What to do with a degree in

BIOINFORMATICS

Computers are playing an essential role in changing our understanding of all levels of biological organization. Bioinformatics addresses the unique issues presented by applying computers to biological systems. The use of computational approaches in biology has led to new insights into the most basic and oldest questions in biology. All of these advances have led to new opportunities to do leading-edge science and many career opportunities.

KEY SKILLS & KNOWLEDGE

Problem-solving - Defining and solving problems; Approaching topics and problems from various perspectives; Analyzing multiple dimensions of a problem; Decision making skills; Advanced quantitative abilities; Trouble shooting

Research - Collection, analysis and interpretation of data; Organizing vast amounts of data and research results; Creative and logical thinking

Analytical and critical thinking: Synthesize complex information; logical reasoning; critical thinking; in-depth knowledge of biological theory; understanding of scientific method of inquiry.

Technical - Aptitude for computer languages and programming; Database management; Computer programming; Operate scientific/laboratory equipment and instruments; understand laboratory process.

Verbal and written communication - Ability to summarize, condense and organize ideas and information; Ability to articulate, explain, and teach technical information to others

SAMPLE JOB TITLES

Agricultural Inspector
Bioinformatics Scientist
Bioinformatics Technician
Biologist
Biomedical Engineer
Biostatistician
Biotechnologist
Computer and Information Research Scientist

Computer and Information Systems Manager
Computer Programmers
Ecologist
Geographic Information Systems Technician
Geospatial Information Scientists and Technologist
Informatics Nurse Specialist
Information Security Analyst

Information Technology Project Manager
Medical Equipment Repairer
Medical Records and Health Information Technician
Molecular and Cellular Biologist
Software Developers, Applications
Statistician
Toxicologist

Some of these roles may require further training, certification or education. Check out the Alberta Government’s occupational profiles for salary info and more detail: alis.alberta.ca/occinfo

Need help deciding what to do?

Formal Career Assessments like the Strong Interest Inventory and the Myers Briggs Type Indicator can be helpful tools for your career development. Request an assessment via CareerLink
### Potential Fields

- Biotechnology Company
- Research and Development Laboratories
- Chemical, Pharmaceutical and Biotechnology Companies
- Conservation Organizations
- Environmental and Engineering Consulting Firms
- Federal, Provincial and Local Government Departments and Agencies
- Financial Institutions
- Food Processors
- Forestry Companies
- Governments
- Health and Educational Schools
- Hospitals
- Law Firms
- Manufacturers of Agricultural Products
- Market Research Companies
- Medical and Educational Research Agencies
- Medical and Veterinary Research Organizations
- Medical Equipment and Pharmaceutical Manufacturers
- Medical Institutions
- Natural Resource Companies
- Oil and Gas Companies
- Paper Manufacturers
- Research Institutions
- Science and Engineering Consulting Firms
- Statistics Canada
- Universities and Colleges
- University Research Laboratories
- Utility Industries
- Venture Capital Firms

### Associations & Professional Development

- Alberta Society of Professional Biologists (ASPB)
- Bioinformatics and Bioengineering Technical Committee (BBTC)
- Bioinformatics Organization
- British Society for Cell Biology
- Canadian Society of Plant Biologists
- CIPS Alberta - Canadian Information Processing Society
- Environmental Services Association of Alberta (ESAA)
- International Society for Clinical Biostatistics (ISCB)
- International Society for Computational Biology (ISCB)
- Molecular Graphics and Modelling Society (MGMS)
- World Association of Theoretical and Computational Chemists

### Student Clubs

- Health Sciences Students’ Association: [https://cumming.ucalgary.ca/bhsc/contact-us/student-faculty-liaison-committee](https://cumming.ucalgary.ca/bhsc/contact-us/student-faculty-liaison-committee)
- Biology Students’ Association: [http://www.bsau.ucalgary.ca/](http://www.bsau.ucalgary.ca/)
- Youreka Calgary: [https://www.yourekacanada.org/](https://www.yourekacanada.org/)

### Books & Publications

- Bioinformatics - Power to Biotechnology
- Your Passport to a Career in Bioinformatics
- Career Development in Bioengineering and Biotechnology: Roads Well Laid and Paths Less Traveled (Series in Biomedical Engineering)
- International Society for Clinical Biostatistics (ISCB)
- International Society for Computational Biology (ISCB)
- Molecular Graphics and Modelling Society (MGMS)
- World Association of Theoretical and Computational Chemists

### Faculty Contact

Room G503
O’Brien Centre for the Bachelor of Health Sciences
3330 Hospital Drive NW
T: 403.220.3751; E: [bhsc@ucalgary.ca](mailto:bhsc@ucalgary.ca)
W: [cumming.ucalgary.ca/bhsc/](http://cumming.ucalgary.ca/bhsc/)
W: [ucalgary.ca/admissions/programs](http://ucalgary.ca/admissions/programs)

### Career Services

**YOUR FUTURE STARTS HERE**

- Career Planning
- Job Search Support
- Resume Reviews
- Career Workshops
- Online Job Postings
- Career Fairs
- Networking Events
- Information Sessions & much more!

### Connect with us:

MacEwan Student Centre, Room 188
T: 403.220.8020
E: csstndnt@ucalgary.ca

CareerLink: [ucalgary.ca/careers](http://ucalgary.ca/careers)

LinkedIn: [www.linkedin.com](http://www.linkedin.com)

**Job Boards**

- Alberta Health Services: [www.albertahealthservices.ca](http://www.albertahealthservices.ca)
- Bioinformatics.ca: [bioinformatics.ca/job-postings](http://bioinformatics.ca/job-postings)
- International Society for Computational Biology: [careers.iscb.org/jobs](http://careers.iscb.org/jobs)
- Science Careers: [jobs.sciencecareers.org](http://jobs.sciencecareers.org)
- Indeed: [www.indeed.ca](http://www.indeed.ca)
- LinkedIn: [www.linkedin.com](http://www.linkedin.com)
- CareerLink: [careerlink.ucalgary.ca](http://careerlink.ucalgary.ca)

### Aligned Majors:

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- Youreka Calgary: [https://www.yourekacanada.org/](https://www.yourekacanada.org/)

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