Policy
ENVR 650	(1)	Environmental Seminar 1
ENVR 651	(1)	Environmental Seminar 2
ENVR 652	(1)	Environmental Seminar 3
NRSC 651	(1)	Graduate Seminar 3

Complementary Courses (6 credits)

3 credits, one of the following courses:

ENVR 519	(3)	Global Environmental Politics
ENVR 544	(3)	Environmental Measurement and Modelling
ENVR 620	(3)	Environment and Health of Species
ENVR 622	(3)	Sustainable Landscapes
ENVR 630	(3)	Civilization and Environment
ENVR 680	(3)	Topics in Environment 4

or another 500-, 600-, or 700-level course recommended by the advisory committee and approved by the Environment Option Committee.

3 credits of statistics at the 500-, 600-, or 700-level

NRSC 615	(15)	Environmental Assessment Internship

Required Courses (15 credits)

NRSC 610	(3)	Advanced Environmental Assessment
NRSC 611	(3)	Environmental Assessment Knowledge Base
NRSC 612	(3)	Environmental Assessment and Sustainable Development
NRSC 613	(3)	Strategic and Sectoral Environmental Assessment
NRSC 614	(3)	Meeting Environmental Assessment Regulations

Complementary Courses (6 credits)

500- or 600-level relevant courses to be chosen in consultation with the Supervisor and Program Director

11.7.15 Doctor of Philosophy (Ph.D.); Entomology

Includes Micrometeorology, Forest Science, Soil Science, and Wildlife Biology.

Thesis

A thesis for the doctoral degree must constitute original scholarship and must be a distinct contribution to knowledge. It must show familiarity with previous work in the field and must demonstrate ability to plan and carry out research, organize results, and defend the approach and conclusions in a scholarly manner. The research presented must meet current standards of the discipline; as well, the thesis must clearly demonstrate that the research advances knowledge in the field. Finally, the thesis must be written in compliance with norms for academic and scholarly discussion and for publication in the public domain.

Required Courses

NRSC 701	(0)	Ph.D. Comprehensive Examination
NRSC 751	(0)	Graduate Seminar 4
NRSC 752	(0)	Graduate Seminar 5
NRSC 753	(0)	Graduate Seminar 6
NRSC 754	(0)	Graduate Seminar 7

Coursework

Course requirements are specified by the staff of the discipline, but are flexible and depend largely on the student's background, immediate interests, and ultimate objectives.

11.7.16 Doctor of Philosophy (Ph.D.); Microbiology

Includes Micrometeorology, Forest Science, Soil Science, and Wildlife Biology.

Thesis

A thesis for the doctoral degree must constitute original scholarship and must be a distinct contribution to knowledge. It must show familiarity with previous work in the field and must demonstrate ability to plan and carry out research, organize results, and defend the approach and conclusions in a scholarly manner. The research presented must meet current standards of the discipline; as well, the thesis must clearly demonstrate that the research advances knowledge in the field. Finally, the thesis must be written in compliance with norms for academic and scholarly discussion and for publication in the public domain.

Required Courses

NRSC 701	(0)	Ph.D. Comprehensive Examination
NRSC 751	(0)	Graduate Seminar 4
NRSC 752	(0)	Graduate Seminar 5
NRSC 753	(0)	Graduate Seminar 6
NRSC 754	(0)	Graduate Seminar 7

ENVR 620	(3)	Environment and Health of Species
ENVR 622	(3)	Sustainable Landscapes
ENVR 630	(3)	Civilization and Environment
ENVR 680	(3)	Topics in Environment 4

or another 500-, 600-, or 700-level course recommended by the advisory committee and approved by the Environment Option Committee.

