Mechanical and aerospace engineering is a dynamic and continually evolving profession. Mechanical engineers design, build and maintain the products and processes that define industrial and post-industrial societies. Western Michigan University’s Department of Mechanical and Aerospace Engineering has designed graduate programs that meet the ever-changing occupational needs.

The **Master of Science in Engineering** (M.S.E.) is accredited by the Engineering Accreditation Commission of ABET, the global standard for programs in applied science, computing, engineering and engineering technology. Thesis (30 credits) and non-thesis (36 credits) options are available.

WMU seniors can begin accumulating as much as 12 credits (four courses) toward the **Accelerated Graduate Degree in Engineering** (M.S.E.). This unique program allows students to work toward the completion of a master’s degree while completing their bachelor’s degree. Students pay undergraduate tuition rates for these courses.

The **Doctor of Philosophy in Mechanical Engineering** (Ph.D.) is designed to intensify each student’s engineering knowledge and comprehension, with emphasis on original high-quality research in a chosen area of specialty.

Graduates will be proficient in advanced engineering design, modeling, and analysis, have experienced independent, creative discovery through active participation in innovative research, and possess enhanced competency in technical communication. The program accommodates working professionals by offering evening classes.

**Reasons to choose our programs...**

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**Teaching, Research and Program Focus Areas**

Department faculty hold terminal degrees in mechanical engineering or closely related fields, with many having industrial experience. Faculty are actively involved in research in:

- Alternate and renewable energy
- Combustion
- Control systems
- Dynamics
- Experimental and computational fluid dynamics
- Thermal and power systems
- Experimental plasmadynamics
- Experimental stress analysis
- Fatigue and fracture of engineering materials
- Finite element analysis
- Fuel cells
- Mechanical systems and structural
- Mechanics of composite materials
- Micro and nano-technology
- Noise and vibrations
- Smart and biomaterials
- System design and controls
- Vehicle dynamics
Industry Interaction
Mechanical engineers are found in almost every industry. Career opportunities are in manufacturing, machine and tool design, product development, land, sea, air and space vehicles and systems, energy conversion and distribution, computer hardware and software, environmental systems, construction and urban development.

International students utilize the curriculum practical training program for three credit hours during their study in the University to develop industry interactions and explore future job opportunities. Typically, many local students work as interns in the industry during their graduate studies. Many recent graduates are employed in Chrysler, GM, Ford and other automotive OEMS. In addition, local engineering companies like Stryker, Whirlpool, Denso and Eaton also employ alumni.

Funding and Scholarships
The department provides a limited number of teaching assistantships. Applicants are advised to contact faculty members who have funded grants to obtain financial support. Many full-time graduate students are funded in this manner. Limited scholarship opportunities for graduate students are also available across the University. Information about fellowships and grants can be found at: wmich.edu/grad/fellowships-grants.

Admission
Domestic
wmich.edu/apply/graduate/application
Fall 2018: June 1, 2018
Spring 2019: Nov. 1, 2018
Summer 2019: March 1, 2019

International
wmich.edu/internationaladmissions/apply
Fall 2018: April 1, 2018
Spring 2019: Aug. 1, 2018
Summer 2019: Jan. 15, 2019

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