What is Biochemistry/Biological Chemistry?

Biochemistry and Biological Chemistry are Physical Sciences that examine the chemical processes of living systems. Both examine topics like:

- Toxins/poisons, their effects and how to neutralize them
- Enzymes/proteins: their composition, structure, function and activity
- DNA and RNA: structure, damage and repair
- Metabolism – chemical transformations that sustain life – and its pathways
- Structures and roles of carbohydrates and lipids
- And many more

Skills of Biochemistry Grads

- Engage in team-based research, analysis and problem solving
- Design and/or conduct laboratory research including data collection, analysis and interpretation
- Write technical reports and project proposals
- Present research findings/topics in an organized and succinct manner for a wide variety of audiences
- Application of modern analytical instrumentation to biological problems
- Use of current information databases and relevant software
- Engage in ethical research practices

What makes Biochemistry at UTSC unique?

- Both programs have award-winning, highly motivated and engaging instructors, as well as dedicated program supervisors
- The practical component of the programs takes place in a new building with state-of-the-art space and instrumentation.

Entry-Level Jobs for Bachelor Grads

Common employment destinations include:

- 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
- Junior Environmental Scientist in Engineering
- Associate Product Manager in Medical Supplies
- Junior Environmental Technician in Energy Production
- Technical Marketing Associate in Chemicals

*The Career Directory: www.canadastop100.com/tcd*

Graduate & Professional Studies

Popular further education opportunities include:

- Professional schools
  - Medicine
  - Pharmacy
  - Law
- Further graduate education
  - Biochemistry/biological chemistry – Master, PhD
  - Biochemical technology – graduate degree
- Genetics and engineering – graduate

Use LinkedIn!

UTSC Biochemistry graduates are working in Research, Education, and Healthcare.

Attend our LinkedIn workshop to learn about the Find Alumni tool!

Biochemistry Grads from UTSC have gone on to:

- Sick Kids Hospital (Pharmacist Student)
- Apotex (Senior Chemist)
- Coca-Cola Enterprises (Pension Analyst)
Examples of Fields that ‘Fit’ the Skills of Biochemistry Grads

- Government Regulation (Federal, Provincial)
- Healthcare
- Manufacturing
- Agribusiness (Farming, Food)
- Government Services (Municipal, Regional, Provincial, Federal)
- Research
- Education
- Energy

Your 4-Year Career Exploration Action Plan

1. Do Your Research

The databases below provide you with details about job prospects, nature of work, educational requirements, working conditions, pay and related career paths:

Career Cruising: Log into cln.utoronto.ca, click on Resources, and click on Career Cruising to be logged in automatically

O*Net: online.onetcenter.org (U.S. site)

Attend our workshop Discover Your Skills and Career Options, meet with a Career Counsellor, and use our resources to get to know your skills, values, personality and interests:

www.utsc.utoronto.ca/aacc/get-know-yourself

Use the advice on our tip sheets for gathering info:

- Information Interviews
- Working On-Campus
- Internships
- Volunteering

2. Explore Career Options & Get Experience

Gain exposure to your options in the world of work and make connections while you’re a student via campus events and programs listed on cln.utoronto.ca and ccr.utoronto.ca:

- Extern Job Shadowing
- In the Field
- Explore It! (course-based)
- Partners in Leadership (4th year students)
- iLead, uLead, weLead (Dep’t of Student Life)
- Employer Information Sessions
- Career & Volunteer Fairs
- Departmental Student Association Events

Apply for Work Study jobs on CLN in the Fall and Spring! You might also find work via www.scsu.ca/jobs.

- Find networking opportunities, internship programs and entry-level jobs via websites like www.talentegg.ca and www.charityvillage.ca.
- As an upper year student (14+ credits), attend UTSC’s Get Hired Conference and participate in Jobs for Grads.
- As a graduate, explore internships and other trainee programs like www.careeredge.ca

3. Build Your Network

Explore Professional Associations and get involved: volunteer for their events and conferences, and get to know people in your industry of interest. These are your future mentors, supervisors and colleagues!

- Environmental & Physical Sciences Student Association - www.myepsa.ca
- Canadian Society for Molecular Biosciences - www.csmb-scbm.ca
- BIOTECanada - www.biotech.ca
- Biotalent Canada - biotalent.ca/en/careerplanning
- Canadian Society of Clinical Chemists - www.cscc.ca
- Chemistry Industry Assoc’n - www.canadianchemistry.ca
- Chemical Institute of Canada - www.chemistry.ca
- Environmental Careers Organization - www.eco.ca
- Canadian Assoc’n of Pathologists - cap-acp.org
- Canada Pharma - www.canadapharma.org
- Cdn Society for Medical Laboratory Science - www.csmls.org
- Ontario College of Teachers – www.oct.ca
- Canadian Institute of Food Science - www.cifst.ca
- Ontario Food Protection Assoc’n - www.ofpa.on.ca
- Canadian Association for Professionals in Regulatory Affairs - www.capra.ca

Please note: This document is a starting point for your further research into career options in this field of study. For more information on this program and course requirements, please visit the departmental website at the top of the first page.