
OM 335: OPERATIONS MANAGEMENT

Spring 2007 : T- Th 8:00-9:30am Unique #: 03835 in UTC 4.122
Spring 2007 : T- Th 9:30-11:00am Unique #: 03840 in UTC 4.122

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COURSE DESCRIPTION:

Operations Management (OM) is the cost effective management of resources to achieve organizational goals. OM focuses on the systematic planning, design, operation, control, and improvement of the processes which produce goods and deliver services. Managing operations is vital to every type of organization, for it is only through effective and efficient utilization of resources that an organization can be successful in the long run. This is especially true today, when we see that significant competitive advantages accrue to those firms that manage their operations effectively.

This course is of interest to Management majors and is a pre-requisite for some other management classes. It is also the “foundations course” for our new Management major in Supply Chain Management. This class can also be useful to students with other majors because every business has an operations component.

Prerequisites: credit or registration for BA 324 (or credit for MIS 324) and credit or registration for STA 309.

COURSE OBJECTIVES:

The main objectives of this course are:

- To provide you with an understanding of the crucial importance of operations management in today's business environment.
- To familiarize you with the basic concepts, techniques, methods and applications of operations management.
- To enhance your analytical skills and ability to uncover problems and opportunities for improvement in production and service processes.

COURSE MATERIALS:

1. Required Readings

- Textbook: "Matching Supply with Demand: An Introduction to Operations Management" by Cachon, G. and C. Terwiesch. New York, NY: McGraw-Hill / Irwin. 2006.
- Book: "The Goal" by Goldratt and Cox, 3rd Revised Edition. Great Barrington, MA: North River Press, Inc. 2004.
- Course Packet: Available at the GSB Copy Center. It contains a combination of readings and cases we will discuss in the class.

2. Course Website: This course will use Blackboard substantially. The login page is located at <http://courses.utexas.edu>. A UT EID is required for accessing the web site. If you need more information or tutorials, go to <http://www.utexas.edu/cc/blackboard>. If you have problems using blackboard, you can call the ITS help desk at 475-9400. You will find the following on Blackboard:

(a) Course Notes: To support the lectures, I will be posting PowerPoint slides on Blackboard as the semester goes on. While these notes would be posted before the beginning of the class, they are not intended to be a substitute for attending class. In some instances, the slides will be incomplete as you will be expected to fill in the blanks in class.

(b) Assignments and Solutions: The purpose of homework assignments is to provide learning reinforcement and promote class preparedness. You will find that the homework provides excellent learning feedback and is a confidence-building tool. The assignments will also help you prepare for the exams.

(c) Feedback: You and I shall work together to create the best learning environment we can. Your informal feedback about the class and the course is very important to me. Please let me know throughout the semester if there is anything I can do to make the delivery of the course better for you.

(d) Grades: Grades on exams and assignments will be posted on Blackboard. Please check that the grade posted matches the grade on your paper copy and notify the instructor (for exams) or the TAs (for assignments) as soon as possible in case of a discrepancy.

PERFORMANCE EVALUATION:

Your grade will be assessed via homework assignments, as well as through three equally important exams. Below is a description of how the various types of assignments and tests contribute to your grade, as well as a description of each type of graded work.

	Grade
Midterm Exam I	20%
Midterm Exam II	20%
Final Exam	35%
Homework assignments	20%
Class Participation	5%
Total	100%

Exams

Midterm Exam I will cover the materials from sessions 1-9 (Process Analysis). Midterm Exam II will cover the materials from sessions 12-19 (Project Management, Queuing Theory and Quality Management). The Final Exam will be comprehensive but with a greater focus on the materials from sessions 22-29 (The Goal, Inventory Management and Supply Chain Management).

Exams may contain true/false, multiple choice, short answer, essay, or analytical problem solving questions. The exams are closed book and closed notes. Do remember to bring your calculator. A formula sheet will be provided during the exam (a copy of the sheet will be put on Blackboard before the exam).

Offering a make-up exam for a missed exam is entirely at the discretion of the instructor. Students with legitimate reasons and letters of proof could request to take make-up exams. However, make-up exams can be taken only after the regular exams.

Any concern regarding the grading of exams should be addressed directly to the instructor, no later than two weeks after the grade was assigned.

Homework Assignments

There are 12 homework assignments throughout the semester. You may do the homework assignments in teams but each student must hand in a separate handwritten copy and indicate the names of the people they worked with on the front page.

Homework assignments have to be turned in at the beginning of the class session listed on the schedule or by email, before the starting time of the class session. The solutions to the homework

will be provided at the end of the day when it is due; therefore no late homework assignments will be accepted.

