Introduction to Operations Management

Syllabus for MAN 6501(CRN 10297)
Lutgert College of Business
Florida Gulf Coast University
Professor David A. Collier, Eminent Scholar
Alico Chair in Operations Management
SPRING SEMESTER 2012

Office/Phone: Lutgert Hall, Room 3332, Phone 590-7348, e-mail: dcollier@fgcu.edu
Class time/Room: Monday, 6:30 pm--9:15 pm, LH 1206
Course Materials Required:

- Other course materials will be posted on the FGCU course Angle Web site as needed.

Course Content

We are in the Service and Information Age where information-, entertainment-, and service-content are increasingly dominating or complementing goods-content. Service industries account for 82% of the jobs in the U.S. economy. Goods-producing industries (all of manufacturing, construction, fishing, forestry, mining, and agriculture) account for the remaining 18% but 50% of those jobs are also in service processes. Therefore, 91% of the jobs in the U.S. economy involve designing and managing service-, information-, or entertainment-intensive processes. Therefore, the emphasis in operations management is on value chains and associated processes in a wide variety of industries with special emphasis on services.

The unifying theme of operations management is that value chains and associated processes create and deliver value to customers by transforming a set of inputs via a process into outputs. All functional areas create outputs and outcomes through processes. Outputs/outcomes can be in the form of a manufactured good, information, service, and entertainment. In general, processes can be categorized into (1) *primary processes* such as the production process to build cell phones or the reservation process for a hotel room and (2) *supporting processes* such as an organization’s human resource management hiring process or accounting and billing process. All functional areas such as engineering, accounting, human resource management, information systems, marketing and finance use operations skills to design and manage their processes. We also use business cases and team based assignments to help you understand the interdisciplinary nature of operations management and mimic real world team situations.

Objectives of the Course

1. Develop a broad understanding of value chains and operations management applicable to both goods-producing and service-providing organizations.
2. To understand the interdependence of the operating system with other key functional areas of the firm.
3. To learn the terminology, concepts, and methods of operations management.
4. To become adept at structuring and analyzing practical problems, identifying information needs and sources, defining objectives and strategies, identifying key qualitative and quantitative decision criteria, developing and analyzing alternative solutions, arriving at a decision, and selling your final recommendations to your boss, client, or peers via the analysis of business case studies (i.e., develop your strategic and critical thinking skills).
5. To practice and improve your written and verbal communication skills, and therefore, enhance your ability to communicate in business situations, and create an environment where you learn to work in teams.

This course is a *required core (common) course* for all MBAs. Cases, speakers, chapter content and assignments, and class discussion require students to adapt and apply course content to changing business environments, and communicate effectively through verbal and written formats. Students begin to understand how the concepts and methods of operations management provide a foundation for critical thinking and decision making as outlined in the previous course objectives.
Exams
- The exams are closed book, closed notes. Bring a calculator!
- The exams may be given in a bigger room if available so please check your e-mails and with classmates.
- Formulas are given on the exams but you must know what the symbols mean and how to use.
- Each exam consists of some combination of conceptual questions, quantitative models, and problem solving. The material could be based on anything covered in the lecture, text, class and case discussions, homework, other assigned readings, videos, or guest presentations. A key to doing well on the exams is taking good class notes.
- All electronic devices (cell phones, PCs, tablets, etc.) of any kind must be turned off during the exam.
- If a Scranton sheet is used to record your answers for exams/quizzes your answer on the Scranton sheet is the only valid answer (answers on the test itself will not be considered so check your Scranton answers several times).
- You must use your own calculator – No sharing of calculators.
- You are responsible on the exams for all questions and problems we work and discuss in class so take good class notes.
- NO make-up, late or early exams are given. A comprehensive make-up exam is given at the end of the semester covering all course materials for any exam(s) you miss. Business related absences are not excused. Students should make arrangements now to avoid time conflicts.

