

Table of Contents

1. The School, page 471
 - 1.1 Location, page 471
 - 2.1 Admission
 - 2.2 Degree Requirements
 - 2.3 Important Information about Program Codes
 - 2.4 Course Numbering System at McGill
 - 2.5 Examination Regulations
 - 2.6 Courses outside Arts and Science
 3. Programs Offered, page 472
 4. Minor in Environment, page 472
 - 4.1 Minor Concentration in Environment
 - 4.2 Minor Program in Environment
 5. B.A. Faculty Program in Environment, page 473
 - 5.1 Ecological Determinants of Health in Society Domain
 - 5.2 Economics and the Earth's Environment Domain
 - 5.3 Environment and Development Domain
 6. B.Sc. Major Program in Environment, page 476
 - 6.1 Atmospheric Environment and Air Quality Domain
 - 6.2 Biodiversity and Conservation Domain
 - 6.3 Earth Sciences and Economics Domain
 - 6.4 Ecological Determinants of Health Domain
 - 6.5 Environmetrics Domain
 - 6.6 Food Production and Environment Domain
 - 6.7 Renewable Resource Management Domain
 - 6.8 Water Environments and Ecosystems Domain
 7. Diploma In Environment, page 484
 8. Field Studies, page 484
 - 8.1 Panama Field Study Semester
 - 8.2 Macdonald Campus Summer Field Study Human Impacts on the Environment
 - 8.3 Bay of Fundy Field Study Semester
 9. List of Approved Thematic Category Courses for the Minor and the Diploma, page 485
 10. Courses, page 486

1.2 Administrative Officers

DEBORAH BUSZARD, B.Sc.(Bath), Ph.D.(Lond.)	Dean, Faculty of Agricultural and Environmental Sciences
Admission, Registration and Regulations, page 472	
CARMAN MILLER, B.A., B.Ed.(Acad.), M.A.(Dal.), Ph.D.(Lond.)	Dean, Faculty of Arts
ALAN G. SHAVER, B.Sc.(Car.), Ph.D.(M.I.T.)	Dean, Faculty of Science
PETER G. BROWN, B.A.(Haverford), M.A., Ph.D.(Col.)	Director
MARILYN SCOTT, B.Sc. (U.N.B.), Ph.D.(McG.)	Associate Director
PETER BARRY, B.Sc.(C'odia), M.Sc.(McG.)	Program Coordinator

1.3 Academic Staff

<i>Professor</i>	
Peter G. Brown; B.A.(Haverford), M.A., Ph.D.(Columbia)	<i>(joint appt. with Geography and Natural Resource Sciences)</i>
<i>Associate Professor</i>	
Marilyn Scott; B.Sc.(U.N.B.), Ph.D.(McG.)	<i>(joint appt. with Institute of Parasitology)</i>
<i>Assistant Professors</i>	
Colin Duncan; B.A.(Queen's), M.A., Ph.D.(York)	<i>(joint appt. with History)</i>
Jaye Ellis; B.A.(Calg.), LL.B., B.C.L.(McG.), LL.M.(U.B.C.)	<i>(joint appt. with Law)</i>
Frédéric Fabry; B.Sc., M.Sc., Ph.D.(McG.)	<i>(joint appt. with Atmospheric and Oceanic Sciences)</i>
Renée Sieber; B.Sc.(Mich. St.), M.P.A.(W. Mich.), Ph.D.(Rutgers)	<i>(joint appt. with Geography)</i>
Joann Whalen; B.Sc.Agr.(Dal.), M.Sc.(McG.), Ph.D.(Ohio St.)	<i>(joint appt. with Natural Resource Sciences)</i>

1 The School

1.1 Location

Downtown Campus
 3534 University Street
 Montreal, QC H3A 2A7
 Telephone: (514) 398-2827
 Fax: (514) 398-1643

Macdonald Campus
 Rowles House
 21,111 Lakeshore Road
 Sainte-Anne-de-Bellevue, QC H9X 3V9
 Telephone: (514) 398-7559
 Fax: (514) 398-7846

Website: <http://www.mcgill.ca/mse>

For advising, contact:
 Program Coordinator, Mr. Peter Barry
 Telephone: (514) 398-4306
 Fax: (514) 398-1643
 Email: info@mse.mcgill.ca

