



McGill



Program Revision Form

(09/2003)

AC-04-103

<p>1.0 Degree Title <i>Bachelor of Science</i></p> <p>1.1 Major (Subject) <i>Environment</i></p> <p>1.2 Concentration (Option) <i>Food Production & Environment</i> (Note: This is a <u>Domain</u> in the Major Program in Environment, and is offered by both Agricultural and Environmental Sciences and by Science.)</p> <p>1.3 Minor</p> <p>1.4 Category <i>Major Program</i></p> <p>1.5 Complete Program Title <i>B.Sc.; Environment; Food Production and Environment Domain</i></p>	<p>2.0 Administering Faculty <i>Arts</i></p> <p style="text-align: center;">Offering Faculty <i>Science</i></p> <p>3.0 Effective Term of Revision: <i>200509</i> (eg. 200409)</p> <p>4.0 Existing Credit Weight: <i>63</i> Proposed Credit Weight: <i>63</i></p> <p>5.0 Description (150 words max) <i>no change to program description</i></p>
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6.0 Existing and Proposed program course lists

Additions are in ***Bold Italics***, and deletions are in ~~Strikeout~~. Numbered changes refer to items in the Rationale and the consultation list. Courses offered at Macdonald Campus are marked with (M).

Current Program	Proposed Program
<p>Core: Required Courses (18 credits) ENVR 200 (3) The Global Environment ENVR 201 (3) Society and Environment ENVR 202 (3) The Evolving Earth ENVR 203 (3) Knowledge, Ethics and Environment ENVR 301 (3) Environmental Research Design ENVR 400 (3) Environmental Thought</p> <p>Core: Complementary Course – Senior Research Project (3 credits*) AGRI 519 (6) Sustainable Development Plans (in Barbados) ENVR 401 (3) Environmental Research ENVR 451 (6) Research in Panama (in Panama) ENVR 466 (6) Research in Atlantic Canada (at Bay of Fundy) * Only 3 credits will be applied to the program; extra credits will count as electives.</p> <p>Domain: Required Courses (9 credits)</p>	<p>Core: Required Courses (18 credits) ENVR 200 (3) The Global Environment ENVR 201 (3) Society and Environment ENVR 202 (3) The Evolving Earth ENVR 203 (3) Knowledge, Ethics and Environment ENVR 301 (3) Environmental Research Design ENVR 400 (3) Environmental Thought</p> <p>Core: Complementary Course – Senior Research Project (3 credits*) AGRI 519 (6) Sustainable Development Plans (in Barbados) ENVR 401 (3) Environmental Research ENVR 451 (6) Research in Panama (in Panama) ¹ENVR 466 (6) Research in Atlantic Canada (at Bay of Fundy) * Only 3 credits will be applied to the program; extra credits will count as electives.</p> <p>Domain: Required Courses (9 credits)</p>

