

Date Submitted: 02/12/24 11:09 am

Viewing: **EMGTMS : Engineering Management,  
Master of Science in Engineering Management**

Last approved: 02/07/24 1:37 pm

Last edit: 02/21/24 2:13 pm

Changes proposed by: richardh

Catalog Pages Using  
this Program

[Engineering Management \(EMGT\)](#)

Submitter: User ID: richardh Phone:  
479-575-5521

Program Status Active

Academic Level Graduate

Type of proposal Major/Field of Study

Select a reason for this modification

Making Minor Changes to an Existing Certificate, Degree or Program (including 15 or fewer hours, admission/graduation requirements, Focused Studies or Tracks)

Are you adding a concentration?

No

Are you adding or modifying a track?

No

Are you adding or modifying a focused study?

No

Effective Catalog Year Fall 2024

College/School Code

College of Engineering (ENGR)

Department Code

Department of Industrial Engineering (INEG)

### In Workflow

1. ENGR Dean Initial
2. GRAD Dean Initial
3. Director of Curriculum Review and Program Assessment
4. Registrar Initial
5. Institutional Research
6. INEG Chair
7. ENGR Curriculum Committee
8. ENGR Faculty
9. ENGR Dean
10. Global Campus
11. Provost Review
12. Graduate Council
13. Faculty Senate
14. Provost Final
15. Registrar Final
16. Catalog Editor Final

### Approval Path

1. 02/16/24 8:41 am  
Kevin Hall (kdhall):  
Approved for ENGR  
Dean Initial
2. 02/16/24 11:59 am  
Ed Bengtson  
(egbengts):  
Approved for GRAD  
Dean Initial
3. 02/21/24 1:21 pm  
Lisa Kulczak  
(lkulcza): Approved  
for Director of  
Curriculum Review

Program Code           EMGTMS  
 Degree                    Master of Science in Engineering Management  
 CIP Code

- and Program  
 Assessment
4. 02/21/24 2:14 pm  
 Gina Daugherty  
 (gdaugher):  
 Approved for  
 Registrar Initial
  5. 02/21/24 4:08 pm  
 Doug Miles  
 (dmiles): Approved  
 for Institutional  
 Research
  6. 02/21/24 4:09 pm  
 Chase Rainwater  
 (cer): Approved for  
 INEG Chair
  7. 03/05/24 4:21 pm  
 Manuel Rossetti  
 (rossetti): Approved  
 for ENGR  
 Curriculum  
 Committee
  8. 03/06/24 9:23 am  
 Kevin Hall (kdhall):  
 Approved for ENGR  
 Faculty
  9. 03/06/24 9:24 am  
 Kevin Hall (kdhall):  
 Approved for ENGR  
 Dean
  10. 03/06/24 9:28 am  
 Suzanne Kenner  
 (skenner): Approved  
 for Global Campus
  11. 03/06/24 2:53 pm  
 Matthew Ganio  
 (msganio):  
 Approved for  
 Provost Review
  12. 03/28/24 7:08 pm  
 Ed Bengtson

(egbengts):  
Approved for  
Graduate Council

## History

1. May 12, 2017 by Rich Ham (richardh)
2. May 16, 2017 by Charlie Alison (calison)
3. May 16, 2017 by Charlie Alison (calison)
4. May 16, 2017 by Charlie Alison (calison)
5. May 16, 2017 by Charlie Alison (calison)
6. May 19, 2017 by Charlie Alison (calison)
7. May 23, 2017 by Charlie Alison (calison)
8. May 24, 2017 by Charlie Alison (calison)
9. May 25, 2017 by Lisa Kulczak (lkulcza)
10. Jun 30, 2017 by Amanda Corbell (ac087)
11. May 14, 2018 by Rich Ham (richardh)
12. Mar 17, 2020 by Rich Ham (richardh)
13. May 4, 2021 by Rich Ham (richardh)
14. Nov 9, 2022 by Rich Ham (richardh)

15. May 26, 2023 by  
 Rich Ham (richardh)  
 16. Feb 7, 2024 by Gina  
 Daugherty  
 (gdaugher)

14.0101 - Engineering, General.

Program Title

Engineering Management, Master of Science in Engineering Management

Program Delivery

Method

Online/Web-based

Is this program interdisciplinary?

No

Does this proposal impact any courses from another College/School?

No

What are the total 30  
hours needed to  
complete the  
program?

## On-line/Web-based Information

Reason for offering

Web-based Program

Reverted program to on-line only, which was the original intent when the program was originally approved.

