

WHY COMPUTER SCIENCE AT ALGOMA U?

The application of computer science ranges from simple game play to the control of space vehicles, power plants, and factories, from banking machines to medical diagnosis. Today's society is living in a revolution powered by computers. The growth in the past decade in both computer technology and application has been exponential, and the demand for graduates with computer science degrees is high, and is expected to remain so in the decades to come. Thus, by earning a degree in computer science, students are filling the need and high demand for computer scientists in today's technologically advanced society. Are you creative or innovative? Many people do not realize that a large component of computer science is creativity and innovation.

A computer science degree allows students to create new designs and explore their wildest imaginations. Computing drives innovation in the sciences (including the Human Genome Project, AIDS vaccine research, environmental monitoring and project, among others), but

also developments in engineering, business, entertainment, and education. Many who want to make a positive difference in the world around them study computer science. Given the high level of skill and the ability to work with sophisticated computer software and technology, computing jobs are some of the highest paid jobs in today's economy. Not only are they among the highest paid, far beyond the \$100,000 mark, but they also have the highest job satisfaction.

COURSE HIGHLIGHTS

Students enrolled in the four-year Bachelor of Computer Science (B.Cosc.) program can further enhance the quality of their degree by specializing in one of three minors: computer game technology; computer game technology and creative arts; or mobile software engineering. In the computer game technology minor, students will apply their foundational programming knowledge to the design and development of video game software. The computer game technology and creative arts minor enables students who are interested in the artistic aspects of computer games, such as the writing of

plots, the development of game flow, and the development of graphics and music, to extend their analysis and design skills to these areas.

The Mobile Software Engineering minor enables the student to apply the foundation skills of Computer Science to the development of applications and systems that implement the use of mobile devices in modern computer systems.

LEARNING OUTCOMES

- Understand the core concepts of Computer Science, both theoretical and applied.
- Apply a sound knowledge of Computer Science to the identification, analysis and solution of Computer Science problems.
- Apply a high level of knowledge and skills in the application of computer programming to software development.
- Utilize a variety of languages and tools to solve Computer Science problems;
- Apply critical and creative thinking to a wide variety of problems.
- Understand the professional, ethical and legal issues associated with the Computer Science profession.



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

For BCOSC: ENG4U, MHF4U, 1 other U/M Math.

For BSc: ENG4U, MHF4U, 2 other U/M Sciences (Physics & Chemistry recommended).

A minimum average of 65%.

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 Computer Science program have participated in field experience, labs, simulations and experimentation. A full inventory of Computer Science 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.

 Questions?
info@algomau.ca



1ST YEAR

COSC1046*/1047* and MATH1056/1057
*Minimum 60% required
Electives:
12 credits from among: Group I – Humanities, Group II – Social Sciences
Group IV – Professional Programs
6 credits from Group III (Outside Computer Science)
Meet with your Academic Advisor to select courses.

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](#).

[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.

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.

Check out [Career Cruising](#) (login: algomau password: saultstemarie) to determine potential career paths that you can pursue in the future.

Attend career related workshops in the [Experiential Learning Hub](#).

Visit [Career Services](#) in the [Experiential Learning HUB](#) for assistance.

2ND YEAR

Make an appointment with your Faculty Advisor in early February to develop your academic plan.

Questions about rules and regulations in your program? See your Academic Advisor in Student Success Central.

Want to enhance your degree? Consider a [minor or certificate](#).

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.

[Courses with EL component.](#)

Volunteer off campus. Reach out to local organizations, such as: [Algoma Business Computers](#) or [Sault Web Design](#). For more volunteer opportunities visit [Volunteer Sault Ste. Marie](#).

Think about running for a position with the [Algoma University Students' Union](#).

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!

[LinkedIn Learning](#), available through your [Student Portal](#), offers you thousands of excellent courses that 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 your [LinkedIn](#) profile.

Use Optimal Resume to improve your resume and cover letter as well as practice your interview skills.

3RD YEAR OR FINAL YEAR

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.

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.](#)

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.

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!

Start focusing on areas of interest and research education requirements for your career path.

Reach out to your [Academic Advisor](#), [Student Success Central](#) or your faculty advisor to assist you in applying to a Master's Degree, Post-graduate Diploma or Bachelor of Education.

Take some time to create or update your resume and [LinkedIn](#) profile.

4TH YEAR OR FINAL YEAR

Complete degree requirements and ensure you've met all deadlines for post-graduate options.

[Apply to graduate.](#)

Complete a thesis and present it to fellow classmates, faculty and other AU community members!

Take advantage of the New Graduate Transition Program!

[Courses with EL component.](#)

Consider joining professional associations, such as: the [Canadian Information Processing Society](#), [IEEE Computer Society](#), and the [Association for Computing Machinery \(ACM\)](#).

Join groups on [LinkedIn](#) reflecting specific careers or topics of interest in Computer Science.

If you are an international student looking to stay in Canada to work, talk to a [Student Success Academic Advisor](#).

To learn more about working in Canada, volunteer at [Discover the Sault](#) through the Economic Development Centre.

Use the resources available in [Career Services](#) to learn about the many job opportunities available to you upon graduation. Attend career related events hosted by the [Experiential Learning Hub](#).

Watch for the many workshops available to all students on resume writing, job searching strategies and networking.

AFTER GRAD?

After completing a degree in Computer Science, 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:

- Computer Programmer
- Computer Trainer
- Database Developer
- Video Game Developer
- Web Developer
- Business Systems Analyst
- Management Consultant
- Project Manager
- Software Analyst
- Systems Architect or Analyst
- Information Specialist

**GET
ASSISTANCE**

**GET
EXPERIENCE**

**GET
CONNECTED**

**GET THINKING
GLOBALLY**

**GET READY
FOR LIFE
AFTER
GRADUATION**

