

**Syllabus Fall 2009**  
**SOUTHERN ILLINOIS UNIVERSITY – CARBONDALE**  
**Dates: Nov 7 & 8, Nov 21 & 22 and Dec 5 & 6, 2009**  
**Location: Peoria, IL**

**COURSE NUMBER:** IT-375/494d      **COURSE TITLE:** Production & 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:**

Understanding 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:** Laurence Hornibrook; Adjunct Professor. Work: (309) 231-8923;

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**Website:** to be assigned during class as it is currently under construction and possible move to a new hosting company

**CLASS MEETINGS:** Nov 7 & 8, Nov 21 & 22 and Dec 5 & 6, 2009: 8:00 AM - 4:00 PM

**CLASS LOCATION:** Room 123A, Illinois Central College, East Peoria, IL

**REQUIRED TEXT:** Introduction to Materials Management: J. R. Tony Arnold & Stephen N. Chapman,  
6<sup>th</sup> Edition 2004, Prentice Hall

**EVALUATION OF STUDENT PERFORMANCE:**

Test 1	35%
Test 2	35%
Attendance	12%
Homework	<u>18%</u>
	100%

**GRADING STANDARDS:**

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

**TEACHING METHODS:** Informal lecture, group discussion/problem solving, and videos.

**ATTENDANCE:** Students are required to attend all classes. It is very difficult to make up for missed class time. Students who are absent or late without a work-related or health excuse will be penalized one letter grade. Those with a valid excuse will be required to make up the class or classes missed by a written homework assignment on the material missed. This assignment will not be graded but will be used to ensure the student has a basic understanding of the missed material.

**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.

**CONTESTED GRADE/TEST SCORES:** If you contest a test score and/or your final grade, it must be done within 30 days of the course completion date.

**EXAMINATIONS:** Multiple choice, T/F, & short essay-type answer tests will cover assigned readings and lectures.

Exam #1: Chapters 1-6.

Exam #2: Chapters 7-13.

**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 4. Pay particular attention to the principles outlined in each chapter. Some Practice Problem assignments may be worked in class. Work assigned homework problems.

**Weekend 2:**

**Read** Chapters 5 through 8. Pay particular attention to the principles outlined in each chapter. Some Practice Problem assignments may be worked in class. **Exam #1** over chapters 1 through 6 is scheduled for Sunday. Work assigned homework problems.

### **Weekend 3:**

**Read** Chapters 9 through 13. Pay particular attention to the principles outlined in each chapter. Exam #2 over chapters 7 through 13 is scheduled for Sunday. Work assigned homework problems.

**Homework is due on the last day of class!**

### **Homework**

#### **Weekend #1**

- Chapters 1 – 4

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

#### **Weekend #2**

- Chapters 5 – 8

Chapter 5 – Problems 5.5, 5.9, 5.14, 5.18

Chapter 6 – Problems 6.17, 6.18, 6.20

Chapter 7 – Problems 7.2

Chapter 8 – Problems 8.2, 8.6, 8.12, 8.13, 8.19, 8.20

#### **Weekend #3**

- Chapters 9 – 13

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

Chapter 12 – Problems 12.8, 12.10

## IT-494d

### 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, and how are the elements tied together?
- The benefits of Flexible Manufacturing Systems
- Where is manufacturing headed and the technology behind the progress?
- Walmart and their dominance
- Trends in global integration
- Global Supply Chains

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