



## COMPUTER SCIENCE

### 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](http://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

### Computer Science Department

Portland Campus, 117 Science  
(207) 780-4499

Web Address: [www.usm.maine.edu/cos](http://www.usm.maine.edu/cos)

COS Wiki: [https://wiki.cs.usm.maine.edu/index.php/Main\\_Page](https://wiki.cs.usm.maine.edu/index.php/Main_Page)

### 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](http://usm.maine.edu/community-engagement-career-development/career-tools)

## What can I do with this major?\*

AREA	EMPLOYERS	INFORMATION/STRATEGIES
<b>Programming</b>	Computer systems design firms Financial Institutions Retailers Healthcare Organizations	<ul style="list-style-type: none"> <li>• Seek programming experience through volunteering &amp; internships.</li> <li>• Maintain knowledge of programming languages; vendor &amp; professional certifications may increase job prospects.</li> </ul>
<b>Systems Development</b>	Financial Institutions Insurance companies Telecommunications companies City, state, and federal government	<ul style="list-style-type: none"> <li>• Seek knowledge of industries, business areas, or government agencies.</li> <li>• Obtain business experience through internships or part-time employment.</li> <li>• Strengthen logical thinking &amp; problem solving skills.</li> </ul>
<b>Network Technology</b>	Entertainment companies Environmental management firms Transportation companies Education institutions	<ul style="list-style-type: none"> <li>• Seek work experience in university computer labs or through related work, internships or volunteering.</li> <li>• Gain knowledge in a variety of computer areas including programming, software, &amp; hardware.</li> </ul>
<b>Database Administration</b>	Nonprofit organizations Consulting firms Hotels & Restaurants	<ul style="list-style-type: none"> <li>• Develop logical thinking skills, attention to detail, &amp; the ability to concentrate for long periods of time.</li> <li>• Seek general knowledge of computer languages &amp; database management software; consider specializing in one for increased marketability.</li> </ul>

\*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/cccd](http://usm.maine.edu/cccd)

### Study Abroad

For more information contact the USM Office of International Programs.

[usm.maine.edu/international/study-abroad](http://usm.maine.edu/international/study-abroad)

### Clubs & Organizations

For a complete list of student organizations:

[webapp.usm.maine.edu/pathways/list](http://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](http://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](http://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](http://onetonline.org)

### **Occupational Outlook Handbook:**

Learn more about a career opportunity by researching it with OOH. [bls.gov/oooh](http://bls.gov/oooh)

### **PROFESSIONAL ASSOCIATIONS To name a few...**

[Maine Software Developers Association \(MESDA\)](http://www.mesda.org)

[Association for Computing Machinery \(ACM\)](http://www.acm.org)

[ACM@USM](mailto:ACM@USM)

[Association of Information Technology Professionals](http://www.aityp.org)

[Software and Information Industry Association](http://www.sia.org)

[Computing Research Association](http://www.cra.org)

[Computer Professionals for Social Responsibility](http://www.cpsr.org)

[Association for the Advancement of Artificial Intelligence](http://www.aaai.org)



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Office of Community Engagement and Career Development • [usm.maine.edu/cccd](http://usm.maine.edu/cccd)

(207) 228-8091  
[usmcareers@maine.edu](mailto:usmcareers@maine.edu)

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