

MASTER OF ENGINEERING IN MANUFACTURING ENGINEERING

This program is aimed at broadening student potential beyond the B.S., enhancing technical versatility and, in some instances, providing the opportunity for changes in career path. The master of engineering program is a course-only degree program and requires a minimum of 30 credit hours. There is no thesis or comprehensive examination requirement. The student, in consultation with their adviser, prepares a program of study that reflects individual needs and interests. The adviser, as well as the department's graduate studies committee, and the department chair must approve this program. Students working toward this degree are not eligible for departmental financial support.

Curriculum

Materials Science and Engineering Emphasis

Code	Title	Credit Hours
Required Courses		(12)
MMAE 547	Computer-Integrated Manufacturing Technologies	3
MMAE 560	Statistical Quality and Process Control	3
Select a minimum of one course from the following:		3
MMAE 445	Computer-Aided Design and Manufacturing	3
MMAE 545	Advanced CAD/CAM	3
MMAE 546	Advanced Manufacturing Engineering	3
MMAE 576	Materials and Process Selection	3
Select a minimum of one course from the following numerical methods courses:		3
MMAE 450	Computational Mechanics II	3
MMAE 517	Computational Fluid Dynamics	3
MMAE 532	Advanced Finite Element Methods	3
MMAE 544	Design Optimization	3
MMAE 570	Computational Methods in Materials Science and Engineering	3
Elective Courses		(18)
Select 18 credit hours		18
Total Credit Hours		30

Up to nine credit hours at the 400-level are allowed.

Mechanical and Aerospace Engineering Emphasis

Code	Title	Credit Hours
Required Courses		(18)
MMAE 545	Advanced CAD/CAM	3
MMAE 546	Advanced Manufacturing Engineering	3
MMAE 547	Computer-Integrated Manufacturing Technologies	3
or MMAE 557	Computer-Integrated Manufacturing Systems	3
MMAE 560	Statistical Quality and Process Control	3
Select a minimum of one course from the following:		3
MMAE 445	Computer-Aided Design and Manufacturing	3
MMAE 576	Materials and Process Selection	3
MMAE 585	Engineering Optics and Laser-Based Manufacturing	3
Select a minimum of one course from the following numerical methods courses:		3
MMAE 450	Computational Mechanics II	3
MMAE 451	Finite Element Methods in Engineering	3
MMAE 517	Computational Fluid Dynamics	3
MMAE 532	Advanced Finite Element Methods	3
MMAE 544	Design Optimization	3
MMAE 570	Computational Methods in Materials Science and Engineering	3

Elective Courses	(12)
Select 12 credit hours	12
Total Credit Hours	30

Up to nine credit hours at the 400-level are allowed.