SIE 462 Production Systems Analysis
Spring 2015

Instructor: Dr. Yuetong Lin

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Office Hours: MWF 3:00–4:00 PM, and by appointment

Time and Location: MWF 11:00 AM - 11:50 AM, ECE Room 107

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Thursday- 11:00 AM to 1:00 AM

Course Catalog Information: Production systems, quantitative methods for forecasting, aggregate planning, inventory control, material requirement planning, production scheduling, manpower planning and facility design.

Course Learning Outcomes: Students should be able to

• formulate a problem in technical terms including the relevant aspects from the mathematical, natural, and SIE engineering sciences.

• determine and implement the appropriate modeling approach for problem solution.

• understand all components of manufacturing and service operations and their connection through supply chain.

• model and analyze systems having conflicting criteria and interacting decision variables.

• understand the impact of the solution on society and environment.
Prerequisites: SIE 305 & SIE 340


Course Outline:

- Introduction
- Historical evolution of operations and supply chain management
- Strategy and competition
- Demand forecasting
- Aggregate planning
- Inventory control
- Just-in-time (JIT) pull production control systems
- Materials requirement planning push production control systems
- Scheduling
- Supply chain management

Class Website: Course material, announcements, grades and other pertinent course information will be posted on the course’s D2L website (www.d2l.arizona.edu). Students should regularly visit the D2L site to stay up-to-date with the course announcements.

Homework: Homework will be assigned on a regular schedule. Late homework will not be accepted (unless it is the result of an officially excused absence).

Working Together: It is acceptable to work together on homework assignments. However, no copying is allowed. Each student must turn in their own homework assignment in his/her own words. All parties involved in homework copying will receive zero grade on the assignment.

Academic Dishonesty and Plagiarism: All UA students are responsible for upholding the Code of Academic Integrity, available through the office of the Dean of Students and online (http://deanofstudents.arizona.edu/codeofacademicintegrity).
**Grading Policy:** Semester grades will be based on five components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework</td>
<td>25%</td>
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<tr>
<td>First Midterm</td>
<td>15%</td>
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<td>Second Midterm</td>
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<tr>
<td>Project</td>
<td>10%</td>
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<tr>
<td>Comprehensive Final Exam</td>
<td>35%</td>
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**Grade Dispute:** You can dispute your grade (including homework, labs, and exams) and get it resolved within **ONE** week after the graded work is returned, after which time grading issues regarding that specific assignment, report, or exam will no longer be accommodated. All grading questions should be addressed to the teaching assistants directly.

**Final Grades:**

- A 90 - 100
- B 80 - 89
- C 70 - 79
- D 60 - 69
- F 0 - 59