Maximum Class Size 30

for Web-based

Courses

Course delivery  
mode

<b>Method(s)</b>
Online

Class interaction  
mode

<b>Method(s):</b>
Electronic Bulletin Boards

Percent Online

100% with No Required Campus Component

Provide a List of  
Services Supplied by  
Consortia Partners or  
Outsourced  
Organization

N/A

Estimate Costs of the Program over the  
First 3 Years

N/A

List Courses Taught  
by Adjunct Faculty

Upload  
Memorandum of  
Understanding Forms  
(if required)

## Program Requirements and Description

Requirements

### Admissions requirements:

Conferred bachelor of science in engineering degree from an engineering program accredited by the Engineering Accreditation Commission of ABET (or equivalent accreditation),

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.

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 (15 hours)

<a href="#">EMGT 50303</a>	Introduction to Engineering Management	3
<a href="#">EMGT 54403</a>	Decision Models	3
<a href="#">EMGT 54603</a>	Economic Decision Making	3
<a href="#">EMGT 57803</a>	Project Management	3
<a href="#">EMGT 57003</a>	Probability and Statistics for Engineering Management	3
<b>Electives (15 Hours)</b>		<b>15</b>

Choose five courses from the available online EMGT, OMGT, or from engineering programs (listed above), or other graduate-level courses approved by the program director.

Suggested Electives:

[EMGT 50503](#) Tradeoff Analytics for Engineering Management

[EMGT 56003](#) Systems Thinking and Systems Engineering

[EMGT 57703](#) Engineering Risk Analysis

[OMGT 59803](#) Advanced Project Management

[OMGT 56203](#) Strategic Management

[OMGT 52503](#) Leadership Principles and Practices

[OMGT 58703](#) Leading Change

[OMGT 50003](#) Introduction to Operations Management

[OMGT 54203](#) Operations Management & Global Competition

[OMGT 50103](#) Supply Chain Management for Operations Managers

[OMGT 51203](#) Finance for Operations Managers

[OMGT 53703](#) Quality Management

[OMGT 54303](#) Cost Estimation Models

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

### **Accelerated Master of Science in Engineering Management**

Undergraduate students seeking a BS in any degree accredited by the Engineering Accreditation Commission of ABET at the University of Arkansas who choose to pursue graduate studies in Engineering Management may participate in the accelerated M.S.E.M program. With department approval, up to 12 credit hours of 5000-level courses for the M.S.E.M degree can be used for student's current undergraduate program at the University of Arkansas and apply to the M.S.E.M degree. The graduate courses taken as an undergraduate student must be taken during the final 12-month period of their undergraduate degree. Students then take the additional credit hours of approved MSEM graduate-level courses to meet the 30 credit hour M.S.E.M degree requirements. Undergraduate students interested in the accelerated M.S.E.M. degree should apply to the program prior to starting the second-to-last semester of their undergraduate program. To be eligible students must have a 3.0 cumulative GPA or higher and submit the normal application materials required by the graduate school for the M.S.E.M. degree program.

Are Similar Programs available in the area?

No

Estimated Student Demand for Program 30

Scheduled Program Review Date 2028-2029

Program Goals and Objectives

**Program Goals and Objectives**

Prepare students to lead and manage engineering programs, technology, personnel and functions.

Learning Outcomes

**Learning Outcomes**

1. Apply the technical and soft skills required to lead and manage diverse and inclusive, complex global engineering activities involving processes, technology, and a technical workforce to support the organization’s mission and vision.
2. Use technology to develop plans, management systems, and innovative products and services to create value that are agile, resilient, and sustainable.
3. Lead and manage multi-disciplinary, multi-cultural, geographically dispersed, agile teams, and projects.
4. Identify problems, analyze engineering alternatives, and design solutions considering financial, environmental, and societal impact for the public good.
5. Assess the financial implications of engineering programs.
6. Use techniques and models to support data-driven decision-making involving significant future uncertainties about technologies, environment, demand.
7. Assess legal, safety, regulatory, professional, and ethical organizational and individual responsibilities.
8. Communicate clearly and concisely, both orally and in writing, to stakeholders and senior decision-makers.

Description and justification of the request

Description of specific change	Justification for this change
Addition for accelerated program approved by department faculty	Accelerated program established to improve student access and exposure to graduate online opportunities.

Upload attachments

Reviewer Comments

**Lisa Kulczak (lkulcza) (02/21/24 1:21 pm):** ATTENTION REGISTRAR: Please remove Undergraduate Council from the workflow.

**Gina Daugherty (gdaugher) (02/21/24 2:13 pm):** Undergraduate Council removed from workflow.

Key: 601