

SYLLABUS
PART I
EDISON STATE COMMUNITY COLLEGE
IMT 244S LEAN SYSTEMS
4 CREDIT HOURS

COURSE DESCRIPTION

Examines the principles of Lean Systems and is taught as a concise and coherent strategy for today's business leaders. The importance of efficient, lean methodologies cannot be overemphasized in the global market where the traditional methods can result in a net loss of competitiveness. Lean philosophies are introduced in a very practical and intuitive style with plenty of examples from research, text, and real-life examples.

COURSE GOALS

The student will:

| Bloom's Level | | Program Outcomes |
|---------------|---|------------------|
| 1 | 1. Identify the principal differences between push and pull systems. | 2 |
| 4 | 2. Analyze the typical forms of waste in an industrial setting. | 2, 8 |
| 2 | 3. Describe how waste affects an organization's profit and competitiveness. | 2, 8 |
| 2 | 4. Identify how lean addresses the most common forms of waste. | 2, 8 |
| 3 | 5. Determine true operational costs and net value-added steps. | 2, 7, 8 |
| 3 | 6. Analyze the utilization of the talent that exists in your organization. | 2, 5 |
| 2 | 7. Distinguish the various types of steps and strategies for Lean. | 2, 8 |
| 2 | 8. Describe the background for lean and its history. | 2, 8 |
| 3 | 9. Discover 5S and the visual factory principles. | 2, 4, 8 |
| 3 | 10. Classify human factors resulting from the lean environment. | 2, 5 |
| 3 | 11. Relate quality principles to the lean strategy. | 2, 3 |
| 2 | 12. Discuss trends in the lean manufacturing world. | 2 |
| 3 | 13. Determine ways in which to measure Lean. | 2, 8 |
| 3 | 14. Develop strategies for lean implementation. | 2, 4, 8 |

CORE VALUES

The Core Values are a set of principles that guide in creating educational programs and environments at Edison State. They include communication, ethics, critical thinking, human diversity, inquiry/respect for learning, and interpersonal skills/teamwork. The goals, objectives, and activities in this course will introduce/reinforce these Core Values whenever appropriate.

TOPIC OUTLINE

1. Introduction to Lean and its history
2. Basic Principles of what is "Lean"
3. Error proofing
4. 5S principles
5. Problem solving
6. Pull/push systems
7. Lean human resource creation
8. Measuring Lean
9. Error proofing Implementation process

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10. Work teams
11. Visual factory
12. Quick changeover
13. Implementation process
14. Agile manufacturing and major trends