PEPPERDINE UNIVERSITY
THE GEORGE L. GRAZIADIO
SCHOOL OF BUSINESS AND MANAGEMENT

PROFESSOR HAMID AIT-OUYAHIA

BSM 475.24

PRODUCTION AND OPERATIONS MANAGEMENT

FALL 2003

THURSDAYS

6:00 PM – 10:00 PM

PEPPERDINE UNIVERSITY PLAZA

SYLLABUS
Productions and Operations Management  
BSM 475.24  
FALL 2003

Thursday / 6:00pm –10:00pm  
Pepperdine University Plaza

Professor Hamid Aït-Ouyahia  
Office Phone: 310-506-4020  
E-mail: Hamid.Ait-Ouyahia@pepperdine.edu  
Home Phone: 805-778-1555

Introduction

In the past twenty years, businesses have radically changed the way they create and deliver value to their customers; terms such as just-in-time production, supply chain management and total quality management have entered the vernacular of the business press. More than ever, companies are successful not simply because they market their products well but also because they develop superior e-based value delivery systems. Therefore, formal exposure to the discipline of Operations Management should be a valuable investment to anyone seeking a managerial position.

Course Description

This course focuses on the strategic role of operations in organizations in a global inter-networked context. It also intends to make computer-based quantitative models and tools accessible. At last, several case studies representing real-world companies provide examples of how quantitative and qualitative aspects of Operations Management must be integrated.

Course Objectives

The first objective of the course is to demonstrate the strategic importance of operations management. The second objective is to familiarize students with computer-based quantitative methods used to solve real life problems.

A secondary purpose of this course include the exploration of the linkages between operations management, information systems and other managerial activities.
Texts and Course Materials

Operations Management includes a blend of topics from management science, industrial engineering, accounting, statistics, etc. It relies on in part on mathematical (quantitative) techniques for problem solving and one of the challenges of this course is to convey the analytical reasoning in a mathematically accessible way and to reduce the gap between quantitative and qualitative/behavioral materials. Therefore, because of the large quantity of material that must be covered, regular and systematic preparation on the part of the student is of the utmost importance.

The format of the course is a combination of lectures, case discussions and readings. We will be using the following teaching methods:

a) Reading from textbooks. To provide structure, to introduce language, concepts and techniques and, generally, to ‘set the scene’.

b) Lectures/discussions. To provide further amplification and commentary and to give students a chance to ask questions and clarify your understanding.

c) Case studies and problems. To strengthen and test students skills in diagnosis, problem solving, decision making, listening and rhetoric.

Each student is expected to prepare the assigned materials, to attend class and to actively participate in class discussions.

The required text and software are:

Heizer/Render, Operations Management, 6th edition, Prentice Hall (the book should come with the P.O.M software)

If read in advance, the assigned text chapters give you exposure to the topics. Class sessions will be devoted primarily to probing, extending, and applying the material in the readings and the cases (see class schedule/assignment below).

Written assignments:

You are expected to have prepared the problems and cases and to participate actively.

At least four reports on any selected cases should be written and handed in (before class discussion). A first case must be handed in before week 3.

You will have two problems sets to complete during the semester: each is a sample of materials covered in class. Even though group work is encouraged, because the problems will be representative of questions of the tests, each student is encouraged to fully understand the problems in the homework.
**Team Project**

You are expected to select either a service or a manufacturing organization. You will briefly describe the organization’s overall business strategy and the supporting operations strategy. You will analyze the relationship between the two, and assess the fit between the two strategies.

Then you will select a particular process within the organization and conduct a thorough analysis of that process (it is recommended to select a process with which the organization is having trouble or that provide opportunity for improvement). Quantitative information is essential for a better understanding of the process and for utilizing tools learned in class.

At last, you will discuss specific ways of improving the current process and show the value of your own recommendations.

Details will be discussed early in the course. Although this project may be conducted individually, you are encouraged to work in teams of 2-5.

**Tests**

Two tests will take place. Those tests will balance problem solving with short answer writing and discussion.

**Grading**

The grades for the course will be computed from the following components:

- Class participation: 30%
- Cases written handouts: 10%
- Problems written handouts: 10%
- Project: 20%
- Tests: 30%

**Attendance Policy**

Regular attendance is important for systematic progress. If work or personal situations require you to miss a class, it is your responsibility to keep up with the planned schedule.
<table>
<thead>
<tr>
<th>Date</th>
<th>Topics</th>
<th>Readings</th>
<th>Assignments due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Introduction. Operations strategy and competitive advantage</td>
<td>Chapter 1, 2</td>
<td>Case: Minit-lube</td>
</tr>
<tr>
<td>Week 2</td>
<td>O.M in a global environment. Decision making tools 1</td>
<td>Chapter 3, Quant. Module A</td>
<td>Case: GM</td>
</tr>
<tr>
<td>Week 3</td>
<td>Forecasting. Decision making tools 2. Design of goods and services. Process strategy and capacity planning</td>
<td>Chapter 4, Quant. Module B</td>
<td>Case: North-South</td>
</tr>
<tr>
<td>Week 4</td>
<td>Design of goods and services</td>
<td>Chapter 5</td>
<td>Case: DeMar's</td>
</tr>
<tr>
<td>Week 5</td>
<td>Managing quality. Transportation modeling</td>
<td>Chapter 6</td>
<td>Internet case: Quality cleaners</td>
</tr>
<tr>
<td>Week 6</td>
<td>Process strategy and capacity planning</td>
<td>Chapters 7</td>
<td>First problem set</td>
</tr>
<tr>
<td>Week 7</td>
<td>Location strategy. First test</td>
<td>Chapters 8</td>
<td>Case: Southern Recr.</td>
</tr>
<tr>
<td>Week 8</td>
<td>Layout strategy, HR and Job design</td>
<td>Chapter 9 and 10</td>
<td>Des Moines Bank The Fleet</td>
</tr>
<tr>
<td>Week 9</td>
<td>Supply chain management</td>
<td>Chapter 11</td>
<td>Thomas</td>
</tr>
<tr>
<td>Week 10</td>
<td>Inventory management</td>
<td>Chapter 12</td>
<td>Sturdivant</td>
</tr>
<tr>
<td>Week 11</td>
<td>Aggregate planning</td>
<td>Chapter 13</td>
<td>Andrew Carter</td>
</tr>
<tr>
<td>Week 12</td>
<td>Materials requirement planning (MRP). Presentations</td>
<td>Chapter 14</td>
<td>Ruch</td>
</tr>
<tr>
<td>Week 13</td>
<td>Short term scheduling. Presentations</td>
<td>Chapter 15</td>
<td>Account Free</td>
</tr>
<tr>
<td>Week 14**</td>
<td>Project management. Presentations</td>
<td>Chapter 16</td>
<td>Second problem set</td>
</tr>
<tr>
<td>Week 15</td>
<td>Maintenance. Wrap-up session</td>
<td>All chapters</td>
<td>Second Test</td>
</tr>
</tbody>
</table>

** Class Schedule and Holiday will be discussed