Master of Engineering Management

According to Business Insider, 33 percent of CEOs of Fortune 500 companies earned their undergraduate degree in engineering. Nearly 25 percent of those CEOs were engaged in finance (e.g., CFO) or general management (e.g., COO) duties prior to becoming CEO. Career engineering managers have long known that advancement is often based on a combination of education and experience.

Traditionally, engineers acquired their business education by getting a master’s of business administration (MBA). More recently, however, master’s degrees in engineering management have been developed to provide engineers a more tailored educational experience by:

- Providing the most important business courses from the MBA
- Providing additional core courses critical to today’s engineering professional, such as project management, quantitative methods, energy and the environment
- Providing master’s level, depth courses in an engineering field of choice
- Providing the opportunity to work on a real-world project that is engineering related

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Program Website: https://harrisburg.psu.edu/eng-mgmt
Curriculum

All graduate students in Engineering Management are required to adhere to the requirements of the Graduate School, as found in the Graduate Degree Programs Bulletin. The requirements of the Graduate School, however, are minimum requirements and the policies, procedures, and regulations listed below are additional and more specific for graduate students pursuing the master of Engineering Management degree. Advisers will call pertinent regulations to the attention of their advisees, but it should be understood that it is the student's personal responsibility to see that all requirements are satisfied.

The Master of Engineering Management (M.EM.) is a 33-credit graduate program that integrates engineering with business and management principles. The multi-disciplinary, broadly based M EM program will provide engineers with business and management perspectives to enhance capabilities in management of large projects.

All M.EM. students will be required to take seven core courses (21 credits) focusing on economic analysis, communication and teamwork, management processes, corporate finance, energy and the environment, and engineering analysis.

Courses Overview

Prescribed Courses (21.0 credits)
- ENGMT 511 Engineering for Energy and the Environment (3)
- SYSEN 505 Technical Project Management (3)
- EMCH 524A Mathematical Methods In Engineering (3)
- MNGMT 511 Organizational Behavior (3)
- MRKT 513 Marketing Management: Structures And Processes (3)
- ACCT 501 Financial Statement Analysis (3)
- FINAN 521 Corporate Finance (3)

Supporting Courses (6.0 credits)
- 500-Level Elective from the Engineering Disciplines (3)
- 400- OR 500-Level Elective from the Engineering Disciplines (3)

Capstone Course Group (6.0 credits)
- BUS 588 Strategic Management (3)
- MFGSE 550 Design for Manufacturability I (3)

TOTAL CREDITS = 33.0

MRKT 513: Course prerequisite BUSEC 502 is waived for students with undergraduate coursework in economics.

ENGMT 511 must be taken in the first or second semester of study as a foundation for the rest of the program.

BUS 588 and MFGSE 550 are the capstone experience course group for the M.EM. program; they must be taken in the last two semesters of study after the majority of the program coursework is completed.

Course Numbering

Graduate courses carry numbers from 500 to 599 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

Program Requirements for Admission

Note: In addition to the general prerequisites for admission to the Graduate School, the following is required by this degree program:

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<th>Requirements</th>
<th>More Information</th>
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<tr>
<td>GPA</td>
<td>An undergraduate cumulative grade-point average of 3.0 or better on a 4.0 scale.</td>
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<td>Education</td>
<td>Applicants should have undergraduate degrees in engineering or technology from an accredited university and are expected to have completed undergraduate course work in calculus and economics.</td>
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<td>Supporting Materials</td>
<td>✓ Three (3) letters of reference, especially those from faculty who can evaluate academic potential.</td>
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<td>✓ Test scores on the Graduate Management Admission Test (GMAT), OR Graduate Record Examination (GRE)</td>
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<td>✓ A personal statement of technical interest, goals, and experiences.</td>
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NOTE: Graduate Record Examination (GRE) test scores are required for those indicating interest in an assistantship.

Admission into this program will be granted only to candidates who demonstrate high potential for success in graduate studies. Students demonstrating high potential but failing to meet the minimum GMAT score requirements may be considered on the basis of professional accomplishments and other criteria that may predict success in the program.

Application Deadline

This program has rolling admission, that is, no specific deadline. Students are accepted to begin in Fall or Spring terms; summer admission is not offered for this program. Note that it may take 4-6 weeks to receive transcripts and process an application.