

OPERATIONS MANAGEMENT

BUS 305 – FALL 2009

Syllabus

General Information

Professor Elizabeth J. Durango-Cohen
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Office Hours: Monday and Wednesday, 12:00PM – 1:00PM

You are welcome (and encouraged) to ask questions during and directly after class. Appointments may be arranged by phone or email.

Meeting Time: Monday and Wednesday, 1:50 – 3:05PM

Course Overview and Objectives

This course introduces you to concepts and techniques related to the design, planning, control and improvement of service and manufacturing operations. The course attempts to make you conversant in the language of operations management, provide you with quantitative and qualitative tools to analyze basic operations issues, and allow you to see the role of operations management in the overall strategy of the firm. We will cover topics in process analysis, quality program implementation and management, inventory and supply chain management and operations strategy. In each module of the course, we will introduce basic tools for analyzing operations problems, methods of managing that aspect of operations, as well as a strategic view, typically using cases. Through this approach we hope to have you learn about operations management tools and about the context in which they operate. The course objectives are to:

1. Understand the trade-offs that exist between strategies and why strategic priorities are important.
2. Enumerate and explain different dimensions of quality.
3. Define and explain process capability.
4. Understand the role variability (in customer arrivals, service durations, and server availability) plays in determining cycle times and system performance.
5. Diagnose a operations-oriented business situation, identify its challenges and opportunities, and design an appropriate plan of action.

To pursue these objectives most effectively, we will require you to prepare cases and discuss them in class, read textbook chapters and complete problem sets, and participate in simulations and exercises. Our objective is to create as much hands-on interaction with operations issues as possible, allowing you to examine how they impact the overall performance of an organization.

Teaching and Learning

Optional: *Operations Management for Competitive Advantage*, Eleventh Edition, by Chase, Jacobs and Aquilano, 2004.

The most effective learning will result from involvement in critical thinking through both class presentations and discussions as well as through your homework assignments, case analyses, and readings.

Honor Code

Students **must** adhere to the school's honor code. An electronic copy can be found at (<http://www.iit.edu/~osa/Handbook/FinePrint.html>). Please take the time to read it if you have not yet done so. If you have any questions or concerns regarding appropriate behavior, please do not hesitate to contact me.

I take academic honesty violations extremely seriously, and will seek full academic sanctions for cheating and plagiarism violations.

Cheating: All assignments must include the following statement on its cover page: "I (we) have complied with the university honor code in completion of this assignment, and I (we) attest that this work is mine (ours) and (ours) alone." It must be signed by all contributors.

Plagiarism: If you use any outside sources (internet, other textbooks, etc) to aid you in the completion of any assignment, you must acknowledge the original source. **Failure to do so will be considered cheating.**

Grading

Course grades are determined from performance on homework sets, case assignments, in-class participation, simulation reports, an in-class mid-term, and a final exam. A somewhat complicated system will be used to determine the final grade. Half of each student's midterm may replace the final exam grade if that is better. Since the final exam will be comprehensive, so long as students learn the material by the final then some of the points lost on the midterms can be made up.

<i>Component</i>	<i>Weight (%)</i>	<i>Notation for % score</i>
Class attendance and participation	15	p
Case reports	10	c
Simulations: Littlefield and Beer Game	5	s
Problem Sets/Homework	15	h
Midterm exam	15 or 25	mt
Final exam	30 or 40	f

The final grade will be calculated as follows:

$$0.15*p + 0.10*c + 0.05*s + 0.15*h + 0.15*(mt) + 0.10*\text{maximum}(mt,f) + 0.30*f$$

If you get 90% or above you will get at least an A, 80% or above will be at least a B, and 70% and above will be at least a C. Actual grade cutoffs may be lower.

Class Attendance and Participation

Attendance: You are expected to attend all class meetings.

A maximum of *five* absences is allowed for each student (but *you must attend the exams and the Experiential Supply Chain Exercise*). My policy regarding absences is *not* to ask for any explanation when you miss a class.

Students with more than five absences will receive a D in the course. As a result, you should take into account possible “emergencies,” job interviews (etc.), which may require you to miss classes during the semester.

Class Attendance and Participation (cont.)

