ENGINEERING MANAGEMENT GRADUATE CERTIFICATE

Supporting Documentation

a.   Curriculum outline - List of courses in new program - Underline required courses.

EMGT 5033 Introduction to Engineering Management

EMGT 5603 Systems Thinking and Systems Engineering

OMGT 5783 Project Management for Operations Managers

Electives (Select one)

OMGT 5003 Introduction to Operations Management

OMGT 5253 Leadership Principles and Practices

OMGT 5463 Economic Decision Making

b.   Total semester credit hours required for proposed program (Program range:  CP: 6-21 SCH, TC: 21-45 SCH, GC 12-21 SCH)

12

c.   New courses and new course descriptions

None. Certificate uses existing courses.

d.  Program goals and objectives:

*Program Goals:*

Provide internationally competitive and industry-recognized education to meet emerging needs of engineering, engineering management, and operations management professionals.

Prepare students to assume leadership roles in industry and government employing engineering management principles and practices.

*Program Objectives:*

Select and apply the appropriate tools and analysis methods to improve engineering management and systems engineering processes to achieve the organizational mission.

Be able to plan and lead projects to improve engineering management processes and deliver products and services.

Concisely communicate to decision-makers.

e.   Expected student learning outcomes:

Develop broad competencies in engineering management principles and practices.

Demonstrate skills to lead engineering management projects to provide new or improved products and services.

Apply problem-solving using systems thinking and system engineering principles.

f.   Documentation that program meets employer needs.

Professional organization surveys and market research indicate employer need for engineering management skills. Meetings with local industry indicate engineering management as a skill they utilize that is consistently in demand. Discussions with employers and students during career fairs and conferences reinforces the need for engineering management proficiency. Similar certificates were benchmarked at Stanford University and the University of Colorado. There are no Engineering Management certificates at universities in Arkansas.

g.  Student demand (projected enrollment) for proposed program.

Based on student surveys and feedback from students, from site coordinators/advisors, we anticipate a first-year enrollment of 20. This method was a very good predictor of enrollments for previous certificates.

h.  Program approval letter from licensure/certification entity, if required

N/A

j.   Scheduled program review date (within 10 years of program).

2028-2029