## Algoma BIOLOGY

## EXPERIENCE MAP



#### WHY BIOLOGY AT ALGOMA U?

What Algoma's Biology program offers is hands-on experience. First, many of our courses have weekly labs, ensuring that students see and touch the biology they are learning about. Second, because we are relatively small, our Biology students have more opportunities to conduct research with our professors, who are excellent researchers. In fact, our full-time faculty members typically hire 15-20 students each summer and many more volunteer or work with faculty under the Work Study program during the academic year. Third, Biology offers two internship courses that allow our students to work with external companies, research institutes, or faculty researchers depending on their interests. Finally, a key element of the four-year biology is the honours thesis course in which our students undertake an advanced research project. We take pride in giving students opportunities and experiences that allow them to graduate from our biology program as experienced scientists.

4th Year Thesis Course

Students in our program have the option of

delving deeper into a specific area of interest in our honours thesis course. Thesis students work directly with a faculty supervisor to design and execute a scientific research project. Students collect and analyze their data, then present their results in our Thesis Research Colloquium. Many students have gone on to present their research at national and even international conferences and have published their research in peer-reviewed scientific journals, a rarity for undergraduates. It is no surprise that many of our graduates have been accepted to graduate schools and professional programs (e.g. Medicine). We believe that our program gives students truly unique opportunities.

#### **COURSE HIGHLIGHTS**

Our courses provide a broad introduction to the breadth of topics within the field of Biology. Our program also includes many courses that teach students important components of experimental design and the scientific method. We have a wealth of courses addressing topics related to human biology, which students interested in medical

fields generally pursue (e.g. Human Anatomy & Physiology, Biomedical Ethics, Nutritional Science, Cancer Biology).In addition a larger collection of courses are offered for students with diverse interests.

#### **LEARNING OUTCOMES**

- Understand the key concepts and theories in the biological sciences.
- Explore the current state of knowledge in the biological sciences and investigate innovative solutions to biological problems using an integrative approach.
- Apply versatile and comprehensive knowledge of the theory, principles, and concepts in the biological sciences and foundational scientific disciplines in an integrative manner.
- Understand and analyze complex issues by applying scientific data in a multidisciplinary context.
- Generate novel research questions and hypotheses, collect and analyze data, and formulate and defend appropriate conclusions, using a rigorous scientific methodology.
- Think critically, particularly with respect to science and technologybased decision making.
- Communicate scientific information effectively in both written and oral format to a variety of audiences.
- Participate in collegial peer review processes.
- Contribute as an effective team member in collaborative and multidisciplinary research teams, both as a participant and as a leader.



## WHY STUDY AT ALGOMA U IN SAULT STE. MARIE?

Algoma U is located in Sault Ste. Marie, a city of 75,000 people in Northern Ontario. "The Soo", as locals call it, has all the amenities of a big city – shopping, entertainment, sports teams, festivals, and cultural activities – but without the hassle of traffic.

We're lucky enough to live in a city surrounded by the great outdoors. With Lake Superior and the St. Mary's River literally just steps from our front door, there's always something to do. You can catch some sun at the beach or walk our beautiful boardwalk. With the highest elevation in Ontario, Searchmont Resort is a popular winter destination for our students, offering great alpine skiing and snowboarding.

#### **ADMISSION REQUIREMENTS**

ENG4U, MHF4U, 2U/M Sciences (Biology & Chemistry recommended). Minimum 70%.

Applying to Algoma U is simple. We're ready to help answer all of your questions and more. Before you know it, you'll be walking across campus to your first class.

algomau.ca/apply

#### GAIN. EXPERIENCE.

Experiential Learning is "learning by doing." There are many experiential learning opportunities in the classroom, lab and in the community. Students in the Biology program have participated in labs, internships, and conferences. A full inventory of Biology experiential learning opportunities is listed in this Experience Map.

## SKILLS EMPLOYERS ARE SEEKING

With over 2,000 business leaders surveyed, the top skills they would like to see in their employees include:

- 1. Leadership
- 2. Communication
- 3. Collaboration
- 4. Time Management
- 5. Understanding the impact of technology
- 6. Consistent global training

#### **USING THIS EXPERIENCE MAP**

Making a plan in first year will lead to your success. We're ready to assist you with your plan.

This Experience Map offers suggestions, which is a guide to explore many options.

Understanding where you want to be will help you make the correct decisions to get you there.

We're also here to help you with your physical and mental well-being. We want you to succeed in all aspects of your life. For further assistance, visit Student Success Central, in NW307.









### GAIN. EXPERIENCE.

# BIOLOGY











can pursue in the future.

Learning Hub.

assistance.

