

# OM 335 (04180)      Operations Management      Spring 2013

MW 8:00 AM – 9:30 AM in GSB 5.142A

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Course Web Page: via Blackboard

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## COURSE DESCRIPTION

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Operations Management (OM) involves the systematic design, operation, control, and improvement of business processes to achieve organizational goals. Managing operations effectively and efficiently is essential for competitive success and long-term survivability. Companies such as Dell, Southwest Airlines, Toyota, and Wal-Mart exemplify how well-managed operations could lead to superior performance.

This course is a foundational course for students in Supply Chain Management. It can also be useful to students in other majors since they would, at some point, interact with operations teams, or with a small probability, engage in inter-disciplinary research.

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## COURSE OBJECTIVES

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The course seeks to improve your understanding of operations management and the role it plays within an organization. At the end of this course, you should have understood:

- how an organization uses processes to transform inputs into goods and services,
- how to rigorously analyze business processes, and
- how to use mathematical models to improve operations along the dimensions of efficiency, quality, and response time.

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## TEACHING METHODOLOGY

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We shall use a combination of lectures, case studies and problem-solving exercises in this course. The readings for the class consist of two required books (specified below) and a readings packet (with the case studies) available at the GSB Copy Center.

- *Matching Supply with Demand* (3<sup>rd</sup> Edition, ISBN: 978-0073525204, McGraw-Hill, 2013) by Gerard Cachon and Christian Terwiesch.

This is as close to a textbook as we can have in this course. We shall use this book as a text and as a reference.

- *The Goal: A Process of Ongoing Improvement* (3<sup>rd</sup> Edition, ISBN: 978-0884271956, North River Press) by E. Goldratt and J. Cox.

This international best seller is a novel that captures many of the concepts and issues addressed in this course. According to the *Financial Times*, “The only book that [managers] have actually read right through over the years is THE GOAL.”

The course schedule at the end of this document lists, for every class session, the topic, readings, cases, assignments, and anything else of importance. Please read this schedule carefully before every session. Because class time is our most precious and inelastic resource, please come to

every class prepared. Essential preparation includes reading the assigned readings and cases, doing the assignments, and bringing the appropriate materials to each class.

I will provide hard copies of the PowerPoint slides (handouts with six slides per page) at the beginning of each class session. Copies of class overheads (and any electronic documents used in class) will be downloadable from Blackboard, usually *after* each session.

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## **PERFORMANCE EVALUATION**

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The final grade in this class will be based on your demonstrated performance as follows:

Exam I	20%
Exam II	20%
Final Exam	30%
Individual Homework	10%
Group Assignment	10%
Class Participation	<u>10%</u>
Total	100%

Homework assignment, tests, and exam grades will be posted on Blackboard shortly after they are graded. Please check your grades repeatedly throughout the semester and report any discrepancies to me immediately.

### **Tests and Final Exams**

A final comprehensive exam will be given during the University assigned period (check <http://registrar.utexas.edu/schedules/122/finals>) and two regular exams will be given during the semester.

The exams may contain true/false, multiple choice, short answer, or analytical questions. The exams shall be closed book and closed notes. You are allowed to bring one handwritten 8.5" x 11" sheet with the relevant formulas and a calculator for the exams. Laptops are not allowed.

*No make-up exams shall be offered unless there are compelling reasons with documentary proof.*

### **Individual Assignments**

There will be twelve individual assignments. Assignments are due at the beginning of the class on the due date. Late assignments shall NOT be accepted.

Each of the twelve assignments shall be graded on a scale of 10. The best ten shall be counted for your final grade.

You may discuss homework problems with your classmates. But you should write YOUR OWN solutions. In case you have discussed the homework with someone, mention the name of that student in the assignment.

### **Group Assignments**

There will be four group assignments. Please form groups with at most 5 students. Each group will work as a team to answer the assignment questions and submit a single group solution set. All the four group assignments shall be counted for your final grade.

### **Re-grade Requests**

A re-grade request for any assignment or an exam must be made within seven calendar days from the date on which the grade is posted. Send an email or a handwritten note explaining the relevant issue. After seven days, all grades shall be considered final.

## Class Participation

Regular attendance at all lectures is expected. However, to account for illnesses and other unforeseen circumstances, you may skip up to 3 lectures without any penalty.

60% of your class participation grade will be based on attendance. The remaining 40% will be used to encourage you to contribute to the class discussion. It is important that everyone comes to class prepared and willing to contribute to the discussion. Apart from making concise and insightful comments in class, you could also contribute by asking good questions. You are encouraged to discuss lecture/homework problems on the discussion forum on Blackboard. Providing answers to others' questions is also considered class participation.

Name cards will be used to track attendance. It is your responsibility to pick up your name card before the class and return it to me after class.

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## OTHER IMPORTANT INFORMATION

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### Feedback

You and I will work together to create the best learning environment we can. Your informal feedback is important to me. Please let me know throughout the semester if there is anything I can do to make this class better for you.

### Logistics

Attendance at each class session is expected unless otherwise noted. If you are unable to attend a class on a given day, please check with your classmates to find out whether any in-class announcements were made.

