

University of Southern California
VITERBI SCHOOL OF ENGINEERING

Master of Science in Aerospace and Mechanical Engineering (Computational Fluid and Solid Mechanics)

Program Learning Objectives

The Master of Science in Aerospace and Mechanical Engineering (Computational Fluid and Solid Mechanics), consistent with the general M.S. degrees in Aerospace Engineering and Mechanical Engineering, prepares the student to practice engineering at an advanced level in a specialization within aerospace and 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. In addition, this degree introduces students to the computational techniques and tools used in the analysis and design of systems involving complex flows and solid structures.

The Master of Science in Aerospace and Mechanical Engineering (Computational Fluid and Solid Mechanics) 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 aerospace 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; and
6. introduce students to the computational techniques and tools used in the analysis and design of systems involving complex flows and solid structures.