Master of Science in Engineering Management (M.S.E.M.)

Degree Offered: Master of Science in Engineering Management (MSEM)
Website: https://www.uab.edu/engineering/mme/graduate/ms-materials
Director: Dale W. Callahan, PhD, PE
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The Master of Science in Engineering Management (MSEM) is a joint degree between the School of Engineering and the Collat School of Business. The MSEM will further develop the technical, managerial, and professional capabilities of engineering graduates, preparing them for earlier entry into positions of leadership within a wide variety of industries and organizational types. The technical engineering coursework emphasizes a systems-oriented, multidisciplinary approach to solving complex problems. The managerial and professional coursework develops essential business acumen, an ability to think strategically, and a commitment to professional work habits that are the hallmark of excellence in engineering.

Graduates will be well-prepared for positions as engineers, project managers, program managers, product managers, consultants, technical sales representatives, technical sales support specialists, and engineering managers. They will have the knowledge and skills to manage an organization’s relationship with technology vendors, evaluate technical proposals, develop internal technical training and education programs, or bring both a business and a technical perspective to cross-functional teams focused on strategic alignment or evaluation of emerging technologies. Graduates will also be prepared to pursue advanced degrees.

Master of Science in Engineering Management

Admissions Requirements

Applicants to the program are expected to have one of the following:

- An undergraduate engineering degree with a minimum GPA of 3.0 on a 4.0 scale, or
- Junior or senior standing in good standing with a minimum GPA of 3.0 on a 4.0 scale in an engineering undergraduate degree program (undergraduate degree must be earned prior to matriculation)

International applicants must submit English proficiency scores in accordance with UAB Graduate School requirement. Click here for details

Application Deadlines

Entry Term | Deadline
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Application Submission Deadline for Fall: August 1; Spring: December 1; Summer: May 1 | Seven business days before term begins (see UAB academic calendar - https://www.uab.edu/students/academics/academic-calendar)

Curriculum

The MSEM degree consists of 18 hours of core courses, 3 hours of capstone or internship, and 12 hours of student-selected coursework with guidance from the Program Director.

The MSEM degree allows the student to have both professional management knowledge and in-depth technical knowledge of the chosen field of study (biomedical, civil, construction, environmental, electrical, computer, materials, mechanical, or structural engineering).

Special Topics (590/690/790) courses and Independent Study (591/691/791) courses are reviewed for degree applicability for each program in the School of Engineering. No more than 6 combined hours of Special Topics and/or Independent Study courses will be applied to the MSEM without appeal to and approval from the Program Director.

The School of Engineering offers similar courses at the 400/500 and 600/700 levels. While the higher numbered course has more advanced content, there is a significant overlap in topics. Therefore, students are not allowed to take a 500-level or 700-level course for credit if they have previously taken the related 400-level or 600-level course, respectively.

Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBA 601</td>
<td>Accounting and Finance for Managers</td>
<td>3</td>
</tr>
<tr>
<td>MBA 651</td>
<td>Marketing Strategy</td>
<td>3</td>
</tr>
<tr>
<td>MBA 681</td>
<td>From Idea to IPO</td>
<td>3</td>
</tr>
<tr>
<td>or MBA 683</td>
<td>Leading Innovation</td>
<td></td>
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<tr>
<td>MSEM 640</td>
<td>Systems Engineering</td>
<td>3</td>
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<tr>
<td>MSEM 650</td>
<td>Technical Project Management</td>
<td>3</td>
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<tr>
<td>MSEM 660</td>
<td>Professional Development for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>MSEM 695</td>
<td>Engineering Management Design Project</td>
<td>3</td>
</tr>
<tr>
<td>or MSEM 696</td>
<td>Engineering Management Internship</td>
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Additional Coursework: 12 credit hours of engineering coursework focused on student’s chosen area of learning

Total Hours: 33

1 12 credit hours of engineering coursework focused on student’s chosen area of learning