CHEMISTRY
Specialization, Bachelor of Science (Honours) degree PLAN

Sample Year by Year

1ST YEAR
- CHEM 112/6.0
- 3.0 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)
- 6.0 units of electives

2ND YEAR
- CHEM 211/3.0
- CHEM 212/3.0
- CHEM 213/3.0
- CHEM 221/3.0
- CHEM 222/3.0
- CHEM 223/3.0
- 6.0 units of electives

3RD YEAR
- 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
- 6.0 units of electives

4TH YEAR
- CHEM 497/6.0
- 12.0 units of CHEM at the 400 level or above or from BCHM at the 300 level or above; BCHM 218/3.0, PHYS 424/3.0
- 15.0 units of electives
- 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: QUartsci.com/academic-calendar

PLANNING AHEAD
GET THE COURSES YOU NEED

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1ST YEAR
- CHEM 112/6.0
- 3.0 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)
- 6.0 units of electives

2ND YEAR
- CHEM 211/3.0
- CHEM 212/3.0
- CHEM 213/3.0
- CHEM 221/3.0
- CHEM 222/3.0
- CHEM 223/3.0
- 6.0 units of electives

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- CHEM 397/6.0
- 6.0 units of electives

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- CHEM 497/6.0
- 12.0 units of CHEM at the 400 level or above or from BCHM at the 300 level or above; BCHM 218/3.0, PHYS 424/3.0
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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: QUartsci.com

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.

ALUMNI JOBS

- 10% of alumni work in GOVERNMENT
- 11% of alumni work in HEALTH & MEDICINE
- 14% of alumni work in RESEARCH & DEVELOPMENT
- 32% of alumni work in EDUCATION

ALUMNI JOBS

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.

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In first year you will have the chance to explore the foundations of Chemistry 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.

Join clubs on campus such as Let’s Talk Science, Women in Science and Engineering or the Undergraduate Science Case Competition. See the AMS Clubs Directory or the Queen’s Get Involved page for more ideas.

Volunteer on or off campus with community organizations such as Science Rendezvous. Consider joining an intramural sports or an athletics team. Check out the Athletics and Recreation site.

Prepare for work or studies in a multi-cultural environment by taking QCIC’s Intercultural Competency Certificate, and research possible immigration regulations. Speak to a QCIC advisor to get involved in their programs, events, and training opportunities.

Grasping 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).

Starting deeper into the discipline of Chemistry, while considering a certificate such as French for Professionals. 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? Visit SASS (Student Academic Support Services) and the Writing Centre for some help.

Look into summer jobs by talking to the dept. or Career Services about work through SWEPC, NSERC, USRA or Work-Study.

Consider entrepreneurial opportunities via programs like the Queen’s Innovation Connector Summer Initiative (QCSI).

Get involved with the Departmental Student Council (DSC). Connect with professors at socials or attend speaker events. Start or continue volunteering.

Do some targeted networking with alumni working in careers of interest by joining the LinkedIn group Queen’s Connects. Check out Career Services networking workshops. Participate in meetings with the Queen’s Chemistry Innovation Council (QCC).

Start focusing on areas of interest. Research education requirements for careers of interest. If needed, prepare to take any required tests (like the LSAT or MCAT) and get help thinking about Grad School from Career Services, as well as departmental resources; start looking into graduate school scholarship applications.

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 QUIP Internship between your third and fourth year.

Consider presenting and publishing your work through Inquiry@Queen’s.

International students interested in staying in Canada can speak with an International Student Advisor.

Consider widening your global skills by applying to the dual MSc Queen’s – Stuttgart degree. Do your research at the University of Stuttgart in Germany.

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 skills workshop for help. Consider presenting your research results at the Southern Ontario Undergraduate Student Chemistry Conference in the Spring or at Inquiry@Queen’s.

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 Chemistry can equip you with valuable and versatile skills, such as:

- Academic and technical skills to conduct research, understand scientific journal articles, trouble-shooting, clearly explain and interpret research data
- Organizational skills to compile, organize and maintain accurate records
- Ability to operate laboratory equipment and to employ appropriate scientific lab techniques
- Proficiency in mathematical and logical analysis
- Sensitivity to the health and safety of others - safe handling, storage and disposal of hazardous chemicals
- Written and oral communication skills to prepare and present reports from research ideas and information using current technology
- Observation and decision making skills
- Team working in a multidisciplinary context
- Resource and time management
- Practical and fundamental knowledge of all subdisciplines of chemistry

Where can I go?
A degree in Chemistry 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:

- Environmental research
- Forensic science
- Environmental sustainability
- Materials science
- Patent law
- Pharmaceuticals
- Pharmacy
- Public health
- Quality control
- Sustainability design

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

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