

University of Southern California
VITERBI SCHOOL OF ENGINEERING

Bachelor of Science in Mechanical Engineering
Program Learning Objectives

The purpose of the Bachelor of Science in Mechanical Engineering program is to provide the educational foundation for a successful career path, one that may include employment as a professional mechanical engineer, work in a field outside of mechanical engineering, or pursuit of further education. Students will learn to apply their technical skills in mathematics, science and engineering to the solution of complex problems encountered in modern mechanical engineering practice.

Upon completion of the Bachelor of Science in Mechanical Engineering degree program, students will:

- a. have the ability to design and conduct experiments;
- b. have the ability to analyze and interpret data;
- c. demonstrate an understanding of contemporary engineering design principles;
- d. have the ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
- e. have the ability to use the techniques, skills, and modern engineering tools necessary for engineering practice;
- f. be able to communicate effectively and to function on multidisciplinary teams;
- g. have acquired the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context, as well as an understanding of their professional and ethical responsibility; and
- h. recognize the need for, and an ability to engage in life-long learning.