- to help students gain an understanding of current environmental problems;
- to provide an exciting and rigorous program that allows for intellectual growth in the comprehension of environmental issues or components of the environment;
- to help students gain an understanding of the complexity and conflicts that underlie most environmental problems;

2 Admission, Registration and Regulations

2.1 Admission

Students may be admitted to B.A. or B.Sc. programs, offered by the MSE on the University's two campuses: the Macdonald Campus and the Downtown Campus. They register as students within their Faculty of admission and are governed by all rules and regulations of that Faculty.

Students who have already completed a Bachelor or an equivalent degree may be admitted to the Diploma in Environment through any of the three MSE Faculties: Agricultural and Environmental Sciences, Arts, and Science. They register as students within their Faculty of admission and are governed by all rules and regulations of that Faculty relative to the Diploma.

Please refer to ["Admission Requirements" on page 13.](#)

2.2 Degree Requirements

To be eligible for a B.A. degree, students must fulfil all the Faculty and program requirements as indicated in Faculty of Arts [section 2.](#)

To be eligible for a B.Sc. degree, students must fulfil all the Faculty and program requirements as indicated in Faculty of Science [section 2.](#)

To be eligible for a Diploma in Environment, students must fulfil all program requirements as specified in [section 7](#)

2.3 Important Information about Program Codes

The MSE uses MARS Program Codes to identify which students are in the School's major programs (and, by extension, which students are in the McGill Environmental Students' Society), and the Campus where they are studying. **It is important that students**

- (b) submit their program of courses already taken and to be taken for the Minor in Environment to the MSE Program Coordinator for approval;
- (c) pass all courses counted towards the Minor with **a grade of C or higher**;
- (d) complete 18 credits from the courses listed below **not** otherwise counted towards the student's major program or concentration or a second Minor program; and
- (e) ensure that all the credits specified in (c) above are taken outside the discipline or field of the student's major program or concentration.

3. Final Core:

4.1 Minor Concentration in Environment

(18 credits) [MARS Program Code 7-412000]

This Minor is intended for Arts students in the multi-track system.

Complementary Courses (18 credits)

See "[List of Approved Thematic Category Courses for the Minor and the Diploma](#)" on page 485. Check the departmental listings in this Calendar for full course descriptions and prerequisites, and [infoMcGill](#) for current scheduling.

4.2 Minor Program in Environment

(18 credits) [MARS Program Code 6-412000]

This Minor is intended for Science and Agricultural and Environmental Science students, but is open to students from other faculties as well, except Arts.

Complementary Courses (18 credits)

See "[List of Approved Thematic Category Courses for the Minor and the Diploma](#)" on page 485. Check the departmental listings in this Calendar for full course descriptions and prerequisites, and [infoMcGill](#) for current scheduling.

5 B.A. Faculty Program in Environment

The B.A. Faculty Program has two components: Core and Domain. Students follow three steps in their degree program.

1. **Introductory Core:** The Core consists of four introductory courses where students are exposed to the different approaches, perspectives, and world views that will help them gain an understanding of the complexity and conflicts that underlie most environmental problems. Through the Core program students go beyond the confines of their individual views of environment.
2. **Domain:** Domains provide a trans-disciplinary study of a particular theme or component of the environment. Additional Domains are being developed in several areas. More information on these is available on the MSE website (<http://www.mcgill.ca/mse>).

to the solution of problems of nutrition and infection by tying the relevant natural sciences to the social sciences.

Check the departmental listings in this Calendar for full course descriptions and prerequisites, and *info*McGill for current scheduling. **Courses offered at Macdonald Campus are marked with an (M). (Introductory Core Courses are offered on both campuses.)**

Prerequisite or Corequisite Course for Domain (3 credits)

NOTE: Students are required to take a maximum of 30 credits at the 200 level and a minimum of 12 credits at the 400 level or higher in this program. This includes Core and Required courses, but does not include the Domain prerequisites or co-requisites listed above.

