



## MECHANICAL ENGINEERING

### Program Objectives

Our baccalaureate degree programs include electrical engineering and mechanical engineering. In addition to the regular program, electrical engineering has the option of a computer engineering concentration. The mechanical engineering program emphasizes electromechanical systems and properties of materials. The transfer program enables students to begin here and transfer elsewhere for programs we don't offer at USM, or to start taking engineering classes before choosing one of our degree options, if undecided or short of meeting engineering degree admission requirements

We believe engineering programs at USM are an outstanding value. The engineering department is committed to maximizing the student's potential to achieve her or his academic goals. Our classes are small and taught by engineering faculty. Our facilities are new or recently renovated. We have extensive contact with local industry, with opportunities for internships and cooperative education as well as employment upon graduation.

Our program is designed so that students gain knowledge and abilities to prepare them to:

1) function as engineers in technologically-intensive firms, 2) succeed in post-baccalaureate study, 3) transfer their engineering skills to different environments, and 4) contribute to society as broadly educated, articulate, and ethical professionals and citizens.

### Degrees & Concentrations Offered

**Graduation Planner:** [usm.maine.edu/advising/degreeplanning](http://usm.maine.edu/advising/degreeplanning)

**Degree Offered:** Bachelor of Science

**Majors Offered:** Electrical Engineering, Mechanical Engineering

**Concentrations Offered:** Computer Engineering

**Minors Offered:** Electrical Engineering, Mechanical Engineering

### Department of Engineering

Gorham Campus, 149 John Mitchell Center  
(207) 780-5287

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

### Career Possibilities\*

Aerospace Engineering  
Aircraft Mechanics and Service Technicians  
Automotive Engineering Technicians  
Construction and Building Inspectors  
Electro-Mechanical Technicians  
Electronics Engineering Technicians  
Engineering Teachers  
Industrial Engineering Technicians  
Marine Engineers  
Mechanical Drafters  
Mechanical Engineer Technicians  
Mechanical Engineering Technologists  
Mechanical Engineers  
Mechatronics Engineers  
Nanotechnology Engineering Technology  
Petroleum Engineers  
Sales Engineer

\* Additional education, training or experience may be required.

### Acquired Transferable Skills

Active Learning  
Active Listening  
Complex Problem Solving  
Critical Thinking  
Judgment & Decision Making  
Mathematics  
Monitoring  
Operations Analysis  
Reading Comprehension

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>MACHINE &amp; SYSTEMS DESIGN</b>	Industries include: Automotive, aerospace, electronics, chemical products, petroleum, textiles, industrial equipment, heating and air conditioning systems	<ul style="list-style-type: none"> <li>Learn computer-aided design (CAD) and computer-aided manufacturing (CAM).</li> </ul>
<b>TRANSPORTATION &amp; ENVIRONMENTAL IMPACT</b>	Utility companies	<ul style="list-style-type: none"> <li>Obtain related experience through engineering internships, co-ops or part-time jobs.</li> </ul>
<b>MANUFACTURING &amp; PRODUCTION ENERGY</b>	National laboratories	<ul style="list-style-type: none"> <li>Develop strong interpersonal and communication skills; consider a class in public speaking to enhance presentation skills. Plan to collaborate with other types of engineers and with those in industry.</li> </ul>
<b>CONSERVATION &amp; RESOURCES</b>	Federal government: Department of Energy Department of Defense Federal Aviation Administration National Aeronautics and Space Administration	<ul style="list-style-type: none"> <li>Join student chapter of American Society of Mechanical Engineers to take advantage of mentorship programs, learn more about specialties in the field and participate in design competitions.</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 Department of Engineering.  
[usm.maine.edu/community-engagement-career-development/internships](http://usm.maine.edu/community-engagement-career-development/internships)

### 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 more information contact the Electrical Engineering Department. 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...**

[TSA - Technology Student Association](#)

[American Society of Mechanical Engineers](#)

[National Society of Professional Engineers](#)

[Society of Petroleum Engineers](#)

[Association for Women in Science](#)

[Society of Women Engineers](#)

[NAE - National Academy of Engineering](#)

[EWB-USA - Engineers Without Borders USA](#)



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

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