When computing the average grade on homework assignments, the two lowest grades will be dropped. In other words, your final score will be the average of your 10 best scores.

Homework assignments will be graded by the TAs on a scale of 0 to 10. Points will be given for effort, especially for the case-based assignments. Any concern regarding the grading of homework assignments should be addressed directly to the TAs and not to the instructor, no later than one week after the grade was assigned.

Class Participation

Regular attendance at all class meetings is expected. Attendance will be formally taken on the day of the Beer Game (see below).

Students are expected to prepare before class. Participation in class, in the form of answering questions and/or commenting on the material is strongly encouraged. Participation on the Blackboard forum will also be counted towards the class participation grade, as long as the posted comments are relevant.

Students may not disturb classmates, surf the web, read newspapers or use their cell phones in class.

In each session, students are asked to pick up their name card and return it at the end of the session.

Mandatory Evening Class: *Beer Game*

An evening class will be held on *April 25th, from 6:00 to 8:30 PM*; to compensate, there will be no class on *April 24th*. “The Beer Game” is an incredibly popular, entertaining and educational activity; its purpose is to introduce students to one of most crucial issues in Supply Chain Management. Please contact me immediately if there is a scheduling conflict.

SCHOLASTIC DISHONESTY

I take honesty and integrity very seriously. I will follow up on issues according to university rules. You can refer to the website at <http://deanofstudents.utexas.edu/sjs/> for more information. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the university. Since dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced.

STUDENTS WITH SPECIAL NEEDS

The University of Texas at Austin provides upon request appropriate accommodations for qualified students with disabilities. For more information contact the Office of the Dean of Students at 471-6259 or 471-4641 TTY.

If for some reason you need special assistance to take an exam or complete an assignment please notify me ahead of time so that special arrangements can be made in a timely fashion.

Schedule[†]

	Date	Topic	Readings	Assignments
1	Jan 16 T	Introduction to Operations Management		
2	Jan 18 Th	Process Analysis: Process capacity and bottleneck analysis	2.1-2.3; 3.1-3.3	
3	Jan 23 T	Process Analysis: Process capacity and bottleneck analysis (case analysis)	Case: Kristen's Cookie Co.	HW1 (Kristen)
4	Jan 25 Th	Process Analysis: Resource utilization & labor costs estimation	3.4-3.5 ; 4.1-4.3	
5	Jan 30 T	Process Analysis: Line balancing	4.4-4.5	HW2
6	Feb 1 Th	Process Analysis: The face game	2.6 ; 8.8	
7	Feb 6 T	Process Analysis: Process design issues	Case: Benihana	HW3 (Benihana)
8	Feb 8 Th	Process Analysis: Setup times and batching	5.1-5.3	
9	Feb 13 T	Process analysis: Economic Order Quantity	5.4-5.5	HW4
10	Feb 15 Th	Review		HW5
11	Feb 20 T	Midterm I		
12	Feb 22 Th	Project Management		
13	Feb 27 T	Project Management: Crashing		
14	Mar 1 Th	Queuing Theory:	Chapter 6	HW6 (PM)
15	Mar 5 T	Queuing Theory:	Chapter 6	
16	Mar 7 Th	Queuing Theory:	Case: University Health Services	HW7
	Mar 12 T	[Spring Break]		
	Mar 14 Th			
17	Mar 19 T	Queuing Theory:	Chapter 7	
18	Mar 21 Th	Quality Management	Chapter 8	HW8 (queuing)
19	Mar 26 T	Quality Management: Toyota Production System	Case : Toyota	HW9 (TPS)
20	Mar 28 Th	Review		
21	Apr 3 T	Midterm II		
22	Apr 5 Th	The Goal	Book: The Goal	HW10 (The goal)
23	Apr 10 T	Inventory Management: Newsvendor Model	Chapter 9	
24	Apr 12 Th	Inventory Management:	Chapter 10	
25	Apr 17 T	Inventory Management	Chapter 11	
26	Apr 19 Th	Supply Chain Management	Chapter 14	HW11 (Inventory)
	Apr 24 T	NO CLASS		
27	Apr 25 W	Supply Chain Management: Beer Game		

28	Apr 26 Th	Supply Chain Management: debrief beer Game	Case: Amazon	HW12 (Amazon)
29	May 1 T	New initiatives in OM	Chapter 12/13	
30	May 3 Th	Review		
31	TBA	Final exam		

†This is a tentative schedule of meetings, readings, and deliverables for the semester. This is subject to change. When there are changes, you will be notified by email; a current schedule will always be available on the Blackboard course website.