Core – Required Courses (18 credits)

Required Course for Domain (3 credits)

Complementary Courses for Domain (33 credits)

5.2 Economics and the Earth's Environment Domain

(54 credits including Core) [MARS Program Codes: Downtown 4-412011; Macdonald 4-412061]

This Domain is open only to students in the B.A. Faculty Program in Environment.

Advisor: Professor Don Baker
email: donb@eps.mcgill.ca
telephone: (514) 398-7485

Understanding Earth's geologic processes provides us with the knowledge to mitigate many of our society's environmental impacts due to resource extraction and waste disposal. This

Required Courses for Domain (19 credits)

154-230D (6) Microeconomic Theory

Core – Required Courses (18 credits)**Complementary Courses for Domain** (17 credits)**Domain – Required Courses** (15 credits)**Domain – Complementary Courses** (21 credits)

5.3 Environment and Development Domain

(54 credits including Core) [MARS Program Codes:
Downtown 4-412001; Macdonald 4-412051]
(Program revisions awaiting University approval)

This Domain is open only to students in the B.A. Faculty Program in Environment.

Advisor: Professor Oliver Coomes
email: coomes@geog.mcgill.ca
telephone: (514) 398-4943

The quest for sustainable paths to economic development requires scholars and practitioners to transcend the boundaries of traditional disciplines. This Domain offers students sufficient depth and breadth of study to acquire a strong grasp of current theories, concepts, and approaches to environment and development. It prepares them for graduate study in interdisciplinary programs (e.g., development studies or environmental studies) as well as in integrative social sciences (e.g., anthropology, geography, etc.).

Check the departmental listings in this Calendar for full course descriptions and prerequisites, and *info*McGill for current scheduling. **Courses offered at Macdonald Campus are marked with an (M). (Introductory Core Courses are offered on both campuses.)**

NOTE: Students are required to take a maximum of 30 credits at the 200 level and a minimum of 12 credits at the 400 level or higher in this program. This includes Core and Required courses.

6 B.Sc. Major Program in Environment

The B.Sc. Major has two components: Core and Domain. Students follow three steps in their degree program.

1. **Introductory Core:** The Core consists of four introductory courses where students are exposed to the different approaches, perspectives, and world views that will help them gain an understanding of the complexity and conflicts that underlie most environmental problems. Through the Core program students go beyond the confines of their individual views of environment.
2. **Domain:** Domains provide a trans-disciplinary study of a par-

6.2 Biodiversity and Conservation Domain

(60 credits including Core) [MARS Program Codes: Downtown 1-412002; Macdonald 1-412052]

This Domain is open only to students in the B.Sc. Major in Environment program.

Advisors: Professor Graham Bell
email: gbell2@macan.mcgill.ca
telephone: (514) 398-4086 local 4087
Professor David Green
email: david.m.green@mcgill.ca
telephone: (514) 398-4086 local 4088

This Domain links the academic study of biological diversity with the applied field of conservation biology. The study of biological diversity, or 'biodiversity', lies at the intersection of evolution with ecology and genetics, combining the subdisciplines of evolutionary ecology, evolutionary genetics and ecological genetics. It has two main branches, the creation of diversity and the maintenance of diversity. Both processes are governed by a general mechanism of selection acting over different scales of space and time. This gives rise to a distinctive set of principles and generalizations that regulate rates of diversification and levels of diversity, as well as the abundance or rarity of different species. Conservation biology constitutes the application of these principles in the relevant social and economic context to the management of natural systems, with the object of preventing the extinction of rare species and maintaining the diversity of communities. As the impact of industrialization and population growth on natural systems has become more severe, conservation has emerged as an important area of practical endeavour.

Check the departmental listings in this Calendar for full course descriptions and prerequisites, and *info*McGill for current schedul-

6.3 Earth Sciences and Economics Domain

(63 credits, minimum, including Core) [MARS Program Codes:
Downtown 1-412007; Macdonald 1-412057]

human health. The distribution of infectious diseases is influenced by the climatic conditions that permit vectors to coexist with man, by deforestation, by urbanization, and by human interventions ranging from the building of dams to provision of potable water.

In designing interventions that aim to prevent or reduce infectious contaminants in the environment, or to improve food production and nutritional quality, not only is it important to understand methods of intervention, but also to understand social forces that influence how humans respond to such interventions.