Class Participation, Attendance & Attentiveness
Good managers can communicate their ideas and analysis in a management meeting and to their peer group. Think of coming to our class meetings as coming to a management meeting and "practice" your communication skills. Relax and tell us what you think! Let's learn from each other! Consistent, aggressive, and quality class participation is expected. All points of view should enter the class discussion. I review our class discussion and assign you a score of +5 (you present a sound, insightful, and articulate analysis of the case or enhance a class topic/discussion) to -5 (you were unprepared and wasted everyone's valuable time.). At times I will call on you directly to discuss or explain a topic to the class. A poor attendance record will reduce your final course grade by as much as one full letter grade, so please communicate with me on attendance policy. I occasionally pass around a class attendance sign up sheet so please attend class.

All Case Management Reports (Read this carefully!)
A team of no more than four people must analyze and write management reports on certain case studies. The case management report must be handed-in on the date the case is discussed in class. For a change of pace, I decided not to do the big 20-30 page plus cases this semester so our focus will be on mini-cases. The case write-up should be in the form of a management or consultant report. It should be typed, single or double spaced, and should not exceed eight pages including all exhibits, computer printouts, Excel worksheets, flowcharts, tables, etc. You must decide the exact content, analysis, and presentation format. An "A" report would be of sufficient high quality to use as an outside consultant's report (to your client) or as a top-level management's internal document (to your boss). You will be writing such reports in your new job and this component of the course is intended to give you some practice at problem analysis and report writing. Plan ahead and get an early start! Just like in the real world, no late case management reports will be accepted. You will also be making a short presentation of your report to the class but the presentation will not be graded.

Organize your analysis so you clearly define the issues and problem(s) to solve in the case, make sure you have a section in the report "base lining" the current situation including numbers if available, and then other sections documenting you analysis. Make sure your report addresses all case questions but view these questions as "starter questions." Your team may decide to address other issues not identified in the starter questions.

A good management report usually includes an executive summary, a logical sequence of topics with ample use of headings and subheadings to "guide the reader" through the analysis, easy to follow exhibits with "example computations", all assumptions clearly stated, a final/summary set of recommendations with summary numerical support if appropriate, and so on. Make sure you start and end strong. Poor report organization and/or writing can defeat a good analysis, so spend some time on this part of the assignment. The reader (your boss or client someday) should be
able to smoothly move through the report without being confused. We will go over in class and write down what are the characteristics of a good management report.

**Grading and Course Performance**

You grade is determined with 50% weight on individual performance and 50% on team assignment performance as follows:

- Individual Class Participation, Attendance & Attentiveness: 10%
- Individual Performance on Two Exams @ 20% each: 40%
- Four Team Mini-Case Write-ups & Other (BH versus BP): 35%
- Team Hand-in Homework Assignments (about 29 problems): 15%

Your “team” is responsible for helping “all team members” understand the concepts and methods of the course—teach and help one another! Given our limited time and class format we may not discuss every chapter concept and method in class.

*We will use Eagle mail for special announcements; we will use Angle only to post cases, articles and other course materials if necessary. Angle is not used to post grades – you must come to class to get your graded exams, cases, and other assignments. Feedback completes the learning cycle.*

**Disability Accommodation**

If you need an accommodation based on the impact of a disability, please arrange an appointment with me as soon as possible and contact the FGCU Office of Adaptive Services in Howard Hall 137. Their telephone number is 590-7956.

**Academic Misconduct**

Any material submitted for course credit must be your own work if it is an individual-based assignment or the work of your team if it is a group-based assignment. Students are not permitted to discuss, read, etc. the work, thoughts, and ideas regarding the case or exams with other students (or another team for case work). If outside references are used, they must be properly referenced. Also, with the case work, it is recommended that you take action to protect your work, such as collecting your materials from the lab printers and disposing of rough drafts at home. Case write-ups that are similar to current or past case write-ups or similar to on-line materials may initiate serious disciplinary action, so please do your own work as an individual or, when required, as a team. No electronic devices such as tablets and cell phones should be on during the exam. Suspected cases of academic misconduct will be reported to the appropriate university departments. Typical penalties include an E in the course, disciplinary probation and/or possible dismissal from the university. *Academic misconduct is a serious threat to the integrity and value of your degree and all that we do. Employers expect you to know the body of knowledge that is documented in your academic transcripts.* The FGCU Student Code of Conduct documents the policies related to academic misconduct and honesty so please read these materials.

