

University of Southern California
VITERBI SCHOOL OF ENGINEERING

Master of Science in Mechanical Engineering (Energy Conversion)
Program Learning Objectives

The Master of Science in Mechanical Engineering (Energy Conversion) prepares students to apply fundamental thermodynamic principles to modern energy systems, with an emphasis on efficiency and environmental stewardship. The program prepares students to practice engineering at an advanced level with a specialization within mechanical engineering and to recognize the benefit of solving problems using expertise from other engineering disciplines. Students improve their skills in setting up and solving problems by using contemporary tools and leveraging interaction with peers.

The Master of Science in Mechanical Engineering (Energy Conversion) degree program in the Department of Aerospace & Mechanical Engineering is designed to satisfy the following learning objectives:

1. provide breadth of knowledge to further an awareness of the interdisciplinary nature of mechanical engineering;
2. provide depth of knowledge in a particular field of study;
3. further develop the ability to formulate problems, to synthesize and integrate information, to work collaboratively, and to communicate effectively;
4. educate students in methods of advanced analysis and the use of tools appropriate to an increasingly complex field;
5. prepare students for successful careers regardless of the path they follow;
6. apply fundamental thermodynamic principles to modern energy systems, with an emphasis on efficiency and environmental stewardship; and
7. apply fundamental thermodynamic principles to modern energy systems, with an emphasis on efficiency and environmental stewardship.