DUAL M.S.E. MECHANICAL ENGINEERING/MASTER OF BUSINESS ADMINISTRATION

The mission of the Dual Degree MSE in Mechanical Engineering/MBA program is to educate working engineers and scientists in the engineering and business disciplines that will make them leaders of highly complex technical endeavors within their sponsoring organizations.

The dual degree MS/MBA program will confer two degrees upon its graduates: an MBA and an MSE in Mechanical Engineering. Students may obtain either an MSE in Mechanical Engineering or an MBA degree as a stand-alone by fulfilling the individual degree requirements. Taking the dual degree program saves the student several courses compared to the two programs taken separately.

The dual degree MSE in Mechanical Engineering/MBA program is designed to be completed in approximately three years. Typically, the Mechanical Engineering classes are completed first, followed by taking the required classes in the MBA program.

Learning Outcomes

For the MSE in Mechanical Engineering

Graduates will have:

- An ability to apply knowledge of mathematics, science, and engineering to solve engineering (societal) problems.
- An ability to conduct graduate level research using skills learned in various courses and publish their results in journals and /or conferences.
- An ability to function in teams, and communicate effectively.

For the MBA

Graduates will:

- Possess the knowledge and skills to be able to apply key business concepts in organizational settings.
- Possess the knowledge and skills to manage in a global economy.
- Possess critical thinking skills and the ability to integrate concepts.
- Have the ability to communicate effectively.
- Have the knowledge and skills to function effectively as members, managers, and leaders in the organizations in which they are employed.
- Be able to incorporate ethical reasoning, social responsibility, and sustainability in making decisions in their organizations.

Admission

Both the MBA Program in the College of Business Administration and the Mechanical Engineering Program in the Frank R. Seaver College of Science and Engineering must accept students applying to the dual degree program for admission. Prospective dual degree students should apply first to the MSE in Mechanical Engineering degree program. After receiving admission to the MSE in Mechanical Engineering degree program and completing 12 semester hours towards the MSE degree, students interested in the MSE/MBA Dual Degree program should contact Graduate Business Education for admission to the MBA portion of the Dual Degree. Eligibility for the dual degree program is based upon good academic standing (minimum GPA 3.0) in the MSE in Mechanical Engineering and approval from their respective Seaver College academic advisor. The preferred start term for the MBA portion of the Dual Degree program is the fall term.

The MSE in Mechanical Engineering degree program application is online at https://graduatestudies.lmu.edu/apply (https://graduatestudies.lmu.edu/apply/). Applicants must submit:

- Official transcripts from all colleges and universities attended
- Statement of Intent (approximately 1.5 pages) describing the candidate's background, career goals, and interest in the program
- Two letters of recommendation attesting to the candidate's ability to succeed in the graduate program based on previous academic and/or professional performance
- Essay discussing how the two degrees fit into applicant's career development

All applicants must possess a Bachelor of Science degree or an undergraduate engineering degree from an accredited institution, which should include at least:

1. 3 semester hours (1 course) of general chemistry
2. Mathematics courses through differential equations

Those applicants who do not possess an engineering degree, in addition to items 1 and 2 above, should complete the following five courses with an average grade of B (3.0) or better: Mechanics of Material, Dynamics, Thermodynamics, Fluid Mechanics, and Heat Transfer.

Graduation Requirements

(60 Semester Hours)

Students enrolled in the Dual Degree MSE/MBA Program are jointly advised by their Seaver College academic advisor and the MBA Program advisor in the College of Business Administration. It is recommended that incoming students take 12 semester hours of Mechanical Engineering courses per fall and spring semester and complete the MSE in year one of the dual-degree program, then begin the MBA curriculum in year two.

Dual degree students will take a total of 24 semester hours of Mechanical Engineering graduate-level coursework and 36 semester hours of MBA courses. 15 semester hours from the Mechanical Engineering courses will also count towards the emphasis/concentration requirement for the MBA degree. 6 semester hours of the MBA courses that are taken as part of the MBA coursework will also count toward the M.S.E. in Mechanical Engineering. Separately, the MSE degree requires 30 semester hours and the MBA degree requires 51 semester hours, for a total of 81 semester hours. The Dual Degree program lessens the load by 21 (15+6) semester hours.

Suggested Curriculum Flowchart for the MSW in Mechanical Engineering/MBA Dual Degree Program

During the first semester of attendance, the student should prepare a program of study with their academic advisor. The 24 semester hours of required coursework is allocated as follows:

Code	Title	Semester Hours
Year 1 (Summer, Fall, Spring)		
MSE in Mechanical Engineering [1]		
MECH 604	Engineering Mathematics	3
Complete an additional 21 hours (7 courses) from MECH 500 and 600 level courses [2]		21
Master's Thesis Option [3, 4]		
Subtotal		24
Year 2 [5]		
Fall Semester		
MBAW 6400	MBA Orientation	0
MBAA 6020	Financial and Managerial Accounting	3
MBAA 6030	Global Economic Structures and Systems	1.5
MBAA 6040	Managing Markets and Customer Relationships	3
MBAA 6050	Managing Operations	1.5
MBAA 6090	Managing Information Systems	3
Spring Semester		
MBAA 6010	Managing People and Organizations	3
MBAA 6060	Strategic Management	3
MBAA 6070	Managing Financial Resources	3
MBAA 6080	Data, Models, and Decisions	3
MBAW 6402	The Elements of Becoming A Strategic Leader	0
Summer Session		
Business & Society Core		3
MBA Elective		3
Spring Semester		
MBAA 6100	Managing International Business	3
MBAW 6307	Management Leadership Workshop: Planning Your Future	0
Summer Session		
MBAI 691	Comparative Management Systems (CMS)	3
Total Semester Hours		**60**

1

Notes:
A maximum of one elective course in another engineering department may be taken with the consent of the academic advisor. The Thesis Option (MECH 686 Master's Thesis) may be chosen to satisfy up to 6 semester hours of these elective course requirements (see below).
A maximum of four courses (12 semester hours) may be taken in any given semester.
Students must maintain a minimum cumulative GPA of 3.0 ("B") for all coursework.

2

At least 12 semester hours must be at the 600 level, including MECH 604 Engineering Mathematics.

3

With the consent of the academic advisor, the student may elect a thesis. The thesis will satisfy 6 semester hours of the elective mechanical engineering course work requirements. The student may enroll for a maximum of 3 semester hours of MECH 686 Master's Thesis in any given semester. The student electing the thesis option must obtain a thesis advisor before academic advisor consent will be considered. Formal thesis requirements must be obtained from the academic advisor.

4

Total MSE Degree Requirement: 24 semester hours + 6 semester hours from MBA, satisfying the MSE degree requirement of 30 semester hours

5

Total MBA Degree Requirement: 36 semester hours + 15 semester hours from MSE in Mechanical Engineering, satisfying the MBA degree requirement of 51 semester hours

Note:
When the course requirements outlined above are completed, the student should submit an application for degree to be awarded both the MBA and the MSE in Mechanical Engineering. Students must file separately for each degree and both degress must be awarded in the same term.