

FACULTY PROGRAM ENVIRONMENT - ECOLOGICAL DETERMINANTS OF HEALTH IN SOCIETY (B.A.) (54 CREDITS)

Offered by: Bieler School of Environment (Faculty of Science)

Degree: Bachelor of Arts

Program credit weight: 54

Program Description

An understanding of the interface between human health and environment depends not only on an appreciation of the biological and ecological determinants of health, but equally on an appreciation of the role of social sciences in the design, implementation, and monitoring of interventions. Demographic patterns and urbanization, economic forces, ethics, indigenous knowledge and culture, and an understanding of how social change can be effected are all critical if we are to be successful in our efforts to assure health of individuals and societies in the future. Recognizing the key role that nutritional status plays in maintaining a healthy body, and the increasing importance of infection as a health risk linked intimately with the environment, this domain prepares students to contribute to the solution of problems of nutrition and infection by tying the relevant natural sciences to the social sciences.

Degree Requirements — B.A. students

To be eligible for a B.A. degree, a student must fulfil all Faculty and program requirements as indicated in Degree Requirements for the Faculty of Arts.

We recommend that students consult an Arts OASIS advisor for degree planning.

Note: For information about Fall 2025 and Winter 2026 course offerings, please check back on May 8, 2025. Until then, the "Terms offered" field will appear blank for most courses while the class schedule is being finalized.

Program Prerequisites or Corequisites

To graduate from the Faculty Program in Environment, students are required to complete these courses by the end of their U1 year. These courses can be taken using the Satisfactory/Unsatisfactory option. See: http://www.mcgill.ca/study/university_regulations_and_resources/undergra... for details.

Numeracy

3 credits from the following, or equivalent (e.g., CEGEP objective 00UN):

Expand allContract all

Course	Title	Credits
MATH 139	Calculus 1 with Precalculus.	4
MATH 140	Calculus 1.	3

Basic Science

3 credits of basic science from the following, or equivalent (e.g., CEGEP objective 00UK):

Expand allContract all

Course	Title	Credits
AEBI 120	General Biology.	3
BIOL 111	Principles: Organismal Biology.	3

Suggested First Year (U1) Courses

For suggestions on courses to take in your first year (U1), you can consult the "Bieler School of Environment Student Handbook" available on the website (<http://www.mcgill.ca/environment>), or contact Kathy Roulet, the Program Adviser (kathy.roulet@mcgill.ca).

Program Requirements

Note: You 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 program prerequisites or corequisites listed above.

Location Note: When planning your schedule and registering for courses, you should verify where each course is offered because courses for this program are taught at both McGill's Downtown campus and at the Macdonald campus in Sainte-Anne-de-Bellevue.

Core: Required Courses (18 credits)

Location Note: Core required courses are taught at both McGill's Downtown campus and at the Macdonald campus in Sainte-Anne-de-Bellevue. You should register in Section 001 of an ENVR course that you plan to take on the Downtown campus, and in Section 051 of an ENVR course that you plan to take on the Macdonald campus.

Expand allContract all

Course	Title	Credits
ENVR 200	The Global Environment.	3
ENVR 201	Society, Environment and Sustainability.	3
ENVR 202	The Evolving Earth.	3
ENVR 203	Knowledge, Ethics and Environment.	3
ENVR 301	Environmental Research Design.	3
ENVR 400	Environmental Thought.	3

Core: Complementary Course - Senior Research Project (3 credits)

Only 3 credits will be applied to the program; extra credits will count as electives.

Expand allContract all

Course	Title	Credits
AEBI 427	Barbados Interdisciplinary Project.	6
ENVR 401	Environmental Research.	3
ENVR 451	Research in Panama.	6
FSCI 444	Barbados Research Project.	6

Complementary Courses (33 credits)

33 credits of complementary courses are chosen as follows:

6 credits of Health and Environment

12 credits of Fundamentals, maximum 3 credits from any one category

9 credits from List A

6 credits from List B

Health and Environment

Expand allContract all

Course	Title	Credits
GEOG 221	Environment and Health. ¹	3
GEOG 303	Health Geography.	3
NRSC 221	Environment and Health. ¹	3

¹ Students take either GEOG 221 Environment and Health. or NRSC 221 Environment and Health., but not both.

Fundamentals (12 credits)

12 credits of Fundamentals (3 credits from each category):

Health and Infection

Expand allContract all

Course	Title	Credits
GEOG 403	Global Health and Environmental Change.	3
GEOG 493	Health and Environment in Africa.	3
GEOG 503	Advanced Topics in Health Geography.	3
PARA 410	Environment and Infection.	3
PPHS 529	Global Environmental Health and Burden of Disease.	3

Economics

Expand allContract all

Course	Title	Credits
AGEC 200	Principles of Microeconomics.	3
ECON 208	Microeconomic Analysis and Applications.	3
ECON 225	Economics of the Environment.	3

Nutrition

Expand allContract all

Course	Title	Credits
EDKP 292	Nutrition and Wellness.	3
NUTR 207	Nutrition and Health.	3

Statistics

One of the following Statistics courses or equivalent:

Note: Credit given for Statistics courses is subject to certain restrictions. You should consult the "Course Overlap" information in the "Course Requirements" section for the Faculty of Arts.

