

## Biochemistry, Bachelor of Science

Biochemistry is a multidisciplinary field that combines the fields of biology and chemistry, often with physics and mathematics as well. Biochemists study the chemical make-up and products of living matter and the processes that occur in and between cells at the molecular level. They develop medical, agricultural, food science, pharmacological, industrial, environmental, and other practical applications of biochemistry. Biochemists are curious about how and why biological processes happen and they want answers right down to the nitty-gritty molecular level. They use novel techniques to get structural information far past the resolution of even the most sophisticated microscope! Yet, biochemists are also biologists because they want to know how molecular properties influence life processes. Therefore, biochemistry forms the backbone of many other subjects.

### What you can be with your Biochemistry, Bachelor of Science Degree:

|  |                             |                               |                                  |
|--|-----------------------------|-------------------------------|----------------------------------|
| Bacteriological Technician #2221             | Biological Researcher #2112 | Clinical Assistant #3414      | Pharmaceutical Salesperson #6221 |
| Food Technician #2211                        | Hunger Policy Analyst       | Laboratory Assistant #4122    | Research Assistant #4122         |
| Medical Equipment/Supplies Salesperson #6221 | Medical Illustrator #5241   | Pest Control Consultant #0651 | Water Quality Inspector #2263    |

### With additional education I could be a:

|                            |  |                                     |  |
|----------------------------|--|-------------------------------------|--|
| Patent Agent #4161         | Technology Transfer Officer                  | Informatics Specialist #2171        | Data Management Administrator              |
| Photographer #5221         | Administrative #1411                         | Biochemist #2112                    | Biostatistician #2161                      |
| Biochemistry Teacher #4141 | Biological Technologist #2221                | Chiropractor #3122                  | Crime Lab Analyst #6261                    |
| Dentist #3113              | Environmental Health Officer #2263           | Food Technologist #2211             | Forensic Pathologist #3111                 |
| Health and Social Policy   | Development and Program Administration #0411 | Hydrologist #2113                   | Professor #4121                            |
| Patent Lawyer #4112        | Public Administration Manager #0414          | Marketing Manager #0611             | Metallurgists and Material Scientist #2115 |
| Molecular Scientist #2121  | Naturopathic Physician #3123                 | Nuclear Medicine Technologist #3215 | Pathologist Assistant #3211                |
| Pharmacist #3131           | Public Health Director #0411                 |                                     |  |

This career/job listing is only a sample of the possible career options; these are certainly not the only career/job options accessible with this degree/diploma. Some of the careers listed require further education.

For career information, enter the four digit number listed below in the Alberta Learning Information Services Website ([www.alis.alberta.ca](http://www.alis.alberta.ca)) or the National Occupational Classification Website (<http://www5.hrsdc.gc.ca/NOC/>).

RDC Career Services can help you explore your interests, identify your goals, discuss your career options and job search strategies and discover how to make the most of your education. Email or give us a call to connect with a career counsellor.

RDC Department Information: Biochemistry, Bachelor of Science [rdc.ab.ca/programs/sciences](http://rdc.ab.ca/programs/sciences)

### Potential employers:

|                               |                            |                           |                                   |
|-------------------------------|----------------------------|---------------------------|-----------------------------------|
| Auditing Corporations         | Agricultural Industry      | Breweries                 | Biotechnological Firms            |
| Chemical Industry             | Colleges and Universities  | Educational Institutions  | Environmental Protection Agencies |
| Educational Publishers        | Food Processing Industries | Forensics Laboratories    | Government                        |
| Health & Sports Organizations | Hospitals & Health Care    | Non-Governmental Agencies | Pathological Laboratories         |
| Pharmaceutical Companies      | Public Relations           |                           |                                   |

### Major Skills Obtained from Biochemistry, Bachelor of Science Degree

- Problem solving
- Engage in ethical practice
- Critical and inferential thinking
- Strong mathematical background
- Able to observe, analyze, and interpret information
- Decision making
- Willingness to take risks
- Take Pleasure in Learning New Skills
- Sensitive to Health and Safety of Others
- Define research problems
- Review scientific literature
- Observe data
- Patience
- Curiosity
- Process data
- Utilizing formulas
- Remain objective
- Developing theories
- Science and math ability
- Work independently or in groups
- Perform experiments
- Explaining ideas clearly
- Team Player
- Organization

### Professional Associations and Sites of Interest

The Canadian Society for Chemistry - [www.chemistry.ca/](http://www.chemistry.ca/)  
 Canadian Society for Medical Laboratory Science- [www.csmls.org](http://www.csmls.org)  
 ECO Canada (Environmental Careers Organization) website: [www.eco.ca](http://www.eco.ca)

Canadian Society of Biochemistry, Molecular and Cellular Biology website: [www.csbmcb.ca](http://www.csbmcb.ca)  
 Canadian Society of Clinical Chemists and Canadian Academy of Clinical Biochemistry websites: [www.csc.ca](http://www.csc.ca)  
 Chemical Institute of Canada website: [www.cheminst.ca](http://www.cheminst.ca)

Information adapted from [mcgill.ca/caps](http://mcgill.ca/caps)