**STUDENT** 

**SUCCESS** 

Attend career related workshops in the Experiential

Visit Career Services in the Experiential Learning HUB for

LST YEAR	2ND YEAR	3RD YEAR OR FINAL YEAR	4TH YEAR OR FINAL YEAR
BIOL1506*/1507*, CHMI1006/1007 6 credits from Group III Sciences at 1000 series Math 1036 MATH1037 OR 1057 OR PHIL1116 *60% required Electives: 6 credits from group I – Humanities and/or group II – Social Sciences Meet with your Academic Advisor to select courses.	Questions about rules and regulations in your program? See your Academic Advisor in Student Success Central.	Continue to meet with your Faculty Advisor to ensure you are meeting program requirements and academic goals.  This is a good time to investigate a Master's Degree, Postgraduate Diploma or Bachelor of Education. Please make an appointment in Student Success Central for full details.	Complete degree requirements and ensure you've mall deadlines for post-graduate options.  Apply to graduate.
Take COOP0101 as a first step to be enrolled in the co-op program at Algoma University. Check your Student Portal for job postings.  Visit the Experiential Learning HUB to learn about exciting opportunities! Start connecting to career opportunities in your first year by joining the Career Link Program.	Use the skills gained from COOP0101 to apply for a co-op placement or summer job. Continue to keep an eye out for job opportunities on your Student Portal.  Listings include general employment, local/non-local coop opportunities, on-campus employment and volunteer opportunities.	Attend the fourth-year thesis presentations to gain knowledge to prepare yourself to complete your thesis project.  Apply for co-op opportunities to gain experience and improve your network.  Courses with EL component.	Complete a thesis and present it to fellow classmate faculty and other AU community members!  Take advantage of the New Graduate Transition Program!  Courses with EL component.
Get involved with volunteer opportunities on campus with the Food Bank, the Thunder Street Team or apply to be an Orientation Week leader. Come support our Varsity Thunderbird athletic teams and participate in Intramurals at the GLC.  Consider joining one of the many clubs through AUSU or get involved with SASA.  Be sure to sign up for one of our historical campus tours.	Volunteer off campus. Reach out to local organizations such as: Algoma Public Health, the John Howard Society, Algoma Family Services, THRIVE Child Developmental Centre, or the Sault Area Hospital. For more volunteer opportunities visit Volunteer Sault Ste. Marie.  Think about running for a position with the Algoma University Students' Union.	Update your LinkedIn profile and connect virtually with alumni, classmates, faculty and professionals in the Biology field.  Networking is the most important technique to get jobs in today's society, over 75% of jobs come from networking.	Consider joining professional associations like the Canadian Society for Molecular BioSciences, BIOTECanada, and the Canadian Society for Ecolog and Evolution.  Join groups on LinkedIn reflecting your field of study Join groups on LinkedIn reflecting specific careers of topics of interest in Biology.
Attend a Study Abroad info session and consider studying in the UK, Spain, South Korea, Italy, France, Austria and more! See which places appeal to YOU.  Speak to the Mobility Coordinator from the EL Hub to gather information on the various global engagement opportunities.	Are you interested in doing an exchange, short term abroad and internship abroad program in your second or third year? Check out Study Abroad opportunities and submit your application by the deadline.  Your next adventure is waiting!	Get involved with other cultures on campus or improve your language skills taking some of our Modern Language courses or interacting with International students on campus!  Consider Summer Study Abroad or Internship opportunities. Gain experience, knowledge and have the opportunity to tour a new country while studying and working!	If you are an international student looking to stay in Canada to work, talk to a Student Success Academi Advisor.  To learn more about working in Canada, volunteer a Discover the Sault through the Economic Developm Centre.
Check out Career Cruising (login: algomauc password: saultstemarie) to determine potential career paths that you	LinkedIn Learning, available through your Student Portal, offers you thousands of excellent courses that	Start focusing on areas of interest and research education requirements for your career path.	Use the resources available in Career Services to lead about the many job opportunities available to you

Reach out to your Academic Advisor, Student Success

Central or your faculty advisor to assist you in applying

Take some time to create or update your resume and

to a Master's Degree, Post-graduate Diploma or

Bachelor of Education.

LinkedIn profile.

AFTER GRAD?

After completing a degree in Biology, students are open to an array of career paths and opportunities.

Many of our students pursue graduate programs and go on to pursue exciting careers in many areas.

Graduates can and have pursued:

- Research
- Health Care
- Education
- Environmental

Management and

Conservation

• Museums,

Aquariums, Zoos,

Parks, and Nature

Centres

Biotechnology

upon graduation. Attend career related events hosted

Watch for the many workshops available to all students

on resume writing, job searching strategies and

by the Experiential Learning Hub.

networking.

- Forensic Science
- Politics and Policy
- Business and Industry

Always remember to put your health first! Hit the GLC for some calming Yoga or an intense workout or take walks around campus to clear your mind.

your LinkedIn profile.

If you're feeling depressed, anxious or upset don't worry YOU ARE NOT ALONE. – Download the I.M. Well App or call 1-877-234-5327 for 24/7 free counselling or book an appointment with an on-campus counsellor by emailing healthservices@algomau.ca.

will help you learn the skills you need to achieve your

full potential. Once you complete a learning path it will

automatically be displayed as an accomplishment on

Use Optimal Resume to improve your resume and

cover letter as well as practice your interview skills.

We're here for you. Visit the Learning Centre for information on free tutoring and learning strategies.