

Masters Degree – Manufacturing Engineering Progressive Degree Option

Manufacturing engineering at USC is a multidisciplinary program that confers the degree of Master of Science and is designed to produce graduates capable of responding to the needs of modern, up-to-date manufacturing. These graduates should be able to design, install and operate complex manufacturing systems made up of people, materials, automated machines and information systems. The Departments of Computer Science, Electrical Engineering, Industrial and Systems Engineering, Materials Science, Mechanical Engineering, and Entrepreneurship participate in the Manufacturing Engineering Program.

Course work in the program will train students in traditional manufacturing engineering topics, such as materials selection and process design. Additional courses will include the more modern, system-level concepts of integrated product and process design, applications of modern information technology to design and manufacturing, hands-on laboratories using advanced manufacturing equipment and commercial software, and entrepreneurship.

Required Courses (12-14 units)

- CSCI 585 Database Systems Units: 4 or (Fa, Sp)
- ISE 510 Advanced Computational Design and Manufacturing Units: 3 (Sp)
- ISE 511L Mechatronic Systems Engineering Units: 3 (Fa)
- ISE 517 Modern Enterprise Systems Units: 3 or
- ISE 576 Industrial Ecology: Technology-Environment Interaction Units: 3 (Sp)
- ISE 525 Design of Experiments Units: 3 or (Sp)
- AME 525 Engineering Analysis Units: 4 (Fa, Sp)

Approved electives at 500 level or higher (7-9 units)

***Total Units Required for the Manufacturing Engineering PDP degree: 21**

(term offerings in parenthesis are expected but not guaranteed)