Students in the **Population Stream** will gain a depth of understanding at an ecosystem level that looks at society, land and population health. Students in the **Cellular Stream** will explore the interactions in more depth, at a physiological level.

Check the departmental listings in this Calendar for full course descriptions and prerequisites, and *info*McGill for current scheduling. **Courses offered at Macdonald Campus are marked with an (M).** (Introductory Core Courses are offered on both campuses.)

Ecological Determinants of Health Domain – Population Stream (57 credits, minimum)

NOTE: Students are required to take a maximum of 31 credits at the 200 level and a minimum of 12 credits at the 400 level or higher in this program. This includes Core and Required courses.

Core - Required Courses (18 credits)

170-200	(3)	The Global Environment
170-201	(3)	Society and Environment
170-202	(3)	The Evolving Earth
170-203	(3)	Knowledge, Ethics and Environment
170-400	(3)	Environmental Thought
170-401	(3)	Environmental Research

Required Courses for Domain - Population Stream (6 credits)

382-361	(3)	Environmental Toxicology (M)
391-410	(3)	Environment and Infection (M)

Complementary Courses for Domain (33 credits, minimum)

18 credits, minimum, from the following List A:

166-234	(3)	Population and Society
or 166-222	(3)	Urban Sociology
333-211	(3)	Biochemistry I (M)
or 177-200	(3)	Molecular Biology
or 177-201	(3)	Cell Biology and Metabolism
356-204	(4)	Genetics (M)
or 177-202	(3)	Basic Genetics
382-207	(3)	Nutrition and Health (M)
or 382-307	(3)	Human Nutrition (<i>Video Conference: Downtown and Macdonald</i>)
or 342-330	(3)	Fundamentals of Nutrition (M)
374-410	(3)	The Forest Ecosystem (M)
or 177-465	(3)	Conservation Biology
or 177-483	(3)	Stats in Population Biology
or 360-306	(3)	Mathematical Methods in Ecology (M)
or 367-460	(3)	Plant Ecology (M)
or 373-331	(3)	Microbial Ecology (M)
or 375-410	(3)	Wildlife Ecology (M)
189-203	(3)	Principles of Statistics I
or 360-310	(3)	Statistical Methods I (M)
or equivalent		

6 credits from the following List B:

166-254	(3)	Development and Underdevelopment
or 101-292	(3)	History and the Environment
or 151-212	(3)	Anthropology of Development
or 330-210	(3)	Agro-Ecological History (M)
336-217	(3)	Hydrology and Drainage (M)
or 183-321	(3)	Climatic Environments
or 183-322	(3)	Environmental Hydrology
or 330-250	(3)	Principles of Ecological Agriculture (M)
or 338-510	(3)	Agricultural Micrometeorology (M)

334-242	(3)	Management Theories and Practices (M)
or 107-343	(3)	Biomedical Ethics
or 154-208	(3)	Microeconomic Analysis and Applications
or 177-535	(3)	Political Ecology
or 423-461	(3)	Society and Change

9 credits from the following list C:

166-328	(3)	Environmental Sociology
or 183-300	(3)	Human Ecology in Geography
or 183-498	(3)	Humans in Tropical Environments (in Panama)
or 204-533	(3)	International Health Psychology
528-324	(3)	Fundamental Virology
or 391-400	(3)	Eukaryotic Cells and Viruses (M)
or 391-438	(3)	Immunology (M)
or 513-637L	(3)	Infectious and Parasitic Disease Epidemiology
or 528-314	(3)	Immunology
or 528-413	(3)	Parasitology
382-406	(3)	Ecology of Human Nutrition (M)
or 330-411	(3)	International Agriculture (M)
or 382-420	(3)	Food Toxicants and Health Risks (M)
or 382-501	(3)	Nutrition in Developing Countries (M)
or 382-512	(3)	Herbs, Foods and Phytochemicals (<i>Video Conference: Downtown and Macdonald</i>)
302-230	(3)	Environmental Aspects of Technology
or 183-201	(3)	Geographic Information Systems I
or 183-302	(3)	Environmental Analysis and Management
or 336-330	(3)	GIS for Biosystems Management (M)
or 375-437	(3)	Assessing Environmental Impact (M)
375-333	(3)	Physical and Biological Aspects of Pollution (M)
or 177-350	(3)	Insect Biology and Control
or 336-322	(3)	Agro-Food Waste Management (M)
or 350-452	(3)	Biocontrol of Insect Pests (M)
or 367-361	(3)	Pest Management and the Environment (M)

