Program Objectives

The Department of Computer Science at the University of Southern Maine offers a four-year program leading to a Bachelor of Science degree in computer science. Computer science courses concern the practice and the theory of solving problems by computer. More specifically, computer scientists build and analyze tools that allow complex problems to be solved. A component of computer science is the study and use of various programming languages, but computer science consists of much more than programming.

The undergraduate degree in computer science prepares students both for careers in the computing profession and for graduate study. Course requirements ensure that students receive instruction in both practical and theoretical aspects of computer science. The B.S. degree in computer science is accredited by the Computing Accreditation Commission (CAC) of the Accreditation Board for Engineering and Technology.

Degrees & Concentrations Offered

Graduation Planner: usm.maine.edu/advising/degreeplanning
Degree Offered: Bachelors of Science
Major Offered: Computer Science
Minor Offered: Computer Science
Certificate Offered: Certificate of Graduate Study in Software Systems
Master of Science: Computer Science

Career Possibilities*

Computer & Information Research Scientists
Computer Hardware Engineers
Computer Network Architects
Computer Programmers
Computer Software Specialists
Computer Systems Analysts
Database Administrators
Graphic Designers
Information Security Analysts
Mechatronics Engineers
Network & Computer Systems Administrators
Operations Research Analysts
Security Management Specialists
Software Developers
Video Game Designers

* Additional education, training or experience may be required.

Acquired Transferable Skills

Active Listening
Complex Problem Solving
Coordination
Critical Thinking
Monitoring
Operations Analysis
Programming
Reading Comprehension
Speaking
Systems Analysis
Systems Evaluation

For more information on transferable skills go to:
usm.maine.edu/community-engagement-career-development/career-tools
## What can I do with this major?*

<table>
<thead>
<tr>
<th>AREA</th>
<th>EMPLOYERS</th>
<th>INFORMATION/STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming</td>
<td>Computer systems design firms</td>
<td>• Seek programming experience through volunteering &amp; internships.</td>
</tr>
<tr>
<td></td>
<td>Financial Institutions</td>
<td>• Maintain knowledge of programming languages; vendor &amp; professional certifications may increase job prospects.</td>
</tr>
<tr>
<td></td>
<td>Retailers</td>
<td>• Seek knowledge of industries, business areas, or government agencies.</td>
</tr>
<tr>
<td></td>
<td>Healthcare Organizations</td>
<td>• Obtain business experience through internships or part-time employment.</td>
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<tr>
<td></td>
<td></td>
<td>• Strengthen logical thinking &amp; problem solving skills.</td>
</tr>
<tr>
<td>Systems Development</td>
<td>Financial Institutions</td>
<td>• Seek work experience in university computer labs or through related work, internships or volunteering.</td>
</tr>
<tr>
<td></td>
<td>Insurance companies</td>
<td>• Gain knowledge in a variety of computer areas including programming, software, &amp; hardware.</td>
</tr>
<tr>
<td></td>
<td>Telecommunications companies</td>
<td>• Seek knowledge of industries, business areas, or government agencies.</td>
</tr>
<tr>
<td></td>
<td>City, state, and federal government</td>
<td>• Obtain business experience through internships or part-time employment.</td>
</tr>
<tr>
<td>Network Technology</td>
<td>Entertainment companies</td>
<td>• Seek work experience in university computer labs or through related work, internships or volunteering.</td>
</tr>
<tr>
<td></td>
<td>Environmental management firms</td>
<td>• Gain knowledge in a variety of computer areas including programming, software, &amp; hardware.</td>
</tr>
<tr>
<td></td>
<td>Telecommunications companies</td>
<td>• Seek work experience in university computer labs or through related work, internships or volunteering.</td>
</tr>
<tr>
<td>Database Administration</td>
<td>Nonprofit organizations</td>
<td>• Develop logical thinking skills, attention to detail, &amp; the ability to concentrate for long periods of time.</td>
</tr>
<tr>
<td></td>
<td>Consulting firms</td>
<td>• Seek general knowledge of computer languages &amp; database management software; consider specializing in one for increased marketability.</td>
</tr>
<tr>
<td></td>
<td>Hotels &amp; Restaurants</td>
<td>• Seek general knowledge of computer languages &amp; database management software; consider specializing in one for increased marketability.</td>
</tr>
</tbody>
</table>

*To learn about these areas and much more visit: [whatcanidowiththismajor.com/major](http://whatcanidowiththismajor.com/major)  © 2011 What Can I Do With This Major

### Enrichment Opportunities

- **Internships**
  
  For more information contact the Computer Science Department.
  usm.maine.edu/cecd

- **Study Abroad**
  
  For more information contact the USM Office of International Programs.
  usm.maine.edu/international/study-abroad

- **Clubs & Organizations**
  
  For a complete list of student organizations:
  webapp.usm.maine.edu/pathways/list

- **USM Corporate Partners**
  
  The USM Corporate Partners are over 350 business people, from nearly 100 companies.
  usm.maine.edu/corporatepartners

### Helpful Career Links

- **USMCareerConnections:**
  
  USM’s career network for job and internship searches.
  usm.maine.edu/community-engagement-career-development/usmcareerconnections

- **O*NET OnLine:**
  
  Learn more about a career opportunity by researching it with O*NET.
  onetonline.org

- **Occupational Outlook Handbook:**
  
  Learn more about a career opportunity by researching it with OOH.
  bls.gov/ooh

### Professional Associations

- **Maine Software Developers Association (MESDA)**
- **Association for Computing Machinery (ACM)**
- **ACM@USM**
- **Association of Information Technology Professionals**
- **Software and Information Industry Association**
- **Computing Research Association**
- **Computer Professionals for Social Responsibility**
- **Association for the Advancement of Artificial Intelligence**

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