

OPERATIONS MANAGEMENT (OM335: 04355, 04350)

SYLLABUS, SPRING 2014

MEETING TIME & LOCATION:

Mondays and Wednesdays, 8:00AM-9:15AM, GSB 5.142A

Mondays and Wednesdays, 9:30AM-10:45AM, GSB 5.142A

INSTRUCTOR:

Naveed Chehrazi, Assistant Professor

Office Hours: Mondays/Wednesdays 12:00PM-1:00PM

Office Location: CBA 3.444; Mailbox Location: CBA 5.202

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TEACHING ASSISTANT:

Hyunsuk Lee

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Abhishek Roy

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COURSE DESCRIPTION:

Operations Management involves the integration of numerous activities and processes to manufacture products and provide services in a highly competitive global environment. Many companies have experienced a decline in market share as a result of their inability to compete on the basis of responsiveness, cost or quality. It is widely agreed that world-class performance in operations is essential for competitive success and long-term survival. We consider key performance measures such as productivity, flexibility, quality, and response time as well as important concepts for improving performance along these dimensions. At the end of the course, students will have a fair understanding of the role that Operations Management plays in the design and management of business processes. Emphasis is given to both familiarization of various production processes and service systems, and quantitative analysis of problems arising in the management of operations.

COURSE OBJECTIVES:

The course seeks to both improve your understanding of Operations Management and enhance your analytical skills. The course will present several analytical techniques which would aid you in making decisions in the real world. In the meanwhile, the course will introduce you to various aspects, issues, and initiatives in nowadays business operations. At the end of this course, you should have

- Understanding of the importance of Operations Management and the existing challenges;

- Understanding of various production processes and service systems;
- Analytical capability to uncover problems and improvement opportunities in production or service processes and recommend process improvement along the dimensions of efficiency, quality and speed;
- Skills to efficiently work with others to solve business operations problems.

COURSE MATERIALS:

- Recommended Textbook: Matching Supply with Demand: An Introduction to Operations Management, 3rd Edition. Authors: Gerard Cachon and Christian Terwiesch. Publisher: McGraw-Hill/Irwin, New York, NY. ISBN: 9780073525167.
- Recommended extra reading: The Goal: A process of Ongoing Improvement. Authors: Eliyahu M. Goldratt, Jeff Cox
- Course packet with 7 cases: It is available at the GSB Copy Center. Group assignments are based on these cases. We will discuss the cases in class.
- Course website: All materials are available in electronic format (lecture slides/notes, homework assignments, homework solutions, sample exams, exam solutions, etc.) will be posted at Canvas course website (<http://canvas.utexas.edu>). Lecture slides/notes will be posted before the class. Homework solutions will be posted after the due date.

COURSE EVALUATION:

Participation	5%
Homework	15%
Midterm I	20%
Midterm II	20%
Final Exam	40%

Exams: A final comprehensive exam will be given during the University assigned period and two regular exams will be given periodically throughout the semester.

- The exams may contain true/false, multiple choice, short answer, or analytical problems.
- The exams are closed book and closed note. Do remember to bring your calculator.
- No makeup exams unless appropriate paperwork is provided in advance.

Homework Assignments: There are regular homework assignments throughout the semester, with both individual and group assignments (see the “Course Schedule” below). When computing the average grade on homework assignments, the lowest grade will be dropped. You are strongly encouraged to hand in all assignments, as they are the best preparation for the exams. Each assignment must be submitted no later than 1 p.m. on its due day. Group assignments must be turned in at the beginning of the class. **NO LATE HOMEWORK WILL BE ACCEPTED.** A grade of zero will be assigned if you do not turn in the homework. Homework due dates can be found from the “Course Schedule” below. Any concern regarding the grading of the homework assignments should be addressed to the TA’s.

Individual Assignments: These are skill-building exercises.

- You may discuss the assigned problems with your classmates. But you should write YOUR OWN solutions and you should note on your submissions with whom you have discussed.
- You should provide formulas, steps, or reasons to support your solutions. Submissions with only the final answers will not be given any credit. Submissions can be either typed or hand-written. However, please make sure that they are *readable*.

Group Assignments: These are exercises that will apply the concepts introduced in class to “Real-World” problems.

- It is your responsibility to form your groups (**in principle 3-4 members per group**) and email them to Hyunsuk Lee (see the email address above). **The first group assignment will be due shortly, so your groups should be formed as soon as possible.** Not having a group is NOT a reason for late submission of group assignments. **No LATE CASE ASSIGNMENTS WILL BE ACCEPTED.**
- For each group assignment, a single grade will be assigned to each group. Therefore, only one submission is required per group per assignment. For each submission, please remember to write full names of all the group members who contribute to the answers. No credit will be given if the name is not shown on the submission. The answers can be typed and submitted either electronically through Canvas or in class.

