EDMM 3260
Operations Planning and Control

Catalog Data:	Methods of controlling and coordinating production using production planning, scheduling, inventory control, and dispatching. NOT FOR ENGINEERING CREDIT.
Prerequisites:	MATH 2160, MATH 2600, or MATH 3660 & EDMM 1500
Textbook:	*Production & Operations Management* by Jay Heizer and Barry Render, Prentice Hall.

Prerequisite by topic:

- Basic electronic communication skills; word processing, electronic spreadsheet, internet access, email
- Working knowledge of descriptive statistics, mean, variance, graphical display methods, probability (MATH 2160, 2600, or 3660)
- Working knowledge of inferential statistics; estimation, hypothesis testing, regression (MATH 2160, 2600, or 3660)

Course objectives:

- Understand the overall decision making framework associated with the field of Production/Operations Management.
- Be able to apply decision making techniques and to understand the strategic implications of decisions regarding product
- Be able to apply basic inventory models, material requirements planning, and scheduling models in an operations environment.
- Be able to analyze and present results of variety of situations in a manufacturing environment.

Criteria:

A student should be able to:

- Identify the inputs, outputs, and process involved in both manufacturing and service operations.
- Apply linear programming technique to various opportunities in the operations field
- Forecast demand using time series, causal, and methods. **The outcome of this criteria is tracked with a goal of 75% of students will score 80% or higher.**
- Apply master production scheduling techniques to plan production
- Identify material and capacity requirements using material requirements planning and capacity requirements planning
- Exhibit mastery over independent inventory models. **The outcome of this criteria is tracked with a goal of 75% of students will score 80% or higher.** Be able to apply dispatching rules in a shop floor control environment

Week #	List of Topics	Readings – Ch #s
Part One		
1.	Operations and Productivity	#1
2.	Operations Strategy in Global Environment	#2
3.	**Decision Making Tools**	**Module A, B**
4.	Forecasting	#4
5.	Forecasting Methods	#4
Part Two		
6.	Designing Operations-Design of Goods & Services	#5
	Exam #1 (Ch 1 – 5)	
7.	Managing Quality – Statistical Process Control	#6S
8.	Process Strategy & Sustainability	#7
9.	Capacity & Constraint Management	#7S
10.	Inventory Management	#12
	Exam #2 (Ch 6S, 7, 7S & 12)	
11.	Aggregate Planning	#13
12.	Material Requirements Planning (MRP) & ERP	#14
13.	Short Term Scheduling	#15
14.	JIT & Lean Operations	#16
15.	Exam Week	

Final Exam (Comprehensive)

This is a very approximate schedule. Actual class Assignments may vary from this as the class proceeds throughout the semester. When deviations occur, they will be announced in class.

Course Notebook:

You should maintain a notebook for this class where you do and show all your work on weekly basis. I'm interested in the work you do at arrive at the answer for weekly HW assignment problems.

Student CD with the Textbook:

The accompanied CD with the textbook contains useful learning tools both, quiz questions (/w solution & associated review section/s) and spreadsheet examples. These resources can be valuable in improving understanding of the underlying concepts.

Library Usage:

There are several books on the subject of Engineering Economy housed in Waldo Library each containing problems numerous solved problems. Two of these books have been identified under References. It is strongly recommended that students use at least these books to study the solved examples. This will greatly enhance his/her ability to analyze and solve any given problem.

Online Computer Assignments:

There will be at least one assignment per week that will be assigned for submission each requiring you to work online using www.myomlab.com. These assignments MUST be completed and submitted by 12:00 noon, Fri of the next week. You will require to purchase access to the myomlab resources and one can bundle this together /w the textbook to save a bundle. **CourseID: gupta82715**

Evaluation:

1. Exams (2, Wk 5, 9) 100pts ea	200	30%
2. Final Exam	150	22%
3. Quizzes **(Wk 2, 4, 6, ...)**	50	9%
4**. Computer-based Weekly HW Assignments**	100	30%
5. Class Attendance	50	9%
6. Total	550	100%

Grading Scale:

92-100	A
87-91	BA
82-86	B
77-81	CB
72-76	C
67-71	DC
62-66	D
≤ 61	E

The following number of points are the APPROXIMATE points required for the corresponding grades.

A ≥	**92**	**BA ≥**	**87**
B ≥	**82**	**CB ≥**	**77**
C ≥	**72**	**DC ≥**	**67**
D >	**60**	**E ≤**	**60**

Academic Honesty:

You are responsible for making yourself aware of and understanding the policies and procedures in the Undergraduate Catalog (pp. 268-270) that pertain to Academic Honesty. These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. If there is reason to believe you have been involved in academic dishonesty, you will be referred to the Office of Student Conduct. You will be given the opportunity to review the charge(s). If you believe you are not responsible, you will have the opportunity for a hearing. You should consult with the instructor if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test.

Disability Services for Students (DSS):

"Both in compliance with and in the spirit of the Americans with Disabilities Act (ADA), faculty at Western Michigan University needs to know how a disability will impact student participation and his/her work in courses. Any student registered with DSS wishing to discuss accommodation for this class should contact the professor of record in a timely manner. Students with documented disabilities not yet registered with Disabilities Services for Students should call DSS at (269) 387-2116 or visit www.wmich.edu/disabilityservices. Accommodations cannot be provided without confirmation from DSS of the semester request or accommodation verification card."