

IT375 Production and Inventory Control (3 credit hours)

COURSE DESCRIPTION:

Principles of Production & Inventory Control to include;
Production Planning; Master Scheduling; Capacity Planning; Purchasing;
Forecasting - Distribution and JIT.

COURSE OBJECTIVES:

To understand the principles, techniques and procedures of production and inventory control systems, and their application to operations management. Study includes familiarization with production planning and control, purchasing, forecasting, inventory management, physical inventory and warehouse management, distribution systems including transportation, packaging and material handling, product and process design, JIT manufacturing, Kanban (pull systems), supply chain concepts, system selection, theory of constraints, the need for new products and TQM.

INSTRUCTOR:

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REQUIRED TEXT:

Introduction to Materials Management: J. R. Tony Arnold, Stephen N. Chapman, and Lloyd M. Clive, 6th Edition 2008, Prentice Hall.

EVALUATION OF STUDENT PERFORMANCE:

Test 1	100 pts
Test 2	100 pts
Test 3	100 pts
Handouts	50 pts
Paper	50 pts

GRADING STANDARDS:

A -- 90 - 100%
B -- 80 - 89.9%
C -- 70 - 79.9%
D -- 60 - 69.9%
F -- Less than 60%

COURSEWORK:

All course work is due by the dates reflected in the Reading Assignment & Homework Schedule of this syllabus. Late test completion, not excused in advance by the instructor, will be reduced 10 points per week or fraction thereof; i.e. a test grade of 90, if late one week or less, would be reduced to an 80. If late between 1 and 2 weeks it would be reduced to 70, etc.

INCOMPLETE GRADES:

University policy contained in the "Undergraduate Catalog" requires that students who request an INCOMPLETE GRADE must be engaged in PASSING WORK. If extenuating circumstances arise, the student must immediately request, IN WRITING, an extension from the instructor detailing the circumstances and dates involved. If a delay in completing course work is approved by the instructor, an extension will be granted which will reflect the new due date(s) for completion of the work. The time extension will not exceed a period of time equal to the amount of time lost due to the extenuating circumstance. Work not completed by the last class date, if not otherwise extended by the instructor, will be given "zero" value in determining a final course grade.

EXAMINATIONS: Multiple choice, T/F, & short answer tests will cover assigned readings, lectures and handouts.

Exam #1: Chapters 1-6

Exam #2: Chapters 7-11

Exam #3 Chapters 12-15

READING ASSIGNMENT & HOMEWORK SCHEDULE: Assigned class readings are required prior to attending class. Lectures will supplement but not replace assigned readings.

Weekend 1:

Read Chapters 1 through 6. Pay particular attention to the principles outlined in each chapter. Practice Problem assignments will be worked in class. Work assigned homework problems.

Weekend 2:

Read Chapters 7 through 11. Pay particular attention to the principles outlined in each chapter. Practice Problem assignments will be worked in class. **Exam #1** is over chapters 1 through 6 and is scheduled for Saturday. Work assigned homework problems.

Weekend 3:

Read Chapters 12 through 16. Pay particular attention to the principles outlined in each chapter. **Exam #2** is over chapters 7 through 11 and is scheduled for Saturday. **Exam #3** is over chapters 12 through 15 and is scheduled for Sunday. Work assigned homework problems.

Practice Homework (not to be turned in)

These homework problems will supplement our discussions in class. We will work some problems during class time. Completing the homework problems will help prepare for exam content.

Weekend #1

Chapters 1 – 6

- Chapter 1 – Problems 1.1, 1.2
- Chapter 2 – Problems 2.7, 2.8, 2.16
- Chapter 3 – Problems 3.4, 3.6, 3.10, 3.14
- Chapter 4 – Problems 4.1, 4.5, 4.7, 4.17
- Chapter 5 – Problems 5.5, 5.9, 5.14, 5.18
- Chapter 6 – Problems 6.17, 6.18, 6.20

Weekend #2

Chapters 7 – 11

- Chapter 7 – Problems 7.2
- Chapter 8 – Problems 8.2, 8.6, 8.12, 8.13, 8.19, 8.20
- Chapter 9 – Problems 9.4, 9.6, 9.8, 9.12, 9.15, 9.17
- Chapter 10 – Problems 10.1, 10.3
- Chapter 11 – Problems 11.3, 11.5, 11.8, 11.18, 11.21

Weekend #3

Chapters 12 – 15

- Chapter 12 – Problems 12.8, 12.10
- Chapter 13 – Problems TBD
- Chapter 14 – Problems TBD
- Chapter 15 – Problems TBD

Production Inventory Management

IT-494d (1) Credit Hour

PAPER:

Prepare a 10 page report on some aspect of PIM (Production Inventory Management) from a current event publication or application. PIM techniques used in your current or past job can be used. Professional journals, magazines, and newspaper articles are acceptable sources. Questions about content and format for this report will be covered on the first Saturday class meeting. You should attempt to do some research into possible sources before attending class. Following is a list of possible topics:

- The effect of bar code technology on Production and Inventory Control
- Lean Manufacturing: What is it?
- MRP – Is it really the answer to everyone's problems?
- How has JIT impacted the Production System?
- The Harley-Davidson turnaround.
- The Chrysler Corporation turnaround.
- The impact of Through-Put planning on Production Control
- What is a manufacturing system? How are the elements tied together?
- The benefits of Flexible Manufacturing Systems
- Where is manufacturing headed and the technology behind the progress?
- Discount stores and their dominance