

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

A sequential undergraduate/graduate study (SUGS) program is offered through the Master of Engineering in Manufacturing (M. Eng. in Mfg.) program. See the “Sequential Undergraduate/Graduate Study (SUGS) Programs for Chemical Engineering Students” handout for details on how SUGS programs work.

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. Apply by January 15 for Fall term admission or September 15 for Winter term admission.
- Have relevant industry-related working/internship experience by the beginning of the first semester of enrollment.
- Applied credits must come from courses taken in your junior or senior year.
- Only two 400-level courses can be applied towards the M. Eng. In Mfg. degree.

Master of Engineering in Manufacturing

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, the ability to lead project teams, and an understanding of the complete product development and manufacturing process including, its management.

Overview

The Master of Engineering (M.Eng.) in manufacturing is an interdisciplinary 30-credit graduate professional degree that includes courses from the Stephen M. Ross School of Business (70% engineering and 30% business). It can be earned in one calendar year (12 months), including a four-month team project in Industry. 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.

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 – 9 credits

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:

- Accounting and Finance
- Business and Data Analytics
- Entrepreneurship
- Marketing and Strategy
- Systems and Engineering Management

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)
- 1.5 additional credits 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.

See the *Sequential Undergraduate/Graduate study (SUGS) Programs for ChE Students* handout for more information regarding how SUGS works.

CONTACTS

Undergraduate:

Dr. Susan Montgomery, 3142 Dow, (734) 936-1890, smontgom@umich.edu
<http://www.che.engin.umich.edu/graduate/program/sugs/>

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