### McCombs Classroom Professionalism Policy

- **Students arrive on time.** On time arrival shows respect for both fellow students and faculty and it enhances learning by reducing avoidable distractions.
- **Students display their name cards.** This permits fellow students and faculty to learn names, enhancing opportunities for community building and evaluation of in-class contributions.
- **Students minimize unscheduled personal breaks.** The learning environment improves when disruptions are limited.
- **Students are prepared for each class.** Unprepared students cannot contribute to the overall learning process. This affects not only the individual, but their peers who count on them, as well.
- **Students do not speak unless they are speaking to the entire class.** Do not engage in private conversations, however short or innocuous, while the class is in progress. They are disruptive and discourteous to the speaker. Raise your hand if you have a question or comment.
- **Laptops are closed and put away and phones and wireless devices are turned off.**

### Religious Holidays

By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

### 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.*

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## ACADEMIC DISHONESTY

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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 *BBA Program's Statement on Scholastic Dishonesty* at <http://www.mcombs.utexas.edu/BBA/Code-of-Ethics.aspx>. *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.*

A fundamental principle for any educational institution, academic integrity is highly valued and seriously regarded at The University of Texas at Austin. More specifically, you and other students are expected to maintain absolute integrity and a high standard of individual honor in scholastic work undertaken at the University. This is a very basic expectation that is further reinforced by the University's [Honor Code](#). At a minimum, you should complete any assignments, exams, and other scholastic endeavors with the utmost honesty, which requires you to:

- acknowledge the contributions of other sources to your scholastic efforts;
- complete your assignments independently unless expressly authorized to seek or obtain assistance in preparing them;
- follow instructions for assignments and exams, and observe the standards of your academic discipline; and
- avoid engaging in any form of academic dishonesty on behalf of yourself or another student.

For the official policies on academic integrity and scholastic dishonesty, please refer to [Chapter 11](#) of the *Institutional Rules on Student Services and Activities*.

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## HONOR CODE

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The core values of the University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the University is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.

(Link to University Honor Code: <http://catalog.utexas.edu/general-information/the-university/>).

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## COURSE SCHEDULE

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The following is a tentative schedule of meetings, readings, and deliverables for the course. In case there are any changes, you shall be notified by email. The Blackboard will have the updated schedule at all times.

**Table 1: Course Schedule**

#	Day	Date	Topic	Readings	H.W. Due
1	M	01/14	Introduction to Operations Management	Chapter 1 <sup>†</sup>	
2	W	01/16	Process Analysis: Flow Visualization	Chapter 2 (through Section 2.1)	
				Chapter 3 (through Section 3.1)	
	M	01/21	NO CLASS		
3	W	01/23	Process Analysis: Performance Measures	Chapter 2 (through Section 2.3)	
				Chapter 3 (through Section 3.5)	
4	M	01/28	Process Analysis: Case Study	Chapter 2	
				Chapter 3	
				Case: Kristen's Cookie Company	
5	W	01/30	Process Analysis: Case Study	Chapter 2	IH-1
				Chapter 3	
				Case: Kristen's Cookie Company	
6	M	02/04	Process Improvement	Chapter 4	IH-2
7	W	02/06	Process Design: Batching	Chapter 7 (through Section 7.3)	GH-1
8	M	02/11	Process Design: Economic Order Quantity	Chapter 7 (through Section 7.7)	IH-3
9	W	02/13	Project Management	Chapter 5 (through Section 5.5)	IH-4
	M	02/18	Review for EXAM I		IH-5
	W	02/20	EXAM I (Sessions 1-8)		
10	M	02/25	Project Management	Chapter 5 (through Section 5.6)	
11	W	02/27	Project Management	Chapter 5	IH-6
12	M	03/04	Management of Waiting Lines	Chapter 8 (through Section 8.4)	IH-7
13	W	03/06	Management of Waiting Lines: Case Study	Chapter 8 (through section 8.9)	GH-2
				Case: Manzana Insurance	
	M	03/11	NO CLASS		
	W	03/13	NO CLASS		
14	M	03/18	Management of Waiting Lines: Case Study	Chapter 8	
				Case: Manzana Insurance	
15	W	03/20	Global Supply Chain	Chapter 12 (through Section 12.2)	IH-8
16	M	03/25	Global Supply Chain: Case Study	Chapter 12 (through Section 12.4)	GH-3
				Case: Sport Obermeyer, Ltd	

#	Day	Date	Topic	Readings	H.W. Due
17	W	03/27	Global Supply Chain: Case Study	Chapter 13	IH-9
				Case: Sport Obermeyer, Ltd	
18	M	04/01	Quality Management: Case Study	Chapter 10 (through Section 10.5)	IH-10
				Case: Quality Wireless A	
19	W	04/03	Quality Management: Case Study	Chapter 10	
				Case: Quality Wireless B	
	M	04/08	Review for EXAM II		IH-11
	<b>W</b>	<b>04/10</b>	<b>EXAM II (Sessions 9-17)</b>		
20	M	04/15	Discussion on the Goal	The Goal	GH-4
21	W	04/17	Toyota Production System	Chapter 11	
				Case: Toyota Motor Manufacturing	
22	M	04/22	Supply Chain Coordination	Chapter 17 (through Section 17.4)	
23	W	04/24	Risk Management	Chapter 15 (through Section 15.3)	
24	M	04/29	Introduction to Linear Programming		IH-12
	W	05/01	Course Review		
<b>FINAL EXAM (Comprehensive - covering Sessions 1-24) Wednesday, May 9, 2:00-5:00 p.m.</b>					

† Chapter-specific readings correspond to the course text by Gerard Cachon and Christian Terwiesch