

Date Submitted: 01/15/21 11:55 am

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

Last approved: 03/17/20 6:15 pm

Last edit: 02/18/21 4:44 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 Degree (e.g. changing 15 or fewer hours, changing admission/graduation requirements, adding/changing Focused Study or Track)

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 2021

College/School Code

In Workflow

1. ENGR Dean Initial
2. GRAD Dean Initial
3. Director of Program Assessment and Review
4. Registrar Initial
5. Institutional Research
6. INEG Chair
7. ENGR Curriculum Committee
8. ENGR Faculty
9. WCOB Dean
10. ENGR Dean
11. Global Campus
12. Provost Review
13. University Course and Program Committee
14. Graduate Committee
15. Faculty Senate
16. Provost Final
17. Provost's Office-- Notification of Approval
18. Registrar Final
19. Catalog Editor Final

Approval Path

1. 12/08/20 2:21 pm
Norman Dennis (ndennis): Rollback to Initiator
2. 01/14/21 9:26 am
Norman Dennis

College of Engineering (ENGR)

Department Code

Department of Industrial Engineering (INEG)

Program Code EMGTMS

Degree Master of Science in Engineering Management

CIP Code

(ndennis): Rollback
to Initiator

3. 01/14/21 2:15 pm
Norman Dennis
(ndennis): Approved
for ENGR Dean
Initial
4. 01/14/21 3:21 pm
Pat Koski (pkoski):
Approved for GRAD
Dean Initial
5. 01/15/21 10:19 am
Alice Griffin
(agriffin): Rollback
to Initiator
6. 01/15/21 10:48 am
Norman Dennis
(ndennis): Rollback
to Initiator
7. 01/15/21 11:57 am
Norman Dennis
(ndennis): Approved
for ENGR Dean
Initial
8. 01/15/21 1:28 pm
Pat Koski (pkoski):
Approved for GRAD
Dean Initial
9. 01/19/21 4:26 pm
Alice Griffin
(agriffin): Approved
for Director of
Program
Assessment and
Review
10. 01/22/21 2:56 pm
Lisa Kulczak
(lkulcza): Approved
for Registrar Initial

11. 01/22/21 2:59 pm
Gary Gunderman
(ggunderm):
Approved for
Institutional
Research
12. 01/22/21 3:07 pm
Ed Pohl (epohl):
Approved for INEG
Chair
13. 02/18/21 9:37 am
Manuel Rossetti
(rossetti): Approved
for ENGR
Curriculum
Committee
14. 02/18/21 11:59 am
Norman Dennis
(ndennis): Approved
for ENGR Faculty
15. 02/18/21 4:25 pm
Karen Boston
(kboston):
Approved for WCOB
Dean
16. 02/18/21 4:29 pm
Norman Dennis
(ndennis): Approved
for ENGR Dean
17. 02/18/21 4:45 pm
Suzanne Kenner
(skenner): Approved
for Global Campus
18. 02/19/21 8:51 am
Terry Martin
(tmartin): Approved
for Provost Review

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)

14.0101 - Engineering, General.

Program Title

Engineering Management, Master of Science in Engineering Management

Program Delivery

Method

~~On-Campus~~

Off Campus

Online/Web-based

Is this program interdisciplinary?

No

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

Yes ~~No~~

College(s)/School(s)	College/School Name
	Walton College of Business (WCOB)

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

Off Campus Information

Off Campus

Location(s)

Location Name	Address	Distance from Main Site
Walton College at 2nd and Main	119 S Main St Little Rock, Arkansas 72201	186
North Central Florida – Hurlburt AFB	221 Lukaski Ave., Hurlburt Field, FL 32544	729
Naval Air Station Millington, Tennessee	5750 Millington, TN 38504	335
None	None	0

Reason for Offering

Program Off Campus

There are no off-campus locations. ~~Adding Walton College at 2nd and Main to replace Little Rock AFB site.~~

Fifty percent of the credits required will be offered

~~Both – off-campus location and distance technology~~

Distance Technology

Will Students complete all Program Requirements at this Location?

Yes ~~No~~

Upload
Memorandum of
Understanding Forms
(if required)

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. ~~Marketing research and needs assessment indicate working engineers prefer the flexibility of online instruction. Additionally, needs expressed by 10% of engineers in the operations management program along with the flexibility of 5-8-week terms. The attached survey shows decision makers in Arkansas companies believe an option for mixed methods including web-based/online instruction is an important part of any program.~~

Maximum Class Size **30** ~~35~~
for Web-based
Courses

Course delivery
mode

Method(s)
Blended Delivery Methods
Online

Class interaction
mode

Method(s):
Electronic Bulletin Boards
Electronic Bulletin Boards

Percent Online
100% with No Required Campus Component
~~50-99%~~

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

N/A None

Estimate Costs of the Program over the First 3 Years **N/A Refer to attached spreadsheet.**

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 (12 hours)

EMGT 5033	Introduction to Engineering Management	3
INEG 5443	Decision Models	3
OMGT 5463	Economic Decision Making	3
OMGT 5783	Project Management for Operations Managers	3

Engineering Sequence 9

Three-course sequence from the following subject codes: BENG, BMEG, CHEG, CSCE, CVEG, ELEG, EMGT, INEG, or MEEG.

