

### What can I do with a Major in **Computer Science**?



**For more information on the Computer Science Major at the U of L:**

<http://www.uleth.ca/artsci/math-computer-science/>

**Faculty of Arts & Science**

C526 University Hall

Phone: 403-329-2470

Email: See [Contact Website](#)

Academic Advising:

<http://www.uleth.ca/ross/academic-advising>

### The Computer Science Program at the University of Lethbridge

Computer Science is the study of algorithms and data structures, and their applications in designing new and efficient solutions to industrial, technological, environmental, or social problems. Computer Science students will learn to tackle difficult problems using a variety of high-tech tools and approaches. The program is designed to enable students to gain both theoretical knowledge and practical experience, including access to state-of-the-art hardware and software in computer labs.

The department of Mathematics and Computer Science offers a major in Computer Science for the Bachelor of Science and Bachelor of Arts & Science degree programs. Students may also consider the multidisciplinary major of *Computer Science & Geographical Information Science*. Students may also choose to instead complete a Bachelor of Management, majoring in Computer Science. Visit the Computer Science [Management Website](#) for more information.

### Skills Developed

- Active Learner
- Analyze and Interpret Data
- Attention to Details
- Communication
- Confidence in Knowledge & Suggestions
- High Ethical Standards
- Interest in Designing and Operating Systems
- Interpersonal Skills
- Logical and Critical Thinking
- Organizational Ability
- Patience
- Prepare & Organize Records
- Reading Comprehension
- Research
- Teamwork
- Technical Proficiency
- Work Independently

### Work Environments

The demand for graduates in the general field of computer science has seen almost unprecedented growth in recent years. Most graduates have careers programming in industry, where a constant shortage of computer scientists results in steady employment. Computer science graduates may work within computer system designing firms, software development or vendor companies, internet service providers, data processing and management firms, software or hardware manufacturing companies, financial institutions, insurance companies, consulting firms, computer companies, telecommunications companies, retailers, healthcare organizations, entertainment institutions, environmental management

firms, transportation companies, education/research institutions, or federal or provincial governmental organizations.

#### Key Areas of Specialization:

Programming (Business and Scientific Applications), System Development (Database, Client-Server or Expert), Network Technology (Installation, Maintenance and Administration), Internet (Software Design, Systems Analysis, Hardware Production, Webpage Design and Programming), Consulting (System Installation and Implementation), Education

### Entry Level Job Titles

These jobs are normally intended for new graduates and require 0 to 2 years of experience. It is important to note that many entry level positions require *some* related experience or demonstrated ability to perform job-related tasks. Even those positions that do not *require* experience will still prefer an experienced candidate, if one is available.

- Computer Systems Analyst
- Computer/Science Associate
- Helpdesk Support
- Information Systems Analyst
- Information Systems Technician
- IT Consultant (Entry Level)
- IT Professional (Entry Level)
- IT Support Assistant
- Junior IT Support Supervisor
- Junior System Administrator (Entry Level)
- Net Programmer
- Network Operations Assistant
- Programmer
- QA Analyst
- Software Developer (Entry Level)
- Solutions Specialist
- System Integration (Entry Level)
- Web Developer

**Note:** The U of L offers various resources and programs to facilitate students in gaining work and volunteer experience. Find an entry level position on the [CES job board](#) or join the [Management](#) or [Arts & Science](#) Cooperative Education Programs. Summer jobs, part-time work, internship positions and volunteer experience help students to enhance their skillset and accumulate work experience for their future career.

### Related Job Titles

These jobs generally require extensive, relevant work experience and/or further education.

- Aerial Photogrammetry Technician
- Aerial Survey Technician
- Animator
- Business Continuity Planner
- Career and Technology Studies Teacher
- Cartographer
- Cartographic Designer
- Chief Information Officer
- College/Vocational Instructor
- Computational Linguistics
- Computer-Aided Manufacturer
- Computer Game Programmer
- Computer Network Administrator
- Computer Programmer
- Computer Security Consultant
- Computer Security Specialist
- Computer Services Technician
- Computer Support Analyst
- Data Administrator/ Developer
- Data Communication Analyst
- Data Miner
- Data Retrieval Specialist
- Database Analyst
- Database Designer
- Database Manager
- Digital Forensics
- Digital Graphic Artist
- Embedded Systems Designer
- End User Computing Practice Manager

