Operations Management  OM 305
Summer 2008

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Course Description:
Operations Management is one of the main functional areas of management in most organizations. It involves the management of resources to produce the goods or provide the services offered to the customer, and it includes the management of production, inventory, quality, capacity, processes, personnel, and information. It is required in a variety of settings including manufacturing, service and the full range of resource-based industries. The course will emphasize on an intensive study of the elements associated with the design and operation of a high tech productive system and the integration of these elements within the entire corporate strategy. Real world examples are used to explain ideas and show the effectiveness of these approaches.

Course Objectives:

- To develop understanding of the role of operations management as a functional area of management concepts in a variety of settings, including manufacturing, service, and non-profit organizations;
- To introduce the body of the theory and analytical tools developed for operations management, and to show how they can be used to support operations management decisions;
- To identify and evaluate some of the tasks, tools, and underlying principles of modern operations management.

Course Learning Outcomes:

On successful completion of this course students should have improved these skills:

- Application of theory to practice in the field of operations management;
- Analysis of operational issues;
- Critical thinking in relation to the effectiveness of operations;
- Synthesis of data, which should be enhanced through the evaluation processes.
**Tentative Class Schedule:**

Please note that although emphasis will be on tentative part, class progress and interest will dictate topic selection and speed of coverage.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading Assignment</th>
<th>Due</th>
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| Monday, June 2 | Introduction to OM  
               • OM Functions  
               • Recent Trends in OM  
               • Productivity  
               • Operations Strategy  
               Location Strategies | Syllabus  
Chapter 1, 2 & 8 |                          |
| Wednesday, June 4 | Process Design  
               Process Types  
               • Designing Process Layouts  
               • Designing Product Layouts  
               • Assembly Line Balancing | Chapters 7 & 9  
Student Info Card  
Project Groups |                          |
| Friday, June 6 | Designing Product Layouts:  
               • Assembly Line Balancing | Chapter 9 |                          |
| Monday, June 9 | Designing Product Layouts:  
               • Assembly Line Balancing  
               Project Management:  
               • Critical Path Method (CPM) | Chapter 3 & 9  
Quiz #1-- Quiz # 5  
Project Proposal |                          |
| Wednesday, June 11 | Project Management:  
               • Critical Path Method (CPM)  
               • Cost-Time Trade-offs | Chapter 3 |                          |
| Friday, June 13 | Project Management:  
               • Cost-Time Trade-offs  
               • PERT | Chapter 3  
Quiz # 6 |                          |
| Monday, June 16 | Review of the Course | Chapters 3, 8 & 9  
Assignment # 1 |                          |
| Wednesday, June 18 | Deterministic Inventory Models:  
               • EOQ model  
               • Quantity Discounts | Chapter 12 |                          |
| Friday, June 20 | Probabilistic Inventory Models:  
               • Reorder Points and Safety Stock  
               • Fixed Interval ordering  
               • Single Period Model | Chapter 12 |                          |
| Monday, June 23 | Session with Business Librarian  
               Project Group Meeting | Class will be held at Kellogg 3400 (12:00-1:30)  
Quiz # 7 |                          |
| Wednesday, June 25 | Materials Requirements Planning | Chapter 14 |                          |
| Friday, June 27 | Review of the Course  
               Project Progress Report | Chapters 12 & 14  
Assignment # 2  
Quiz # 8 |                          |
| Monday, June 30 | **Exam #2**  
               Review of the Exam | Chapters 12 & 14 |                          |
| Wednesday, July 2 | Project Presentations | Project Report |                          |
Course Prerequisite(s): BUS 304, COBA Lower Division Math

The pre-requisites for this course are listed in the course catalogue. The instructor reserves the right to administratively drop, at any point, any student who has not met the prerequisites. Students choosing to withdraw from this course are responsible for doing so according to university procedures and deadlines.

Course Textbook:


The textbook comes with a CD Rom containing large amounts of relevant and useful information in various forms. This CD also contains the Microsoft Project program.


Course Website

All the lecture notes will be posted on the course website--WebCT before each class. Lecture notes, assignments, quizzes, class problems, solution to assignments, quizzes and, class problems as well as every other useful material and information will be posted in the course website.

