

WSUV SCHOOL OF ENGINEERING AND COMPUTER SCIENCE
EDUCATIONAL OBJECTIVES AND PROGRAM OUTCOMES
MECHANICAL ENGINEERING

Educational Objectives

The goal of our program is to prepare our graduates for successful professional practice and advanced studies by providing a broad education in mechanical engineering and by offering the opportunity to deepen their technical understanding in a particular concentration area of related technical electives.

Our graduates will:

1. Apply technical knowledge and skills as mechanical engineers to provide optimal solutions in industrial and governmental organizations.
2. Utilize effective communication, team, and project management skills to work productively within their professions and communities.
3. Conduct themselves as responsible professionals making contributions in technology for the greater benefit of society.
4. Pursue professional development and/or graduate studies to meet the challenging demands and increasing responsibilities of a successful career.

Program Outcomes

Our students will have:

- a. Knowledge of mathematics, science, and engineering principles and the ability to apply this knowledge in solving problems.
- b. An ability to design and conduct experiments, as well as to analyze and interpret data.
- c. Ability to design and realize thermal and mechanical components, systems, or processes to meet desired needs and realistic constraints such as economical, environmental, social, political, ethical, health and safety, manufacturability and sustainability.
- d. Ability to function on multi-disciplinary teams.
- e. Ability to identify, formulate, and solve problems encountered in the practice of mechanical engineering.
- f. Understanding of professional and ethical responsibility.
- g. Ability to communicate effectively.
- h. Ability to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- i. Recognition of the need for, and an ability to engage in life-long learning.
- j. Knowledge of contemporary issues.
- k. Ability to use the techniques, skills, and modern engineering tools necessary for mechanical engineering practice.