OPRE 6302: OPERATIONS MANAGEMENT (Fall 2015)

(Last updated on August 20, 2015)

Course number : OPRE 6302.501 (or SYMS 6334.501)
Meeting times : Tuesdays 7:00-9:45pm (Aug 25 – Dec 8 except Nov 24)
Meeting place : SOM 2.103

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COURSE DESCRIPTION AND OBJECTIVES:

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.

The main student learning objectives of this course are:

- The student should gain an understanding of the crucial importance of operations management in today's business environment.
- The student should be able to determine performance measures of manufacturing/service processes/systems in key operational dimensions. The student should also know what factors affect these measures, how these measures can be calculated and how these measures can be improved.
- The student should be able to describe and explain services, manufacturing, just in time, and total quality management strategies.
- The student should be able to derive and compute optimal decisions, and performance measures such as costs and profits.
- The student should develop analytical thinking in operations practices.

COURSE MATERIALS:

1. **Required Readings**
   - Book: "The Goal: A Process of Ongoing Improvement" by Goldratt and Cox, 25 Anv Rev Edition (June 2012). North River Press. ISBN: 978-0884271956
     Please read the book by Oct 27.
   - Case packet: Available for purchase online at:
     https://cb.hbsp.harvard.edu/cbmp/access/38724752 (registration with Harvard Business Publishing is required). It contains a set of cases we will discuss in class.
   - Course slides: Available via eLearning (see below).

2. **Optional Reading**
   - Textbook: "Matching Supply with Demand: An Introduction to Operations Management" by Cachon, G. and C. Terwiesch. New York, NY: McGraw-Hill / Irwin, 3rd edition (February 24,2012). ISBN: 978-0073525204
     This book is only optional. All of the material covered on the assignments and exams will be available on the slides.

3. **Clicker from Turning Technologies**
   Available for purchase at the UTD bookstore. After you have purchased it, register your devise ID number in eLearning under 'Clicker registration'.

COURSE WEBSITE:

This course will use eLearning (Blackboard) substantially. The login page is located at https://elearning.utdallas.edu. Students will use their UTD NetID to access eLearning.

To get started with an eLearning course, please see the Student eLearning Tutorials. UTD provides eLearning technical support 24 hours a day/7 days a week. The services include a toll free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service. The UTD user community can also access the support resources such as self-help resources and a Knowledge Base. Please use this link to access the UTD eLearning Support Center: http://www.utdallas.edu/elearninghelp.

You will find the following on the course website:

(a) Course Notes: Before each lecture, a PDF version of the slides will be posted. Most of the time, these slides will be incomplete and you will be expected to fill in the blanks in class. Partially completed slides will be posted by the end of each class day.

(b) Assignments and Solutions: Homework assignments will be posted at least 5 days before their due date. Solutions will be posted by the end of the lecture on the day a homework assignment is due. Assignments are to be submitted via eLearning.

(c) Practice problems: Practice problems and solutions will be made available. These will closely resemble the questions on the assignments and exams.

(d) Practice exams: Before each test, a practice exam will be posted. It will have the exact same number of questions and level of difficulty as the actual test.

(e) Forums: You are invited to post any comments your have about the material and ask questions on the "Discussion Board". You can also post comments, criticisms and suggestions anonymously regarding the course.

(f) Grades: Grades on exams and assignments will be posted on eLearning.

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.

	% of final grade
Exam I	20%
Exam II	20%
Exam III	20%
Homework assignments (best 9 out of 11)	30%
Clicker quizzes (+ class participation)	10%

Extra credit work will not be given under any circumstance.

The following grading scheme for assigning letter grades is provided as a guideline. The actual grading scheme may differ based on the relative performance of students in the class.

Final grade	Letter grade
[93-100]	A
[90-93)	A-
[87-90)	B+
[83-87)	B
[80-83)	B-
[73-80)	C+
[66-73)	C
[60-66)	C-
[0,60)	F

Exams

There will be three exams, each worth 20% of your final grade. Exam I will cover the material from sessions 1-4, Exam II will cover the material from sessions 6-10 and Exam III will cover the material from sessions 12-15. In other words, exam III is not cumulative.

The exams are closed book and closed notes. They will last for 2 hours and 45 minutes. Do remember to bring your calculator. A formula sheet will be provided during the exam (a copy of the sheet will be put on eLearning before the exam).