Participation: I have made a sincere effort to keep the amount of reading in each class reasonable; in turn, I expect you to read the required materials and be well-prepared for each class. Cases, in particular, require a detailed reading and will often require analysis of relevant data to support your conclusions.

Since class participation is part of your course grade, it is important that you strive to be a vital contributor to such discussions. In an effort to encourage class participation, I will occasionally call on people and solicit contribution. The quality of your participation in discussions will be judged based on the content and depth of your comments, their relevance to the discussion, and your ability to move the class discussion forward.

If something does not seem clear to you, it is probably not clear to lots of others, so please speak up.

Case Reports

Reports should be written in the form of a memo to a senior manager in the company that is the subject of the case. In preparing this assignment, please adhere to the following guidelines:

1. Work in groups of four students or fewer. Groups **must** be formed by the third class session (Monday, August 31).
2. Hand in a paper copy of the case write-up for each group (plus an email attachment of your paper to the professor).
3. Written assignments are to be turned in at the beginning of on the day they are due.
4. Each student should have a personal copy of his/her team write-up for the corresponding class discussion.
5. Written assignments must be less than 1000 words in length, accompanied by up to 4 supporting exhibits. This is a firm constraint.
6. Exhibits should contain specific types of analysis, such as financial analysis, break-even charts, cost analysis, process-flow analysis, etc. Exhibits should contain any relevant supporting information that is too detailed for the body of the paper. Exhibits should not be simply an extension of the text.

A portion of each group member’s grade will be determined by peer evaluations submitted by your peers.

Your group will need to submit a written report on the following six cases:

1. “National Cranberry Cooperative”
2. “Manzana Insurance: Fruitvale Branch,”
3. “The Ritz-Carlton Hotel Company: The Quest for Service Excellence”
4. “Supply Chain Close-up: The Video Vault”, and
5. “Hewlett-Packard – Supplying the DeskJet Printer in Europe”.

Simulation Reports on Littlefield Technologies

Your team should turn in one *two-page* summary of what actions you took during the week you had access to the factory, why you took those actions, and in retrospect whether you think you did the right thing. Show analysis to justify your conclusions. Your team’s grade will be partially based on your performance, but mainly based on your summary. Some issues you may want to address in your summary:

1. Description of the strategy that was followed, with a detailed explanation of its underlying rationale;
2. Assessment of its performance;
3. A posteriori suggestions for improving your performance in this simulation;
4. Description of the most important lessons you learned or insights you gained.

Experiential Supply Chain Game Report

A summary of the experiential supply chain game should be submitted at the beginning of the next class. You will **not** have the option to write the report if you do not attend the game! In other words, there may be a significant penalty for not participating in the game. Details on the report to be handed-out.

About Midterm and Final Exam

The midterm will be held in class on Wednesday, October 21. The final exam will be held on the last day of classes, Monday, December 7.

For the midterm you are **allowed** to bring in one piece of 8½*11 paper with anything you like written on it (front and back). For the final you are allowed two such pieces of paper. Note that the majority of weight for solutions to problems will be given to the correct approach, not to correct numerical results. Show all work! Students with valid medical or personal excuses (e.g., hospitalization or death of a near relative) for not taking an exam must contact the professor *before* the exam.

Make-up examinations will be scheduled several weeks subsequent to the scheduled examination when all students who are eligible to make up the examination can take it together at one time. Note that **taking a make-up exam is not a choice** and it will be considered only when you show that you were unable to take the examination due to a catastrophic event (e.g., hospitalization). **Make-up exam for the final will be scheduled for the end of January 2010.**

Problem Sets

Problem sets may be done in groups of up to 2 people. Please hand in one

write-up per group. Because answers will be discussed in class, no late homework will be accepted.

It is a violation of the honor code to consult homework solutions from previous years or to work in groups larger than those specified.

All assignments, other than problem sets, must be typed.

**Americans with
Disabilities Act
(ADA) Policy
Statement**

Reasonable accommodations will be made for students with documented disabilities. In order to receive accommodations, students must contact the Center for Disability Resources. The Center for Disability Resources (CDR) is located in Life Sciences Room 218, telephone 312 567.5744 or disabilities@iit.edu