

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



algomau.ca/computer-science



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1ST YEAR

2ND YEAR

3RD YEAR OR FINAL YEAR

4TH YEAR OR FINAL YEAR

AFTER GRAD?



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.

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**.

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, Post-graduate Diploma or Bachelor of Education. Please make an appointment in Student Success Central for full details.

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

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



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 the EL component.

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 co-op opportunities, on-campus employment and volunteer opportunities.
Courses with EL component.

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 classmates, faculty and other AU community members!
Take advantage of the New Graduate Transition Program!
Courses with EL component.

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



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.
Be sure to sign up for one of our historical campus tours.

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**.

Update your **LinkedIn** profile and connect virtually with alumni, classmates, faculty and professionals in the Computer Science 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 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.

Graduates can and have pursued:



Attend a **Study Abroad** info session and consider studying in China, Spain, South Korea, Mexico, France, Austria or Japan and see which places appeal to YOU.
Gather information on the various global opportunities. Algoma U is proud to offer **Study Abroad** and the Student Work Abroad Program.

Are you interested in doing a study exchange? Check out **Study Abroad** and attend an information session to get the info you need and to ensure your application is submitted by the deadline.
Your next adventure is waiting!

Improve your language skills through some of our Modern Language courses or learn about another culture.
Consider doing a **Short-Term Summer Study Abroad** opportunity gain experience, knowledge and have the opportunity to tour a new country while working!

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.

- Computer Programmer
- Computer Trainer



Check out **Career Cruising** (login: algomauc password: saultstemarie) to determine potential career paths that you can pursue in the future.
Bring your resume to the next level! **Optimal Resume** is an excellent resource to develop your resume and cover letter. Visit **Career Services** in the **Experiential Learning HUB** for assistance.

Lynda.com is available to 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.

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.

Use the resources available in **Career Services** to learn about the many job opportunities available to you upon graduation.
Attend the Career Conference to get some professional advice from the **Sault Community Career Centre** on your resume, job searching strategies and interview tips.

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



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