Society has become more aware of the seriousness of the environmental problems we face. Yet, at the same time, we have realized that the solutions are not simple. To work towards environmental sustainability, people need to understand the scientific basis of environmental problems. They also need to have expertise in planning, policy and other fields to deal with the social, economic and cultural complexities that surround them.

**Environment and Life Sciences (BScH)**

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**5 REASONS to study Environmental Studies/Science**

1. **Hands-on lab and field work. Get dirty, see results.**
2. **Gain transferable skills that employers want, while learning how to prepare arguments and solve problems.**
3. **Help create the future world in which you want to live.**
4. **The best way to find solutions: combining both the arts and the sciences.**
5. **Research-focused courses in upper years contribute to projects happening across Canada and around the world.**

**ALUMNI JOBS**

- **5%** of alumni work in Utilities
- **13%** of alumni work in Environment Services
- **25%** of alumni work in Government & Law
- **33%** of alumni work in Education

**“I think that it’s something that is really unique about our department. The fact that our program is so current with the issues our society is facing and that members of the department can unite over trying to find solutions to the problems.”**

- Makenzie MacKay, BAH '17

**Sample Year by Year**

**1ST YEAR**

- BIOL 102/3.0
- BIOL 103/3.0
- CHEM 112/6.0
- GPHY 101/3.0
- GPHY 102/3.0
- GEOL 104/3.0 or GEOL 107/3.0
- ENSC 103/3.0
- 1.0 units of MATH at the 100 level, STAT at the 200 or 300 level
- 3.0 units of electives

**2ND YEAR**

- 6.0 units from PHYS 104/6.0, PHYS 106/6.0, PHYS 117/6.0, PHYS 118/6.0
- 3.0 units of STAT at the 200 or 300 level
- BIOL 205/3.0
- MICR 221/3.0 or MICR 229/3.0
- CHEM 281/3.0
- CHEM 282/3.0
- BCHM 218/3.0
- 6.0 units from PHGY 215/3.0, PHGY 216/3.0

**3RD YEAR**

- BCHM 315/3.0
- BCHM 316/3.0
- ENSC 300/3.0
- 3.0 units from ENSC_Interdisciplinary_SocSci/Huma
- 3.0 units from ENSC_Interdisciplinary_Humanities
- 3.0 units from GEOL
- 3.0 units from BIOL 201/3.0, BIOL 202/3.0, ENSC Options
- 9.0 units of electives

**4TH YEAR**

- PHAR 416/1.0
- ENSC 430/6.0 or ENSC 501/6.0
- 18.0 units from ENSC_Options
- 3.0 units of electives

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](http://Quarts.com/academic-calendar)
**1ST YEAR**

- **GET THE COURSES YOU NEED**
  - In first year you will have the chance to explore the foundations of Environmental Life Sciences 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**
  - Join teams or clubs on campus such as the Synthetic Biology Organization, Queen's First Aid or Universities Allied for Essential Medicine.
  - See the AMS Clubs Directory or the Queen's Get Involved page for more ideas.

- **GET CONNECTED WITH THE COMMUNITY**
  - Volunteer on or off-campus with different community organizations, such as Let's Talk Science (LTS), Queen's Union on Tropical Access to Health, or local charities.

- **GET THINKING GLOBALLY**
  - Prepare for work or studies in a multi-cultural environment by taking QUIC'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**
  - Grappling with program decisions? Go to Majors Night or get some help wondering about career options from Career Services.

**2ND YEAR**

- **GET THE COURSES YOU NEED**
  - Start going deeper into the discipline of Environmental Life Sciences, while considering a certificate such as International Studying.
  - Attend Degree 4 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? Visit SAAS (Student Academic Support Services) and the Writing Centre for some help.

- **GET RELEVANT EXPERIENCE**
  - Look into summer jobs by talking to the dept. or Career Services about work through SWEP or NSERC.
  - Take more responsibility within different clubs or extracurriculars. Consider volunteering at Student Wellness Services or other health centres.

- **GET CONNECTED WITH THE COMMUNITY**
  - Consider getting involved with the Departmental Student Council (DSC).
  - Start or continue volunteering with organizations such as the Canadian Undergraduate Conference on Healthcare (CUCOH).

- **GET THINKING GLOBALLY**
  - Is an exchange in your future? Start thinking about where you would like to study abroad. Apply in January for a third year exchange through the International Programs Office.

- **GET READY FOR LIFE AFTER GRADUATION**
  - Explore different careers of interest by reading books in the Career Services Career Advising and Resource Area, such as Academia to Biotechnology. For more information, connect with alumni on LinkedIn.

**3RD YEAR**

- **GET THE COURSES YOU NEED**
  - A chance to start grouping courses in areas of interest, or to keep it more general and explore many areas of Environmental Life Sciences. 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.

- **GET RELEVANT EXPERIENCE**
  - Consider applying to do a 12-16 month QUIP internship between your third and fourth year.
  - Consider entrepreneurial opportunities via programs like the Queen's Innovation Connector Summer Initiative (QKSI) and the Summer Company Program.

- **GET CONNECTED WITH THE COMMUNITY**
  - Do targeted networking with alumni working in careers of interest by joining the LinkedIn group Queen's Connects.
  - Check out Career Services networking workshops.
  - Connect with professors at events or workshops hosted by the DSC.

- **GET THINKING GLOBALLY**
  - Build your intercultural competence by getting involved with other cultures or by practicing or improving your language skills.

- **GET READY FOR LIFE AFTER GRADUATION**
  - Start focusing on areas of interest. Research education requirements for careers of interest. If needed, prepare to take any required tests (like the MCAT) and get help thinking about Grad School from Career Services.

**4TH OR FINAL YEAR**

- **GET THE COURSES YOU NEED**
  - 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 RELEVANT EXPERIENCE**
  - Investigate requirements for full-time jobs or other opportunities related to careers of interest.
  - Assess what experience you’re lacking and fill in gaps with volunteering, clubs, or internships — check-out the Career Services skills workshop for help.

- **GET CONNECTED WITH THE COMMUNITY**
  - Consider joining professional associations like the Analytical, Life Science & Diagnostics Association.
  - Join groups on LinkedIn reflecting specific careers or topics of interest in Life Sciences.

- **GET THINKING GLOBALLY**
  - International students interested in staying in Canada can speak with an International Student Advisor.

- **GET READY FOR LIFE AFTER GRADUATION**
  - Apply to jobs or future education, or make plans for other adventures. Get help from Career Services with job searching, resumes, interviews, Grad School applications, or other decisions.

**What will I learn?**

A degree in Environmental Science can equip you with valuable and versatile skills, such as:
- Interdisciplinary perspective to understand environmental topics from a scientific, philosophical and ethical point of view
- Understand natural and human factors related to environmental problems
- Knowledge of local, national, and global environmental problems and issues
- Analytical skills to analyze data for trends and apply statistical tests
- Ability to interpret data from scientific experimentation and make conclusions based on research
- Experience with laboratory equipment
- Critical thinking to form, defend, and evaluate arguments and propose solutions
- Oral and written communication to create reports and give presentations
- Teamwork to work as a team on a long-term project
- Resource and time management

**Where can I go?**

A degree in Environmental Life Sciences can take your career in many directions. Many students choose to continue their academic inquiry with a Master’s. Our students are equipped with a strong foundation for careers in:
- Agriculture
- Cartography
- Forestry
- Horticulture
- Land quality
- Meteorology
- Parks and natural reserves
- Transportation
- Waste management
- Water quality

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