**Religious Holidays**

All students at FGCU have a right to expect that the University will reasonably accommodate their religious observances, practices, and beliefs. Student shall not be penalized due to absence from class or other scheduled academic activities because of religious observances.
I. Introduction & Value Chains

1. Mon/Jan 9  - Read: Chapters 1 & 2 (OM3)
                - Read: Zappos Case (OM3, p. 21) In class discussion of case, nothing to hand-in. We will read this short case in class and then discuss.
                - Set up teams.

2. Mon/Jan 16  - Holiday (no class)

II. Performance Measurement & Operations Strategy

3. Mon/Jan 23  - Read: Chapters 3 and 4 (OM3)
                - #1 Team Hand-in Homework Assignment: Chapter 2, Problems #3, #4, #5, #9 (maximum one page for #9) (OM3, pp. 42-43); Chapter 3, Problems #7, #8 (OM3, p. 62) – a total of six problems to hand-in. Clearly identify each chapter and problem number.
                - Read: Bookmaster case, (OM3, p. 43); in class discussion of case, nothing to hand-in.

III. Goods and Service Design & Supply Chain Design

4. Mon/Jan 30  - Read: Chapters 6 and 9 (OM3)
                - #2 Team Mini-Case Hand-in Assignment: Sustainable Lawn Care case (OM3, p. 83)

5. Mon/Feb 6   - Read: Continue Chapters 6 and 9 (OM3)
                - #3 Team Hand-in Homework Assignment: Chapter 6, Problems #1, #4, #7, #9 (OM3, pp. 120-21); Chapter 9, Problems #6, #8 (OM3, pp. 188-89); – a total of six problems to hand-in. Clearly identify each chapter and problem number.

IV. Process Design and Capacity Management

6. Mon/Feb 13  - Read: Chapters 7 and 10 (OM3)
                - #4 Team Hand-in Homework Assignment: Chapter 7, Problems #4, #5, #6, #8, #9 (OM3, pp. 143-44); Clearly identify each chapter and problem number.

7. Mon/Feb 20  - Read: Chapters 7 and 10 (OM3) continued
                - #5 Team Hand-in Homework Assignment: Chapter 10, Problems #1, #7, #8 (OM3, pp. 207-08); Clearly identify each chapter and problem number.
                - Review for Exam #1

8. Mon/Feb 27  - EXAM # 1 at end of class over ALL classes #1 to #7 materials.
                - Begin Introduction to Chapter 12 on Inventory Management

9. Mon/March 5 - SPRING BREAK (no class).
V. Service Delivery System Design & Comparison

10 Mon/March 12 - Hand back Exam #1 and go over.
- **Read: Benihana of Tokyo case** -- think about case assignment questions but there is nothing to hand-in for this class but look at future assignment. Take good class notes.
  1) Define the Benihana concept and bundle of goods and services.
  2) Define Benihana’s strategic service vision.
  3) Benihana's operating statistics appear to be favorable compared to the typical service restaurant. Why are they that way? What are BH's key success factors?
  4) What is the process flow from the customer's perspective? What is the function of the bar/lounge area in this service delivery system? How is the process paced? Identify capacity in this service delivery process.
  5) What growth options are available to Benihana and what would you recommend they do?

