

Course Syllabus Summer 2015

OFFICE HOURS:

EST 217

Office Hours: By appointment only.

CATALOG DESCRIPTION:

Prerequisites: AMS 356

Credit: 3 semester hours (lecture)

Introduction to the production system and the role of inventory, market characterization, aggregate planning, lean manufacturing and the just-in-time philosophy.

REQUIRED TEXT:

Dennis, P. (2002) *Lean Production Simplified*, Productivity Press, New York, ISBN 1-56327-262-8

REFERENCE TEXTS:

Wilson, L. (2010) *How to implement Lean Manufacturing*, McGraw Hill, ISBN 978-0-07-162507-4

Womack, J. P., & Jones, D. T. (2003). *Lean thinking: Banish waste and create wealth in your corporation*. New York, NY: Free Press. ISBN: 0-7432-4927-5. (1996 ed. will work also)

COURSE OBJECTIVES:

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

- Apply the basic principles of lean manufacturing system
- Investigate origins and underlying principles of the lean production system
- Develop plant wise lean strategies
- Originate the goals of lean production for specific areas
- Design lean facilities, layout, fixtures for production system
- Solve practical problems of lean production
- Implement cellular manufacturing in industries

COURSE TOPICS:

- The birth of lean production system
- Lean Manufacturing and the Toyota Production System
- Inventory and Variation
- Stability

- The significance of lead time
- Standardized Work
- Just-In-Time
- Jidoka
- Involvement
- Planning and Goals
- Strategies to becoming Lean
- How to implement Lean
- The culture of Lean Production
- Cellular Manufacturing

COURSE POLICIES, STRUCTURE & DESIGN:

General: The instructor reserves the right to change the syllabus or course topics as necessary and inform the students about the changes.

LECTURE NOTES ARE THE MOST IMPORTANT COURSE MATERIALS. First of all, please follow the lecture notes.

Assigned readings: The class lectures and textbook will provide you the content to support your success in the quizzes, and course exams.

Quizzes: Quizzes on the assigned readings will ensure that you are adequately prepared for the mid-term and final examinations. Quizzes may be announced or not. MISSED QUIZZES WILL NOT BE ABLE TO BE MADE UP.

Assignment /Term paper: Late assignments will be counted off 25% per day unless accompanied by a documented excused absence. Submission of assignments after 1 week of deadline will result in zero in that particular assignment.

Mid-term and final exams: Exams are closed book, closed notes unless otherwise indicated. Exams will cover material in homework, reading assignments, lectures and class discussions. The student is responsible for all reading assignments and any class handouts whether or not covered in class or listed on the syllabus. If official University activities cause you to be absent on a test day make arrangements to take the tests prior to the test date.

GRADING:

The grading scale is as follows: A = 90-100; B = 80-89; C = 70-79; D= 60-69; F = 0-59.

The grading for the course is as follows:

Quizzes:	100 points (5 quizzes, 20 points each)	[20%]
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Attendance & participation in		
Discussions:	100 points (5 discussion boards, 20 points each)	[20%]
Mid-Term:	100 points	[20%]
Term paper:	100 points	[20%]
Final exam:	100 points	[20%]
Total:	500 points	[100%]

GRADES BREAKDOWN:

¥ A	450 - 500 points (90.0% - 100%)
¥ B	400 - 449 points (80.0% - 89.9%)
¥ C	350 - 399 points (70.0% - 79.9%)
¥ D	300 - 349 points (60.0% - 69.9%)
¥ F	below 300 points (below 60%)

CLASS EXPECTATIONS:

Students are required to logon to the Blackboard system regularly and be alert for my announcements. Students must complete the class work individually, unless stated otherwise. You are expected to be responsible for your own learning, to thoughtfully complete the assigned readings, to bring questions and offer thoughtful and constructive comments to discussion board, and to actively participate in discussion and class activities. You are expected to do all required assignments and turn them in on time, as late assignments are not accepted. I also expect you to act honestly and ethically at all times and to treat one another with respect.

Grades are based on the quality of the assignments, successful completion of assigned course projects, online participation, and adequate performance on examinations.

ADD/DROP POLICY

Students who are having trouble keeping up with the readings and assignments are strongly encouraged to drop the course. I may suggest this to students who I think may not be successful with the online format. Students who do not participate in the discussions for two consecutive weeks may be involuntarily dropped from the course so that others may enroll. Students who do not regularly submit assignments or participate in the course after the fourth week will be removed from the course roster and graded as F. Incomplete grades are given only by mutual agreement between the instructor and the student and must be in writing.

ACADEMIC HONESTY & PROFESSIONALISM:

All Western Kentucky University policies are in effect. All your work must be your own, unless I authorize collaboration, in which case you must, in writing, acknowledge the help you have received. Presenting the words, ideas, or expressions of another person in any form and claiming them as one's own is plagiarism and will not be tolerated. The claim of ignorance is no excuse. (See academic offenses in the WKU student handbook.)

Assignments have to be free of any writing or typing errors. Neatness, use of correct grammar,

format, and so on will be considered in the evaluation of activities and projects. If the answer cannot be read, it will be assumed incorrect. Unless otherwise stated, all papers or formal lab reports must be word processed. Use appropriate margins and 12 font sizes in acceptable fonts like Times New Roman, Arial etc.

Please turn off cell phones, iPad, pagers, and other electronic device during the class. In case of emergency, set your phone on silent mode and exit from the classroom in case you need to receive the call. **NO TEXT MESSAGING DURING CLASS!**

STUDENT DISABILITY SERVICES:

In compliance with university policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Office for Student Disability Services in Downing University Center, A-200. The phone number is (270) 745-5004.

Please **DO NOT** request accommodations directly from the professor or instructor without a letter of accommodation from the Office for Student Disability Services.

WEEKWISE BREAKDOWN OF SYLLABUS

Week	Topic	Readings	Assignment/Quiz/ Discussion
1	The birth of lean production system	Chapter 1, Book: Lean Production Simplified	Discussion 1: Topic: TBA
1	Lean Manufacturing and the Toyota Production System	Chapter 2, Book: How to implement Lean Manufacturing	
2	Stability	Chapter 3, Book: Lean Production Simplified	Quiz – 1 (Lectures 1,2)
2	Standardized work	Chapter 4, Book: Lean Production Simplified	Discussion 2: Topic: TBA
3	Inventory and Variation	Chapter 3, Book: How to implement Lean Manufacturing	
3	The significance of lead time	Chapter 5, Book: How to implement Lean Manufacturing	Quiz – 2 (Lectures 3,4,5)
4	Just-In-Time	Chapter 5, Book: Lean Production Simplified	Discussion 3: Topic: TBA
		Mid-term exam (TBA)	
4	Jidoka	Chapter 6, Book: Lean Production Simplified	Term Paper Announcement
5	Involvement	Chapter 7, Book: Lean Production Simplified	Quiz – 3 (Lectures 6,7,8)

5	Planning and Goals	Chapter 8, Book: Lean Production Simplified Chapter 9, Book: How to implement Lean Manufacturing	Discussion 4: Topic: TBA
6	The culture of Lean Production	Chapter 9, Book: Lean Production Simplified	Quiz – 4 (Lectures 9,10)
6	The culture of Lean Production	Chapter 9, Book: Lean Production Simplified	Discussion 5: Topic: TBA
7	Cellular Manufacturing	Chapter 13, Book: How to implement Lean Manufacturing	Term Paper Submission
7	Cellular Manufacturing	Chapter 13, Book: How to implement Lean Manufacturing	Quiz 5 (Lectures 11,12,13,14)
8		Final Exam (TBA)	