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

**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

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

**Structure of Degrees**

<table>
<thead>
<tr>
<th>Master of Engineering</th>
<th>Master of Science</th>
<th>Doctor of Philosophy</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 credits (coursework only)</td>
<td>45 credits (coursework and research)</td>
<td>108 credits (coursework and research)</td>
</tr>
</tbody>
</table>

*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.

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.

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.