



U-M Mechanical Engineering Program Educational Objectives

The Mechanical Engineering Program is designed to prepare students for continued learning and successful careers in industry, government, academia and consulting. Our alumni are expected to:

1. Apply their engineering knowledge, critical thinking and problem solving skills in professional engineering practice or in nonengineering fields, such as law, medicine or business.
2. Continue their intellectual development, through, for example, graduate education or professional development courses.
3. Embrace leadership roles in their careers.

U-M Mechanical Engineering Program Student Educational Outcomes

The outcomes we desire are that our graduates demonstrate:

- [1] An ability to apply knowledge of mathematics, science, and engineering to mechanical engineering problems.
- [2] An ability to design and conduct experiments, as well as to analyze and interpret data.
- [3] An ability to design systems, components, or processes to meet desired needs.
- [4] An ability to function on multi-disciplinary teams.
- [5] An ability to identify, formulate, and solve engineering problems.
- [6] An understanding of professional and ethical responsibility.
- [7] An ability to communicate effectively with written, oral, and visual means.
- [8] The broad education necessary to understand the impact of engineering solutions in a global and societal context.
- [9] A recognition of the need for and an ability to engage in life-long learning.
- [10] A knowledge of contemporary issues.
- [11] An ability to use modern engineering techniques, skills, and computing tools necessary for engineering practice.
- [12] An ability to work professionally in either thermal or mechanical systems areas.