Ecological Determinants of Health Domain – Cellular Stream (57 credits, minimum)

NOTE: Students are required to take a maximum of 31 credits at the 200 level and a minimum of 12 credits at the 400 level or higher in this program. This includes Core and Required courses.

Core - Required Courses (18 credits)

170-200	(3)	The Global Environment
170-201	(3)	Society and Environment
170-202	(3)	The Evolving Earth
170-203	(3)	Knowledge, Ethics and Environment
170-400	(3)	Environmental Thought
170-401	(3)	Environmental Research

Required Courses for Domain (6 credits)

382-361	(3)	Environmental Toxicology (M)
391-410	(3)	Environment and Infection (M)

Complementary Courses for Domain (33 credits, minimum)

18 credits, minimum, chosen from List A:

166-234	(3)	Population and Society
or 166-222	(3)	Urban Sociology
333-211	(3)	Biochemistry I (M)
or 177-200	(3)	Molecular Biology
356-204	(4)	Genetics (M)
or 177-202	(3)	Basic Genetics
344-202	(3)	Cellular Biology (M)
or 177-201	(3)	Cell Biology and Metabolism
or 342-234	(3)	Biochemistry II (M)
382-307	(3)	Human Nutrition (<i>Video Conference: Downtown and Macdonald</i>)
or 342-330	(3)	Fundamentals of Nutrition (M)
189-203	(3)	Principles of Statistics I
or 360-310	(3)	Statistical Methods I (M)
or equivalent		

6 credits, minimum, in environmental sciences chosen from:

- | | | |
|---------|-----|--|
| 177-331 | (3) | Ecology/Behavior Field Course |
| 177-526 | (3) | Plants and Extreme Environments |
| 183-300 | (3) | Human Ecology in Geography |
| 183-302 | (3) | Environmental Analysis and Management |
| 183-494 | (3) | Urban Field Studies |
| 183-499 | (3) | Subarctic Field Studies in Geography:
Schefferville |
| 306-451 | (3) | Environmental Controls |
| 349-313 | (3) | Zoogeography (<i>M</i>) |
| 367-460 | (3) | Plant Ecology (<i>M</i>) |
| 374-300 | (3) | Urban Forests and Trees (<i>M</i>) |
| 374-420 | (3) | Environmental Issues in Forestry (<i>M</i>) |
| 375-333 | (3) | Physical and Biological Aspects of Pollution
(<i>M</i>) |
| 375-401 | (4) | Fisheries and Wildlife Management (<i>M</i>) |

6.6 Food Production and Environment Domain

(63 credits, minimum, including Core) [MARS Program Codes: Downtown 1-412010; Macdonald 1-412060]
(Revisions awaiting University approval)

This Domain is open only to students in the B.Sc. Major in Environment program.

Advisor: TBA. Contact Mr. Pete Barry, MSE Program Coordinator
email: info@mse.mcgill.ca
telephone: (514) 398-4306
or refer to the Website, <http://www.mcgill.ca/mse>

The business of food production is an area of human activity with a large and intimate interaction with the environment. Modern agriculturalists must strike a delicate balance between trying to provide food for themselves, their families and urban dwellers while trying to minimize environmental damage. When negative effects due to agricultural activities do occur, they are not usually the classic point source effects that we have come to associate with industry or large cities. Rather, the effects are over extremely large land areas cumulating, perhaps, in pollution of river systems or lakes some distance away. As world populations grow, and as diets change, potentially negative interactions between agricultural systems and other facets of the environment will become more frequent. In the same way, urban sprawl will make conflicts between agriculture and urbanites more common.