- End User Desktop Architect
- End User Support Lead
- Environmental Engineer
- Exploration Geophysicist
- Forensic Laboratory Analyst
- GIS Analyst
- GIS Programmer
- GIS Technician/Technologist/Specialist
- Graphic Programmer
- GUI Designer
- Information System Consultant
- Information System Developer
- Information System Quality Assurance Analyst
- Information Systems Manager
- Information Technology Manager
- Instructional Designer
- Interactive Media Programmer
- Interactive Multimedia Production
- IT Trainer & Educator
- Mechanical Design Technologist
- Microcomputer/Work Station Manager
- Mobile App Designer
- Multimedia Production
- Network Administrator/Manager
- On-Line Service Manager
- Operating Systems Programmer
- Operation Research Analyst
- Process Control Programmer
- Program Analyst
- Project Manager
- Quality Control Engineer
- Remote Sensing Analyst
- Robotics
- Scientific Application Programmer
- Social Media Specialist
- Software Developer
- Software Engineer
- Systems Analyst
- System Auditor
- System Integrator
- System Programmer
- System Security Analyst
- System Support Personal
- System Tester
- Technical Director
- Technology Consultant
- Technology Specialist
- University Professor
- Virtual Reality Developer
- Web Designer/Developer
- Web Technician
- Webmaster

### Thinking Outside the Box: Other Possible Job Titles

On average, people change their careers three to five times in their lifetime. So, no matter what major you choose, you may still be interested in opportunities totally unrelated to your program of study. We encourage you to be open to all possibilities! Your undergraduate degree can be a springboard for other educational pursuits, and your transferable skills and experience can prepare you to work in a multitude of settings.

- Actuary
- Business Analyst
- Business Continuity Planner
- Communication Specialist
- Customer Support Analyst
- Distribution Manager
- Drafting Technician
- Educational Assistant
- Encryption Specialist
- Financial Planner
- High Tech Head Hunter
- Instructor
- Internal Auditor
- Inventory Manager
- Library Technician
- Logistic Manager
- Management Analyst
- Market Research Analyst
- Material Controller
- Material Manager
- Mathematician
- Medical System Designer
- Mortgage Researcher
- Operation Manager
- Plant Manager
- Product Evaluator
- Production Line Manager
- Production Scheduler/Planner
- Purchasing Agent/Manager
- Quality Control Specialist
- Records Management Analyst
- Reporter
- Risk Analyst
- Risk and Insurance Specialist
- School Business Official
- Security Specialist
- Software Talent Agent
- Technical Recruiter
- Technical Sales Representative
- Technology Consultant
- Telecommunications Manager
- Underwriter

### Useful Resources

Recommended websites to assist in exploring the field of Computer Science and its career opportunities.

Information Technology Association of Canada  
<http://www.itac.ca>

Canadian Information Processing Society  
<http://www.cips.ca>

Canadian Advanced Technology Alliance  
<http://www.cata.ca>

Computer Science Canada  
<http://compsci.ca/>

International Association for Management of  
Technology  
<http://www.iamot.org>

Information and Communication Technology  
Council  
<http://www.ictc-ctic.ca/>

Independent Computer Consultants Association  
<http://www.icca.org>

Information System Security Association  
[www.issa.org](http://www.issa.org)

Association of Information Technology  
Professionals  
<http://www.aitp.org>

Information System Audit and Control Association  
<http://www.isaca.org/>

Association for Information Systems  
<http://www.aisnet.org>

## Campus Resources

Career & Employment Services (CES)  
<http://www.uleth.ca/ross/ces/>

Career Counselling (Counselling Services)  
<http://www.uleth.ca/counselling/>

Academic Advising  
<http://www.uleth.ca/ross/academic-advising>

Native Student Advising  
<http://www.uleth.ca/ross/native-student-advising>

Student Success Centre – Study Skills, Learning  
Strategies & Tutoring  
<http://www.uleth.ca/student-success-centre/>

Accommodated Learning Centre  
<http://www.uleth.ca/ross/accommodated-learning-centre/>

International Centre for Students  
<http://www.uleth.ca/international/>

Registrar Office & Student Services  
<http://www.uleth.ca/ross/>

Scholarship & Students Finance  
<http://www.uleth.ca/ross/student-finance/>

U of L Students' Union & Student Clubs  
<http://www.ulsu.ca/>

## Campus Job Resources

Career & Employment Services Job Board  
[CES Job board](#)

Arts & Science Applied Studies  
<http://www.uleth.ca/artsci/applied-studies/students>

Arts & Science Co-op Education & Internship  
<http://www.uleth.ca/artsci/coop>

Management Co-op Education  
<http://www.uleth.ca/management/co-op>

Study Abroad & Exchanges  
<http://www.uleth.ca/international/content/study-abroad-exchanges>

Management Study Abroad & Exchanges  
<http://www.uleth.ca/management/study-abroad>

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### Career & Employment Services (CES)

CES assists U of L students and graduates with their career exploration and work search needs.

AH154 Anderson Hall, Phone: 403-329-2000  
Mon- Fri: 9:00 a.m. to 12:00 p.m.  
1:00 p.m. to 4:00 p.m.