



<p>1.0 Degree Title Specify the two degrees for concurrent degree programs</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>1.1 Major (Legacy= Subject) (30-char. max.)</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>1.2 Concentration (Legacy = Concentration/Option) If applicable (30 char. max.)</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>1.3 Minor (with Concentration, if applicable) (30 char. max.)</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>1.4 Category</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><input type="checkbox"/> Faculty Program (FP)</td> <td style="width: 50%; border: none;"><input type="checkbox"/> Honours (HON)</td> </tr> <tr> <td style="border: none;"><input checked="" type="checkbox"/> Major</td> <td style="border: none;"><input type="checkbox"/> Joint Honours Component (HC)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Joint Major</td> <td style="border: none;"><input type="checkbox"/> Internship/Co-op</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Major Concentration (CON)</td> <td style="border: none;"><input type="checkbox"/> Thesis (T)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Minor</td> <td style="border: none;"><input type="checkbox"/> Non-Thesis (N)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Minor Concentration (CON)</td> <td style="border: none;"><input type="checkbox"/> Other</td> </tr> <tr> <td colspan="2" style="border: none; text-align: center;">Please specify</td> </tr> <tr> <td colspan="2" style="border: none; text-align: center;"><div style="border: 1px solid black; height: 20px; width: 100%;"></div></td> </tr> </table> <p>1.5 Complete Program Title</p> <div style="border: 1px solid black; padding: 2px;"> <p><b>B.Sc.; Liberal Program - Core Science Component Geography</b></p> </div>	<input type="checkbox"/> Faculty Program (FP)	<input type="checkbox"/> Honours (HON)	<input checked="" type="checkbox"/> Major	<input type="checkbox"/> Joint Honours Component (HC)	<input type="checkbox"/> Joint Major	<input type="checkbox"/> Internship/Co-op	<input type="checkbox"/> Major Concentration (CON)	<input type="checkbox"/> Thesis (T)	<input type="checkbox"/> Minor	<input type="checkbox"/> Non-Thesis (N)	<input type="checkbox"/> Minor Concentration (CON)	<input type="checkbox"/> Other	Please specify		<div style="border: 1px solid black; height: 20px; width: 100%;"></div>		<p>2.0 Administering Faculty/Unit</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>Offering Faculty/Department</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>3.0 Effective Term of revision or retirement Please give reasons in 5.0 "Rationale" in the case of retirement (Ex. Sept. 2004 = 200409)      <input type="checkbox"/> Retirement</p> <p>Term: <div style="border: 1px solid black; width: 100px; height: 20px;"></div></p> <p>4.0 Existing Credit Weight      Proposed Credit Weight</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: 1px solid black; height: 20px;"></td> <td style="width: 50%; border: 1px solid black; height: 20px;"></td> </tr> </table> <p>5.0 Rationale for revised program</p> <div style="border: 1px solid black; padding: 5px;"> <p>In 2017 the Geography major program was revised to include relevant new courses that had been created in Geography and other units that cover highly relevant and program-related topics in Sustainability Science, Earth System Science and human-environment interactions at various scales. The revised Liberal program reflects those changes in the Major program while maintaining the lower credit weight that gives students flexibility in their overall academic program. The changes to this program are intended to broaden the program foci by</p> </div>		
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<p>6.0 Revised Program Description (Maximum 150 words)</p> <div style="border: 1px solid black; padding: 10px;"> <p><b>Current Program Description:</b> N/A</p> <p><b>Proposed Program Description:</b> This is the Core Science Component in Geography for the B.Sc. Liberal. Required courses provide a foundation in Geography (which takes a holistic approach to environmental sciences, distinguished in particular, by its incorporation of human and climatic elements). By completing these courses students will be armed with the prerequisites necessary for 300-level courses in Geography. Our set of complementary courses provides students with necessary analytical skills and a broad background in physical geography. The 300-level courses in the complementary set prepare students for advanced study at the 400- and 500-level.</p> </div>																			

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)

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 290 Local Geographical Excursion (1credit)  
GEOG 351 Quantitative Methods (3 credits)

**Complementary Courses (36 credits)**  
**3 credits of statistics\***  
**\* 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)

**3 credits of field courses**  
GEOG 495 Field Studies - Physical Geography (3 credits)  
GEOG 496 Geographical Excursion (3 credits)  
GEOG 499 Subarctic Field Studies

**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 470 Wetlands (3 credits)  
GEOG 373 Arctic Geomorphology (3 credits)  
GEOG 372 Running Water Environments (3 credits)

**Students must take a total of 9 credits from the next 2 blocks; they will choose 6 credits from one block and 3 credits from the other, depending on their training focus.**  
**3 or 6 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)

**3 or 6 credits (In Environment, Earth System and**

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

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 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.**

**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 530 Global Land & Water Resources**  
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)

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