### Engineering Management (EMGT)

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Engineering Management Website (https://engineering-management.uark.edu/)

#### Degree Offered:
M.S. in Engineering Management (EMGT)

The Master of Science in Engineering Management prepares engineers to lead and manage teams, projects, and organizations with technical workforces to meet strategic objectives. Students will increase their engineering and management knowledge to enable them to develop and deliver new products and services to create value for their organization and customers.

#### Mode of Delivery:
Course work for the Master of Science in Engineering Management is delivered entirely online.

#### M.S. in Engineering Management

**Admissions requirements:**

1. Conferred bachelor of science in engineering degree from an engineering program accredited by the Engineering Accreditation Commission of ABET (or equivalent accreditation).
2. A grade point average (GPA) of 3.0 or better (A=4.0) on all course work taken prior to receipt of the engineering bachelor degree, or a GPA of 3.0 or better on the last 60 hours of course work taken prior to receipt of the engineering bachelor degree.
3. Applicants with a 3.0 or better GPA are not required to take the GRE.

#### Requirements for the Master of Science in Engineering Management:

**Core Courses (12 hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EMGT 5033</td>
<td>Introduction to Engineering Management</td>
<td>3</td>
</tr>
<tr>
<td>INEG 5443</td>
<td>Decision Models</td>
<td>3</td>
</tr>
<tr>
<td>OMGT 5463</td>
<td>Economic Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>OMGT 5783</td>
<td>Project Management for Operations Managers</td>
<td>3</td>
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**Engineering Sequence**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td></td>
<td>Three-course sequence from the following subject codes: BENG, BMEG, CHEG, CSCE, CVEG, ELEG, EMGT, INEG, or MEEG.</td>
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</tbody>
</table>

Students are encouraged to review the online engineering courses and select an approved cohesive sequence that meets their professional objectives.

**Electives (9 hours)**

Choose three courses from the available online EMGT, OMGT, engineering courses (listed above), or other approved graduate-level courses.

Suggested Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>OMGT 5793</td>
<td>Risk Management</td>
</tr>
<tr>
<td>OMGT 5003</td>
<td>Introduction to Operations Management</td>
</tr>
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</table>

**Comprehensive Exam**

A minimum of 80 percent of course work, including all core and engineering sequence courses, must be completed prior to the comprehensive oral exam.

**Total Hours** 30

#### Courses

**EMGT 5033. Introduction to Engineering Management. 3 Hours.**

Provides foundation knowledge of engineering management. Introduces quantitative skills required to lead a diverse, technical workforce, analyze financial data, lead technical projects, develop alternative solutions and communicate complex concepts. Apply decision and risk tools. Introduces basic engineering management principles. (Typically offered: Irregular)

**EMGT 5053. Tradeoff Analytics for Engineering Management. 3 Hours.**

Explore the use of trade-off analytics as a tool to assist with infrastructure development and preservation efforts, with integrated examples investigating maritime and multimodal infrastructure. Learn sound methodology to identify stakeholders, stakeholder objectives, and measures of performance for infrastructure improvement programs. Apply descriptive, predictive, and prescriptive data, models, and analytics to evaluate current infrastructure status and identify potential improvements. Develop and implement an Excel-based decision support tool to provide trade-off analytics insights and assess best value-per-dollar infrastructure decisions. Prerequisite: EMGT 5033 or instructor consent or department consent. (Typically offered: Fall, Spring and Summer)

**EMGT 514V. Special Topics in Engineering Management. 1-3 Hour.**

Consideration of current engineering management topics not covered in other courses. May be repeated for up to 6 hours of degree credit. Prerequisite: Graduate standing and must be admitted to the Master of Science in Engineering Management Program, or the Project Management Graduate Certificate Program, or be a Non-Degree Seeking Graduate Student, or have departmental consent. (Typically offered: Fall, Spring and Summer) May be repeated for up to 6 hours of degree credit.