LETTER OF NOTIFICATION - 10

GRADUATE CERTIFICATE PROGRAM

(12-21 semester credit hours)

1. Institution submitting request: University of Arkansas Fayetteville

1. Contact person/title: Dr. Terry Martin, Vice Provost for Academic Affairs
2. Phone number/e-mail address: (479) 575-2151/tmartin@uark.edu
3. Proposed effective date: Fall 2019
4. Name of proposed Graduate Certificate Program (Program must consist of 12-21 semester credit hours from existing graduate courses):

Lean Six Sigma, Graduate Certificate

1. Proposed CIP Code: 15.1501
2. Reason for proposed program implementation: The Master of Science in Operations Management (MSOM or OMGT) has focused on lean six sigma, quality management and process improvement as one of the 10 operations management strategic decisions. During marketing surveys, current and potential students indicated a desire for graduate certificates focusing in project management, lean six sigma/quality, homeland security operations, risk management and healthcare logistics. These have been informal focus areas students have followed since the inception of the MSOM program. Surveys from students and contact with employers indicate more value in focused areas that follow the industry-accepted Body of Knowledge (BOK) for each of these areas. The American Society for Quality (ASQ) BOK was followed in redesigning the basic course and adding an advanced course for Lean Six Sigma. The Arkansas Economic Development Commission workforce training initiatives recommend this standard to Arkansas businesses. This initiative was followed in the first MSOM certificate in Project Management which has resulted in more than 20 new students in the first term being offered; this certificate continues that strategy to provide industry accepted BOK education to meet student indicated interest.
3. Provide the following:
	1. Curriculum outline - List of courses in new program – Underline required courses

 OMGT 5373 - Quality Management

 OMGT 5473 - Lean Six Sigma

 OMGT 5493 - Advanced Lean Six Sigma

 OMGT 5783 - Project Management for Operations Managers

* 1. Total semester credit hours required (Program range: 12-21 graduate semester credit hours)

12 Hours (4 courses)

* 1. New courses and course descriptions.

 One course (OMGT 5473 – Lean Six Sigma) was substantially revised and redesigned from the OMGT 5613 -Lean and Production Inventory Course. This course has been taught as a 577V Special Problems as an OMGT elective and is in the approval process. One new course, OMGY 5493 Advanced Lean Six Sigma was developed to solidify BOK coverage and add practical application. This course is being taught as an OMGT 577V Special Problems elective and is in the approval process.

 OMGT 5473 – Lean Six Sigma

 This course has been taught as an OMGT 577V Special Problems as an OMGT elective and is in the final approval process.

 *Course Description*:

 This course covers the application of lean principles to manufacturing, service and government processes in order to improve productivity, increase value and eliminate waste as well as the use of the Six Sigma problem solving methodology to reduce variation and improve quality.

 Students will gain experience with the tools and analysis methods used in both approaches. The topics covered include: methods for creating Lean processes, proven lean problem-solving methodologies, managing a lean transformation, implementing a Six Sigma initiative, and executing the five phases of the Six Sigma DMAIC process, and communicating results to stakeholders and decision-makers.

 OMGT 5493 – Advanced Lean Six Sigma

 *Course Description:*

With an emphasis on application, this course builds upon the Lean Six Sigma and Quality Management courses and covers analysis techniques for Lean Six Sigma problem solving in the Analyze, Improve, and Control phases of the DMAIC process. The topics covered include descriptive versus inferential statistics, sampling, Hypothesis Testing with Normal and Non-Normal Data, regression analysis, design of experiments, and control charts.

* 1. Program goals and objectives

 *Program Goals:*

1. Provide internationally competitive and industry recognized project lean six sigma graduate education to meet emerging needs of operations management professionals.
2. Prepare operations management students to assume leadership roles in industry and government employ lean six sigma principles to develop process improvement strategy.

 *Program Objectives:*

1. Translate customer feedback and enterprise goals into opportunities for improvement.
2. Create and sustain a culture that focuses on delivery of value by utilizing continuous process improvement and variance reduction strategies.
3. Select and apply the tool and analysis methods commonly used as part of the Lean Six Sigma DMAIC process.
4. Concisely communicate plans and results of studies to decision makers.
5. Explain and apply the project selection process.
	1. Expected student learning outcomes
6. Develop lean six sigma competencies in the DMAIC process and team roles.
7. Demonstrate skills to manage a Six Sigma improvement project.
8. Apply problem-solving skills to Lean Six Sigma initiatives.
9. Assess and apply the correct Lean Six Sigma process improvement technique in real-world scenarios.

* 1. Documentation that program meets employer needs

A survey of job opportunities, student surveys indicating employer desires of skills and information presented by the American Society of Quality indicates demand for Lean Six Sigma process improvement skills. Meetings with local industry indicate Lean Six Sigma as a skill they utilize that is consistently lacking and needed. Discussions with employers and students during career fairs and conferences reinforces the need for Six Sigma proficiency.

* 1. Student demand (projected enrollment) for program

Based on student surveys and feedback in the advanced project management class from site coordinators/advisors, anticipate a first year enrollment of 30. Future plans to include portions of the program as a concentration may increase the numbers. This method was a very good predictor of enrollments and enthusiasm for the project management certificate.

* 1. Name of institutions offering similar program and the institution(s) used as a model to develop the proposed program

 The American Society for Quality is widely accepted as the standard for Lean Six Sigma Certification. The BOK from the ASQ certification process was used as the model for the certificate based on indications from students and employers.

* 1. Scheduled program review date (within 10 years of program implementation)

2019-2020

1. Provide documentation that proposed program has received full approval by licensure/certification entity, if required. (A graduate certificate offered for teacher/educator administrator licensure must be reviewed/approved by the Arkansas Department of Education prior to consideration by the Coordinating Board; therefore, the Education Protocol Form must be submitted to ADHE along with the Letter of Notification.)

 Not Applicable for this certificate.

1. Institutional curriculum committee review/approval date: March 14, 2018
2. Will this program be offered on-campus, off-campus or via distance delivery? If yes, indicate mode of distance delivery. Online delivery.
3. Identify off-campus location. Provide a copy of e-mail notification to other institutions in the area of the proposed off-campus program offering and their responses; include your reply to the institutional responses.
4. Provide additional program information if requested by ADHE staff.

President/Chancellor Approval Date: January 21, 2019

Board of Trustees Notification Date: March 28, 2019

Chief Academic Officer: James S. Coleman Date: January 10, 2019