11.7.19 Doctor of Philosophy (Ph.D.); Entomology Neotropical Environment

Thesis

A thesis for the doctoral degree must constitute original scholarship and must be a distinct contribution to kno

BINF 621	(3)	Bioinformatics: Molecular Biology
BMDE 652	(3)	Bioinformatics: Proteomics
BTEC 555	(3)	Structural Bioinformatics
COMP 618	(3)	Bioinformatics: Functional Genomics
PHGY 603	(3)	Systems Biology and Biophysics

Additional courses at the 500, 600, or 700-level may be required at the discretion of the candidate's supervisory committee.

ENVR 610	(3)	Foundations of Environmental Policy
ENVR 650	(1)	Environmental Seminar 1
ENVR 651	(1)	Environmental Seminar 2
ENVR 652	(1)	Environmental Seminar 3
NRSC 701	(0)	Ph.D. Comprehensive Examination
NRSC 754	(0)	Graduate Seminar 7

Coursework

Course requirements are specified by the faculty in the discipline but are flexible and depend largely on the student's background, immediate interests, and ultimate objectives.

Complementary Courses

One course chose from the following:

ENVR 519	(3)	Global Environmental Politics
ENVR 544	(3)	Environmental Measurement and Modelling
ENVR 620	(3)	Environment and Health of Species
ENVR 622	(3)	Sustainable Landscapes
ENVR 630	(3)	Civilization and Environment
ENVR 680	(3)	Topics in Environment 4

or other graduate course recommended by the advisory committee and approved by the Environment Option Committee.

11.7.23 Doctor of Philosophy (Ph.D.); Renewable Resources Neotropical Environment

Thesis

A thesis for the doctoral degree must constitute original scholarship and must be a distinct contribution to knowledge. It must show familiarity with previous work in the field and must demonstrate ability to plan and carry out research, organize results, and defend the approach and conclusions in a scholarly manner. The research presented must meet current standards of the discipline; as well, the thesis must clearly demonstrate that the research advances knowledge in the field. Finally, the thesis must be written in compliance with norms for academic and scholarly discussion and for publication in the public domain.

Required Courses

BIOL 640	(3)	Tropical Biology and Conservation
ENVR 610	(3)	Foundations of Environmental Policy
NRSC 701	(0)	Ph.D. Comprehensive Examination
NRSC 751	(0)	Graduate Seminar 4
NRSC 752	(0)	Graduate Seminar 5
NRSC 753	(0)	Graduate Seminar 6
NRSC 754	(0)	Graduate Seminar 7

Note: Participation in the MSE-Panama Symposium presentation in Montreal is required.

Elective Courses

3 credits, at the 500-level or higher, on environmental issues to be chosen in consultation with and approved by the student's supervisor AND the Neotropical Environment Options Director

11.8 Parasitology

11.8.1 Location

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

T

Professors
Timoth

COMP 616D2	(1.5)	Bioinformatics Seminar
PARA 600	(4)	Thesis Proposal for M.Sc
PARA 606	(2)	Parasitology Seminar
PARA 607	(2)	Parasitology Research Seminar
PARA 635	(3)	Cell Biology and Infection
PARA 655	(3)	Host-Parasite Interactions

Complementary Courses (6 credits)

6 credits from the following courses:

BINF 621	(3)	Bioinformatics: Molecular Biology
BMDE 652	(3)	Bioinformatics: Proteomics
BTEC 555	(3)	Structural Bioinformatics
COMP 618	(3)	Bioinformatics: Functional Genomics
PHGY 603	(3)	Systems Biology and Biophysics

Additional courses at the 500 or 600 level may be required at the discretion of the candidate's supervisory committee.

11.8.7 Master of Science (M.Sc.); Parasitology (Thesis) Environment (46 credits)

Thesis Courses (26 credits)

PARA 687	(10)	Thesis Research 1
PARA 688	(10)	Thesis Research 2
PARA 691	(6)	Thesis Research 5

Required Courses (14 credits)

ENVR 610	(3)	Foundations of Environmental Policy
ENVR 650	(1)	Environmental Seminar 1
ENVR 651	(1)	Environmental Seminar 2
ENVR 652	(1)	Environmental Seminar 3
PARA 600	(4)	Thesis Proposal for M.Sc
PARA 606	(2)	Parasitology Seminar
PARA 607	(2)	Parasitology Research Seminar

Complementary Courses (6 credits)

3 credits from one of the following:

PARA 635	(3)	Cell Biology and Infection
PARA 655	(3)	Host-Parasite Interactions

3 credits from one of the following:

ENVR 519	(3)	Global Environmental Politics
ENVR 544	(3)	Environmental Measurement and Modelling
ENVR 620	(3)	Environment and Health of Species

ENVR 622	(3)	Sustainable Landscapes
ENVR 630	(3)	Civilization and Environment
ENVR 680	(3)	Topics in Environment 4

or other graduate course recommended by the advisory committee and approved by the Environment Option Committee.

Note: Other course work in related subjects may be required, depending upon the candidate's background and research orientation.

11.8.8 Doctor of Philosophy (Ph.D.); Parasitology

Thesis

A thesis for the doctoral degree must constitute original scholarship and must be a distinct contribution to knowledge. It must show familiarity with previous work in the

Fax: 514-398-7897
Email: plant.science@mcgill.ca
Website: www.mcgill.ca/plant

11.9.2 About Plant Science

The Department offers an M.Sc. and Ph.D. in Plant Science with options in Bioinformatics, Environment, or Neotropical Environment, and provides for study in all fields of plant science. Research activities both field and laboratory are available for investigations in plant breeding, crop physiology, crop management, crop quality, plant ecology, the epidemiology and biology of plant diseases, epigenetics, biosystematics, recombinant DNA technology, mycology, weed biology, tissue culture, plant biochemistry, and bioinformatics. Facilities include: the Horticultural Research Centre, the Emile A. Lods Agronomy Research Centre, greenhouses with growth cabinets, the McGill University Herbarium, the Applied Biotechnology laboratory, the CT Scanning laboratory and a Level 2 Quarantine facility.

An advisory committee is named for each student and has the responsibility of developing the program of study appropriate to the student's background and area of specialization.

section 11.9.5 Master of Science (M.Sc.); Plant Science (Thesis) (45 credits)

This M.Sc. in Plant Science requires approximately two years for completion. Overall, the program consists of graduate-level courses, seminars, and a research project leading to a thesis. The courses and the research project are chosen and defined with the help of an advisory committee. Subsequent career paths are varied, but include work with government agencies, the private sector, or further graduate studies in a related field.

section 11.9.6 Master of Science (M.Sc.); Plant Science (Thesis) Bioinformatics (48 credits)

This M.Sc. in Plant Science requires approximately two years for completion. Overall, the program consists of graduate-level courses, seminars, and a research project leading to a thesis. The courses and the research project are chosen and defined with the help of an advisory committee. Subsequent career paths are varied, but include work with government agencies, the private sector, or further graduate studies in a related field. This option/concentration has an added emphasis on bioinformatics, including additional courses and seminars.

section 11.9.7 Master of Science (M.Sc.); Plant Science (Thesis) Environment (48 credits)

This M.Sc. in Plant Science requires approximately two years for completion. Overall, the program consists of graduate-level courses, seminars, and a research project leading to a thesis. The courses and the research project are chosen and defined with the help of an advisory committee. Subsequent career paths are varied, but include work with government agencies, the private sector, or further graduate studies in a related field. This option/concentration has an added emphasis on environmental sciences, including additional courses and seminars.

section 11.9.8 Master of Science (M.Sc.); Plant Science (Thesis) Neotropical Environment (48 credits)

This M.Sc. in Plant Science requires approximately two years for completion. Overall, the program consists of graduate-level courses, seminars, and a research project leading to a thesis. The courses and the research project are chosen and defined with the help of an advisory committee. Subsequent career paths are varied, but include work with government agencies, the private sector, or further graduate studies in a related field. This option/concentration has an added emphasis on neotropical environments, including additional courses and seminars. Part of the program takes place in Panama.

section 11.9.9 Master of Science, Applied (M.Sc.A.); Plant Science (Non-Thesis) (45 credits)

This M.Sc. in Plant Science requires about 18 months or four terms for completion. Overall, the program consists of graduate-level courses, seminars, and a research project. The courses and the research project are chosen and defined with the help of an advisory committee. Subsequent career paths are varied, but include work with government agencies, the pri

section 11.9.12 Doctor of Philosophy (Ph.D.); Plant Science Environment

advisory committee. Subsequent career paths are varied, but include work with government agencies, universities, or the private sector. This option/concentration has an added emphasis on environmental sciences, including additional courses and seminars.

section 11.9.13 Doctor of Philosophy (Ph.D.); Plant Science Neotropical Environment

This Ph.D. in Plant Science requires approximately three years for completion. Overall, the program consists of seminars and a research project leading to a thesis. Students must also complete a comprehensive examination within their first year of study. The research project is defined with the help of an advisory committee. Subsequent career paths are varied, but include work with government agencies, universities, or the private sector. This option/concentration has an added emphasis on neotropical environments, including additional courses and seminars. Part of the program takes place in Panama.

11.9.3 Plant Science Admission Requirements and Application Procedures

11.9.3.1 Admission Requirements

Revision, October 2012. Start of revision.

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 without the year of study.

Qualifying Students

Some applicants whose academic grades and standing entitle them to serious consideration for admission to graduate studies may be considered inadequately prepared in the subject selected may be admitted to a Qualifying program and have met the Graduate and Postdoctoral Studies 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.

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

11.9.3.2 Application Procedures

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

See section 6.3 Application Procedures (for All Admissions Starting Summer 2012) for detailed application procedures.

11.9.3.2.1 Additional Requirements

The items and clarifications below are additional requirements set by this department:

- Acceptance to all programs depends on a staff member agreeing to serve as the student's supervisor and the student obtaining financial support.
- The GRE is not required, but it is highly recommended.

11.9.3.3 Dates for Guaranteed Consideration

Canadian	International	Special/Exchange/Visiting
Fall: June 1	Fall: March 15	Fall: Same as Canadian/International
Winter: Oct. 15	Winter: Sept. 15	Winter: Same as Canadian/International
Summer: March 1	Summer: Jan. 15	Summer: Same as Canadian/International

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 the Dates for Guaranteed Consideration. International applicants are advised to apply well in advance of these dates because immigration procedures may be lengthy.

Revision, October 2012. End of revision.

11.9.4 Plant Science Faculty

Chair

P. Seguin

Emeritus Professors

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

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

Professors

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

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

J. Bede; B.Sc.(Calg.), M.Sc., Ph.D.(T.)

S. deBlois; B.Sc.(Agr.)(McG.), M.Sc., Ph.D.(Mont.)

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

S. Jabaji; B.Sc.(Beirut), M.Sc.(Guelph), Ph.D.(W.)

A.C. Kushalappa; B.Sc., M.Sc.(B'Lore), Ph.D.(Flor.)

P. Seguin; B.Sc.(Agr.), M.Sc.(McG.), Ph.D.(Minn.)

K. Stewart; B.Sc.(Agr.), (Br. Col.), Ph.D.(R'dg)(Post-Retirement)

M. Stromvik; B.A., M.Sc.(Stockholm), Ph.D.(Ill.)

M. Waterway; B.A.(Grand Rapids), M.S.(Mic.), Ph.D.(C'nell)

Assistant Professors

J.-B. Charron; B.Sc.(Mont.), M.Sc., Ph.D.(UQAM)

