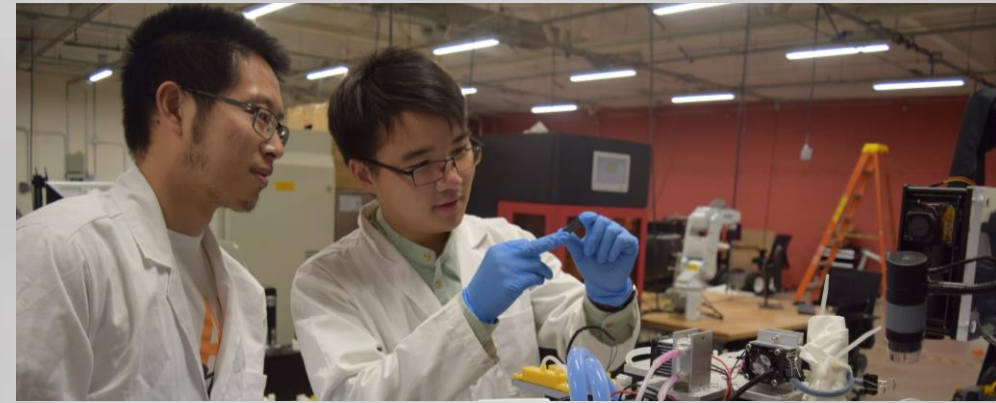




## Overview

The use of Advanced Manufacturing is key to increasing the competitiveness of US manufacturers. The Advanced Manufacturing Track in Mechanical Engineering educates and trains multidisciplinary professionals to pursue careers in manufacturing companies as designers, manufacturing engineers and engineering managers. This program covers modeling of physical manufacturing processes, development and utilization of computational tools, and modeling and optimization of manufacturing systems. It includes recent development in manufacturing such as collaborative robotics, additive manufacturing, smart manufacturing, and Industry 4.0. This degree provides the graduate student with a broad, well-rounded, advanced education that can be applied to many different industries where advanced manufacturing plays a role.



## Program Curriculum

- 6 units of math courses:
  - AME 525 Engineering Analysis
  - AME 526 Engineering Analytical Methods
- 15 units of required core courses:
  - AME 547: Manufacturing Automation
  - AME 599: Additive Manufacturing Technologies
  - ISE 511L: Mechatronics Systems Engineering
  - AME 546: Design for Manufacturing and Assembly
  - ISE 510: Computational Design and Manufacturing
- 6 units 400 or 500 level elective courses:
  - Elective courses may be from AME, ISE, SAE, or CS
  - 3 units of directed research, seminar, and/or internship may be taken as degree credit



## Program Requirements

- A minimum of 27 units is required for the MS in Mechanical Engineering – Advanced Manufacturing Track for graduation without thesis ( All classes must be passed with a grade of C or higher)
- Required Courses: 21 units
- Elective Courses: 6 units
- A minimum cumulative GPA of 3.0 is required for graduation



For more information about advising, please contact the graduate advisor for this program: [Natalie Guevara \(nguavara@usc.edu\)](mailto:nguavara@usc.edu).

For more information about curriculum, please contact the faculty advisor for this program: [Prof. S.K. Gupta \(guptask@usc.edu\)](mailto:guptask@usc.edu).