<p>AGRI 210 (3) AgroEcological History (M) PLNT 211 (3) Principles of Plant Science (M) PLNT 300 (3) Cropping Systems (M)</p> <p>Domain: Complementary Courses (33 credits) 15 or 16 credits of Basic Sciences: AEMA 310 (3) Statistical Methods 1 (M) or MATH 203 (3) Principles of Statistics 1 or equivalent AGRI 340 (3) Principles of Ecological Agriculture (M) or ANSC 250 (3) Principles of Animal Science (M) BIOL 202 (3) Basic Genetics or CELL 204 (4) Genetics (M) GEOG 305 (3) Soils and Environment or SOIL 210 (3) Principles of Soil Science (M) WILD 205 (3) Principles of Ecology (M) or BIOL 308 (3) Ecological Dynamics</p> <p>12 credits of Applied Sciences: ABEN 217 (3) Hydrology and Water Resources (M) or GEOG 322 (3) Environmental Hydrology ABEN 322 (3) Organic Waste Management (M) ABEN 518 (3) Bio-Treatment of Wastes (M) AGRI 341 (3) Ecological Agricultural Systems (M) AGRI 411 (3) International Agriculture (M) AGRI 435 (3) Soil and Water Quality Management (M) AGRI 550 (3) Sustained Tropical Agriculture (in Panama) ANSC 501 (3) Advanced Animal Production Systems (M) BIOL 465 (3) Conservation Biology BIOL 553 (3) Neotropical Environments (in Panama)</p> <p>FDSC 200 (3) Introduction to Food Science (M) or NUTR 207 (3) Nutrition and Health (M) FDSC 535 (3) Food Biotechnology (M) GEOG 302 (3) Environmental Management 1</p> <p>MICR 331 (3) Microbial Ecology (M) NRSC 333 (3) Physical and Biological Aspects of Pollution (M) NRSC 437 (3) Assessing Environmental Impact (M) NUTR 403 (3) Nutrition in Society (M) NUTR 420 (3) Toxicology and Health Risks (M) PARA 410 (3) Environment and Infection (M) PHAR 303 (3) Principles of Toxicology PLNT 361 (3) Pest Management and the Environment (M) PLNT 434 (3) Weed Biology and Control (M) SOIL 315 (3) Soil Fertility and Fertilizer Use (M) SOIL 410 (3) Soil Chemistry (M)</p> <p>SOIL 521 (3) Soil Microbiology and Biochemistry (M) WILD 401 (4) Fisheries and Wildlife Management (M)</p> <p>6 credits in Social Sciences/Humanities: AGEC 200 (3) Principles of Microeconomics (M) or ECON 208 (3) Microeconomic Analysis and Applications AGEC 320 (3) Economics of Agricultural Production (M) AGEC 333 (3) Resource Economics (M) or ECON 405 (3) Natural Resource Economics AGEC 430 (3) Agriculture, Food and Resource Policy (M) AGEC 442 (3) Economics of International Agricultural</p>	<p>AGRI 210 (3) AgroEcological History (M) PLNT 211 (3) Principles of Plant Science (M) PLNT 300 (3) Cropping Systems (M)</p> <p>Domain: Complementary Courses (33 credits) 15 or 16 credits of Basic Sciences: AEMA 310 (3) Statistical Methods 1 (M) or MATH 203 (3) Principles of Statistics 1 or equivalent AGRI 340 (3) Principles of Ecological Agriculture (M) or ANSC 250 (3) Principles of Animal Science (M) BIOL 202 (3) Basic Genetics or CELL 204 (4) Genetics (M) GEOG 305 (3) Soils and Environment or SOIL 210 (3) Principles of Soil Science (M) WILD 205 (3) Principles of Ecology (M) or BIOL 308 (3) Ecological Dynamics</p> <p>12 credits of Applied Sciences: ABEN 217 (3) Hydrology and Water Resources (M) or GEOG 322 (3) Environmental Hydrology ABEN 322 (3) Organic Waste Management (M) ABEN 518 (3) Bio-Treatment of Wastes (M) AGRI 341 (3) Ecological Agricultural Systems (M) AGRI 411 (3) International Agriculture (M) AGRI 435 (3) Soil and Water Quality Management (M) AGRI 550 (3) Sustained Tropical Agriculture (in Panama) ANSC 501 (3) Advanced Animal Production Systems (M) BIOL 465 (3) Conservation Biology BIOL 553 (3) Neotropical Environments (in Panama) ²ENTO 446 (3) Apiculture (M) FDSC 200 (3) Introduction to Food Science (M) or NUTR 207 (3) Nutrition and Health (M) FDSC 535 (3) Food Biotechnology (M) GEOG 302 (3) Environmental