Biochemistry is the chemistry of life in all living organisms, stretching from amoebae all the way to humans. Biochemists may study viruses, bacteria, yeast, and a remarkable array of cells cultivated from tissues. If you are taking a Biology course, you will likely learn important ideas relating to Biochemistry. Biochemistry encompasses an amazing variety of processes and chemicals that are vital to life. The Department of Biochemistry at the University of Toronto is one of the broader life science departments in all of Canada. This makes us an outstanding choice for students with a specific passion in Biochemistry as well as those seeking a broader education.

Applications of Biochemistry

The many and diverse applications of biochemistry include pharmacology, genetics, immunology, bioinformatics, environmental science, forensics, toxicological studies and food science. The career options are nearly endless, and still unfolding as new applications for this exciting field of study continue to evolve. A degree in Biochemistry will make you a life-long thinker, preparing you for careers that haven’t even been imagined.

Should I enrol in the Major or Specialist program?
If you plan to go to grad school and/or enjoy your first year labs, the Specialist program is highly recommended.

Will I get good grades in the Specialist program?
Since the courses are more in-depth, the learning curve may be steeper for specialist courses. Having hands-on research experience will definitely assist with your understanding of lecture material and good grades are possible by focusing your studies and participating in the smaller classes.

Is it useful to know Biochemistry?
Definitely! In research, biochemical techniques are very handy in all disciplines. Biochemistry is also one of the more difficult subjects in professional schools, e.g. medicine and dentistry. If you excel in our Biochemistry programs, you will be ahead of your classmates!

Are research courses very time consuming?
They can be. Research relies mostly on your own independent learning. Depending on your project goals, you will develop problem-solving and research skills. Lab experience is therefore a great way to sharpen your independent learning and critical thinking skills, making you stand out while looking for a job.

What jobs can I get with a Biochemistry degree?
With a Specialist degree, research experience can take you a long way because you gain both hard skills in the lab and soft skills such as communication and project management. With a double Majors degree, your cross training will open doors to many options.
The Department of Biochemistry’s Vision for Undergraduate Education

Our innovative programs generate scientifically literate, ethically responsible and engaged graduates. Students will develop in-depth biochemical knowledge at the molecular level, acquiring ongoing and transferable skills to address and solve future scientific problems. The department’s tight-knit community of faculty, graduate students, staff, their peers and alumni will provide students with the opportunity to build a strong network in biochemistry. As undergraduates, the major program emphasizes the importance of biochemistry in society, while the specialist program develops hands-on expertise through research-driven curriculum.

Graduates in our programs go on to diverse and exciting careers

- Laboratory Technician (industry/government/academia)
- Medical Professions
- Graduate Student
- Science Journalist
- Teacher
- Administrator
- Employee in biotech/pharma firms and investment firms specialized in biotech/pharma

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MAJORS

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<th>Diversity in course choices</th>
<th>Many opportunities in research/lab courses</th>
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<tr>
<td>Larger classes</td>
<td>Smaller classes</td>
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<td>Professional schools</td>
<td>Graduate and professional schools</td>
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<td>Broad knowledge combined with a second major</td>
<td>In-depth knowledge with an emphasis on biochemical research</td>
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<td>8 full courses</td>
<td>14 full courses</td>
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(Similar first year life science course requirements for both programs with a minimum 70% in BIO, CHM and MAT)

www.biochemistry.utoronto.ca/
undergraduate-program/