Any concern regarding the grading of exams should be addressed directly to the instructor, no later than two weeks after the graded exam was returned in class.

Homework Assignments

There are 11 homework assignments throughout the semester. Homework assignments are to be submitted individually online via eLearning by the start time of the lecture when it is due. The solutions to the homework will be provided at the end of the day when it is due; therefore no late submission will be accepted.. It is the student's responsibility to check that they upload the correct version of their homework and that the file is readable. Unreadable files will lead to a zero grade. Incorrect or incomplete versions will be graded as such. Students are expected to retain proof of the successful upload (such as a screen shot of the eLearning page). Such evidence will need to be produced for a student to claim any technical failure of the eLearning website pertaining to the uploading of deliverables.

Students may work in teams but each student should submit his or her own assignment (if you do please write the name of the students you worked with the speed up the grading process).

Homework assignments will be graded by the TA. Points will be given for effort, correctness of your answers and presentation. The final grade on assignment is between 0 and 10. Any concern regarding the grading of homework assignments should be addressed directly to the TA and not to the instructor, no later than one week after the graded assignment was returned.

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 best 9 scores (with each homework having equal weight). However you are strongly encouraged to hand in all 11 assignments as they constitute the best preparation for the exams.

Clicker quizzes and class participation

This course will require the use of a TurningTechnologies response cards, also known as clickers. A clicker is an audience response device that resembles a small calculator. This allows you to provide real-time feedback to your instructor during class. Poll results are displayed graphically, providing students and the instructor a gauge as to how well the class is grasping the material. Students can purchase (and sell back) their clicker at the UTD bookstore.

Each class (except the first one and the exams) includes a 10-question quiz. Correct answers are worth two points and incorrect answers are worth 1 point. Therefore each quiz is graded out of 20 points. The final total score on the clicker quizzes will be the average of the highest 8 scores obtained by a student on quizzes. Not attending a lecture will lead to zero score on a quiz. Hence, regular attendance at all class meetings is necessary to get enough points.

Students are expected to prepare before class when a case is to be discussed. Extra points for class participation are earned by speaking up in class (either by asking, answering questions and/or commenting on the material). These extra points will be given at the discretion of the instructor based on her best recollection of who spoke up in class. You are invited to bring a name card to class to help her remember your name!

Bonus points
Students who are the first person to notice a significant mistake in the course material (slides, formula sheet, solutions to an assignment etc.) will be awarded a bonus point which will count towards their class participation grade (each bonus point is worth 0.1% of their final grade). Note that spelling or English mistakes are not significant errors.

COURSE POLICIES

- Students may not disturb classmates or use their cell phones in class.
- Students may use their laptop or tablets in class.
- Extra credit work will not be given under any circumstance.
- 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 can request to take make-up exams.
- No late homework assignments will be accepted under any circumstance (remember that only the best 9 of 11 count)

UTD SYLLABUS POLICIES AND PROCEDURES

UT Dallas policies and procedure regarding student conduct and discipline, academic integrity, religious holidays, etc. can be found at http://go.utdallas.edu/syllabus-policies.

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 ELearning course website.

	Date	Topic	Reading	Hws
1	Aug 25	Introduction, Process Analysis		
2	Sep 1	Process Analysis	Kristen's cookies case	HW1
3	Sep 8	Process Analysis		HW2
4	Sep 15	Process Analysis / review session		HW3
5	Sep 22	Exam I		
6	Sep 29	Queuing Theory	UHS case	HW4
7	Oct 6	Quality Management	Toyota case	HW5
8	Oct 13	Linear Programming		HW6
9	Oct 20	Linear Programming		HW7
10	Oct 27	Operations Strategy / review session	The Goal (book)	HW8
11	Nov 3	Exam II		
12	Nov 10	Project Management		
13	Nov 17	Inventory Management: EOQ	Blanchard case	HW9
	Nov 24	NO CLASS (Thanksgiving)		
14	Dec 1	Inventory Management: Newsvendor	L.L. Bean case	HW10
15	Dec 8	Assortment planning / review session		HW11
	TBD	Exam III		

The final exam date will take place between Dec 11 and Dec 17 (the most likely date is Dec 15).