

LAKEHEAD UNIVERSITY MULTILATERAL AGREEMENT

APPLIED LIFE SCIENCES

Offered at the Thunder Bay Campus

Applied Life Sciences pertains to the role of molecules in living organisms and, by extension, the human manipulation of molecular biological processes. Study the functions of nucleic acids, proteins, polysaccharides and lipids and how their interactions regulate metabolism. The Applied Life Sciences program emphasizes the development of both knowledge and hands-on skills.

Honours Bachelor of Science (HSc)

Applied Life Sciences major

Applied Life Sciences is an exciting interdisciplinary program that focuses on modern applications of bio-molecular research in Anthropology, Chemistry, Biology, and Physics. The program allows you the flexibility to select courses from several fields and thus gain a deep understanding of the functions of biologically-derived molecules.

This program emphasizes the development of practical and marketable experience. You will acquire skills in cutting-edge molecular biology, biotechnology and diagnostic methods in Lakehead University's world-renowned labs such as the Paleo-DNA Lab specializing in ancient DNA analysis.

Careers

Graduates can anticipate any number of career opportunities relating to science at the molecular level. Lakehead graduates have entered into rewarding careers in medicine, dentistry, pharmacological science, forensic science, biotechnology, diagnosis, lab technology and biochemical/food analysis. Alternatively, many enter graduate studies to pursue Master's and Doctoral degrees in molecular science. Careers that the Applied Life Sciences program may lead to include:

- Biochemical Engineer
- Biologist
- Biotechnical Engineer
- Chemist
- Diagnostic Audiologist
- Diagnostic Radiologist
- Ecologist
- Family Physician
- Food Analyst
- Forensic Chemist
- Forensic Examiner
- Forensic Lab Analyst
- Geneticist
- Laboratory Technician
- Laboratory Tester
- Microbiologist
- Molecular Biologist
- Molecular Geneticist
- Molecular Physiologist
- Mycologist
- Process Analyst
- Professor
- Quality Control Technician
- Registered Technologist
- Teacher
- Toxicologist
- X-Ray Technician

Admission Requirements

Graduates of a 2-year diploma program in Biotechnology from an Ontario college, with a minimum average of 75%, may be considered for admission into the second year of the Honours Bachelor of Science (Applied Life Sciences Major).

Graduates of a 3-year diploma program in Biotechnology from an Ontario college, with a minimum average of 75%, may be considered for admission into the third year of the Honours Bachelor of Science (Applied Life Sciences Major).

Applications to these programs can be made with a 105D Application form obtained from the Ontario Universities' Application Centre (OUAC): ouac.on.ca

A Diverse Range of Study

You can look forward to continuing your exploration in the areas of:

- Intro to DNA Molecular Methods
- Biochemistry
- Animal Physiology
- Medical Anthropology
- Human Skeletal & Dental Biology
- DNA in Forensic Science
- Molecular Paleopathology
- Molecular Genetics
- Ancient DNA Internship
- Cancer Biology
- Plant Physiology & Biotechnology
- Pathogenic Microbiology
- Limnology
- Introduction to Optics
- Molecular Biology of Development
- Biogeography
- Forensic & Archeological Microscopy