Course Expectations

This is a demanding course. There is a considerable amount of preliminary reading which should be done before each class. It will be difficult to do well if one falls behind in covering this material. I expect you to be an active participant in classroom discussions, and visit WebCT frequently. **You are also expected to download and print the “class problem” of the day from WebCT and bring it to class with you.**

Student Profile

To serve you better, I need to know more about you. Fill in the student information form provided in WebCT under student profile. Attach your picture to the form and hand it in on **June 4, 2008**. The information requested in the form are your name; class hours; major; favorite office hours; contact information (this is optional and upon your consent will only be used in case of emergency); job experience and its relevance to operations management; dream job; expectations of the course; and expectations of the instructor. Provided information will be considered and kept confidential.

Course Evaluation:

The course grade is made up of seven components, each weighted as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Assignments</td>
<td>240</td>
</tr>
<tr>
<td>Quizzes</td>
<td>160</td>
</tr>
<tr>
<td>Project and Presentation</td>
<td>200</td>
</tr>
<tr>
<td>Exam 1</td>
<td>200</td>
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<tr>
<td>Exam 2</td>
<td>200</td>
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</tbody>
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Exams: (400 Points)

There would be two which will focus on your capability to apply operational concepts and techniques to realistic situations. Exam format will include problem solving, which will be limited to variations on quantitative techniques presented in the classroom and homework assignments. The exams are closed book, but students are allowed to bring one crib sheet (8.5”x11”) in these exams.

Homework Assignments and Quizzes: (400 Points)

There will be two homework assignments each weighted 120 points. These will consist of several problems related to the material covered in the class. There will also be eight online quizzes each weighted 20 points. These will consist of several multiple choice questions from the material covered in the book. Quizzes will be taken online on WebCT, and will be available to take one week before the deadline. You can answer all the quiz questions correctly if you once read the related chapter of the book carefully. The solution to homework will be posted on the WebCT at its due date. Therefore, no late homework is accepted. Missing a class is not an acceptable excuse for late submission. You can submit your homework by email “before the class” only if you are going to be absent. You can find all your homework in WebCT. You can collaborate on assignments. Homework must be done individually.

Group Project: (200 Points)

A group project is one of the requirements for this course. This project will require applying concepts to be taught through course work to a real life situation. Each team will be required to prepare a report and also to present the major findings of their project on July 2, 2008 class meeting. See below for more detailed information on project.

Class Participation / Attendance:

No explicit percentage of the final grade is assigned to student participation. However, I reserve the right to raise a student’s grade one level (e.g., from B+ to A-) for exceptional participation, including in-class or out-of-class participation that clearly demonstrates preparation for class and/or intellectual curiosity. Furthermore, I reserve the right to lower a student’s grade one level (e.g., from B+ to B) for consistently being absent from or late to class without advance notification to me. Other factors which may result in a lower grade is for students who: Are not being attentive in class sessions; do not participate in class discussions; are not being on time, prepared and organized; do not turn off their cell phones during class; have more than three valid absences throughout the semester; submit assignments later than the due date; disrupt the class; and do not refrain from unnecessary conversation during class.
Course Policies

1- Academic Honesty

Any evidence of cheating, fabrication, facilitating academic dishonesty or plagiarism will be reported to the Dean of students for appropriate disciplinary action. These offences may result in you being expelled, suspended or put on probation. You will receive a failing grade for the assignment (0%). Please refer to the General Catalog for description of these offences. It is your responsibility to know what each means. This information is also available on-line under Official Notices and Policies at: http://lynx.csucm.edu/policies/policy_online.asp?ID=25

2- Accommodations

Students acquiring reasonable accommodations because of a disability must be approved for services by providing appropriate and recent documentations to the Office of Disabled Student Services (DSS). This office is located in Craven Hall 5205, and can be contacted by phone at (760) 750-4905, or TTY (760) 750-4909. Students authorized by DSS to receive reasonable accommodations should meet with me during my office hours in order to ensure confidentiality.

3- Attendance

Students are expected to arrive in class on time, participate in assigned activities and stay for the entire class. “Students arriving late or leaving early will be considered absent”. Each student is allowed to be absent three times with valid reasons (including late arrival and early leave). The grade of students more than three absences (even with valid reasons) will be lowered one level (e.g., from B+ to B). It is your responsibility to keep track of your attendance. I will not let you know if you have missed too many classes. Please manage your attendance.

4- Other Policies

a. Please refrain from unnecessary conversation during class.

b. During class cell phones must be turned off.

c. All of the assignments and exams must be completed. Otherwise you will not receive a passing grade.

d. If you disrupt the class, the Dean of Students will be informed of your behavior. I may request that you be administratively withdrawn from the class.

