# **Program Change Request**

Date Submitted: 11/29/17 1:20 pm

Viewing: EMGTMS: Engineering Managment,

# Master of Science in Engineering

# Management

Last approved: 06/30/17 4:05 pm

Last edit: 12/12/17 12:35 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 Focused Study)

Are you adding a concentration?

No

Are you adding a track?

No

Are you adding a focused study?

No

Effective Catalog Year Fall 2018

College/School Code

#### In Workflow

- 1. ENGR Dean Initial
- 2. GRAD Dean Initial
- 3. Director of Program
  Assessment and
  Review
- 4. Registrar Initial
- 5. INEG Chair
- 6. ENGR Curriculum Committee
- 7. ENGR Faculty
- 8. ENGR Dean
- 9. Global Campus
- 10. Provost Review
- 11. University Course and Program
  Committee
- 12. Graduate Committee

#### 13. Faculty Senate

- 14. Provost Final
- 15. Provost's Office--Notification of Approval
- 16. Registrar Final
- 17. Catalog Editor Final

### **Approval Path**

- 1. 09/14/17 9:26 am Norman Dennis
  - (ndennis): Rollback
  - to Initiator
- 2. 09/26/17 10:36 am Norman Dennis

(ndennis): Rollback

College of Engineering(ENGR)

**Department Code** 

to Initiator

3. 11/30/17 1:14 pm

Norman Dennis

(ndennis): Approved

for ENGR Dean

Initial

- 4. 12/11/17 3:50 pm
  Patricia Koski
  (pkoski): Approved
  for GRAD Dean
  Initial
- 5. 12/12/17 12:36 pm
  Alice Griffin
  (agriffin): Approved
  for Director of
  Program
  Assessment and
  Review
- 6. 12/14/17 4:41 pm Lisa Kulczak (Ikulcza): Approved for Registrar Initial
- 7. 12/20/17 3:21 pm
  Ed Pohl (epohl):
  Approved for INEG
  Chair
- 8. 01/31/18 12:30 pm
  Manuel Rossetti
  (rossetti): Approved
  for ENGR
  Curriculum
  Committee
- 9. 01/31/18 1:01 pm

  Norman Dennis

  (ndennis): Approved
  for ENGR Faculty

10. 01/31/18 1:02 pm

Norman Dennis

(ndennis): Approved
for ENGR Dean

11. 02/02/18 3:25 pm Kiersten Bible (kbible): Approved for Global Campus

12. 02/06/18 12:55 pm
Terry Martin
(tmartin): Approved
for Provost Review

13. 02/23/18 4:46 pm
Alice Griffin
(agriffin): Approved
for University
Course and Program
Committee

14. 03/29/18 5:06 pm
Patricia Koski
(pkoski): Approved
for Graduate
Committee

#### 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

3 of 9

(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)

Department of Industrial Engineering(INEG)

Program Code EMGTMS

Degree Master of Science in Engineering Management

CIP Code

14.0101 - Engineering, General.

**Program Title** 

Engineering Managment, 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?

No

What are the total 30

hours needed to complete the program?

# **Off Campus Information**

**Off Campus** 

Location(s)

<b>Location Name</b>	Address	<b>Distance from Main</b>

		Site
Little Rock AFB	1490 Vandenberg Blvd, Room 107, Jacksonville, AR 72099	195
North Central Florida - Hurlburt AFB	221 Lukaski Ave., Hurlburt Field, FL 32544	729
Naval Air Station Millington, Tennessee	5750 Millington, TN 38504	335

Reason for Offering Program Off Campus already approved

Fifty percent of the credits required will

be offered

Both - off-campus location and distance technology

Will Students complete all Program Requirements at this Location?

No N

Where will the Program be completed? already approved

Upload
Memorandum of
Understanding Forms
(if required)

# **On-line/Web-based Information**

Reason for offering

Web-based Program

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 35 for Web-based

Courses Course delivery Method(s) mode **Online** Class interaction Method(s): mode Other **Specify Other** Interaction Methods **Synchronous video Percent Online** 100% Provide a List of Services Supplied by Consortia Partners or Outsourced Organization None Estimate Costs of the Refer to attached Program over the spreadsheet. First 3 Years 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 Requirements for the GRE.

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

#### Core Courses (12 hours)

<u>EMGT 5033</u>	Introduction to Engineering Management (Irregular)	3
<u>INEG 5443</u>	Decision Models (Irregular)	3
OMGT 5463	Economic Decision Making (Irregular)	3
OMGT 5783	Project Management for Operations Managers (Irregular)	3
<b>Engineering Sequence</b>		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, engineering courses (listed above), or other approved graduate-level courses.

#### Suggested Electives:

<u>OMGT 5793</u>	Risk Management (Irregular)
OMGT 5003	Introduction to Operations Management (Sp, Su, Fa)
OMGT 5253	Leadership Principles and Practices (Sp, Su, Fa)
OMGT 5423	Operations Management & Global Competition (Sp)
OMGT 5653	Introduction to Data Analytics for Operations Managers (Irregular)
OMGT 5983	Advanced Project Management (Irregular)
MGMT 5323	New Venture Development (Fa)
MGMT 5363	Innovation & Creativity (Sp)

#### 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 2019-20

**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. Create engineering management strategic plans to support an organization's vision and mission.

  mission.
- 2. Evaluate and apply leadership theories for a technical workforce.
- 3. Apply techniques leading multi-disciplinary project teams to solve complex problems in global operations involving processes, technology and **people**.

#### people.

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

#### deficiencies.

- 5. Develop and evaluate solutions to complex, contemporary engineering management problems using qualitative and quantitative decision and risk **models.**models.
- 6. Effectively communicate decision papers to senior stakeholders and decision makers

#### Description and justification of the request

# Changed GRE requirement to be consistent with the MSOM program and with other competitive Engineering Management programs. The GRE is viewed as a discouraging factor for working professionals and there is no data to indicate a GRE score is an indicator of success. The requirement of 3.0 and professional experience has been a good indicator of success in the MSOM and MSE programs.

#### Justification for this change

The MSEM program is professional masters degree program. The director will look for various criteria to consider whether requiring the GRE for those applicants with a GPA below 3.0. A Professional Engineer certification, depth of experience and level of responsibility are a few areas. In a few unusual cases, a student going directly to a professional master's program with a history of rigorous academic accomplishment may be considered to enter the program.

**Upload attachments** 

#### **Reviewer Comments**

**Norman Dennis (ndennis) (09/14/17 9:26 am):** Rollback: It was my understanding that this program was intended to be an on-line only program. What is the justification for changing it to mixed mode? OMGT has an exception from the grad council to not require the GRE for working professionals. At least that is how the request was presented to the council. By stating it the way you do in the catalog, students with no professional experience will fall under the same rule. Is that your intend?

**Norman Dennis (ndennis) (09/26/17 10:36 am):** Rollback: You cannot advertise admission requirements that are lower than the grad school minimums. Grad school requires 3.0 on last 60 hours. If you want to waive the GRE you should establish a higher than minimum GPA or seek a waiver for the program as a whole.

**Norman Dennis (ndennis) (11/30/17 1:13 pm):** edited the change description and removed the Little Rock Downtown site.

Alice Griffin (agriffin) (12/12/17 12:35 pm): Changed effective catalog year from fall 2017 to fall 2018. Also changed total hours for program from 12 to 30 hours.

Key: 601