

## University of Arkansas – Fort Smith

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### General Syllabus

## WFL 2174 Introduction to Lean Enterprise Systems

**Credit Hours:** 4

**Lecture Hours:** 4

**Lab Hours:** 0

**Prerequisite:** consent of department head

**Effective Semester:** Summer I 2011

### I. Course Information

#### A. Catalog Description

Examines the concept of achieving a lean enterprise in business and manufacturing operations. The students explore the strategies and philosophies of operating a business in today's changing times.

#### B. Additional Information - None

### II. Student Learning Outcomes

#### A. Subject Matter

Upon completion of the course, the student will:

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 where inventory will be reduced after a Just-in-time implementation
6. Understand 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. Set up a kanban system for pulling parts to point-of-use
11. Redesign a small work area simulation to utilize lean enterprise principles

#### B. General Education

This course enhances student abilities in the following general education areas:

#### Global and Cultural Perspectives

Course exercises and assessments use true-to-life business scenarios which address issues of diversity and global business climate.

**Communication Skills**

Class presentations will require students to exercise skills in small group and oral communication

**Analytical Skills**

Students will work with and use various complex analysis tools to solve real-world business problems.

**Technological Skills**

Students will use computer applications to support their analysis of business problems.

**Quantitative Reasoning**

Course exercises and assessments require students to set up and solve complex mathematical function using spreadsheet features. Discussion and explanation of certain business math.

**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