

# Major Geography (58 credits)

**Offered by:** Geography    **Degree:** Bachelor of Science

## Program Requirements

### Required Courses (22 credits)

- [GEOG 201 Introductory Geo-Information Science \(3 credits\)](#)
- [GEOG 203 Environmental Systems \(3 credits\)](#)
- [GEOG 216 Geography of the World Economy \(3 credits\)](#)
- [GEOG 217 Cities in the Modern World \(3 credits\)](#)
- [GEOG 272 Earth's Changing Surface \(3 credits\)](#)
- [GEOG 290 Local Geographical Excursion \(1 credit\)](#)
- [GEOG 302 Environmental Management 1 \(3 credits\)](#)
- [GEOG 351 Quantitative Methods \(3 credits\)](#)

### Complementary Courses (36 credits)

3 credits of statistics:

- [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 \(3 credits\)](#)
- [SOC 350 Statistics in Social Research \(3 credits\)](#)

3 credits of GIS techniques:

- [GEOG 306 Raster Geo-Information Science \(3 credits\)](#)
- [GEOG 308 Principles of Remote Sensing \(3 credits\)](#)

12 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 470 Wetlands \(3 credits\)](#)

3 credits of field courses:

- [GEOG 495 Field Studies - Physical Geography \(3 credits\)](#)
- [GEOG 496 Geographical Excursion \(3 credits\)](#)
- [GEOG 499 Subarctic Field Studies \(3 credits\)](#)

**15 credits** from approved courses in Geography, or elsewhere in the Faculty of Science, or in the Faculty of Engineering; at least 9 credits of which are to be taken outside Geography (see lists of approved courses in Geography and outside Geography below). Students may also include any courses that are not already counted towards the GIS techniques or the systematic physical geography requirements. 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 – B.Sc. Majors and Honours 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 \(3 credits\)](#)
- [URBP 556 Urban Economy: A Spatial Perspective \(3 credits\)](#)

**This is the course list that will meet the B.Sc. Major in Geography requirement for 9 credits outside Geography. Some courses have prerequisites in the host department. Certain courses have overlap. Some courses require the permission of the department advisor. (2011)**

**Faculty of Science, including School of Computer Science**

ATOC 214	Introduction: Physics of the Atmosphere
ATOC 215	Oceans, Weather and Climate
ATOC 219	Introduction to Atmospheric Chemistry (not open to students with CHEM 219)
ATOC 309	Weather Radars and Satellites
BIOL 215	Introduction to Ecology and Evolution
BIOL 240	Monteregian Flora (not open to students with PLNT 358)
BIOL 304	Evolution
BIOL 305	Animal Diversity
BIOL 307	Behavioural Ecology/Sociobiology (not open to students with WILD 311)
BIOL 308	Ecological Dynamics
BIOL 309	Mathematical Models in Biology
BIOL 310	Biodiversity and Ecosystems
BIOL 324	Ecological Genetics
BIOL 331	Ecology/Behaviour Field Course
BIOL 334	Applied Tropical Ecology
BIOL 335	Marine Mammals
BIOL 342	Marine Biology
BIOL 350	Insect Biology and Control
BIOL 352	Vertebrate Evolution
BIOL 355	Trees: Ecology and Evolution
BIOL 385	Plant Growth and Development
BIOL 432	Limnology
BIOL 441	Biological Oceanography
BIOL 442	Marine Biology
BIOL 465	Conservation Biology
BIOL 485	Plant Growth and Development
CHEM 203	Survey of Physical Chemistry
CHEM 204	Physical Chemistry/Biological Sciences 1
CHEM 212	Introductory Organic Chemistry 1
CHEM 214	Physical Chemistry/Biological Sciences 2
CHEM 219	Introduction to Atmospheric Chemistry (not open to students with ATOC 219)
CHEM 287	Introductory Analytical Chemistry
CHEM 307	Analytical Chemistry of Pollutants
COMP 202	Introduction to Computing 1
COMP 203	Introduction to Computing 2
EPSC 334	Invertebrate Paleontology
EPSC 425	Sediments to Sequences
EPSC 435	Applied Geophysics
MATH 222	Calculus 3
MATH 314	Advanced Calculus
MATH 323	Probability
MATH 324	Statistics
PHYS 230	Dynamics of Simple Systems
PHYS 232	Heat and Waves

**Faculty of Engineering**

CIVE 327 Fluid Mechanics and Hydraulics

**MACDONALD CAMPUS****Departments of Agriculture and Environmental Sciences, Natural Resource Sciences,  
Parasitology and Plant Science**

AGRI 341	Ecological Agriculture Systems
AGRI 411	International Agriculture
AGRI 435	Soil and Water Quality Management
ENTO 330	Insect Biology
ENTO 336	Economic Entomology
ENTO 352	Control of Insect Pests
ENTO 440	Insect Diversity
ENTO 535	Aquatic Entomology
ENVB 305	Population and Community Ecology
ENVB 313	Phylogeny and Biogeography (not open to students with WILD 313)
ENVB 437	Assessing Environmental Impact (not open to students with WILD/NRSC 437)
MICR 331	Microbial Ecology
MICR 450	Environmental Microbiology
NRSC 333	Pollution and Bioremediation
NRSC 382	Ecological Monitoring and Analysis
NRSC 383	Land Use: Redesign and Planning
PARA 410	Environment and Infection
PLNT 353	Plant Structure and Function
PLNT 358	Flowering Plant Diversity (not open to students with BIOL 240)
PLNT 361	Pest Management and the Environment
PLNT 460	Plant Ecology
SOIL 315	Soil Fertility and Fertilizer Use
SOIL 335	Soil Ecology and management
WILD 307	Natural History of Vertebrates
WILD 311	Ethology (not open to students with BIOL 307)
WILD 410	Wildlife Ecology
WILD 420	Ornithology
WILD 475	Desert Ecology
WOOD 300	Urban Forests and Trees
WOOD 441	Integrated Forest Management