MECHANICAL ENGINEERING, B.S.E.

Learning Outcomes

- The graduates shall have the ability to identify, analyze, design and realize mechanical and thermal systems to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- The graduates shall have the ability to use contemporary computational techniques and tools.
- The graduates shall have the competence in design of experiments, experimental practices and data interpretation and their use to identify and solve engineering problems.
- The graduates shall have the ability to apply mathematics through linear algebra, multivariate calculus and differential equations to formulate and solve engineering problems.
- The graduates shall have the ability to apply statistical methods to analyze and interpret data to identify, formulate and solve engineering problems.
- The graduates shall have an understanding of the chemistry and physics that are fundamental to so they can identify, formulate and solve mechanical engineering.
- The graduate shall have the ability to perform engineering economic analyses.
- The graduates shall have the ability to plan, schedule, and execute engineering projects.
- The graduates shall have effective oral and written communication skills.
- The graduates shall have an understanding of professional and ethical responsibility.
- The graduates shall have the ability to function on multi-disciplinary teams.
- The graduates shall have an understanding of and the ability to engage in life-long learning.
- The graduates shall have an appreciation for the role of engineering in modern society.
- The graduates shall have an appreciation for literature, fine arts and humanities.
- The graduates shall have the ability in one foreign language to comprehend the topic and main ideas on familiar subjects.

Academic Standards

Program GPA

Program GPA requirement policies are described in the College of Engineering and Computing section of this bulletin. For the purpose of these policies, the following courses are used to determine the Program GPA for the Mechanical Engineering B.S.E. program: All Lower Division Engineering courses, all Mechanical Engineering Major courses, and all courses used to satisfy a Mechanical Engineering Elective.