



## BY THE NUMBERS

145

Ph.D. students

175

master's students

66

faculty

\$12.5M

research expenditures

No. 4

"Robotics Engineering School  
in the U.S." Grad School Hub

Based on data as of Sept. 1, 2019.



**Oregon State  
University**

## COLLEGE OF ENGINEERING

# MECHANICAL, INDUSTRIAL, AND MANUFACTURING ENGINEERING

## Graduate Programs

The School of Mechanical, Industrial and Manufacturing Engineering offers master of engineering, master of science, and doctoral degrees in mechanical engineering, industrial engineering, materials science, and robotics. These majors encompass multiple primary and secondary disciplinary options:

### Industrial Engineering

- Advanced Manufacturing
- Engineering Management\*
- Human Systems Engineering
- Information Systems Engineering
- Manufacturing Systems Engineering

### Materials Science

- Computational Materials Science
- Structural and Mechanical Behavior
- Electroceramic Materials
- Polymer Materials
- Electronic Materials
- Materials Nanoprocessing

### Structure of Degrees

Master of Engineering:  
45 credits (coursework only)

Master of Science:  
45 credits (coursework  
and research)

Doctor of Philosophy:  
108 credits (coursework  
and research)

### Mechanical Engineering

- Design
- Mechanics and Materials
- Robotics and Control
- Thermal-Fluid Sciences
- Advanced Manufacturing (secondary option)
- Renewable Energy (secondary option)

### Robotics

- Locomotion
- Artificial Intelligence
- Human-Robot Interactions

### \*100% Online Master's Option

Our online master's degree in industrial engineering focuses on engineering management. In 2019, Oregon State's online engineering programs were ranked ninth nationally by U.S. News & World Report. Learn more about the program at [ecampus.oregonstate.edu](http://ecampus.oregonstate.edu).

## WORLD-CLASS RESEARCH

MIME researchers have achieved global prominence in six signature areas of research excellence.

### ADVANCED MANUFACTURING

This group focuses on fundamental research as well as the commercially feasible development of manufacturing processes and systems that enable high-value products. Specific areas include scalable nanomaterial synthesis and thin-film deposition, powder sintering and injection molding, and additive manufacturing.

### DESIGN

This group focuses on understanding and improving the process of design in order to facilitate the creation of groundbreaking technologies. With six active faculty, MIME has one of the largest academic mechanical engineering design research labs in the United States.

### ENERGY SYSTEMS AND SUSTAINABILITY

This group focuses on development of breakthrough concepts, energy products, and systems to address critical environmental, societal, and economic issues while informing practices and attitudes toward energy utilization.

### NEXT-GENERATION MATERIALS AND DEVICES

This group focuses on the challenges in developing breakthrough, innovative materials with increased functionality. Such research can improve energy productivity and manufacturing processes, reduce waste, and lead to numerous highly functional, high-performance materials technologies.

## ADMISSIONS AND FINANCIAL SUPPORT

**MIME offers four-year financial packages to highly qualified Ph.D. applicants** in all specialty areas. We also offer a number of graduate fellowships as well as graduate teaching and research assistantships. To be considered for financial support, the application deadline for fall admission is Dec. 31.

For more information, visit [mime.oregonstate.edu/academics/grad](http://mime.oregonstate.edu/academics/grad).



### PRODUCTION, SERVICE, AND HUMAN SYSTEMS

This group uses engineering methods and knowledge to develop, implement, operate, evaluate, and improve complex systems made up of people and machines. Research encompasses five thematic areas: engineering management, health care systems, human factors, information systems, and production and logistics systems.

### ROBOTICS

This group focuses on design, modeling, and control of robotic systems that observe, move within, interact with, and act upon their environments. Such systems include mobile robots, micro-aerial vehicles, and large active-sensor networks.

## OREGON STATE UNIVERSITY

As Oregon's leading public research university, Oregon State's impact reaches across the state and beyond.

With campuses in Corvallis and Bend, the OSU Portland Center, the Hatfield Marine Science Center in Newport, 11 academic colleges, and research and extension centers across the state, Oregon State has a presence in every one of Oregon's 36 counties, with a statewide economic impact of \$2.714 billion.

## COLLEGE OF ENGINEERING

Our college endeavors to create solutions that promote strong economies, healthy people, and a sustainable natural environment. Our program has a long history of producing world-class engineering graduates who make major impacts on society through significant contributions in science and technology. Alumni achievements include breakthrough innovations such as a revolutionary artificial heart valve, the computer mouse, and the concept of email.

By emphasizing practical, experiential engineering within our curriculum, we equip students with the knowledge, skills, and passion to advance innovative solutions to today's most complex engineering challenges in an inclusive environment.

## CORVALLIS, OREGON

A beautiful college town nestled in the heart of the Willamette Valley, Corvallis is consistently ranked among the top 10 college towns in the nation and is known for innovation, education, entertainment, and overall livability. Corvallis embodies the spirit of the Northwest, with beautiful landscapes, friendly citizens, and an outstanding quality of life.

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