Mechanical Engineering, B.S.E.

Educational Objectives

Within a few years of graduation, graduates of the mechanical engineering program will:

• have successful careers in engineering and beyond and will have assumed professional roles of increasing responsibility and impact;
• have acquired new knowledge and expertise through professional development opportunities or advanced education; and
• be engaged in workplace, professional, or civic communities.

Graduates of the Department in Mechanical Engineering B.S.E. program will be prepared to effectively contribute as engineers in a diverse and multidisciplinary work environment. They will have an ability to:

• identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics;
• apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare as well as global, cultural, social, environmental, and economic factors;
• communicate effectively with a range of audiences;
• recognize ethical and professional responsibilities in engineering situations and make informed judgments which consider the impact of engineering solutions in global, economic, environmental, and societal contexts;
• function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives;
• develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions; and
• acquire and apply new knowledge as needed, using appropriate learning strategies.