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

Electives 9

Choose three 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:

OMGT 5793	Risk Management
OMGT 5003	Introduction to Operations Management

EMGT 5793 RISK MANAGEMENT

Course EMGT 5793 RISK MANAGEMENT Not Found

OMGT 5253

Leadership Principles and Practices

OMGT 5423

Operations Management & Global Competition

OMGT 5653

Introduction to Data Analytics for Operations Managers

OMGT 5983

Advanced Project Management

MGMT 5323

Course MGMT 5323 Not Found

MGMT 5363

Course MGMT 5363 Not Found

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

Are Similar Programs available in the area?

No

Estimated Student 30

Demand for Program

Scheduled Program Fall 2021-2022

Review Date

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** ~~Create engineering management strategic plans~~ **to lead and manage diverse and inclusive, complex global engineering activities involving processes, technology, and a technical workforce to support the an organization's mission and vision.**

~~vision and mission:~~

2. **Use technology to develop plans, management systems, and innovative products and services to create value that are agile, resilient, and sustainable.**

~~Evaluate and apply leadership theories for a technical workforce:~~

3. **Lead and manage multi-disciplinary, multi-cultural, geographically dispersed, agile teams, and projects.**

~~Apply techniques leading multi-disciplinary project teams to solve complex problems in global operations involving processes, technology and people.~~

Learning Outcomes

4. Identify problems, analyze engineering alternatives, and design solutions considering financial, environmental, and societal impact for the public good.

~~Assess financial status of programs and organizations using quantitative tools and propose solutions to root causes of deficiencies.~~

5. Assess the financial implications of engineering programs.

~~Develop and evaluate solutions to complex, contemporary engineering management problems using qualitative and quantitative decision and risk models.~~

6. Use techniques and models to support data-driven decision-making involving significant future uncertainties about technologies, environment, demand. Effectively communicate decision papers to senior stakeholders and decision makers

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
Clarify program outcomes based on annual program review, input from faculty, and course reviews. Results briefed and coordinated through program and department faculty. Removes WCOB courses from elective sequence. Reverted program to on-line only, which was the original intent when the program was originally approved.	Results of the normal annual process to validate and update program outcomes and follow continuous improvement and assessment plans. Review of the WCOB courses from initial program inception showed they were not used and didn't meet the body of knowledge alignment requirements for the program.

Upload attachments

Reviewer Comments

Norman Dennis (ndennis) (12/08/20 2:20 pm): corrected typos

Norman Dennis (ndennis) (12/08/20 2:21 pm): Rollback: These learning outcomes are nearly identical to those of the MSOM program. There should be some distinction between the two programs.

Norman Dennis (ndennis) (01/14/21 9:26 am): Rollback: per your request

Norman Dennis (ndennis) (01/14/21 2:14 pm): edited elective course offerings

Norman Dennis (ndennis) (01/14/21 2:15 pm): note EMGT 5793 is already in workflow and has been approved by ENGR Dean

Alice Griffin (agriffin) (01/15/21 10:13 am): Inserted course title for pending course, EMGT 5793, and indented for formatting.

Alice Griffin (agriffin) (01/15/21 10:15 am): Changed effective date from spring 2021 to fall 2021. Program changes (not new programs) can only become effective with the new catalog of studies.

Alice Griffin (agriffin) (01/15/21 10:19 am): Rollback: The removal of MGMT courses impacts WCOB. Please change your response to "Does this proposal impact any courses from another college?" This action will place WCOB in the approval workflow. Also please note the course changes in the description and justification fields.

Norman Dennis (ndennis) (01/15/21 10:48 am): Rollback: Rich, See Alice's note. Include the removal of course in the change description block and provide the justification for that in the justification block.

Alice Griffin (agriffin) (01/19/21 4:25 pm): Corrected minor typos in the description and justification.

Alice Griffin (agriffin) (01/19/21 4:26 pm): Request impacts another college. Therefore, it will require campus approval.

Norman Dennis (ndennis) (02/18/21 11:59 am): Removed off campus locations and reverted program to on-line only.

Suzanne Kenner (skenner) (02/18/21 4:44 pm): Per discussion with Dr. Dennis, adding online/web-based delivery back on the degree plan. "This MS program was intended to be a 100% online program with no face to face delivery"

Key: 601