Check the departmental listings in this Calendar for full course descriptions and prerequisites, and *info*McGill for current scheduling. **Courses offered at Macdonald Campus are marked with an (M). (Introductory Core Courses are offered on both campuses.)**

Prerequisite or Corequisite Courses for Domain

(6 credits, minimum)

- | | | |
|---------|-----|--|
| 333-211 | (3) | Biochemistry I (<i>M</i>) |
| | or | 177-112 (3) Cell and Molecular Biology |
| | | or CEGEP equivalent (e.g., CEGEP objective 00XU) |
| 333-230 | (4) | Organic Chemistry (<i>M</i>) |
| | or | 180-212 (4) Introductory Organic Chemistry I |
| | | or CEGEP equivalent (e.g., CEGEP objective 00XV) |

NOTE: Students are required to take a maximum of 34 credits at the 200 level and a minimum of 15 credits at the 400 level or higher in this program. This includes Core and Required courses, but does not include the Domain prerequisites or co-requisites listed above.

Core - Required Courses (18 credits)

- | | | |
|---------|-----|-----------------------------------|
| 170-200 | (3) | The Global Environment |
| 170-201 | (3) | Society and Environment |
| 170-202 | (3) | The Evolving Earth |
| 170-203 | (3) | Knowledge, Ethics and Environment |
| 170-400 | (3) | Environmental Thought |
| 170-401 | (3) | Environmental Research |

Required Courses for Domain (12 credits)

- | | | |
|---------|-----|---|
| 330-210 | (3) | Agro-ecological History (<i>M</i>) |
| 367-211 | (3) | Principles of Plant Science (<i>M</i>) |
| 367-300 | (3) | Cropping Systems (<i>M</i>) |
| 375-375 | (3) | Issues in Environmental Sciences (<i>M</i>) |

Complementary Courses (33 credits, minimum)

15 or 16 credits of Basic Sciences

- | | | |
|---------|-----|---|
| 330-250 | (3) | Principles of Ecological Agriculture (<i>M</i>) |
| | or | 342-250 (3) Principles of Animal Science (<i>M</i>) |
| 344-205 | (3) | Principles of Ecology (<i>M</i>) |
| | or | 177-208 (3) Ecology |
| 356-204 | (4) | Genetics (<i>M</i>) |
| | or | 177-202 (3) Basic Genetics |
| 360-310 | (3) | Statistical Methods I (<i>M</i>) |
| | | or equivalent |
| 372-210 | (3) | Principles of Soil Science (<i>M</i>) |
| | or | 183-305 (3) Soils and Environment |

12 credits of Applied Sciences

- | | | |
|---------|-----|--|
| 177-465 | (3) | Conservation Biology |
| 177-553 | (3) | Neotropical Environments (in Panama) |
| 183-302 | (3) | Environmental Analysis and Management |
| 183-322 | (3) | Environmental Hydrology |
| | or | 336-217 (3) Hydrology and Drainage (<i>M</i>) |
| 330-411 | (3) | International Agriculture (<i>M</i>) |
| 330-430 | (3) | Ecological Agricultural Systems (<i>M</i>) |
| 330-435 | (3) | Soil and Water Quality Management (<i>M</i>) |
| 330-550 | (3) | Sustained Tropical Agriculture (in Panama)
(AUA) |
| 333-200 | (3) | Introduction to Food Science (<i>M</i>) |
| | or | 382-207 (3) Nutrition and Health (<i>M</i>) |
| 333-535 | (3) | Food Biotechnology (<i>M</i>) |
| 336-322 | (3) | Agro-Food Waste Management (<i>M</i>) |
| 336-518 | (3) | Pollution Control for Agriculture (<i>M</i>) |
| 342-501 | (3) | Advanced Animal Production Systems (<i>M</i>) |
| 367-361 | (3) | Pest Management and the Environment (<i>M</i>) |
| 367-434 | (3) | Weed Biology and Control (<i>M</i>) |
| 372-315 | (3) | Soil Fertility and Fertilizers (<i>M</i>) |
| 372-410 | (3) | Soil Chemistry (<i>M</i>) |
| 373-331 | (3) | Microbial Ecology (<i>M</i>) |
| 373-521 | (3) | Soil Microbiology and Biochemistry (<i>M</i>) |
| 375-401 | (4) | Fisheries and Wildlife Management (<i>M</i>) |
| 375-333 | (3) | Physical and Biological Aspects of Pollution
(<i>M</i>) |
| 375-437 | (3) | Assessing Environmental Impact (<i>M</i>) |
| 382-361 | (3) | Environmental Toxicology (<i>M</i>) |
| 382-406 | (3) | Ecology of Human Nutrition (<i>M</i>) |
| 391-410 | (3) | Environment and Infection (<i>M</i>) |

