1.0 Degree Title
Specify the two degrees for concurrent degree programs
B.Sc.

1.1 Major (Legacy= Subject) (30-char. max.)
Geography

1.2 Concentration (Legacy = Concentration/Option)
If applicable (30 char. max.)

1.3 Minor (with Concentration, if applicable)
(30 char. max.)

1.4 Category
☐ Faculty Program (FP)
☒ Major
☐ Joint Major
☐ Major Concentration (CON)
☐ Minor
☐ Minor Concentration (CON)
☐ Honours (HON)
☐ Joint Honours Component (HC)
☐ Internship/Co-op
☐ Thesis (T)
☐ Non-Thesis (N)
☐ Other
Please specify

1.5 Complete Program Title
B.Sc.;Major Geography

2.0 Administering Faculty/Unit
Science / Geography

2.1 Offering Faculty/Department
Science / Geography

3.0 Effective Term of revision or retirement
Please give reasons in 5.0 "Rationale" in the case of retirement
(Ex. Sept. 2004 = 200409) ☐ Retirement
Term: 201809

4.0 Existing Credit Weight
38

5.0 Rationale for revised program
Our B.Sc. Major was revised in 2017, but one course (GEOG 530) was missing from the list of 6 credits of approved advanced courses in Geography, or elsewhere in the Faculty of Science, including any geography courses from the above complementary lists.

6.0 Revised Program Description (Maximum 150 words)
### 7.0 List of existing program and proposed program, continued

#### Existing program (list courses as follows: Subj Code/Crse Num, Title, Credit weight, under the headings of: Required Courses, Complementary Courses, Elective Courses)

**Required Courses (13 credits)**
- GEOG 201 Introductory Geo-Information Science (3 credits)
- GEOG 203 Environmental Systems (3 credits)
- GEOG 272 Earth's Changing Surface (3 credits)
- GEOG 351 Quantitative Methods (3 credits)
- GEOG 290 Local Geographical Excursion

**Complementary courses (45 credits)**
- 3 credits of statistics, one of:
  - Note: Credit given for statistics courses is subject to certain restrictions. Students in Science should consult the "Course Overlap" information in the "Course Requirements" section for the Faculty of Science.
  - BIOL 373 Biometry (3 credits)
  - GEOG 202 Statistics and Spatial Analysis (3 credits)
  - MATH 203 Principles of Statistics 1 (3 credits)
  - PSYC 204 Introduction to Psychological Statistics (3 credits)
  - SOCI 350 Statistics in Social Research (3 credits)

- 9 credits on human-environment linkages
  - GEOG 210 Global Places and Peoples (3 credits)
  - GEOG 216 Geography of the World Economy (3 credits)
  - GEOG 217 Cities in the Modern World (3 credits)
  - GEOG 221 Environment and Health (3 credits)
  - GEOG 303 Health Geography (3 credits)
  - GEOG 310 Development and Livelihoods (3 credits)
  - GEOG 311 Economic Geography (3 credits)
  - GEOG 315 Urban Transportation Geography (3 credits)

- 3 credits of field courses
  - (Field course availability is determined each year in February.)
  - GEOG 495 Field Studies - Physical Geography (3 credits)
  - GEOG 496 Geographical Excursion (3 credits)
  - GEOG 499 Subarctic Field Studies (3 credits)

- 9 credits of systematic physical geography
  - GEOG 305 Soils and Environment (3 credits)
  - GEOG 321 Climatic Environments (3 credits)
  - GEOG 322 Environmental Hydrology (3 credits)
  - GEOG 372 Running Water Environments (3 credits)
  - GEOG 373 Arctic Geomorphology (3 credits)
  - GEOG 470 Wetlands (3 credits)

**Students must take a total of 15 credits from the next 2 blocks; they will choose 9 credits from one block and 6 credits from the other block, depending on their training focus**

- **6 or 9 credits of 300 level environmental analysis/techniques**
  - GEOG 306 Raster Geo-Information Science (3 credits)
  - GEOG 308 Principles of Remote Sensing (3 credits)
  - GEOG 307 Socio-economic applications of GIS (3 credits)
  - GEOG 384 Principles of the Geoweb (3 credits)

**Continued on next page**

#### Proposed program (list courses as follows: Subj Code/Crse Num, Title, Credit weight, under the headings of: Required Courses, Complementary Courses, Elective Courses)

**Required Courses (13 credits)**
- GEOG 201 Introductory Geo-Information Science (3 credits)
- GEOG 203 Environmental Systems (3 credits)
- GEOG 272 Earth's Changing Surface (3 credits)
- GEOG 351 Quantitative Methods (3 credits)
- GEOG 290 Local Geographical Excursion

**Complementary courses (45 credits)**
- 3 credits of statistics, one of:
  - Note: Credit given for statistics courses is subject to certain restrictions. Students in Science should consult the "Course Overlap" information in the "Course Requirements" section for the Faculty of Science.
  - BIOL 373 Biometry (3 credits)
  - GEOG 202 Statistics and Spatial Analysis (3 credits)
  - MATH 203 Principles of Statistics 1 (3 credits)
  - PSYC 204 Introduction to Psychological Statistics (3 credits)
  - SOCI 350 Statistics in Social Research (3 credits)

