

Mining and Metallurgical Engineering: Jim Finch
Natural Resource Sciences: Benoit Côté, Mark Curtis,
Brian Driscoll, Jim W. Fyles, William Hendershot,
Roger Titman, Terry Wheeler
Parasitology, Institute of: James Smith
Pathology, Autopsy Service: Bruce Case
Philosophy: Philip Buckley
Plant Science: Pierre Dutilleul, Don Smith, Marcia Waterway
Political Science: Hudson Meadwell, Philip Oxhorn
Redpath Museum: David M. Green
Sociology: Uli Locher
Urban Planning, School of: Jeanne Wolfe
Adjunct Professor
Economics (Concordia): Frank Müller

1.4 Creation of the School

McGill's Faculties of Agricultural and Environmental Sciences, Arts, and Science have forged a unique approach to the study of environment through the inter-facu

Faculty of Science students in particular should be aware that some courses are restricted and cannot be taken for credit. See the Science Student Affairs Website at www.mcgill.ca

To obtain a B.A. Faculty Program in Environment students must:

- a. register in a Domain on-line, using Minerva;

5.2 Economics and the Earth's Environment Domain

This Domain (54 credits including Core) is open only to students in the B.A. Faculty Program in Environment.

Core: Complementary Course – Senior Research Project
(3 credits*)

Domain: Required Courses (9 credits)

Domain: Complementary Courses (33 credits)

6.2 Ecological Determinants of Health Domain

This Domain (63 credits including Core) is open only to students in the B.Sc (Ag.Env.Sc.) Major in Environment or B.Sc. Major in Environment program.

Adviser: Professor Tim Johns
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Telephone: (514) 398-7847

This Domain considers the interface between the environment and human well-being, with particular focus on the triad that ties human health to the environment through the elements of food and infectious agents. Each of these elements is influenced by planned and unplanned environmental disturbances.

For example, agricultural practices shift the balance between beneficial and harmful ingredients of food. Use of insecticides presents dilemmas with regard to the environment, economics and 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.

Course descriptions and prerequisites can be found in the Courses section. The most up-to-date information on courses being offered this academic year is available on Class Schedule at www.mcgill.ca/minerva.

Courses offered at Macdonald Ca

**Ecological Determinants of Health Domain –
Cellular Stream**

This Domain (63 credits) is open only to students in the B.Sc.(Ag.Env.Sc.) Major in Environment or B.Sc. Major in Environment program.

Core: Complementary Course

Domain: Complementary Courses (42 credits)

9 credits basic principles of ecosystem processes and diversity

AEBI 200 (3) Biology of Organisms (*M*)

or BIOL 305 (3) Diversity of Life

or PLNT 201 (3) Comparative Plant Biology (*M*)

AEBI 205 (3) Principles of Ecology (*M*)

or BIOL 208 (3) Introduction to Ecology

GEOG 305 (3) Soils and Environment

or SOIL 210 (3) Principles of Soil Science (*M*)

6 credits statistics and GIS methods

ABEN 330 (3) GIS for Biosystems Engineering (*M*)

or GEOG 201 (3) Introductory Geo-Information Science

AEMA 310 (3) Statistical Methods 1 (*M*)

or BIOL 373 (3) Biometry

6 credits advanced ecosystem components

PLNT 358 (3) Flowering Plant Diversity (*M*)

Those electing the **biological** stream will concentrate on the mechanisms regulating the different forms of life in water bodies. They will acquire, as well, a good understanding of the physical mechanisms controlling water properties.

Students interested in studying the transport and transformation mechanisms of water on the planet, from rivers to the oceans and atmosphere, will select the **physical** stream. They will acquire, as well, a solid background in the biological processes taking place in water bodies.

Graduates of this Domain are qualified to enter the work force or to pursue advanced studies in fields such as marine biology, geography, physical oceanography and atmospheric science.

Water Environments and Ecosystems Domain – Biological Stream

This Domain (57 credits including Core) is open only to students in the B.Sc.(Ag.Env.Sc.) Major in Environment or B.Sc. Major in Environment program.

Adviser: Mr. Pete Barry, MSE Program Coordinator

E-mail: info.mse@mcgill.ca

Telephone: (514) 398-4306

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.

Core: Required Courses (18 credits)

Core: Complementary Course – Senior Research Project (3 credits*)

Domain: Required Course (3 credits)

Domain: Complementary Courses (33 credits)

6.7 Water Environments and Ecosystems Domain

This Domain is open only to students in the B.Sc.(Ag.Env.Sc.) Major in Environment or B.Sc. Major in Environment program.

To educate students in both the ecological and physical facets of the water environment, this Domain offers two streams, with students choosing one or the other facet.

7 Major Program in Environment – B.Sc.

In addition to the selection of Domains available to students in the Major program in either the Faculty of Science or the Faculty of Agricultural and Environmental Sciences, see section 6 “Major Program in Environment – B.Sc.(Ag.Env.Sc.) and B.Sc.”, students in the Faculty of Science program can choose from one of the two

processes provides us with the knowledge to mitigate many of our society's environmental impacts due to resource extraction and waste disposal. Additionally, economics frequently affects what energy sources power our society and how our wastes are treated. Earth sciences and economics are essential for our understanding of the many mechanisms, both physical and social, that affect Earth's environment.

can be found in the Courses section. The most up-to-date information on courses being offered this academic year is available on Class Schedule at www.mcgill.ca/minerva.

9 Field Studies

9.1 African Field Study Semester

The Department of Geography, Faculty of Science, coordinates the 15-credit interdisciplinary African Field Study Semester, see page 276. **Note: The AFSS will only be offered in 2003-04 pending approval by the Dean of Science.**

9.2 Panama Field Study Semester

Website: www.mcgill.ca/mse/field_study/panama

This program is a joint venture between McGill University and the Smithsonian Tropical Research Institute (STRI) in Panama.

Hands-on experience is gained through a research project organized around multidisciplinary environmental issues. The nature of these projects will center on practical environmental problems/ questions important for Panama. Students will form a team that will work with Panamanian institutions (NGO, governmental or research).

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Mechanical Engineering

MECH 343 (3) Energy Conversion
MECH 534 (3) Air Pollution Engineering

Microbiology and Immunology

MIMM 211 (3) Introductory Microbiology
MIMM 314 (3) Immunology
MIMM 323 (3) Microbial Physiology
MIMM 324 (3) Fundamental Virology

Mining, Metals and Materials Engineering

MIME 308 (3) Social Impact of Technology
MIME 320 (3) Extraction of Energy Resources
MIME 451 (3) Environmental Controls: Met'l Plants
MIME 555 (3) Thermal Remediation of Wastes

Physics

PHYS 248 (3) Physics of Energy

Psychology

PSYC 431 (3) Environment and Developing Brain

Agricultural and Biosystems Engineering

(Macdonald Campus)

AGRI 435 (3) Soil and Water Quality Management
ABEN 217 (3) Hydrology and Drainage
ABEN 322 (3) Food Production/Processing Waste
Management
ABEN 518 (3) Pollution Control for Agriculture

Biology (Macdonald Campus)

AEBI 205 (3) Principles of Ecology
AEBI 495D1 (1) Environmental Biology Seminar
AEBI 495D2 (1) Environmental Biology Seminar

Microbiology (Macdonald Campus)

MICR 331 (3) Microbial Ecology

Physics (Macdonald Campus)

AEPH 201 (3) Introductory Meteorology

Plant Science (Macdonald Campus)

PLNT 304 (3) Biology of Fungi
PLNT 305 (3) Plant Pathology
PLNT 358 (3) Flowering Plant Diversity
PLNT 460 (3) Plant Ecology

Renewable Resources (Macdonald Campus)