Expand allContract all

Course	Title	Credits
AEMA 310	Statistical Methods 1.	3
GEOG 202	Statistics and Spatial Analysis.	3
MATH 203	Principles of Statistics 1.	3
SOCI 350	Statistics in Social Research.	3

List A

9 credits from List A (maximum 3 credits from any one category):

Health and Society

Expand allContract all

Course	Title	Credits
SOCI 225	Medicine and Health in Modern Society.	3
SOCI 234	Population and Society.	3
SOCI 309	Health and Illness.	3
SOCI 331	Population and Environment.	3
SOCI 515	Medicine and Society.	3

Hydrology and Climate

Expand allContract all

Course	Title	Credits
AGRI 452	Water Resources in Barbados. ¹	3
BREE 217	Hydrology and Water Resources.	3
GEOG 321	Climatic Environments.	3
GEOG 322	Environmental Hydrology. ¹	3

¹ Note: You may take BREE 217 Hydrology and Water Resources. or GEOG 322 Environmental Hydrology., but not both.

Agriculture

Expand allContract all

Course	Title	Credits
AEBI 425	Tropical Energy and Food.	3
AGRI 340	Principles of Ecological Agriculture.	3
AGRI 411	Global Issues on Development, Food and Agriculture.	3
AGRI 550	Sustained Tropical Agriculture.	3
NUTR 341	Global Food Security.	3

Decision Making

Expand allContract all

Course	Title	Credits
AGEC 333	Resource Economics.	3
ECON 440	Health Economics.	3

PHIL 343	Biomedical Ethics.	3
RELG 270	Religious Ethics and the Environment.	3

Biology Fundamentals

Expand allContract all

Course	Title	Credits
AEBI 210	Organisms 1.	3
AEBI 211	Organisms 2.	3
BIOL 200	Molecular Biology.	3
BIOL 308	Ecological Dynamics. ¹	3
ENVB 305	Population and Community Ecology. ¹	3
LSCI 211	Biochemistry 1.	3

¹ Note: You may take BIOL 308 Ecological Dynamics. or ENVB 305 Population and Community Ecology., but not both.

Development and Ecology

Expand allContract all

Course	Title	Credits
ANTH 212	Anthropology of Development.	3
ANTH 339	Ecological Anthropology.	3
ANTH 512	Political Ecology.	3
ENVR 421	Montreal: Environmental History and Sustainability.	3
GEOG 300	Human Ecology in Geography.	3
GEOG 310	Development and Livelihoods.	3
SOCI 254	Development and Underdevelopment.	3
SOCI 365	Health and Development.	3

List B

6 credits from List B (maximum 3 credits from any one category):

Advanced Ecology

Expand allContract all

Course	Title	Credits
AEBI 421	Tropical Horticultural Ecology.	3
BIOL 451	Research in Ecology and Development in Africa. ¹	3
BIOL 465	Conservation Biology.	3
BIOL 553	Neotropical Environments.	3
ENVB 410	Ecosystem Ecology.	3
ENVB 500	Advanced Topics in Ecotoxicology.	3
NRSC 451	Research in Ecology and Development in Africa. ¹	3

¹ Note: You may take BIOL 451 Research in Ecology and Development in Africa. or NRSC 451 Research in Ecology and Development in Africa., but not both.

Pollution Control and Pest Management

Expand allContract all

Course	Title	Credits
ENTO 352	Biocontrol of Pest Insects.	3
NRSC 333	Pollution and Bioremediation.	3
PARA 515	Water, Health and Sanitation.	3

Techniques and Management

Expand allContract all

Course	Title	Credits
AEBI 423	Sustainable Land Use.	3
ENVB 529	GIS for Natural Resource Management. ¹	3
ENVR 422	Montreal Urban Sustainability Analysis. ¹	3
GEOG 201	Introductory Geo-Information Science. ¹	3
GEOG 302	Environmental Management 1.	3
GEOG 404	Environmental Management 2.	3
WILD 421	Wildlife Conservation.	3

¹ Note: You may take ENVB 529 GIS for Natural Resource Management. or GEOG 201 Introductory Geo-Information Science., but not both.

or, advanced quantitative methods course (with approval of Adviser).

Social Change and Influences

Expand allContract all

Course	Title	Credits
ANTH 227	Medical Anthropology.	3
ENVR 430	The Economics of Well-Being.	3
GEOG 340	Sustainability in the Caribbean.	3
GEOG 406	Human Dimensions of Climate Change.	3
GEOG 514	Climate Change Vulnerability and Adaptation.	3
HIST 249	Health and the Healer in Western History.	3
SOCI 307	Globalization.	3

Immunology and Infectious Disease

Expand allContract all

Course	Title	Credits
MIMM 214	Introductory Immunology: Elements of Immunity.	3
MIMM 314	Intermediate Immunology.	3
MIMM 324	Fundamental Virology.	3
MIMM 413	Parasitology. ¹	3
PARA 424	Fundamental Parasitology. ¹	3
PARA 438	Immunology.	3
PPHS 501	Population Health and Epidemiology.	3

¹ Note: You may take MIMM 413 Parasitology. or WILD 424 , but not both.

Populations and Place

Expand allContract all

Course	Title	Credits
ANTH 451	Research in Society and Development in Africa.	3
EDKP 204	Health Education.	3

GEOG 451	Research in Society and Development in Africa. ¹	3
GEOG 498	Humans in Tropical Environments.	3
HIST 335	Science and Medicine in Canada.	3
HIST 510	Environmental History of Latin America (Field).	3
SOCI 520	Migration and Immigrant Groups.	3
SOCI 525	Health Care Systems in Comparative Perspective.	3
SOCI 550	Developing Societies.	3

¹ Note: You may take ANTH 451 Research in Society and Development in Africa. or GEOG 451 Research in Society and Development in Africa., but not both.