

APPLIED ECOLOGY SPECIALIZATION (B.SC.(AG.ENV.SC.)) (24 CREDITS)

Offered by: Natural Resource Sciences (Faculty of Agricultural and Environmental Sciences)

Degree: Bachelor of Science (Agricultural and Environmental Sciences)

Program credit weight: 24

Program Description

Food, water, air, the materials we use, and much of the diversity of life and recreation we enjoy are products of ecological systems. We manage ecosystems to provide these services and our use and mis-use often degrades the ability of ecosystems to provide the benefits and services we value. In the Applied Ecology specialization you will develop your ability to understand how ecosystems function. You will apply systems thinking to the challenge of managing ecosystems for agriculture, forestry, fisheries, protected areas and urban development. You will learn concepts and tools that help you to deal with the complexity that an ecosystem perspective brings. The goal of this specialization is to provide students with an opportunity to further develop their understanding of the ecosystem processes, ecology, and systems thinking necessary to understand, design and manage our interaction with the environment.

For information on academic advising, see: <http://www.mcgill.ca/macdonald/studentinfo/advising>

Required Courses (9 credits)

Expand allContract all

Course	Title	Credits
ENVB 305	Population and Community Ecology.	3
ENVB 437	Assessing Environmental Impact.	3
ENVB 529	GIS for Natural Resource Management.	3

Complementary Courses (15 credits)

15 credits selected from the following:

Expand allContract all

Course	Title	Credits
AGRI 340	Principles of Ecological Agriculture.	3
BREE 327	Bio-Environmental Engineering.	3
ENTO 330	Insect Biology.	3
ENTO 340	Field Entomology.	3
ENVB 301	Meteorology.	3
ENVB 313	Phylogeny and Biogeography.	3
ENVB 415	Ecosystem Management.	3
ENVB 500	Advanced Topics in Ecotoxicology.	3
ENVB 506	Quantitative Methods: Ecology.	3

ENVB 530	Advanced GIS for Natural Resource Management.	3
MICR 331	Microbial Ecology.	3
MICR 450	Environmental Microbiology.	3
PLNT 304	Biology of Fungi.	3
PLNT 426	Plant Ecophysiology.	3
PLNT 460	Plant Ecology.	3
SOIL 300	Geosystems.	3
SOIL 326	Soils in a Changing Environment.	3
SOIL 535	Soil Ecology.	3
WILD 302	Fish Ecology.	3
WILD 307	Natural History of Vertebrates.	3
WILD 350	Mammalogy.	3
WILD 420	Ornithology.	3
WILD 421	Wildlife Conservation.	3