

# Biochemistry (HBSc)

Department of Physical & Environmental Sciences

Specialist

Major

Minor

See also co-op option

The Major program in Biochemistry provides students with the opportunity to explore the chemistry of living systems. In the first two years, students take a suite of core courses in both biology and chemistry. In later years, students merge these disciplines through courses that explore the chemistry of proteins, enzymes and metabolism. This program is intended for students who are interested in biochemistry, but who do not wish to complete the more focused specialist in biological chemistry. The program is also excellent preparation for students wishing to pursue professional schools such as medicine, pharmacy or law.

**Complementary Programs:** This program cannot be combined with the Major Program in Chemistry

## 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

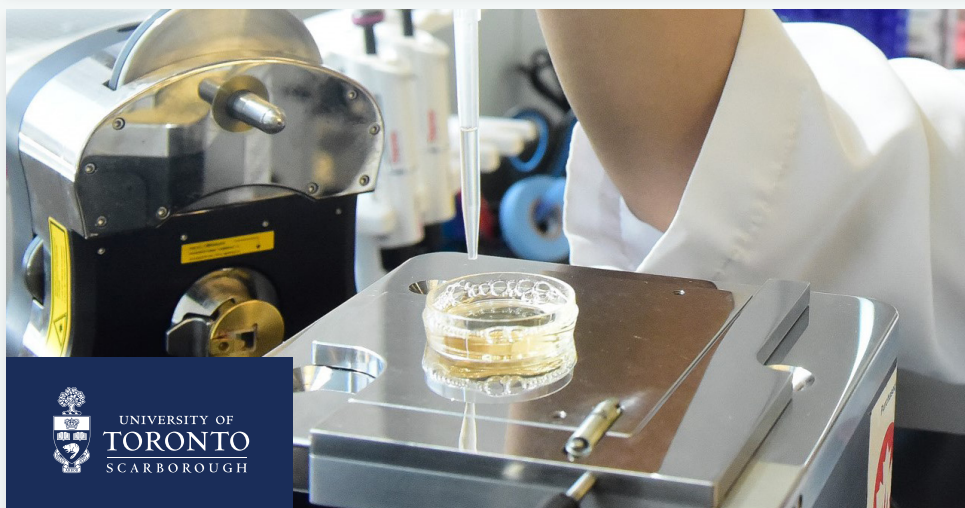
- Research, analysis and problem solving
- Design and conduct laboratory research including data collection, analysis and interpretation
- Write technical reports and project proposals
- Present research findings in an organized and succinct manner
- Apply modern analytical instrumentation to biological problems

### Careers for Graduates

- Quality Analyst in Product Development
- Scientific Affairs Liaison in Food Packaging
- Sales Representative in Manufacturing
- Drug Safety Assessor in Pharmaceuticals
- Scientific Analyst/Regulator in Government
- Environmental Scientist in Engineering
- Associate Product Manager in Medical Supplies

### Further Education

- Medicine
- Dentistry
- Pharmacy
- Law
- Engineering
- Genetics
- Biology
- Physics



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](http://uoft.me/alumni-services)

**NEED HELP CHOOSING  
YOUR PROGRAM?**

See [uoft.me/choosing](http://uoft.me/choosing)

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## 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.**

### YEAR 1 (0 - 3.5 Credits)

### YEAR 2 (4 - 8.5 Credits)

### YEAR 3 (9 - 13.5 Credits)

### YEAR 4 or FINAL YEAR (14 - 20 Credits)

#### CHOOSE YOUR COURSES WISELY

- Complete the following 3.0 credits: BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [MATA29H3 or MATA30H3], [MATA35H3 or MATA36H3].
- Use Degree Explorer and the UTSC Calendar to plan your courses and program.

- Complete the following 3.0 credits: BIOB10H3, BIOB11H3, BIOB12H3, CHMB16H3, CHMB41H3, CHMB42H3.
- Use Degree Explorer and consult with your Program Advisor to ensure you meet your degree and program requirements.

- Complete the following 2.0 credits: BIOC12H3, BIOC13H3, BIOC23H3, CHMC47H3.
- Take 0.5 credit from: CHMB20H3\*, CHMB23H3\*, CHMB31H3, CHMC11H3, CHMC41H3, CHMC42H3. (\*If CHMB20H3 or CHMB23H3 is selected, PHYA10H3 is required.)
- Take 0.5 credit from: CHMD47H3, CHMD69H3, CHMD71H3, CHMD79H.

- 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 and the Chemistry Help Centre.
- Drop by the Math & Statistics Learning Centre to have your course-related questions answered.
- Connect with your program librarian for research assistance and workshops.

- Explore research study courses such as PSCB90H3.
- Attend additional help sessions and research workshops organized by your course instructors.
- Sign up for Study Skills workshops offered by the Academic Advising & Career Centre.

- Explore volunteer opportunities; check with your department and on CLNx.
- Get writing support at the Centre for Teaching & Learning (CTL) Writing Centre.

- 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 Faculty-Student Mix & Mingle events to learn about volunteer research opportunities, Work Study jobs, Service Learning, and Outreach.

- Develop your Co-Curricular Record (CCR) by signing up for Experiential Learning opportunities; check listings on CLNx.

- Enter to win the UTSC Library Undergraduate Research Prize or Poster Forum.

- Explore ISC's Global Learning programs, DSL'S LEAD program, and Imani Academic Mentorship program for black youth.

#### BECOME AN ENGAGED CITIZEN (LOCALLY & GLOBALLY)

- Get involved with the Chemistry Students Association (CSA) and Environmental and Physical Sciences Students Association (EPSA) to learn more about volunteer opportunities.
- Get involved with professional student organizations such as MEDLIFE, Health Occupation Students of America (HOSA) UTSC, and Future Black Physicians.

- Volunteer for Let's Talk Science, High School outreach, and community outreach events.
- Look into International Student Centre's (ISC) Global Learning opportunities, such as the Summer Abroad, Explore, and Student Exchange programs.

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

- Participate in 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

- Attend program information sessions organized by the department.
- Volunteer with organizations to explore your career options.
- Attend the UTSC Get Experience Fair in September.
- Register with SCSU's Volunteer Network Program.

- Apply for discipline specific summer, part-time or Work-Study positions; check listings on CLNx.
- Explore research study courses such as PSCB90H3.
- Speak with your professors and advisors about your graduate study plans.

- Consult with staff at the AA&CC to plan your career path.
- Check CLNx regularly for networking events or employer information sessions.
- Attend the Graduate & Professional School Fair in September.
- Join a conference to develop your professional skills.

- 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 help with your CV and personal statement at 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](https://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/](https://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/](https://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/](https://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](https://clnx.utoronto.ca/ccr)

## DID YOU KNOW...

This program is part of the Combined Degree Program with the Master of Teaching (MT) offered by OISE.



## 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](mailto:admissions@utsc.utoronto.ca)

## CURRENT STUDENTS

### Departmental Contact

Dr. Effie Sauer & Dr. Nirusha Thavarajah,  
[biochemistry-major@utsc.utoronto.ca](mailto:biochemistry-major@utsc.utoronto.ca)

### Biochemistry Librarian

Sarah Forbes, [s.forbes@utoronto.ca](mailto: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.myepta.ca/>

## Glossary of acronyms:

AA&CC - Academic Advising & Career Centre  
CLNx - Career & Co-Curricular Learning Network  
CCR - Co-Curricular Record  
CSA - Chemistry Students Association  
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