

**University of Arkansas - Fort Smith**  
**5210 Grand Avenue**  
**P. O. Box 3649**  
**Fort Smith, AR 72913-3649**  
**479-788-7000**

**General Syllabus**

**WFL 2173 Introduction to Lean Enterprise Systems**

Credit Hours: 3      Lecture Hours: 3      Laboratory or other types of Hours: 0

Prerequisite(s): None

Prerequisite(s) or Corequisite(s): None

Corequisite(s): None

Effective Catalog: 2020-2021

**I. Course Information**

**A. Catalog Description**

Examines the concept of achieving a lean enterprise in business and manufacturing operations through exploration of the strategies and philosophies of operating a business.

**B. Additional Information - None**

**II. Student Learning Outcomes**

**A. Subject Matter**

Upon successful completion of this course, the student will be able to:

1. Explain the competitive importance of lean enterprise concepts.
2. List the most important reasons for companies to manage change effectively.
3. Describe the five components of a 5S program and explain why the fifth S is the most difficult portion of the program.
4. List the most critical elements of a visual factory.
5. Identify with evidence the anticipated reductions associated with Just-in-time implementation.
6. Contrast and compare the risks and benefits associated with single source suppliers.
7. Distinguish between internal and external setup.
8. Describe how a Total Productive Maintenance program provides cost savings and productivity improvements.
9. Explain the advantages of a continuous improvement (kaizen) approach when compared to an innovation approach.
10. Design and build a Kanban system for pulling parts to point-of-use.

11. Redesign a small work area simulation to utilize lean enterprise principles.

## **B. University Learning Outcomes**

This course enhances student abilities in the following areas:

### **Analytical Skills**

**Critical Thinking** - Students will work with and use various complex analysis tools using principles associated with Lean Six Sigma to solve real-world business problems.

**Quantitative Reasoning** - Students will design, develop resolution approaches, and solve complex mathematical function using spreadsheet features.

### **Communication Skills (written and oral)**

Students will engage in a Lean Six Sigma project that requires visual aids and technical language in addition to standard written and verbal communication. Students will demonstrate proficiency at effectively explaining complex situations when working independently as well as in small groups.

### **Global and Cultural Perspectives**

Student will assess and reflect upon true-to-life business scenarios associated with Lean Six Sigma initiatives around the world.

## **III. Major Course Topics**

- A. Change Models
- B. Principles of Lean Enterprise
- C. Enterprise Simulation
- D. Five S and Visual Factory
- E. Just-in-Time
- F. Supplier Partnerships
- G. Set-up Reduction
- H. Total Productive Maintenance
- I. Continuous Improvement (Kaizen)
- J. Quality Systems
- K. Standard Work Elements
- L. Kanban