

New Program Proposal

Date Submitted: 02/19/23 1:33 pm

Viewing: **EMGT-M : Engineering Management
Minor**

Last edit: 02/24/23 11:51 am

Changes proposed by: cassady

Submitter:	User ID:	cassady	Phone:
575-6735			
Program Status	Active		
Academic Level	Undergraduate		
Type of proposal	Minor		
Select a reason for this new program	Adding New Minor		
Effective Catalog Year	Fall 2023		
College/School Code	College of Engineering (ENGR)		
Department Code	Department of Industrial Engineering (INEG)		
Program Code	EMGT-M		
Degree	Minor		
CIP Code			

In Workflow

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

Approval Path

1. 02/07/23 1:52 pm
Kevin Hall (kdhall):
Approved for ENGR Dean Initial
2. 02/09/23 3:16 pm
Alice Griffin (agriffin): Rollback to ENGR Dean Initial for Director of Curriculum Review and Program Assessment
3. 02/16/23 3:45 pm
Kevin Hall (kdhall):

- Approved for ENGR
Dean Initial
4. 02/17/23 3:42 pm
Alice Griffin
(agriffin): Rollback
to Initiator
5. 02/20/23 4:15 pm
Kevin Hall (kdhall):
Approved for ENGR
Dean Initial
6. 02/21/23 11:09 am
Alice Griffin
(agriffin): Approved
for Director of
Curriculum Review
and Program
Assessment
7. 02/22/23 3:14 pm
Gina Daugherty
(gdaugher):
Approved for
Registrar Initial
8. 02/24/23 11:51 am
Doug Miles
(dmiles): Approved
for Institutional
Research
9. 02/24/23 12:09 pm
Ed Pohl (epohl):
Approved for INEG
Chair
10. 02/28/23 4:04 pm
Manuel Rossetti
(rossetti): Approved
for ENGR
Curriculum
Committee
11. 03/01/23 10:18 am
Kevin Hall (kdhall):
Approved for ENGR
Faculty

- 12. 03/01/23 10:20 am
Kevin Hall (kdhall):
Approved for ENGR
Dean
- 13. 03/01/23 10:23 am
Suzanne Kenner
(skenner): Approved
for Global Campus
- 14. 03/01/23 10:32 am
Jim Gigantino
(jgiganti): Approved
for Provost Review
- 15. 03/20/23 10:21 am
Alice Griffin
(agriffin): Approved
for Undergraduate
Council

14.0101 - Engineering, General.

Program Title

Engineering Management Minor

Program Delivery

Method

On Campus

Is this program interdisciplinary?

No

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

No

What are the total 15-16
hours needed to
complete the
program?

Program Requirements and Description

Requirements

Requirements for the minor in Engineering Management: The student must be pursuing a bachelor of science degree from an engineering program accredited by the Engineering Accreditation Commission of ABET. The minor

requires completion of 15-16 credit hours of coursework.

<u>INEG 2413</u>	Engineering Economic Analysis	3
<u>INEG 3443</u>	Project Management	3
<u>INEG 4433</u>	Systems Engineering and Management	3
Select one of the following:		3-4
<u>INEG 2314</u>	Statistics for Industrial Engineers I	
<u>INEG 3313</u>	Engineering Probability and Statistics	
Select one of the following:		3
<u>INEG 4123</u>	Global Engineering and Innovation	
<u>INEG 4253</u>	Leadership Principles and Practices	
<u>INEG 4323</u>	Quality Engineering and Management	
<u>INEG 4453</u>	Productivity Improvement	
<u>INEG 5433</u>	Cost Estimation Models	
<u>INEG 5443</u>	Decision Models	
<u>EMGT 5033</u>	Introduction to Engineering Management	
Total Hours		15-16

8-Semester Plan

Program Costs

All courses associated with this minor are already offered on a regular basis. Course sections would become larger based on the popularity of the minor.

Library Resources

None

Instructional

Facilities

All courses associated with this minor are already offered on a regular basis. Course sections would become larger based on the popularity of the minor.

Faculty Resources

All courses associated with this minor are already offered on a regular basis. Course sections would become larger based on the popularity of the minor.

List Existing Certificate or Degree Programs that Support the Proposed Program

Program(s)
INEGBS - Industrial Engineering, Bachelor of Science in Industrial Engineering
EMGTMS - Engineering Management, Master of Science in Engineering Management

Are Similar Programs available in the area?

No

Estimated Student 100 per year

Demand for Program

Scheduled Program NA

Review Date

Program Goals and
Objectives

Program Goals and Objectives

The purpose of this minor is to provide engineering undergraduate with the fundamental knowledge and skills they need to pursue technical leadership positions in their career.

Learning Outcomes

Learning Outcomes

Students construct point and interval estimates and conduct hypothesis tests for single samples and two samples.

Students can construct, analyze, validate, and interpret a regression model using real-world industrial engineering data.

Students can design, conduct, analyze, and interpret a factorial designed experiment.

Students can construct and analyze quality control charts using quality engineering principles.

Students can perform economic equivalence calculations.

Students can evaluate investment alternatives based on discounted cash flow methods such as present worth, annual worth, future worth, payback analysis, rate of return and benefit/cost ratio.

Students can evaluate investment alternatives involving loans, bonds, depreciable assets, taxes, and inflation.

Students understand the context of project management in our world today.

Learning Outcomes

Students can successfully plan a project and develop its budget.

Students understand how to execute a project that that has been planned, budgeted, scheduled, and resourced.

Students have the systems engineering and management knowledge and skills to participate as an effective member in an engineering team.

Students have the ability to research, apply, and critique the use of systems engineering and management tools and techniques to define a system/process design opportunity.

Students can apply the Systems Decision Process to an engineering problem to develop a creative, feasible solution.

Description and Justification for this request

Description of request	Justification for request
We are proposing the creation of a minor in engineering management for students pursuing an engineering degree at the University of Arkansas.	We believe that engineering students at the University of Arkansas would appreciate and benefit from the opportunity to complete a structured set of courses that will give them the fundamental knowledge and skills they need to pursue technical leadership positions in their career

Upload attachments

Reviewer Comments

Alice Griffin (agriffin) (02/09/23 3:10 pm): Revised program code and program title fields to match the campus naming convention.

Alice Griffin (agriffin) (02/09/23 3:13 pm): Changing scheduled program review date to NA. Program reviews are not conducted on academic minors.

Alice Griffin (agriffin) (02/09/23 3:16 pm): Rollback: Please work with the submitter to reformat the curriculum into a "course list" using the CourseLeaf tool bar. If you need assistance, feel free to contact me.

Alice Griffin (agriffin) (02/17/23 3:42 pm): Rollback: Please work with your Dean's Office to submit the curriculum into a Course List utilizing the tools in the CourseLeaf toolbar. If you need assistance, feel free to reach out to me.

Alice Griffin (agriffin) (02/21/23 9:56 am): Removed "in" from the following statement in the program requirements: The student must be pursuing a bachelor of science in degree from an

engineering program. College is encouraged to review for accuracy.

Alice Griffin (agriffin) (02/21/23 11:08 am): Revised the curriculum to reflect 15-16 hours (from 15-17 hours) as approved by the submitter. Department is encouraged to review for accuracy.

Alice Griffin (agriffin) (02/21/23 2:08 pm): Removed comment from INEG 4433 at request of submitter.

Doug Miles (dmiles) (02/24/23 11:51 am): Changed CIP code to match MS major

Key: 953