MGMT 189: Operations Management
Spring (March – June) 2011

Lectures:
Tues, Thurs 5:00PM-6:20PM (Course Code 38345)
Location: MSTB 118 (Multipurpose Science & Technology Bldg.); see http://www.uci.edu/campusmaps.php

Discussion Section:
Wed 5PM-5:50PM in MSTB 118 (Multipurpose Science & Technology Bldg.)
Each week, a one-hour discussion section will be run by James Cao (TA). Practice problems will be worked through in detail. Attendance is optional, but highly recommended.
The first discussion section will be held Wed, Apr 6th.
There is no discussion section on Wed, May 4th (the day after the midterm).

Instructor:
Dr. John Turner
Office: Paul Merage School of Business, Room SB 338
Phone: 949-824-7941 E-mail: john.turner@uci.edu
Office Hours: Tues, Thurs 2:00PM-3:00PM; other times by appointment

Teaching Assistants:

Sean Salleh	imohdsal@uci.edu	Office Hours: Monday 2-3pm, Room SB 410
James Cao	jcao06@exchange.uci.edu	Office Hours: Wednesday 3-4pm, Room SB 410

Course Website:
https://eee.uci.edu/11s/38345
The course website is where all course-related content will be posted: the syllabus, lecture notes (PowerPoint slides), readings, and assignments. Your performance will be recorded periodically in the Gradebook section of the website.

Message Board:
https://eee.uci.edu/boards/s11/mgmt189/
Please use the message board to post comprehension and clarification questions to the instructor and TA's. Others are pondering the same questions you are! Of course, questions not appropriate for the message board (i.e. that relate to you or your work personally and should remain confidential) should be handled through email instead.

Course Description:
Matching supply with demand is an enormous challenge for firms: excess supply is too costly, inadequate supply irritates customers. In this course we will explore how firms can better organize their operations so that they more effectively align their supply with the demand for their products and services.

We seek both rigor and relevance. Our aim is to provide both tactical knowledge and high-level insights needed by general managers and management consultants. We will demonstrate that companies can use the tools from this course to significantly enhance their competitiveness. The course details different kinds of business processes and explains how to measure key process parameters like capacity and lead time.

This course also demonstrates that matching supply to demand is easiest when a firm has a flexible supply process, and, since flexibility is generally expensive, it shows how to assess the appropriate level of supply flexibility for a given industry and explores strategies for economically increasing a firm's supply flexibility.

Throughout this course you will be exposed to mathematical models – formulas and rules which describe how a business process behaves. These models are the tools that allow us to measure how demand variability, process variability, process capacity, lead times, and other important variables affect the performance metrics of the business, such as sales, revenue, and profits. With the knowledge of these models in hand, you will be well-prepared to tackle a wide array of operational business problems.

Course Materials:

- Required Textbook: Matching Supply with Demand (2nd Edition) by Gérard Cachon and Christian Terwiesch, 2009 (ISBN: 978-0-07-352516-7). Available at the UCI Bookstore.
- Lecture Notes (PowerPoint slides): Posted on course website before each class.
- Extra Handouts: From time-to-time, I may post extra readings on the course website.

Grading Scheme:
Class Participation (5%)
Assignments (6 x 5% = 30%)
Midterm (30%)
Final (35%)

Class Participation:
Class attendance is very important to learn the concepts presented in this course. All materials and topics covered in class may be tested on the midterm or the exam. You are expected to keep up with textbook readings, and may be asked to explain concepts or to provide feedback when a problem is being solved as a class. Attendance may also be randomly taken, and will affect this component of your grade.

Assignments:
There will be 6 assignments, each worth 5% of your final course grade. All assignments are individual work which you should complete and write up yourself (Please refer to the *Cheating Policy* section in this syllabus for information on violations of academic integrity). A hard copy (stapled printout) must be submitted at the beginning of class on the due date. Electronic assignments will not be accepted. Late assignments will not be accepted, since solutions are posted shortly following the due date. In case of a verifiable emergency (i.e. substantiated by proper documentation such as a doctor's note), students should contact the instructor as soon as possible to determine a reasonable course of action.

Exams:
There will be one midterm exam and one final exam. Both exams are closed book, no laptop. Two double-sided sheets of notes are allowed. Calculators are allowed and are strongly recommended (regular scientific calculators – no phones or graphing calculators please).
<u>Midterm</u>: Tues, May 3rd, 2011. Location: in-class (MSTB 118)
<u>Final exam</u>: Thurs, June 9th, 2011, 4pm-6pm. Location: in-class (MSTB 118)

Missed Exam Policy:
You must take the two exams (midterm and final) on the scheduled dates/times listed on this syllabus. Please take this into consideration when making plans or commitments to attend other events. If an

important and verifiable emergency arises that prevents you from writing the midterm, you must notify the instructor by email at john.turner@uci.edu either prior to the midterm or within 24 hours of the midterm. You will be required to show proof of the emergency when you return to class, at which point the instructor will decide how to handle the missed midterm. In the case of an important and verifiable emergency that prevents you from taking the final exam, you should immediately contact the instructor, and will be required to take a make-up exam. You must take the exam in order to receive a grade in this course.

No Extra-Credit Assignments:
Your course grade will be solely determined by your in-class participation, the 6 assignments, the midterm, and the final exam. In fairness to the other students, there will be no extra-credit assignments in this course. Requests for extra-credit assignments to make up for poor performance will not be granted.

Cheating Policy:
• Cheating refers to the use of unauthorized materials (such as teaching notes from previous quarters), communication with fellow students during the exam, attempting to benefit from the work of another student, and similar behavior that defeats the intent of exams or other assignments.
• Any cheating on any part of an exam or an assignment will result in a grade of 0 for that exam or assignment.
• The policies of UCI regarding academic honesty will be applied to any suspected cheating. Please refer to http://www.editor.uci.edu/catalogue/appx/appx.2.htm.

Course Outline:
The following table provides a *tentative* schedule for the course. Actual pace of the course may vary; therefore, make sure to check the date specified when an assignment is issued for the actual due date.

Week	Lecture Dates	Lecture Topics	Textbook Chapters	Assignments (approx. due dates)
1	Mar-29, Mar-31	Introduction / Process Analysis	1,2	
2	Apr-05, Apr-07	Evaluating Process Capacity / Process Analysis in Assembly Lines	3,4	HW#1 Due Thurs, April 7
3	Apr-12, Apr-14	Process Analysis with Batching	6	HW#2 Due Thurs, April 14
4	Apr-19, Apr-21	Managing Variability: Waiting Times	7	
5	Apr-26, Apr-28	Managing Variability: Throughput Losses / Midterm Review	8	HW#3 Due Tues, April 26
Midterm Exam: Tues, May 3 in-class				
6	May-05	The Newsvendor Problem	11	
7	May-10, May-12	Make-To-Order / Quick Response with Reactive Capacity	12	
8	May-17, May-19	The Order-Up-To Model	13	HW#4 Due Tues, May 17
9	May-24, May-26	Revenue Management	15	HW#5 Due Thurs, May 26
10	May-31, Jun-02	Managing Risk in Operations / Final Exam Review	14	HW#6 Due Thurs, June 2
Final Exam: Thurs, June 9, 4pm-6pm				

Course Drop Deadline:
Friday, April 8th at 5PM (See: http://www.reg.uci.edu/)