

Chemistry (HBSc)

Specialist

Major

Minor

See also co-op option

Department of Physical & Environmental Sciences

Chemistry is the science that examines the building blocks of all matter; it attempts to explain the similarities and differences between substances and materials, and explains and theorizes how some substances react with others. Chemistry at UTSC is both a challenging intellectual pursuit and a powerful and practical tool for managing resources. The program includes four sub-disciplines: Analytic Chemistry, Inorganic Chemistry, Organic Chemistry, and Physical Chemistry. Laboratory work is an integral component of the program. The labs are sized to offer a small student/demonstrator ratio (maximum 20), which allows for close interaction and positive teaching and learning experiences.

Complementary Programs: Human Biology, Conservation and Biodiversity, Computer Science, Environmental Science, Neuroscience, Plant Biology, Health Studies

Make the most of your time at UTSC!

We want to help you maximize your university experience, so we've pulled together information and suggestions to get you started, although there are many more! As you review the chart on the inside pages, note that many of the suggestions need not be restricted to the year they are listed. In fact, activities such as joining a student club, engaging with faculty and seeking opportunities to gain experience should occur in each year of your study.

Check out future career opportunities and skills acquired from completing this program:

Competencies & Skills

- Engage in team-based research, analysis and problem solving
- Design and conduct laboratory research including data collection, analysis and interpretation
- Write technical reports and project proposals
- Present scientific research in an organized and succinct manner for a wide variety of audiences

Careers for Graduates

- Document Controller in Manufacturing
- Quality Control in Pharmaceuticals
- Chemist
- Policy Analyst in Government
- Clinical Research in Hospitals
- Clinical Sales in Medical Supplies
- Quality Assurance
- Scientific Writing

Further Education

- Chemistry
- Chemical engineering
- Education
- Medicine
- Pharmacy
- Law



Connect with Alumni at events on **CLNx** and through **Partners in Leadership**, **10,000 Coffees**, **LinkedIn** and more!

For more information go to:
uoft.me/alumni-services

**NEED HELP CHOOSING
YOUR PROGRAM?**

See uoft.me/choosing

Chemistry (HBSc) Major Program Pathway

HOW TO USE THIS PROGRAM PATHWAY

Read through each year; investigate what appeals to you here and in other Program Pathways that apply to you. Note that this Pathway is only a suggestion. **For the most up to date information, please check the UTSC Calendar.**

CHOOSE YOUR COURSES WISELY

YEAR 1 (0 - 3.5 Credits)

- 3.0 credits as follows: CHMA10H3, CHMA11H3, MATA30H3, MATA36H3, PHYA10H3, PHYA21H3.
- Explore different kinds of courses; this will also help with fulfilling breadth requirements and electives.
- Use Degree Explorer and the UTSC Calendar to plan your courses and program.

YEAR 2 (4 - 8.5 Credits)

- 3.0 credits as follows: CHMB16H3, CHMB23H3, CHMB31H3, CHMB41H3, CHMB42H3, CHMB62H3.
- Use Degree Explorer and meet with your Program Advisor to ensure you are on track with your degree.

YEAR 3 (9 - 13.5 Credits)

- 2.5 credits in CHM of which at least 2.0 credits must be at the C- or D-level and 0.5 credit at the D-level. Of these C- or D-level credits 0.5 must include a laboratory component (taken in year 3 or 4).
- Use Degree Explorer to ensure you are on track with your degree.

YEAR 4 or FINAL YEAR (14 - 20 Credits)

- Ensure you have fulfilled your breadth requirements.
- Use Degree Explorer to ensure you are on track to graduate.
- Register your "Intent to Graduate" on ACORN by the deadline.

DEVELOP YOUR ACADEMIC & RESEARCH SKILLS

- Attend Facilitated Study Groups.
- Schedule an appointment with your Program Librarian for in-depth library research assistance.
- Writing support is available at the Centre for Teaching & Learning (CTL) Writing Centre.
- Chemistry support is available at the Chemistry Help Centre.

- Check the Research Catalogue and jobs on CLNx for possible research opportunities.
- Drop by the Math & Statistics Learning Centre to have your course-related questions answered.
- Consider doing a directed research course: PSCB90H3 - Physical Sciences Research Experience.

- Volunteer in a research lab to gain experience for graduate or professional school.
- Enter to win the UTSC Library Undergraduate Research Prize or Poster Forum.

- Apply for the Academic Travel Fund through DSL to conduct research, present at a conference, or engage with the academic community internationally.