Management 1 ³GEOG 380 (3) Adaptive Environmental Management MICR 331 (3) Microbial Ecology (M) NRSC 333 (3) Physical and Biological Aspects of Pollution (M) NRSC 437 (3) Assessing Environmental Impact (M) NUTR 403 (3) Nutrition in Society (M) NUTR 420 (3) Toxicology and Health Risks (M) PARA 410 (3) Environment and Infection (M) PHAR 303 (3) Principles of Toxicology PLNT 361 (3) Pest Management and the Environment (M) PLNT 434 (3) Weed Biology and Control (M) SOIL 315 (3) Soil Fertility and Fertilizer Use (M) SOIL 410 (3) Soil Chemistry (M) ⁴SOIL 445 (3) Agro-Environmental Fertilizer Use (M) SOIL 521 (3) Soil Microbiology and Biochemistry (M) WILD 401 (4) Fisheries and Wildlife Management (M)</p> <p>6 credits in Social Sciences/Humanities: AGEC 200 (3) Principles of Microeconomics (M) or ECON 208 (3) Microeconomic Analysis and Applications AGEC 320 (3) Economics of Agricultural Production (M) AGEC 333 (3) Resource Economics (M) or ECON 405 (3) Natural Resource Economics ⁵AGEC 331 (3) Farm Business Management (M) AGEC 333 (3) Resource Economics (M) or ECON 405 (3) Natural Resource Economics AGEC 430 (3) Agriculture, Food and Resource Policy (M)</p>
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<p>Development (M) ANTH 418 (3) Environment and Development ECON 225 (3) Economics of the Environment ENVR 465 (3) Environment and Social Change (at Bay of Fundy) GEOG 404 (3) Environmental Management 2 (in Panama) GEOG 410 (3) Geography of Underdevelopment: Current Problems GEOG 498 (3) Humans in Tropical Environments (in Panama) GEOG 510 (3) Humid Tropical Environments SOCI 254 (3) Development and Underdevelopment SOCI 565 (3) Social Change in Panama (in Panama) WILD 415 (2) Conservation Law (M)</p>	<p>AGEC 442 (3) Economics of International Agricultural Development (M) ⁶AGRI 413 (3) Globalization: Issues of Change (in Barbados) ANTH 418 (3) Environment and Development ECON 225 (3) Economics of the Environment ENVR 465 (3) Environment and Social Change (at Bay of Fundy) GEOG 404 (3) Environmental Management 2 (in Panama) GEOG 410 (3) Geography of Underdevelopment: Current Problems GEOG 498 (3) Humans in Tropical Environments (in Panama) GEOG 510 (3) Humid Tropical Environments SOCI 254 (3) Development and Underdevelopment SOCI 565 (3) Social Change in Panama (in Panama) WILD 415 (2) Conservation Law (M)</p>
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7.0 Consultation with Related Units

- 2, 3, 4, 5 Sylvie de Blois, Domain Advisor
- 3. Garry Peterson, course instructor
- 4. Joann Whalen, course instructor
- 6. Robert Bonnell, Barbados Field Study Semester Coordinator

8.0 Rationale

- 1. ENVR 466 is being retired.
- 2. ENTO 446 is relevant to this domain as environmental factors that affect bee keeping have an impact on food production.
- 3. GEOG 380 is a new course that is relevant to this section. It does not duplicate the content of GEOG 302 Environmental Management.
- 4. SOIL 445 is a new course that is relevant to this domain, particularly in view of the role improper fertilizer use plays in water pollution.
- 5. AGECE 331: Understanding how economics affects decision making in farming provides insight into the sources of agro-environmental problems and their solutions.
- 6. AGRI 413 is part of the Barbados Field Study Semester, and is relevant to this section.

9.0 Approvals

Routing Sequence	Name	Signature	Date
Department	Nigel Roulet		
Curric/Acad Cmty			
Faculty 1			
Faculty 2			
Faculty 3			
SCTP			
GS			
APPC			
Senate			

Submitted by:

Pete Barry, MSE Program Coordinator

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Submission Date:

To be completed by ARR:

CIP Code: