University of Memphis
Fogelman College of Business and Economics
Department of Marketing and Supply Chain Management

ISDS 7313
Global Operations Management
Spring 2010, Section 001 (3 credits)

Instructor: Gensheng (Jason) Liu, Ph.D.
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E-mail: gliu@memphis.edu
Class Meetings: Tuesday/Thursday 5:30 – 6:55 PM in FCB-261
Office Hours: Tuesday/Thursday 3:45 – 5:15 PM and by appointment

Course Description
The operations function is one of the three primary functions of any organization, along with marketing and finance. It is responsible for the production of goods and services. This is a comprehensive course that addresses the acquisition, transformation, and distribution of goods and services within the global supply chain. The course will present concepts, tools, and strategies used to design and manage operations in global contexts.

Course Objectives
This course is designed to provide students with an understanding of the strategic importance of effective operations management practices in the global supply chain environment, and to familiarize them with the key concepts, principles, and techniques involved in the design and management of high performance operations systems.

Required Textbook

Optional Textbooks

The optional textbooks are available in the EMBA classroom (FCB-385) and on reserve in the University library. It is recommended that students read the corresponding textbook chapters (except the ones from the optional textbooks) and lecture notes before each class. Additional readings of business journal articles are optional unless otherwise stated.

Course Management and Communication Channels
ECourseware is used to manage course materials and grades. Lecture notes, homework assignments, and important announcements are posted throughout the semester. Lecture notes are provided in PDF format instead of PPT format. Students can print out the notes with however many pages per sheet as they want. Email communication should be through regular University email accounts. Any concern that could seriously affect a student’s performance should be communicated with the instructor in a timely manner.
Course Requirements and Grading
The final grades for the course are based on total points earned in the following categories:

<table>
<thead>
<tr>
<th>Category</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two exams</td>
<td>$40 \times 2 = 80$</td>
</tr>
<tr>
<td>Four homework assignments</td>
<td>$5 \times 4 = 20$</td>
</tr>
<tr>
<td>Group case study and presentation</td>
<td>50</td>
</tr>
<tr>
<td>Individual presentation</td>
<td>30</td>
</tr>
<tr>
<td>Participation</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total Points</strong></td>
<td>200</td>
</tr>
</tbody>
</table>

The final grade will be assigned according to the following scale, though I reserve the right to lower the cutoff points, leading to higher grades:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90.00%</td>
</tr>
<tr>
<td>A-</td>
<td>87.00%</td>
</tr>
<tr>
<td>B+</td>
<td>83.00%</td>
</tr>
<tr>
<td>B</td>
<td>80.00%</td>
</tr>
<tr>
<td>C+</td>
<td>73.00%</td>
</tr>
<tr>
<td>C</td>
<td>70.00%</td>
</tr>
<tr>
<td>C-</td>
<td>67.00%</td>
</tr>
</tbody>
</table>

Exams
Exams are open-book and open-notes, and comprise a combination of multiple choice and essay questions. Students should bring calculators, pencils and erasers to the exams.

Homework Assignments
There are four homework assignments with each graded qualitatively on a 5 – 4 – 3 – 0 basis. Although collaboration is allowed, individual efforts are encouraged in homework assignments. In case of collaboration, only one common hand-in should be submitted with names of all collaborators on it. In addition, please show your work in the homework, rather than showing only the final results.

Group Case Study and Presentation
Students should form groups of 4-6, and each group will work on one case study. There are two possible sources for the cases. Students are encouraged to identify a real problem in a company that is related to this course, analyze the problem, and formulate some solutions to it. A team can also choose a case from the following list:

- Home-style cookies (S pp.64-65)
- Tiger Tools (S pp.497-498)
- Harvey Industries (S pp.601-603)
- Wiring harness (M pp.773-775)
- Tip Top Markets (S pp.453-454)
- MasterTag (S pp.545)
- Avion, Inc. (M pp.770-772)
- Integrated Devices (M pp.776-778)

At the end of the semester, each team will present their case in a business presentation setting. All team members are required to present. Presentations are to be no more than 25 minutes in length. Both a hard copy and an electronic copy of the written case study and the presentation slides should be turned in before the presentation.

Grading of the case study is based on the following criteria:

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of the problem and its relevance to OM</td>
<td>5</td>
</tr>
<tr>
<td>Analysis of the problem using relevant techniques and data</td>
<td>15</td>
</tr>
<tr>
<td>Appropriateness of the management suggestions made based on analysis</td>
<td>10</td>
</tr>
<tr>
<td>Quality of written presentation, including comprehensiveness and clarity</td>
<td>10</td>
</tr>
<tr>
<td>Quality of oral presentation, including effective communication with audience</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
</tr>
</tbody>
</table>
Individual Presentation
Each student is asked to give a presentation on a specific subject. In week two, each student chooses a subject and a day for his/her presentation. On the presentation date, the student is asked to give an 8-10 minute PowerPoint based presentation on the subject. You need to plan your time carefully as I will cut off the presentation at the 10-minute mark.

For the presentation, the students can choose any subject that is related to the course, but subjects that are related to the topic covered on the presentation day are preferred. Possible subjects include (but are not limited to) the following:
- Product design
- Robust design
- Strategic sourcing
- Outsourcing
- Supply chain integration
- Bullwhip effect
- Capacity management
- Facility layout
- Total quality management (TQM)
- Statistical process control (SPC)
- MRP & ERP
- Logistics management
- Service design
- Mass customization
- Supplier management
- Globalization
- Supply chain risk management
- IT in SCM
- Process design & redesign
- Quality management
- Six-Sigma
- Inventory management
- JIT and lean operations
- Logistics operations

The presentation can be either a research presentation or an application presentation. For a research presentation, the student should find a minimum of 3 current sources on the chosen subject, preferably journal articles (Harvard Business Review, Sloan Management Review, etc.), and report the research findings as well as his/her own thoughts on the subject. For an application presentation, the student could talk about how the chosen subject is managed or applied in a company that he/she personally knows.

The presenter should submit an executive summary and email the slides to the instructor before the presentation. The executive summary should be at least two pages long, written in plain English. It should not be a copy and paste of some bullet points from the presentation slides.

Grades are assigned based on choice of papers (for research presentations), relevance and significance of problem (for application presentations), quality of executive summary, quality of slides, as well as communication efficiency and time management in oral presentation.

Miscellaneous issues
Students are expected to be punctual to class and deliver all course works on time. Being late to class and/or in course works is very disruptive and therefore should be avoided by all means. Such behavior could affect a student’s score on certain course work or even the final grade.
<table>
<thead>
<tr>
<th>#</th>
<th>Topic</th>
<th>*Reading Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to operations and supply chain management</td>
<td>S Ch. 1, 11</td>
</tr>
<tr>
<td>2</td>
<td>Strategy and performance measurement</td>
<td>S Ch. 2</td>
</tr>
<tr>
<td>3</td>
<td>Product and service design</td>
<td>S Ch. 4</td>
</tr>
<tr>
<td>4</td>
<td>Strategic sourcing and supply management</td>
<td>M Ch. 2, 4, 6, 7, 9 (Optional)</td>
</tr>
<tr>
<td>5</td>
<td>Capacity planning and location analysis</td>
<td>S Ch. 5, 8</td>
</tr>
<tr>
<td>6</td>
<td>Process selection and facility layouts</td>
<td>S Ch. 6</td>
</tr>
<tr>
<td></td>
<td><strong>Exam 1</strong></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Quality management and control</td>
<td>S Ch. 9, 10</td>
</tr>
<tr>
<td>8</td>
<td>Inventory management – Introduction</td>
<td>S Ch. 12 (first half)</td>
</tr>
<tr>
<td>9</td>
<td>Independent demand inventory mgmt – EOQ models</td>
<td>S Ch. 12 (second half)</td>
</tr>
<tr>
<td>10</td>
<td>Dependent demand inventory mgmt – MRP and JIT</td>
<td>S Ch. 14, 15</td>
</tr>
<tr>
<td>11</td>
<td>Logistics management</td>
<td>B Ch. 2, 5, 8, 9, 10, 11, 12 (Optional)</td>
</tr>
</tbody>
</table>

**Group project presentations**

**Exam 2**

* S = Stevenson  
* M = Monczka, Handfield, Giunipero, and Patterson (Optional)  
* B = Bowersox, Closs, and Cooper (Optional)
**Course Schedule:**
Course schedule is tentative, subject to minor revision, depending on class progress.

1/14, 1/19 & 1/21:
- Syllabus & overview
- Topic 1: Introduction to operations and supply chain management
- Textbook readings: S Ch. 1, 11
- Additional readings
- Video: What is Operations Management

1/26 & 1/28:
- Topic 2: Strategy and performance measurement
- Textbook readings: S Ch. 2
- Additional readings
- Homework # 1 – Productivity measures (Due 2/2)

2/2 & 2/4:
- Topic 3: Product and service design
- Textbook readings: S Ch. 4
- Additional readings

2/9 & 2/11:
- Topic 4: Strategic sourcing and supply management
- Textbook readings: M Ch. 2, 4, 6, 7, 9 (Optional)
- Additional readings

2/16 & 2/18:
- Topic 5: Capacity planning and location analysis
- Textbook readings: S Ch. 5, 8
- Additional readings
- Homework # 2 – Capacity and Location (Due 2/23)
2/23 & 2/25:
♦ Topic 6: Process selection and facility layouts
♦ Textbook readings: S Ch. 6
♦ Additional readings
♦ Video: The Product-Process Matrix

3/2:
♦ Exam 1

**No Classes on 3/9 & 3/11 – Happy Spring Break!**

3/4, 3/16, 3/18 & 3/23:
♦ Topic 7: Quality management and control
♦ Textbook readings: S Ch. 9, 10
♦ Additional readings
♦ Video: Quality Management at Honda
♦ Homework # 3 – Quality (Due 3/30)

3/25:
♦ Topic 8: Inventory management – Introduction
♦ Textbook readings: S Ch. 12 (first half)
♦ Video: Managing Inventory

3/30 & 4/1:
♦ Topic 9: Independent demand inventory management – EOQ models
♦ Textbook readings: S Ch. 12 (second half)
♦ Homework # 4 – Inventory management (Due 4/6)

4/6 & 4/8:
♦ Topic 10: Dependent demand inventory management – MRP and JIT
♦ Textbook readings: S Ch. 14, 15
♦ Additional readings
♦ Video: JIT at Federal Signal
4/13 & 4/15:
♦ Topic 11: Logistics management
♦ Textbook readings: B Ch. 2, 5, 8, 9, 10, 11, 12 (Optional)
♦ Additional readings

4/20 & 4/22:
♦ Group project presentations

4/27:
♦ Exam 2