6 credits in Social Sciences / Humanities

- | | | |
|---------|-----|------------------------------|
| 151-418 | (3) | Environment and Development |
| 154-225 | (3) | Economics of the Environment |
| 166-254 | (3) | Development and Under1Ht |

6.7 Renewable Resource Management Domain

(60 credits including Core) [MARS Program Codes:
Downtown 1-412006; Macdonald 1-412056]

This Domain is open only to students in the B.Sc. Major in Environment program.

Advisor: Professor Benoît Côté,
email: coteb@nrs.mcgill.ca
telephone: (514) 398-7952

Renewable resource management is an emerging field that focuses on the ecosystem structures and processes required to sustain the delivery, to humanity, of ecosystem goods and services such as food, clean water and air, essential nutrients, and the provision of beauty and inspiration. Renewable resource management recognizes humans as integral components of ecosystems and is used to develop goals that are consistent with sustainability and ecosystem maintenance.

The Renewable Resource Management domain provides students with an understanding of: 1) the interactions between physical and biological factors that determine the nature and dynamics of populations and entities in the natural environment; 2) the ways in which ecosystems can be managed to meet specific goals for the provision of goods and services; 3) the economic and social factors that determine how ecosystems are managed; 4) the ways in which management of natural resources can affect the capability of natural ecosystems to continue to supply human needs in perpetuity; and 5) the approaches and technologies required to monitor and analyze the dynamics of natural and managed ecosystems.

Check the departmental listings in this Calendar for full course descriptions and prerequisites, and *info*McGill for current scheduling. **Courses offered at Macdonald Campus are marked with an (M). (Introductory Core Courses are offered on both campuses.)**

Prerequisite or Corequisite Courses for Domain

(6 credits, minimum)

NOTE: Students are required to take a maximum of 30 credits at the 200 level and a minimum of 12 credits at the 400 level or higher in this program. This includes Core and Required courses, but does not include the Domain prerequisites or corequisites listed above.

Core - Required Courses (18 credits)

Domain – Complementary Courses (42 credits)

6.8 Water Environments and Ecosystems Domain

(54 credits including Core) [MARS Program Codes:
Downtown 1-412003; Macdonald 1-412053]

This Domain is open only to students in the B.Sc. Major in Environment program.

**Water Environments and Ecosystems Domain –
Physical Stream** (54 credits minimum)

This Domain is open only to students in the B.Sc. Major in Environment program.

Advisor: Professor Peter Yau
email: yau@rainband.meteo.mcgill.ca
telephone: (514) 398-3719

Check the departmental listings in this Calendar for full course descriptions and prerequisites, and *info*McGill for current scheduling. **Courses offered at Macdonald Campus are marked with an (M). (Introductory Core Courses are offered on both campuses.)**

Recommended Corequisite Course for Domain (3 credits)

NOTE: Students are required to take a maximum of 30 credits

7 Diploma In Environment

8.3 Bay of Fundy Field Study Semester (Awaiting University approval)

Contingent upon University approval, a new field study program for McGill students will be offered during fall semester 2001.

Students in the program could earn 15 credits through field courses and research while living at the Huntsman Marine Science Centre on the Bay of Fundy. The program will be aimed at final-year students with a GPA of at least 3.00.

In addition to the regular McGill fees, the field semester fee is estimated at \$4,300, which would include food and lodging at the Huntsman Marine Science Centre as well as field trips. Travel to St. Andrews, New Brunswick, **would not be** included.

See the MSE website or the Geography Department website at <http://www.geog.mcgill.ca/fieldsemester.html> for more information on this program.

