1.0 Degree Title
Bachelor of Science

1.1 Major (Subject)
Environment

1.2 Concentration (Option)
Atmospheric Environment and Air Quality
(Note: This is a Domain in the Major Program in Environment.)

1.3 Minor

1.4 Category
Major Program

1.5 Complete Program Title
B.Sc.; Environment; Atmospheric Environment and Air Quality Domain

2.0 Administering Faculty
Arts

Offering Faculty
Science

3.0 Effective Term of Revision: 200509
(eg. 200409)

4.0 Existing Credit Weight: 60
Proposed Credit Weight: 60

5.0 Description (150 words max)
no change to program description

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

**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

**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.

**Domain: Required Courses** (18 credits)
- ATOC 214 (3) Introduction: Physics of the Atmosphere

### Proposed Program

**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

**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.

**Domain: Required Courses** (18 credits)
- ATOC 214 (3) Introduction: Physics of the Atmosphere
### Domain: Complementary Courses (21 credits)

- **6 credits from:**
  - CHEM 257D1 (2) Introductory Analytical Chemistry
  - CHEM 257D2 (2) Introductory Analytical Chemistry
  - or FDSC 213 (3) Analytical Chemistry 1 (M)
  - MATH 222 (3) Calculus 3
  - or AEMA 202 (3) Intermediate Calculus (M)

- **3 credits from:**
  - MATH 203 (3) Principles of Statistics 1
  - or AEMA 310 (3) Statistical Methods 1 (M)
  - or equivalent

- **9 credits of math or physical science (at least 6 credits of which are at the 300 level or above):**
  - ATOC 309 (3) Weather Radars and Satellites
  - ATOC 412 (3) Atmospheric Dynamics
  - ATOC 419 (3) Advances in Chemistry of Atmosphere
  - or CHEM 419 (3) Advances in Chemistry of Atmosphere
  - ATOC 540 (3) Synoptic Meteorology 1
  - CHEE 230 (3) Environmental Aspects of Technology
  - CHEM 273 (1) Chemical Kinetics
  - CHEM 377 (3) Instrumental Analysis 2
  - CIVE 225 (4) Environmental Engineering
  - COMP 208 (3) Computers in Engineering
  - GEOG 505 (3) Global Biogeochemistry
  - MATH 223 (3) Linear Algebra
  - MATH 315 (3) Ordinary Differential Equations
  - or AEMA 205 (3) Differential Equations (M)
  - NRSC 333 (3) Physical and Biological Aspects of Pollution (M)
  - NRSC 510 (3) Agricultural Micrometeorology (M)

- **3 credits of social science:**
  - ANTH 206 (3) Environment and Culture
  - ANTH 418 (3) Environment and Development
  - CMPL 580 (3) Environment and the Law
  - ECON 225 (3) Economics of the Environment
  - ECON 347 (3) Economics of Climate Change
  - ENV 465 (3) Environment and Social Change (in Bay of Fundy)
  - GEOG 302 (3) Environmental Management 1
  - GEOG 404 (3) Environmental Management 2 (in Panama or in Africa)
  - GEOG 498 (3) Humans in Tropical Environments (in Panama)
  - POLI 466 (3) Public Policy Analysis
  - RELG 270 (3) Religious Ethics and the Environment
  - or AEMA 305 (3) Differential Equations (M)
  - NRSC 333 (3) Physical and Biological Aspects of Pollution (M)
  - NRSC 510 (3) Agricultural Micrometeorology (M)

### 7.0 Consultation with Related Units
1. Peter Yau, Atmospheric & Oceanic Sciences, Domain advisor
4. Garry Peterson, Geography, GEOG 380 instructor

**8.0 Rationale**
1. ENVR 466 is being retired.
2. AEMA 205 was changed to AEMA 305 last year by the Faculty of Agricultural and Environmental Sciences.
3. CMPL 580 is now restricted to Law students only.
4. GEOG 380 is a new course that is relevant to this section. It does not duplicate the content of GEOG 302 Environmental Management.

**9.0 Approvals**

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**Submitted by:**
Pete Barry, MSE Program Coordinator
Tel. 4306  Fax 1643
Pete.barry@mcgill.ca
Submission Date:

To be completed by ARR:

CIP Code: