BSE Chemical Engineering/MEng in Manufacturing
Sequential Undergraduate/Graduate Studies (SUGS) Program

Sequential undergraduate/graduate study (SUGS) program is offered through the Master of Engineering in Manufacturing (M. Eng. in Mfg.) program. The M. Eng. in Mfg. SUGS program follows the template for SUGS programs as approved by the College of Engineering. Students pursuing dual degrees are not eligible to enroll in SUGS programs.

SUGS applications to M. Eng. in Mfg. must:

- Have completed 80 or more credits of course work with a 3.2 GPA or better.
- Apply to the M. Eng. in Mfg. for admission no later than the second semester of their junior year.
- Have relevant industry-related working/internship experience by the beginning of the first semester of enrollment.
- Meet all requirements for both the B.S.E. and M. Eng. degrees, but can “double count” up to nine (9) credit hours of technical electives, to receive both degrees simultaneously in 5 years with a total of at least 149 credit hours.

Master of Engineering in Manufacturing

The (M. Eng. in Mfg.) degree is an interdisciplinary 30-credit program. This is a professional practice-oriented degree designed to further the education of engineers who already have experience working in industry and plan to return to an industrial environment after completing their studies. The degree requirements can be completed in one calendar year (12 months). The M. Eng. in Mfg. is an interdisciplinary degree combining course work from various engineering disciplines (80%) and business (20%).

Degree Objectives

To prepare engineers to improve the quality and efficiency of manufacturing systems by giving them advanced skills in their engineering discipline, breadth across engineering disciplines, and an understanding of the complete product development and manufacturing process, including its management.

Degree Requirements

The M. Eng. in Mfg. degree comprises 30 credit hours of course work, of which at least 30 credit hours must be graded A-E (not pass/fail), and at least 24 A-E credit hours must be in courses at the 500 level. A minimum grade point average of 3.0/4.0 (i.e., a B average) is required for graduating. Requirements include:

Summary of M. Eng. in Mfg. Curriculum Distribution
http://isd.engin.umich.edu/degree-programs/manufacturing-engineering/curriculum.htm

Manufacturing Engineering Core

9 Credits - Letter Graded (A-E) – Minimum of 9 credit-hours from selected concentration – typically three courses at 3 credits per course.
Concentrations Areas:
- Production Systems & Quality Engineering
- Manufacturing Design and Sustainability
- Advanced Materials and Manufacturing
  - Nano/Digital/Additive
- Industry Safety, Health and Ecology

Engineering Elective
6 Credits - Letter Graded (A-E) – Minimum of 6 credit-hours may come from the list of Engineering Electives and/or from Engineering Concentrations – typically 2 courses at 3 credits per course.

Business Operations and Management
Letter Graded (A-E) – Minimum of 9 credit-hours (3 courses at 3 credits per course) from the Business Operations and Management course selection. Select courses from three of the following Business Operations and Management categories:
- Organizational Behavior
- Accounting and Finance
- Marketing and Strategy
- Entrepreneur

Required Courses
6 Credits
- MFG 502 Manufacturing Systems Design - 3 credits - Letter Graded (A-E)
- MFG 503 Project - 3 credits - Graded Satisfactory/Unsatisfactory (S/U)

Or For Full-time Tauber Institute for Global Operations Students Only
- MFG 501 Topics in Global Operations – 1.5 credits - Letter Graded (A-E)
  Students must fulfill additional 1.5 credit from courses from another MFG Curriculum Category.
- MFG 504 Tauber Institute Project - 3 credits - Letter Graded (A-E)

The incoming student must obtain the approval of the course advisor for the planned M. Eng. in Mfg. degree courses selected. A course advisor will be assigned to the student upon admission.

Early Planning
Contact the M. Eng. in Mfg. Grad Coordinator at mfgeng_prog@umich.edu early on before you are ready to apply to discuss possible courses to double-count and or transfer.

CONTACTS

Undergraduate:
Dr. Susan Montgomery, 3142 Dow, (734) 936-1890, smontgom@umich.edu
http://www.engin.umich.edu/che/undergraduate/program/options/sgus

Graduate:
Ms. Kathy Bishar, 1224 SI North Building, 764-3312, mfgeng_prog@umich.edu
http://isd.engin.umich.edu/degree-programs/manufacturing-engineering/index.htm

ISD SUGS website:
http://isd.engin.umich.edu/degree-programs/sugs/index.htm

Rackham SUGS website:
www.rackham.umich.edu/current-students/policies/academic-records/sugs-information