
OM 335: OPERATIONS MANAGEMENT (Spring 2010)

#03865 : MWF 8:00 am—9:00 am in UTC 4.124
#03875 : MWF 2:00 pm—3:00 pm in UTC 1.130

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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.

I come to this course with over 25 years in operations, supply chain, and general management. The experience of owning, managing, and consulting to businesses of a variety of different sizes provides me with a context for this course that we can use for a basis of discussion and learning. Please question me on the issues in this course covered through the books, cases, and lecture so that your learning takes place at the level of quality you expect.

This course is the “foundations course” for the 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. Readings

- Textbook: "Matching Supply with Demand: An Introduction to Operations Management" by Cachon, G. and C. Terwiesch. New York, NY: McGraw-Hill / Irwin. 2006. ISBN: 0-07-291899-3 (Not required, but recommended)
- Book: "The Goal" by Goldratt and Cox, 3rd Revised Edition. Great Barrington, MA: North River Press, Inc. 2004. ISBN: 0-88427-178-1 (required)
- Course Packet: Available on Study.net. It contains a set of cases we will discuss in class, and can be downloaded and printed as you need it. This alternative has been shown to be a lower cost option for cases and readings. I may add a reading to the course packet as the class progresses, and you should be able to download the reading at the time for a small fee.

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:

Course Notes: I will post the slides for each class on Blackboard the night before each class. You may download and print those slides if you would like to use them as lecture note guides. I will purposely have some blank slides in the lecture for discussion purposes.

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.

Forums: You are invited to further discuss topics brought up in class on the forum. This forum is on the Blackboard site for the class. High quality forum postings will count toward your class participation grade. You can also post any comments you have about the material and ask questions. Finally, you can post comments, criticisms and

suggestions anonymously regarding the course. In particular, let me know throughout the semester if there is anything I can do to make the delivery of the course better for you.

Surveys: Periodically throughout the semester I will be surveying the class for feedback on the course and how it can be improved. Please participate in these surveys, as I use them to adjust the class to improve your learning experience. If, however, you have a suggestion, please feel free to contact me to share your thoughts.

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.

Password-protected class sites will be available for all accredited courses taught at The University. Syllabi, handouts, assignments and other resources are types of information that may be available within these sites. Site activities could include exchanging e-mail, engaging in class discussions and chats, and exchanging files. In addition, class e-mail rosters will be a component of the sites. Students who do not want their names included in these electronic class rosters must restrict their directory information in the Office of the Registrar, Main Building, Room 1. For information on restricting directory information see: <http://www.utexas.edu/student/registrar/catalogs/gi02-03/app/appc09.html>.

PERFORMANCE EVALUATION:

Your grade will be assessed through homework assignments, exams and class participation. 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	30%
Homework assignments	20%
Class Participation	10%
Total	100%

Exams

Midterm Exam I will cover the materials from sessions 1-13 (Process Analysis). Midterm Exam II will cover the materials from sessions 15-29 (Project Management, Queuing Theory, Quality Management and The Goal). The Final Exam will be comprehensive but with a greater focus on the materials from sessions 31-44 (Inventory Management, 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.

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

Homework Assignments

There are 12 homework assignments throughout the semester. You may do the homework assignments in teams but in this case, each student must hand in a separate handwritten copy and indicate the names of the people they worked with on the front page. If you do the assignment individually, then you may (and in fact are encouraged to) type it.

Homework assignments have to be turned in at the beginning of the class session listed on the schedule or by email to the TA (and me in CC), before the starting time of the class session. You can also put your homework assignment in my mailbox, the TA's mailbox or under my office door but then you need to email us to let me know that you have done so. 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 12 best scores. However you are strongly encouraged to hand in all 14 assignments as they constitute the best preparation for the exams.

Homework assignments will be graded by the TAs on a scale of 0 to 3. Points will be given for effort (especially for the case-based assignments), correctness of your answers and presentation.

- 0 points—Homework not turned in, or obviously not seriously addressed
- 1 point—Turned in, and a good faith effort represented
- 2 points—Essentially all correct, good effort
- 3 points—Excellent work, above and beyond

Note: An average homework grade of a 2 over the semester would be entered into the final grading calculations as an 85.

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) and will constitute 2% of your final grade.

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. As 10% of your final grade, excellent class participation can be the difference between a B+ and A-, for instance. I use class participation specifically to help students who are “on the fence” between grades to be able to move up to the next grade.

Students may not disturb classmates, surf the web, read newspapers or use their cell phones in class. Laptops will be closed and cell phones put away during class.