9 List of Approved Thematic Category Courses for the Minor and the Diploma

Notes:

1. This list is not meant to be exclusive. Courses not on the list may be included in the Minor or Diploma with the permission of the MSE Program Coordinator.
2. Most courses listed at the 300 level and higher have prerequisites. Although instructors may waive prerequisites in some cases, **students are urged to prepare their program of study well before their final year.**
3. Not all courses are available in any given year. Check the departmental listings in this Calendar for full course descriptions and prerequisites, and *info*McGill for current scheduling.

SOCIAL SCIENCES AND POLICY

Anthropology

- 151-206 (3) Environment and Culture
151-212 (3) Anthropology of Development
151-339 (3) Ecological Anthropology

Economics

- 154-205 (3) An Introduction to Political Economy
154-225 (3) Economics of the Environment
154-326 (3) Ecological Economics
154-347 (3) Economics of Climate Change
154-405 (3) Natural Resource Economics

Environment

- 170-201 (3) Society and Environment
170-203 (3) Knowledge, Ethics and Environment
170-400 (3) Environmental Thought

Geography

- 183-200 (3) Geographical Perspectives on World Environmental Problems
183-216 (3) Geography of the World Economy
183-300 (3) Human Ecology in Geography
183-301 (3) Geography of Nunavut
183-302 (3) Environmental Analysis and Management
183-410 (3) Geography of Underdevelopment: Current Problems

Law

Students must complete the Special Student application form at the Faculty of Law, and must also provide the Law Faculty with a C.V., a transcript, and a letter stating why they want to take the course. Students should also speak with the professor of the course in question.

- 389-508 (2) Research Seminars (Several are available, check the Law Calendar for details.)
389-580 (3) Environment and the Law

Philosophy

- 107-230 (3) Introduction to Moral Philosophy I
107-237 (3) Contemporary Moral Issues
107-334 (3) Ethics I

Political Science

- 160-211 (3) Introduction to Comparative Politics
160-212 (3) Government and Politics of the Developed World
160-227 (3) Developing Areas/Introduction
160-345 (3) International Organization
160-445 (3) IPE: North-South Relations

Psychology

- 204-215 (3) Social Psychology

Religious Studies

- 260-270 (3) Religious Ethics and the Environment
260-370 (3) Justice, Human Rights and Religion
260-376 (3) Religious Ethics

Sociology

- 166-234 (3) Population and Society
166-235 (3) Technology and Society
166-254 (3) Development and Underdevelopment
166-328 (3) Environmental Sociology
166-366 (3) Social Change in the Caribbean

Agricultural Economics (Macdonald Campus)

- 334-231 (3) Economic Systems of Agriculture
334-333 (3) Resource Economics
334-430 (3) Agriculture, Food and Resource Policy

Religious Studies (Macdonald Campus)

- 260-270A (3) Religious Ethics and the Environment

Renewable Resources (Macdonald Campus)

- 375-415 (2) Conservation Law

NATURAL SCIENCES AND TECHNOLOGY

Architecture

- 301-375 (2) Landscape
301-377 (2) Energy, Environment and Buildings
301-378 (3) Site Usage

Atmospheric and Oceanic Sciences

- 195-210 (3) Introduction to Atmospheric Science
195-215 (3) Weather Systems and Climate
195-220 (3) Introduction to Oceanic Sciences

Biology

- 177-208 (3) Ecology
177-305 (3) Diversity of Life
177-365 (3) Conservation Biology
177-432 (3) Limnology
177-473 (3) Ecology of Aquatic Invertebrates

Chemistry

- 180-201 (3) Modern Inorganic Chemistry I
180-212 (4) Introductory Organic Chemistry I
180-301 (3) Modern Inorganic Chemistry II
180-307 (3) Environmental Analysis
180-350 (3) Earth, Fire, Air and Water

Chemical Engineering

- 302-230 (3) Environmental Aspects of Technology
302-471 (3) Industrial Water Pollution Control
302-472 (3) Industrial Air Pollution Control

Civil Engineering

- 303-225 (4) Environmental Engineering
303-323 (3) Hydrology and Water Resources
303-526 (3) Solid Waste Management
303-550 (3) Water Resources Management
303-553 (3) Stream Pollution and Control
303-555 (3) Environmental Data Analysis