Regrade Requests: If you wish a regrade of any homework assignment or exam, please appeal it within SEVEN CALENDAR DAYS of the date that I attempt to return it to you. After these seven days, I will consider all grades final. Please realize that there are standard policies for point deductions. Thus, unless the grader has misapprehended your intent or misread your work, any partial credit is unlikely to change.

Class Participation:

- Attendance will be formally taken on the day of the Beer Game (see below) and will constitute 2% of the final evaluation; your attendances and participations in the other class sessions will constitute 3% of the final evaluation. Participation in class, in the form of answering questions and/or commenting on the materials is strongly encouraged.
- In each session, students are asked to pick up their name cards and return them at the end of the session.
- Students are expected to prepare before class when a case is to be discussed.
- Students shall not disturb classmates, surf the web, read newspapers or use their cell phones in class.

Beer Game

A special class on Beer Game will be held later in the semester. It is a popular, entertaining educational activity; its purpose is to introduce students to one of the most crucial issues in Supply Chain Management (unfortunately it has nothing to do with beer!). 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 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. 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.

COURSE WEBSITES & STUDENT PRIVACY:

Password-protected class sites will be available for all accredited courses taught at The University of Texas. Syllabi, handouts, assignments and other resources are types of information that may be available within these sites. Site activities could include exchanging emails, 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, Rm 1. For information on restricting directory information see:

<http://www.utexas.edu/student/registrar/catalogs/gi02-03/app/appc09.html>.

STUDENTS WITH DISABILITIES:

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641 TTY. Students with disabilities should inform the faculty about the Office of the Dean of Students' recommended accommodations no later than the second week of the semester.

COURSE 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 Canvas course website. *Note.* CT: the textbook; CP: the course packet; IA#: Individual assignments; GA#: Group assignments. Lecture slides will contain more or less materials than the textbook. Homework assignments and exams are designed according to the materials covered in the lecture slides. Thus, lecture slides are always part of the required material.

	Date	Topic	Readings	HW	HW Due
1	01/13	Introduction to Operations Management	CT: Chapter 1, Slides (always)		
Process Analysis					
2	01/15	Process capacity and bottle neck (I)	CT: Chapter 3	IA1, GA1	
3	01/22	Process capacity and bottle neck (II)			
4	01/27	Labor cost and line balancing	CT: Chapter 4		
5	01/29	Kristen’s Cookie case study	CP: Kristen's Cookie	GA2	IA1, GA1
6	02/03	Little’s law and inventory	CT: Chapter 2		
7	02/05	Setup times and batching	CT: Chapter 7.1-7.3, 7.6-7.8	IA2	
8	02/10	Benihana of Tokyo	CP: Benihana		GA2
9	02/12	Managing queuing systems (I)	CT: Chapters 8-9	IA3, GA3	
10	02/17	Review for exam I	Sample exam I		IA2
11	02/19	Exam I			
12	02/24	Managing queuing systems (II)	CT: Chapters 8-9		IA3
Inventory Management and Quality Control					
13	02/26	Managing queuing systems (II)	CP: Quality Wireless A and B		GA3
14	03/03	Economic order quantity	CT: Chapter 7.4-7.5	IA4	
15	03/05	Economic production quantity			
16	03/17	Lean Operations and the Toyota Production System	CT: Chapter 11 CP: Toyota Motor Manufacturing	IA5	IA4
17	03/19	Newsvendor model (I)	CT: Chapter 12		
18	03/24	Newsvendor model (II)	CP: Sport		

	Date	Topic	Readings	HW	HW Due
			Obermeyer		
19	03/26	Revenue Management	CT: Chapter 16		IA5
20	03/31	Supply Chain Management	CT: Chapter 17	IA6	
21	04/02	Review for exam II	Sample exam II		
22	04/07	Exam II			
23	04/09	Project Management (I)	CT: Chapter 5	IA7	IA6
24	04/14	Project Management (II)			
25	04/16	Quality management	CT: Chapter 10	IA8	IA7
26	04/21	Quality management	CP: Six Sigma Quality at Flyrock Tires		
27	04/23	Bullwhip effect and review	CT: 17.1-17.2		IA8
28	04/28	Beer game played; Time and Location will be announced.			
29	04/30	Review			