

**Auburn University**  
**Samuel Ginn College of Engineering**

**Department** Industrial and Systems Engineering  
**Course Number** INSY 7240 / 7246 / 5240  
**Course Name** Production and Inventory Control Theory  
**Credits** 3 (3-0)  
**Prerequisites** Deterministic and Stochastic Operations Research

**Instructor and Teaching Assistant Information**

	<i>Instructor</i>	<i>TA</i>
Name	Dr. Emmett Lodree, Jr.	Mr. Heping Liu
Email	elodree@auburn.edu	liuhepi@auburn.edu
Phone	334-844-1433	
Office	Shelby Center, Suite 3312	Shelby Center, Suite 3341A

**Office Hours<sup>1</sup>**

	<i>Instructor</i>	<i>TA</i>
Monday		3:30 pm - 4:30 pm
Tuesday	3:30 pm - 4:30 pm	
Wednesday		3:30 pm - 4:30 pm
Thursday	3:30 pm - 4:30 pm	

**Regular Class Meetings and Location**

Tuesdays and Thursdays, 11:00 am - 12:15 pm, Ramsay Hall, Room 201.

**Catalog Description**

Theoretical foundations for the analysis and design of production and inventory control systems with emphasis on quantitative methods and current areas of research.

**Reference Texts (Not Required)**

1. Zipkin, P.H. (2000). *Foundations of Inventory Management*. McGraw-Hill.
2. Porteus, E. L. (2002). *Foundations of Stochastic Inventory Theory*. Stanford University Press.

**Grade Evaluation**

Assignment Weights		Letter Grade/Percentage Score Scale	
<i>Category</i>	<i>Weight</i>	<i>Aggregate Percentage Range</i>	<i>Letter Grade</i>
Semester Project	20%	89.50% - 100.0%	A
Exam 1	20%	79.50% - 89.49%	B
Exam 2	20%	69.50% - 79.49%	C
Homework	20%	59.50% - 69.50%	D
Quizzes	20%	0% - 59.49%	F

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<sup>1</sup>Office hours also by appointment

## Tentative Course Topics

<i>Topic</i>	<i>Chapter(s)</i>
Qualitative Introduction to Inventory Theory	1 and 2
The EOQ Model and Some Variations	3
EOQ Models with Stochastic Demand	6
Time Varying Demand Models (Dynamic Lot Sizing)	4
Time-Varying, Stochastic Demand Models and Dynamic Programming	9
Multiple Product and Multiple Location Models	5
Multiple Product Models with Stochastic Demands	8
Models with Stochastic Lead Time	7
Current Areas of Research	N/A

### Academic Honesty

All portions of the Auburn University student academic honesty code (Title X11) found in the Tiger Cub will apply to this class. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee. Violations include, but are not limited to:

Cheating on an examination. This includes such things as copying from another's paper, using unauthorized notes, calculators, etc., or giving or receiving unauthorized aid, such as trading examinations, whispering answers, passing notes, or using electronic devices to transmit or receive information.

Plagiarism. This is using someone else's work without giving credit. It is, for example, using ideas, phrases, papers, laboratory reports, computer programs, data - copied directly or paraphrased - that you did not arrive at on your own. Sources include published works such as book, movies, web sites, and unpublished works such as other students' papers or material from a research service. In brief, representing someone else's work as your own is academically dishonest. The risk of plagiarism can be avoided in written work by clearly indicating, either in footnotes or in the paper itself, the source of any major or unique idea or wording that you did not arrive at on your own. Sources must be given regardless of whether the material is quoted directly or paraphrased.

*Copying another student's assignment and putting your name on it is plagiarism.*

Unauthorized collaboration. This is working with or receiving help from others on graded assignments without the specific approval of the instructor. If in doubt, seek permission from the instructor before working with others. Students are encouraged to learn from one another: Form study groups and discuss assignments, but each assignment must be individual work unless specifically stated and turned in as a group assignment.

*You are encouraged to talk to one another about your assignments, however, all assignments must be done by the student(s) whose name is (are) on it!*

Multiple submission. This means using the same work to fulfill the academic requirements in more than one course. Prior permission of the instructors is essential.

### Statement for Students Requiring Special Aids and Services

Students with documented disabilities who may need classroom academic adjustments or auxiliary aids and services are required to provide official documentation specifically describing the student's needs.

## **Grade Objections**

All grade objections are to be submitted to the instructor (not the TA) in writing no later than one week after an assignment is returned to the class. Otherwise, grade objections will not be entertained. Grade objections should be very specific. Objections that simply ask that a problem be re-graded without providing detailed explanation will be rejected. It is required that the original homework or quiz that corresponds to the objection be submitted along with the written objection. Therefore students are encouraged to make copies of graded assignments before submitting for an objection. Objections will be returned on or before the last day of class. All reviewed objections are final, and multiple objections for the same assignment by the same student are prohibited.

## **Extra Credit**

No extra credit will be available in this course. The homework, quizzes, exams, and project should give you plenty of opportunities to earn the grade you want (and keep you busy!).

## **Makeup Assignments**

Excuses for Makeup Assignments: Your absence from class does not automatically guarantee that you will be allowed to make up an exam, quiz, or homework. In order for a makeup to be considered (still not guaranteed), you will need to provide the instructor with official documentation (such as a physician's note) that states the reason for your absence. This official documentation must be provided within one week of your excused period of absence, and all other procedures describe in the Tiger Cub apply. After your documentation has been verified by the instructor, you will be informed as to whether or no your excuse has been approved. Finally, the instructor reserves the right to issue a failing grade of 'F' for the course for missing excessive assignments, excused or not.

Makeup Exams and Quizzes: Makeup exams and quizzes will be different than those issued during the semester. Specific instructions regarding the nature of the makeup exam or quiz (multiple choice, formula sheet allowances, etc.) will be given on an individual basis.

Makeup Homework: No makeup homework assignments will be allowed. However, a makeup exam will be given in place of the missing homework assignment during the above-mentioned makeup period. This makeup exam will most likely be open-book, open notes.

Makeup Dates: All makeup assignments must be completed on WEDNESDAY MAY 7, 2008 during the final exam period between 2:00 pm and 4:30 pm.

## **Blackboard and Email**

You are responsible for all information related to this course disseminated through Blackboard and the Auburn University email system (Tiger Mail). It is recommended that you check Blackboard daily for lecture notes, announcements, assignments, and other pertinent information. PLEASE USE THE BLACKBOARD EMAIL FUNCTION if you need to contact me via email.

## **Modifications**

The instructor reserves the right to modify, add to, or delete any information or policies of the course syllabus and this document.

## **Student Responsibility**

You are responsible for the information contained in this document (including any modifications).