In each session, students are asked to pick up their name card and return it at the end of the session. On the back of the name card is a table you can use to note your own evaluation of your class participation. I will provide my evaluation (which will be used for grading) and will note it on your name card for you to see.

Mandatory Evening Class: *Beer Game*

An evening class will be held on **(date and time TBA)**. “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

The McCombs School of Business has no tolerance for acts of scholastic dishonesty. The responsibilities of both students and faculty with regard to scholastic dishonesty are described in detail in the Policy Statement on Scholastic Dishonesty for the McCombs School of Business:

By teaching this course, I have agreed to observe all of the faculty responsibilities described in that document. By enrolling in this class, you have agreed to observe all of the student responsibilities described in that document. If the application of that Policy Statement to this class and its assignments is unclear in any way, it is your responsibility to ask me for clarification. Policy on Scholastic Dishonesty: Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course an/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. You should refer to the Student Judicial Services website at <http://deanofstudents.utexas.edu/sjs/> or the General Information Catalog to access the official University policies and procedures on scholastic dishonesty as well as further elaboration on what constitutes scholastic dishonesty.

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

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

OM 335 Introduction to Operations Management--Spring 2010

Session	Day	Date	Topic	Readings	HW Due
1	W	20-Jan	Introduction		
2	F	22-Jan	Process Analysis: Process capacity and bottleneck analysis	3.1-3.3	
3	M	25-Jan	Process Analysis: Process capacity and bottleneck analysis (case)	Kristen's Cookies	HW1
4	W	27-Jan	Process Analysis: Resource utilization & labor costs estimation	2.1-2.3; 3.4-3.5; 4.1-4.3	
5	F	29-Jan	Process Analysis: Resource utilization & labor costs estimation		
6	M	1-Feb	Process Analysis: Line balancing	4.4-4.5	HW2
7	W	3-Feb	Process Analysis: The face game	2.6; 9.8	
8	F	5-Feb	Process Analysis: Process design issues	Benihana	
9	M	8-Feb	Process Analysis: Process design issues		HW3
10	W	10-Feb	Process Analysis: Setup times and batching	6.1-6.3	
11	F	12-Feb	Process Analysis: Setup times and batching		
12	M	15-Feb	Process Analysis: Economic Order Quantity	6.4-6.5	HW4
13	W	17-Feb	Process Analysis: Economic Order Quantity/Review		HW5
14	F	19-Feb	Midterm I		
15	M	22-Feb	Quality Function Deployment	House of Quality	
16	W	24-Feb	Project Management: Introduction		
17	F	26-Feb	Project Management: Crashing		
18	M	1-Mar	Project Management: Crashing		HW6
19	W	3-Mar	Queuing Theory: Introduction	7.1-7.2; 7.5-7.6	
20	F	5-Mar	Queuing Theory: Introduction		
21	M	8-Mar	Queuing Theory: Managing queuing systems	7.7-7.11	
22	W	10-Mar	Queuing Theory: Managing queuing systems		
23	F	12-Mar	Queuing Theory: Managing queuing systems		HW7
	M	15-Mar	Spring Break		
	W	17-Mar			
	F	19-Mar			
24	M	22-Mar		Quality Management: Statistical Process Control	9.1-9.5; 9.9
25	W	24-Mar	Quality Management: Statistical Process Control		
26	F	26-Mar	Lean Operations: Toyota Production System	10.1-10.10; Toyota	HW8
27	M	29-Mar	The Goal	"The Goal"	
28	W	31-Mar	The Goal: Theory of Constraints/Review		HW9
29	F	2-Apr	Midterm II		
30	M	5-Apr	Inventory Management: Newsvendor Model	11.1-11.3	
31	W	7-Apr	Inventory Management: Newsvendor Model	11.1-11.3	
32	F	9-Apr	Inventory Management: Newsvendor Model		
33	M	12-Apr	Inventory Management: Newsvendor Model	11.4-11.7	
34	W	14-Apr	Inventory Management: Newsvendor Model		HW10
35	F	16-Apr			
36	M	19-Apr	Inventory Management: Order-up-to Model	13.1-13.3; 13.5-7	
37	W	21-Apr	Inventory Management: Order-up-to Model		
38	F	23-Apr	Inventory Management: Order-up-to Model		HW11
39	M	26-Apr	Supply Chain Management: Beer Game prep		
40	W	28-Apr			
41	F	30-Apr	SCM: Beer Game Follow up, Bullwhip effect		
42	M	3-May	Strategic SCOM	"Deep Change"	HW12
43	W	5-May	Strategic SCOM		
44	F	7-May	Review		