Grading Format:

First thing to remind you is that “I do not give you grades, you earn them”. The grades will be distributed with the following format:

A: 950-1000 points,       A-: 900-949 points,       B+: 870-899 points,
B: 830-869 points,       B-: 800-829 points,       C+: 750-799 points,
C: 700-749 points,       D: 600-699 points,       F: 0-599 points.
Course Group Project:

Project Objective:
The group project is intended to satisfy a number of educational objectives. First it is expected to provide an opportunity for students to participate in a first-class cooperative effort. Second, the project is intended to provide an opportunity for further investigation of the course concepts in a real life problem.

Project Expectations:
Each group will comprise of up to 4 students. Students are strongly advised to form their own groups by June 4, 2008. You have two options available for your project.

- **Real Life Project:** This project will require applying concepts to be taught through course work to a real life problem. Each group should find an organization (company, store, school, clinic, university, library or community) to do their project for and with. I expect each team to go through investigation, data collection/extraction, modeling and analysis of an important decision problem, and making practical recommendations to solve the real life problem of this organization.
  
  o Groups working on real life project are required to locate one outside example of a business which has been applying the operations management technique that the group has decided to use for their project. The Business Librarian can optimize your search to find the literature so you are easily directed to what you need.

- **Application Review Project:** This project will require an extensive review or “position piece” on a specific area of application of Operations Management and the literature in that area.
  
  o Groups working on application review project are required to locate and use one additional source from the library about their topic—this would be in the form of background reading in addition to their text book using the bibliography at the end of each chapter, or the library Operations Management subject page. The Business Librarian can optimize your search so you are easily directed to what you need.

Project Proposal:
Each team must submit a project proposal by June 9, 2008. This one page, single spaced document must contain: Team name; team member names; team leader; name of the chosen organization (or name of the specific area); project title; project description (identify the issues that this project is trying to address); estimated project phases and timeline; potential roadblocks; and any contingency plan if necessary.
Project Progress Report:

I am planning to spend 20 minutes with each team on June 25, 2008 to listen to your progress report. This will be a high level verbal communication with supporting documents if needed. Please prepare to talk about the:

- Project being on track in terms of phases and timeline;
- Roadblocks being identified and plans to address them;
- Team members working well together;

Project Report:

A minimum of 2500-word (no limit on maximum) written project report is due on July 2, 2008. All group members must participate in writing of their project report.

Project Report’s Format:

The final project report must have a title page containing a) name of the project (in this case preferably company’s name b) course name c) date of the report d) name of the instructor e) name of the group members. The final project report must have a binding.

For real life project this report must also contain table of contents and must consist of the following sections

- Executive Summary, which defines the project in brief;
- History of the organization, which also introduces its functions and goals;
- Real life decision problem within this organization;
- Background research
- Methodology which is used to solve this problem;
- Practical recommendations resulted from the application of this methodology;
- References
- Appendix

For application review project this report must also contain table of contents and must consist of the following sections

- Executive Summary, which defines the specific area of the project in brief;
- Background research:
  - History of the application
  - Real life decision problems, which have been solved;
  - Methodologies, which are used for this application;
- References
- Appendix
Project Presentation: Each team will be required to make a maximum of 20-minute presentation (including approximately 5-minute Q&A) of the major findings of their project on July 2, 2008 class meeting. All group members must participate in the project presentation.

Project Evaluation:

Project will be evaluated based on the final report and the presentation.

Final Report: (50 %)

Reports will be evaluated for such factors as:
1 - Clarity defining a problem/deficiency in selected subject with supporting data
2 – Providing case-originated, practical operations management recommendations
3 - Accuracy of discussion
4 - Comprehensiveness of the paper's content and depth of analysis
5 - Clarity and mechanics of presentation such as organization, format, and grammar
6 – Working well together

Presentation: (50 %)

Presentation will be evaluated for such factors as:
1 – Content and Relevance: cover the key and important concepts, depth of information
2 – Public Speaking: good posture, easy to hear, little use of notes, no “ums” or “uhs”
3 – Organization: flow of the presentation, logical progression
4 – Professionalism: well prepared, confident demeanor
5 – Appearance
6 – Visual Aids: interesting not disturbing
7 - Working well together
8- Audience grasp of the topic

Peer Evaluation: To ensure that all members of the group will put equal efforts on the project; each team member will be given the opportunity to evaluate the contribution of other team members. You can find a copy of the peer evaluation form on the course website. Each person will submit this form in a sealed envelope on July 2, 2008.

Some Cautions: Be realistic with project scope since you have just one semester to complete it. Make sure your chosen organization is also interested in your project. Make new friends and contacts through this work. Treat it as a 1-month long job interview.

Talk to me at any time whenever you need to!