J. Singh; B.Sc.(Agr.), M.Sc.(Punjab), Ph.D.(Syd.)

Faculty Lecturers

C. Begg; B.Sc.(Agr.)(McG.), M.Sc.(Sask.), Ph.D.(McG.)

S. Lussier; B.Sc.(Agr.)(McG.)

D. Wees; B.Sc.(Agr.), M.Sc.(McG.)

Associate Members

G. Brown (Department of Biology)

T.A. Johns (School of Dietetics and Human Nutrition)

Adjunct Professors

A. Bertrand

M. Fortin

S. Jenni

S. Khanizadeh

11.9.5 Master of Science (M.Sc.); Plant Science (Thesis) (45 credits)

Thesis Courses (39 credits)

PLNT 664	(12)	M.Sc. Thesis 1
PLNT 665	(12)	M.Sc. Thesis 2
PLNT 666	(15)	M.Sc. Thesis 3

Required Invitational Seminar

PLNT 690	(0)	Research Horizons in Plant Science 1

Complementary Courses (6 credits)

Two graduate-level courses

Additional courses may be required at the discretion of the candidate's supervisory committee.

11.9.6 Master of Science (M.Sc.); Plant Science (Thesis) Bioinformatics (48 credits)

Thesis Courses (39 credits)

PLNT 664	(12)	M.Sc. Thesis 1
PLNT 665	(12)	M.Sc. Thesis 2
PLNT 666	(15)	M.Sc. Thesis 3

Required Invitational Seminar

PLNT 690	(0)	Research Horizons in Plant Science 1

Required Courses (3 credits)

COMP 616D1	(1.5)	Bioinformatics Seminar
COMP 616D2	(1.5)	Bioinformatics Seminar
PLNT 691	(0)	Research Horizons in Plant Science 2

Complementary Courses (6 credits)

Chosen from the following:

BINF 511	(3)	Bioinformatics for Genomics
BINF 621	(3)	Bioinformatics: Molecular Biology
BMDE 652	(3)	Bioinformatics: Proteomics
BTEC 555	(3)	Structural Bioinformatics
COMP 618	(3)	Bioinformatics: Functional Genomics
PHGY 603	(3)	Systems Biology and Biophysics

Additional courses at the 500 or 600 level may be required at the discretion of the candidate's advisory committee.

11.9.7 Master of Science (M.Sc.); Plant Science (Thesis) Environment (48 credits)

Thesis Courses (39 credits)

PLNT 664	(12)	M.Sc. Thesis 1
PLNT 665	(12)	M.Sc. Thesis 2
PLNT 666	(15)	M.Sc. Thesis 3

Required Invitational Seminar

PLNT 690	(0)	Research Horizons in Plant Science 1

Required Courses (6 credits)

ENVR 610	(3)	Foundations of Environmental Policy
ENVR 650	(1)	Environmental Seminar 1
ENVR 651	(1)	Environmental Seminar 2
ENVR 652	(1)	Environmental Seminar 3

Complementary Courses (3 credits)

Chosen from one of the following courses:

ENVR 519	(3)	Global Environmental Politics
ENVR 544	(3)	Environmental Measurement and Modelling
ENVR 620	(3)	Environment and Health of Species
ENVR 622	(3)	Sustainable Landscapes
ENVR 630	(3)	Civilization and Environment
ENVR 680	(3)	Topics in Environment 4

or other graduate course recommended by the advisory committee and approved by the Environment Option Committee.

Additional courses may be required at the discretion of the candidate's supervisory committee.

11.9.8 Master of Science (M.Sc.); Plant Science (Thesis) Neotropical Environment (48 credits)

Candidates must participate in the STRI seminar series when in residence at Macdonald Campus and in the MSE Panama Symposium Presentation in Montreal.

Thesis Courses (39 credits)

PLNT 664	(12)	M.Sc. Thesis 1
PLNT 665	(12)	M.Sc. Thesis 2
PLNT 666	(15)	M.Sc. Thesis 3

Required Invitational Seminar

PLNT 690	(0)	Research Horizons in Plant Science 1

Required Courses (6 credits)

T