- **Read: Broadway Pizza case (Angle Web Site)** -- think about case assignment questions but there is nothing to hand-in for this class but look at future assignment. Take good class notes.
  1) Define completely the bundled of goods and services for (a) family restaurants and (b) entertainment by automation. Are these they compatible? Why or why not?
  2) Define Broadway Pizza’s strategic service vision.
  3) Identify and evaluate potential problems faced by Broadway Pizza.
  4) Take a look at their investment structure and compare to their revenue sources. Any conclusions?
  5) What is your final set of recommendations to Mr. Baldwin?

VI. Inventory Management

11 Mon/March 19 - **Read**: Chapter 12 (OM3)
- **#6 Team Hand-in Homework Assignment**: Chapter 12, Problems # 3, #4, #5, #6, #8 (OM3, pp. 251-52); Clearly identify each chapter and problem number.
- **#7 Team BP versus BH hand-in Assignment #2**: Compare and contrast Broadway Pizza and Benihana at the three levels defined in Chapter 6 (i.e., Level 1 -- strategy, vision, competitive priorities, and mission; Level 2 -- service delivery system, and Level 3 -- service encounter levels). A table format works well here with the three previously described levels but the format is up to you. Be ready to discuss and present in class. Maximum of four-page write-up.

VII. Quality Management

12 Mon/March 26 - **Read**: Chapters 15 and 16 (OM3)
- **#8 Team Mini-Case Hand-in Assignment**: Hardy Hospital case (OM3, pp. 253-255; Hints: do not use the 19,000 and 16,000 orders to compute inventory carrying or order costs; keep it simple; annual inventory carrying cost has two components – cost of money tied up in inventory + cost to store and handle inventory)

13 Mon/April 2 - **Read**: Chapters 15 and 16 (OM3) continued
- **#9 Team Hand-in Homework Assignment**: Chapter 16, Problems # 3 (Twenty not five samples of table legs), #6, #8, #9 (OM3, pp. 341-42); Clearly identify each chapter and problem number.
General Topic/Assignment
(See Detailed Assignment Questions Attached)

VIII. Project Management

14 Mon/April 9 - Read: Chapter 18 (OM3)
- We will work a few CPM problems during class including crashing a project (take notes).

IX. Team Mini-Case Report & Presentations

15 Mon/April 16 - Team Mini-Case Hand-in Assignment: Alternative Water Supply – Single Project case (CPM and crashing case; posted on Angle course web site)
- Team Mini-Case Hand-in Assignment: Dean Door Corporation case (OM3, pp. 342-43)
- Team Mini-Case Hand-in Assignment: Greyhound Frequent Flyer Call Center case (case and case Excel data set posted on Angle course web site)

16 Mon/April 23 - Catch up, summary, and review for Exam #2

**EXAM #2** (over all material for classes 8 to 15 only; check Exam #2 time and date; FGCU exams are scheduled from April 24 to 28)

THE END!
ENJOY YOUR SUMMER!
Your team has been given $100 to allocate to team members as a bonus consulting fee. Divide the money among your team based on the quality and effort of each team member’s contribution. The objective of this information is to document individual team members who are outliers (high or low percentage of total management report effort). If, in your opinion, everyone contributed to the management reports in different ways “roughly” equally, there is no need to hand in this optional evaluation. It is assumed, unless the instructor is told otherwise by handing in this form, that all members of the team participated and contributed about equally to the development and preparation of the homework and mini- and major team case management reports. Please explain your response in a professional manner. **This evaluation is due to the instructor by the last regular class and is optional.**

<table>
<thead>
<tr>
<th>Team Name &amp; Number</th>
<th>You estimate of percent (%) of work by each team member</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Your name:</td>
<td></td>
</tr>
<tr>
<td>(2) Other names:</td>
<td></td>
</tr>
<tr>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td>(4)</td>
<td></td>
</tr>
<tr>
<td>(5)</td>
<td></td>
</tr>
<tr>
<td>(6)</td>
<td></td>
</tr>
<tr>
<td>(7)</td>
<td>$100 or 100%</td>
</tr>
</tbody>
</table>

Discussion/Comments: