Chemistry explores the composition, structure, and transformation of matter. Frequently called the central science, it provides the basis for studies in many other disciplines, ranging from biology to materials science, in addition to being a booming discipline of its own.

Chemistry opens very broad career options. With extensive experimental training, Chemistry studies are very hands-on and fun! Queen’s Chemistry Department is a very supportive and nurturing environment; our graduating class is small and close-knit. All major and specialization students conduct research in fourth year as part of their plan. Queen’s Chemistry programs are accredited by the Canadian Society for Chemistry.

Not too long ago, Jenny Du was a student at Queen’s. Now she’s living the California lifestyle at a cool startup. As the Director of Extraction, Jenny works with a team at Apeel Sciences to use natural plant extracts to formulate edible coatings that work to extend the shelf-life of fresh produce.

Sample Year by Year

**1ST YEAR**
- CHEM 112/6.0
- 6.0 units from MATH 110/6.0, MATH 111/6.0, MATH 112/3.0
- PHYS 104/6.0 or PHYS 106/6.0 or PHYS 117/6.0
- MATH 120/6.0 or MATH 121/6.0 or (MATH 123/3.0 and MATH 124/3.0)
- 12.0 units of electives and/or minor

**2ND YEAR**
- CHEM 212/3.0
- CHEM 213/3.0
- CHEM 221/3.0
- CHEM 222/3.0
- CHEM 223/3.0
- 12.0 units of electives and/or minor

**3RD YEAR**
- 12.0 units from CHEM 311/3.0, CHEM 312/3.0, CHEM 313/3.0, CHEM 321/3.0, CHEM 322/3.0, CHEM 323/3.0
- CHEM 397/6.0
- 12.0 units of electives and/or minor

**4TH YEAR**
- CHEM 497/6.0
- 3.0 units from CHEM 311/3.0, CHEM 312/3.0, CHEM 313/3.0, CHEM 321/3.0, CHEM 322/3.0, CHEM 323/3.0
- 3.0 units of CHEM at the 400 level
- 15.0 units of electives and/or minor

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

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**2018-19 thresholds**

- **2.7 cGPA AUTOMATIC ACCEPTANCE**  
  min C+ in CHEM 112
- **1.9 cGPA PENDING LIST**  
  min C- in CHEM 112

*Thresholds are made on a competitive basis and are updated annually. For the latest information please visit: Quarts.com*
CHEMISTRY MAJOR MAP

1ST YEAR

- In first year you will have the chance to explore the foundations of Chemistry in biology, chemistry, geography and geology along with some electives.
- Attend Majors Night in the Winter term to learn more about Plan options.
- Get the Courses You Need
- Relevant Experience
- Connected With the Community
- Thinking Globally
- Ready For Life After Graduation

2ND YEAR

- Start going deeper into the discipline of Chemistry, while considering a minor and/or certificate such as French for Professionals. Attend Degree + in the Fall term to learn more about Certificates and Internship options.
- Look into summer jobs by talking to the dept. or Career Services about work through SWEP, NSERC-USR or Work-Study.
- Consider entrepreneurial opportunities via programs like the Queen's Innovation Connector Summer Initiative (QCSI).
- Prepare for work or studies in a multi-cultural environment by taking QUIC's Intercultural Competency Certificate, and research possible immigration regulations.
- Grappling with program decisions? Go to Majors Night or get some help wondering about career options from Career Services. Attend departmental information sessions on Plan selection (March).

3RD YEAR

- A chance to start grouping courses in areas of interest, or to keep it more general and explore many areas of Chemistry. 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.
- Consider applying to do a 12-16 month QUP internship between your third and fourth year.
- Build your intercultural competence by getting involved with other cultures or by practicing or speaking a language.
- Explore different careers of interest by reading books in the Career Services Information Area, such as the Chemistry Careers. For more information check out Career Cruising or by finding and connecting with alumni on LinkedIn.
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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 major and your optional minor and/or certificate(s).
- Investigate requirements for full-time jobs, graduate studies, or other opportunities. Assess what you’re lacking and fill in gaps – check out the Career Services workshops for help.
- Consider joining associations like the Chemical Institute of Canada or the Association of the Chemical Profession of Ontario.
- Consider applying to do a 12-16 month QUP internship.
- 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.