APPLY THEORY TO PRACTICE

- Attend the UTSC Faculty Mix & Mingle Fair to connect with professors and learn more about their specialties.
- Start building your Co-Curricular Record (CCR) and search for Experiential Learning opportunities.

- Check out Global Research Abroad opportunities through the International Student Centre (ISC) to gain valuable international and research experiences.

- Build on your skills and knowledge through relevant events offered through your department, student groups, DSL and the AA&CC.

- Attend the Summer & Full-time Job Fair in January to meet with potential employers looking to hire students for summer and full-time positions relevant to your field.

BECOME AN ENGAGED CITIZEN (LOCALLY & GLOBALLY)

- Join the Environmental and Physical Sciences Students' Association (EPSA) and Chemistry Society (CSU) and get involved in their activities.
- Volunteer in DSL's Alternative Reading Week program to gain experience and knowledge about social change and community development.

- Look into International Student Centre's (ISC) Global Learning opportunities, such as the Summer Abroad, Explore, or Student Exchange Programs.
- Participate in outreach events organized by EPSA and the Chemistry Society.

- Run for an elected position in EPSA or the Chemistry Society or another campus club.

- Participate in the AA&CC's Partners in Leadership program to learn and network with an alumni mentor about transitioning into the work field or further education.

PLAN FOR YOUR FUTURE CAREER

- Volunteer with organizations to explore your interests; check listings on CLNx.
- Attend the UTSC Get Experience Fair in September and register with SCSU's Volunteer Network Program to explore opportunities.

- Gain experience by applying for a summer, part-time or Work Study position via CLNx.
- Considering grad school? Speak to professors and advisors early so you are on track.
- Explore careers through the AA&CC's Job Shadowing and In The Field programs.

- Plan a career path with a staff member at the AA&CC.
- Check CLNx for networking events and employer information sessions to attend.
- Attend the Graduate & Professional School Fair in September.

- Attend the AA&CC's Get Hired job search conference in April/May.
- Attend a Jobs for Grads orientation for a job search "crash course" and for access to full-time job listings.
- Discuss grad school plans early with staff at the AA&CC and your professors; get your Personal Statement reviewed in the AA&CC.

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SERVICES AT UTSC THAT SUPPORT YOU:

To learn about resources and departments that can support you, download the UTSC Student Experience app or visit uoft.me/StARTNow

Diversity & Inclusion

The University of Toronto Scarborough commits to intentionally foster a welcoming and supportive environment for students, faculty, and staff where diversity is valued, and every member of the community feels a sense of belonging on campus.

utsc.utoronto.ca/edo/

Academic Integrity

The university community supports an environment of academic integrity; these are values that include honesty, trust, fairness, respect and responsibility. Learn about the university's academic rules and how to avoid accidental plagiarism by attending an Academic Integrity Matters (AIM) workshop.

academicintegrity.utoronto.ca/

Healthy Campus

UTSC provides supportive environments, resources and services to empower students to maintain their overall physical and mental health and foster their academic success.

uoft.me/healthycampus/

Co-Curricular Record

The co-curricular record is an official institutional document that recognizes your involvement outside the classroom as a significant part of your U of T experience.

clnx.utoronto.ca/ccr

DID YOU KNOW...

You can participate in directed research while pursuing a chemistry major.



FUTURE STUDENTS

For admission requirements to UTSC, check out the U of T Scarborough Viewbook or contact:

Admissions & Student Recruitment

University of Toronto Scarborough
Room HL104, Main Floor, Highland Hall
416-287-7529
admissions@utsc.utoronto.ca

CURRENT STUDENTS

Departmental Contact

Lana Mikhaylichenko,
lane.mikhaylichenko@utoronto.ca,
416-287-7207

Chemistry Librarian

Sarah Forbes,
s.forbes@utoronto.ca,
416-287-5616

Academic Advising & Career Centre

Room AC213 | 416-287-7561

Department of Student Life

Room SL157 | 416-208-4760

Environmental & Physical Sciences Students' Association (EPSA)

<https://www.myepsa.ca/>

Glossary of acronyms:

AA&CC - Academic Advising & Career Centre
CLNx - Career & Co-Curricular Learning Network
CCR - Co-Curricular Record
CSU - Chemistry Society at UTSC
CTL - Centre for Teaching and Learning
DSL - Department of Student Life
EPSA - Environmental and Physical Sciences Students' Association
ISC - International Student Centre
SCSU - Scarborough Campus Students' Union