Instructor: Dr. Haitao Liao

Office: Old Engineering Building Rm 223
Phone: (520) 621-2605
Email: hliao@email.arizona.edu
Web Page: http://hliao.faculty.arizona.edu
Office Hours: Thursday 2:00–3:30 pm

Time and Location: Tuesday & Thursday 9:30 AM - 10:45 AM, Chavez Bldg, Rm 400

Co-Instructor: Dr. Wei Xie

Office: Old Engineering Building Rm 265
Phone: (520) 626-1818
Email: wxie@email.arizona.edu
Office Hours: Monday & Wednesday 2:00–3:30 pm

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>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>25%</td>
</tr>
<tr>
<td>First Midterm</td>
<td>15%</td>
</tr>
<tr>
<td>Second Midterm</td>
<td>15%</td>
</tr>
<tr>
<td>Project</td>
<td>10%</td>
</tr>
<tr>
<td>Comprehensive Final Exam</td>
<td>35%</td>
</tr>
</tbody>
</table>

**Final Grades:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 - 100</td>
</tr>
<tr>
<td>B</td>
<td>80 - 89</td>
</tr>
<tr>
<td>C</td>
<td>70 - 79</td>
</tr>
<tr>
<td>D</td>
<td>60 - 69</td>
</tr>
<tr>
<td>F</td>
<td>0 - 59</td>
</tr>
</tbody>
</table>