Earth System Science can be defined as the integrated study of the Earth’s places, societies, environments, and landscapes. Among academic disciplines, Earth System Science is a combination the social sciences and physical sciences. We study natural processes, their interactions, and natural environmental issues, such as climate change.

**TOP 5 REASONS to study GEOGRAPHY AND PLANNING**

1. Hands-on lab and field work. Engage communities, see results.
2. Gain a wide range of transferable skills that stand out in the labour market, like teamwork, cultural sensitivity, and tech savviness.
3. Learn to make sensible judgements about matters involving the physical environment and society.
4. Question the world you live in and get the skills you need to change it.
5. Join a community of scholars with close and interactive relationships with each other.

“Traveling and asking sometimes difficult questions was an integral part of my two geography degrees at Queen’s… the trilogy of land, people, and the struggle over resources, which formed the basis of much of my geography training, shapes not only how we should understand conflicts, but also how we can work to resolve them.”

- Krista House, BAH ’97

Note that degree requirements are revised regularly. The most current requirements, including course lists and options, are found in the Academic Calendar at: quarts.com/academic-calendar

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**Sample Year by Year**

**1ST YEAR**
- BIOL 111/3.0 or BIOL 103/3.0
- GPHY 101/3.0
- GPHY 102/3.0
- ENSC 103/1.0
- 6.0 units of CHEM or PHYS at the 100 level or above
- 6.0 units from MATH or STAT at the 100 level or above
- 6.0 units of electives

**2ND YEAR**
- GEOL 200/3.0
- GPHY 207/3.0
- GPHY 208/3.0
- GPHY 209/3.0
- GPHY 247/3.0
- 3.0 units from GPHY 227/3.0, GPHY 228/3.0, or GPHY 229/3.0
- 3.0 units from GPHY 242/3.0, GPHY 243/3.0, GPHY 342/3.0
- 3.0 units in GEOL
- 6.0 units of electives

**3RD YEAR**
- ENSC 390/3.0
- 21.0 units from EGPY Options
- 6.0 units of electives

**4TH YEAR**
- GPHY 415/6.0
- ENSC 430/6.0 or ENSC 501/6.0
- 15.0 units from EGPY Options
- 3.0 units of electives

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**2018-19 thresholds**

**NO AUTOMATIC ACCEPTANCE**

1.9 GPA PENDING LIST

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**DEPARTMENT OF GEOGRAPHY AND PLANNING**

Faculty of Arts and Science
BioSciences Complex, Room 3134
116 Barrie Street
613-507-6002
queensu.ca/ensc

**add a CERTIFICATE to your degree**

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Entrepreneurship, Innovation and Creativity
Disability and Physical Activity
French for Professionals
Geographic Information Science
Global Action and Engagement
Indigenous Languages and Cultures
International Studies
Media Studies
Sexual and Gender Diversity
Urban Planning Studies
queensu.ca/certs
**EARTH SYSTEM SCIENCE SPECIALIZATION MAP**

**SPECIALIZATION BACHELOR OF ARTS (HONOURS)**

### 1ST YEAR
- In first year you’ll have the chance to explore the foundations of geography in biology, chemistry, geography and geology along with some electives.
- See the back page for specific courses to consider.
- Attend Majors Night in the Winter term to learn more about Plan options.

### 2ND YEAR
- Start going deeper into the discipline of Earth System Science, while considering a certificate such as Geographic Information Science. Attend Degree + in the Fall term to learn more about Certificates and Internship options.
- Want to make sure your academics are where you want them to be? Meet with SASS (Student Academic Support Services) and the Writing Centre for some help.

### 3RD YEAR
- A chance to start grouping courses in areas of interest, or to keep it more general and explore many areas of Earth System Science. Meet with an Academic Advisor to make sure you are on track and have planned out your courses for next year — for some ideas, see the back page.

### 4TH OR FINAL YEAR
- In fourth year you will have the chance to participate in research-based courses that can lead to Graduate School or to your future career path. Make sure to finish up all your courses for your degree and your optional certificate(s).

### GET THE COURSES YOU NEED
- **1ST YEAR**
  - In first year you’ll have the chance to explore the foundations of geography in biology, chemistry, geography and geology along with some electives.
  - See the back page for specific courses to consider.
  - Attend Majors Night in the Winter term to learn more about Plan options.

### GET RELEVANT EXPERIENCE
- **1ST YEAR**
  - Join teams or clubs on campus such as Queen’s Project on International Development (QPID) and the Geography Explore Camp.
  - See the AMS Clubs Directory or the Queen’s Get Involved page for more ideas.

### GET CONNECTED WITH THE COMMUNITY
- **1ST YEAR**
  - Volunteer on or off campus with different community organizations, such as local charities or clubs like The Earth Centre.

### GET THINKING GLOBALLY
- **1ST YEAR**
  - Prepare for work or studies in a multi-cultural environment by taking QUC’s Intercultural Competency Certificate, and research possible immigration regulations.
  - Speak to a QUC advisor to get involved in their programs, events, and training opportunities.

### GET READY FOR LIFE AFTER GRADUATION
- **1ST YEAR**
  - Grappling with program decisions? Go to Majors Night or get some help wondering about career options from Career Services.

### What will I learn?
- A degree in Geography can equip you with valuable and versatile skills, such as:
  - Understanding of the interrelationships between people, places and environments
  - Knowledge of social, cultural, economic and political factors affecting societies and environments, physical and biophysical aspects of the earth’s environments; and the earth system
  - Oral and written communication to write reports and give presentations
  - Field research skills to conduct field studies by instilling sensors and data loggers to measure and monitor physical processes
  - Laboratory research skills to collect snow, water, soil and vegetation samples for biogeochemical analysis in the laboratory
  - Analytical skills to analyze spatial information and data using computer technologies such as Geographic Information Systems (e.g. ESRI ArcInfo), Remote Sensing and Image Processing, and statistical methods

### Where can I go?
- A degree in Geography can take your career in many directions. Many students choose to continue their academic journey with a Master’s. Our students are equipped with a strong foundation for careers in:
  - Climatology
  - Demography
  - Farming
  - GIS specialist
  - Heritage conservation
  - Immigration services
  - Landscape architecture
  - Mapping and surveying
  - Oceanography
  - Urban and regional planning

Taking time to explore career options, build experience and network can help you have a smooth transition to the world of work after graduation.