- 9 credits on human-environment linkages
  - GEOG 210 Global Places and Peoples (3 credits)
  - GEOG 216 Geography of the World Economy (3 credits)
  - GEOG 217 Cities in the Modern World (3 credits)
  - GEOG 221 Environment and Health (3 credits)
  - GEOG 303 Health Geography (3 credits)
  - GEOG 310 Development and Livelihoods (3 credits)
  - GEOG 311 Economic Geography (3 credits)
  - GEOG 315 Urban Transportation Geography (3 credits)

- 3 credits of field courses
  - (Field course availability is determined each year in February.)
  - GEOG 495 Field Studies - Physical Geography (3 credits)
  - GEOG 496 Geographical Excursion (3 credits)
  - GEOG 499 Subarctic Field Studies (3 credits)

- 9 credits of systematic physical geography
  - GEOG 305 Soils and Environment (3 credits)
  - GEOG 321 Climatic Environments (3 credits)
  - GEOG 322 Environmental Hydrology (3 credits)
  - GEOG 372 Running Water Environments (3 credits)
  - GEOG 373 Arctic Geomorphology (3 credits)
  - GEOG 470 Wetlands (3 credits)

**Students must take a total of 15 credits from the next 2 blocks; they will choose 9 credits from one block and 6 credits from the other block, depending on their training focus**

- **6 or 9 credits of 300 level environmental analysis/techniques**
  - GEOG 306 Raster Geo-Information Science (3 credits)
  - GEOG 308 Principles of Remote Sensing (3 credits)
  - GEOG 307 Socio-economic applications of GIS (3 credits)
  - GEOG 384 Principles of the Geoweb (3 credits)

**Continued on next page**
### 7.0 List of existing program and proposed program

**Existing program (list courses as follows: Subj Code/Crse Num, Title, Credit weight, under the headings of: Required Courses, Complementary Courses, Elective Courses)**

**6 or 9 credits (In Environment, Earth System and Sustainability sciences)**
- ENVR 200 The Global Environment (3 credits)
- ENVR 201 Society, Environ&Sustainability (3 credits)
- ENVR 202 The Evolving Earth (3 credits)
- ESYS 200 Earth System Processes (3 credits)
- ESYS 300 Investigating the Earth System (3 credits)
- GEOG 302 Environmental management (3 credits)
- GEOG 360 Analyzing Sustainability (3 credits)
- GEOG 460 Research in Sustainability (3 credits)

**6 credits of approved advanced courses in Geography, or elsewhere in the Faculty of Science, including any geography courses from the above complementary lists.**

Admission to 500-level courses in Geography requires the instructor's permission. It is not advisable to take more than one 500-level course in a term.

**Geography Approved Course List - Major, Honours and Liberal Programs**
- GEOG 404 Environmental Management 2 (3 credits)
- GEOG 501 Modelling Environmental Systems (3 credits)
- GEOG 505 Global Biogeochemistry (3 credits)
- GEOG 506 Advanced Geographic Information Science (3 credits)
- GEOG 523 Global Ecosystems and Climate (3 credits)
- GEOG 535 Remote Sensing and Interpretation (3 credits)
- GEOG 536 Geocryology (3 credits)
- GEOG 537 Advanced Fluvial Geomorphology (3 credits)
- GEOG 550 Historical Ecology Techniques (3 credits)
- GEOG 555 Ecological Restoration (3 credits)

**Proposed program (list courses as follows: Subj Code/Crse Num, Title, Credit weight, under the headings of: Required Courses, Complementary Courses, Elective Courses)**

**6 or 9 credits (In Environment, Earth System and Sustainability sciences)**
- ENVR 200 The Global Environment (3 credits)
- ENVR 201 Society, Environ&Sustainability (3 credits)
- ENVR 202 The Evolving Earth (3 credits)
- ESYS 200 Earth System Processes (3 credits)
- ESYS 300 Investigating the Earth System (3 credits)
- GEOG 302 Environmental management (3 credits)
- GEOG 360 Analyzing Sustainability (3 credits)
- GEOG 460 Research in Sustainability (3 credits)

**6 credits of approved advanced courses in Geography, or elsewhere in the Faculty of Science that have been approved by the Program Advisor, including any geography courses from the above complementary lists.**

Admission to 500-level courses in Geography requires the instructor's permission. It is not advisable to take more than one 500-level course in a term.

**Geography Approved Course List - Major, Honours and Liberal Programs**
- GEOG 404 Environmental Management 2 (3 credits)
- GEOG 501 Modelling Environmental Systems (3 credits)
- GEOG 505 Global Biogeochemistry (3 credits)
- GEOG 506 Advanced Geographic Information Science (3 credits)
- GEOG 523 Global Ecosystems and Climate (3 credits)
- GEOG 535 Remote Sensing and Interpretation (3 credits)
- GEOG 536 Geocryology (3 credits)
- GEOG 537 Advanced Fluvial Geomorphology (3 credits)
- GEOG 550 Historical Ecology Techniques (3 credits)
- GEOG 555 Ecological Restoration (3 credits)
- GEOG 530 Global Land & Water Resources
8.0 Consultation with Related Units
☐ Yes  ☐ No
Financial Consult  ☐ Yes  ☐ No
Attach list of consultations

9. Approvals
Routing Sequence  Name  Signature  Date
Department  Nigel Roule  
Curric/Acad Committee  
Faculty 1  
Faculty 2  
Faculty 3  
CGPS  
SCTP  
APC  
Senate  

Submitted by
Name  Prof Gail Chmura  To be completed by ARR:
Phone  514 9266854  CIP Code
Email  Gail.chmura@mcgill.ca
Submission Date  

10. FQRSC (Research) Indicator (for GPS):  Yes  No