# **OPRE 6302: Operations Management**

Course number:	OPER 6302.002
Meeting time:	4:00PM – 6:45PM Monday
Meeting place:	JSOM 2.904
Instructor:	Shengqi Ye (Shengqi.Ye@utdallas.edu)
Office:	TBA
Office hours:	Monday 1:00pm – 2:00pm or by appointment
TA:	Harish Guda (hxg131530@utdallas.edu)
Office:	MC 1.406
Office hours:	Monday 7:00pm – 8:00pm or by appointment

# **COURSE DESCRIPTION:**

Operations Management studies the processes by which inputs of materials, labor, capital and information are transformed into products and services. Knowledge introduced in this course will help you understand and manage these processes better.

# **Student Learning Objectives/Outcomes**

The student should be able to determine performance measures of manufacturing/service processes/sys tems 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. More specific objectives follow:

- Describe and explain services, manufacturing, just in time, and total quality management strate gies.
- Derive and compute optimal decisions, and performance measures such as costs and profits.
- Develop analytical thinking in operations practices.

### **COURSE MATERIALS:**

Required Case Package:

Available for purchase online at: https://cb.hbsp.harvard.edu/cbmp/access/28185865 (registration with Harvard Business Publishing is required). It contains a set of cases we will discuss in class.

### **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.

# **GRADING:**

The course grades will be assigned based on the following points,

Item	Points	Percentage
Homework	10*(best 8 out of 10)	40%
Exam	50*2	50%
Class Participation	20	10%

The final grade bases on the following percentage thresholds:

0 F 60 D- 63 D 67 D+ 70 C- 73 C 77 C+ 80 B- 83 B 87 B+ 90 A- 93 A 97 A+ 100

<u>Exams</u>

Exams 1 covers the materials from sessions 1-6. Exam 2 covers sessions 8-13. There is no comprehensive exams. Both exams will be **closed book**. Do remember to bring your **calculator**.

Missing an exam without the instructor's authorization will result in a score of 0. If you are aware of circumstances that will result in absence from an exam, you need to have authorization from your instructor two weeks prior to the exam.

A "grading scheme" file will be made available after the graded exams are returned; it will explain how the grade was calculated. Students must read this file before coming to the instructor to discuss their grade. Any concern regarding the grading of exams should be addressed directly to the instructor, no later than **two weeks** after the graded exam is returned in class.

#### Homework

Homework assignments are to be done individually or in pairs. They should be submitted online via eLearning. **Put the names of the authors on the first line of the homework submission.** The solutions to the homework will be provided one day after the due date. **No late homework assignments will be accepted**.

Homework assignments will be graded by the TA. Points will be given for effort, correctness of your answers and presentation. The grade on a single assignment is between 0 and 10. Any concern regarding the grading of homework assignments should be addressed directly to the TA, no later than **one week** after the graded assignment was returned.

When computing the total points on homework assignments, the two lowest grades will be dropped. In other words, your final score will be the sum of your best 8 scores. However you are strongly encouraged to hand it all 10 assignments as they constitute the best preparation for the exams.

#### Class Participation and Clicker Use

This course will require the use of a clicker. 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. Class summary results are displayed graphically, providing students and the instructor a gauge as to how well the class is grasping the material. You can purchase (and sell back) your clicker at the UTD bookstore.

Regular attendance at all class meetings is expected. Students are expected to prepare before class when a case is to be discussed. Points for class participation are earned through the use of the clicker. For each class, answering the questions from the in-class quizzes will count 1 points towards class participation; if you correctly answer more than 60% of the questions, you receive additional 1 points.

# **Course Policies**

- No cellphone / laptop / tablet in class except for Session 9.
- Extra credit work will not be given under any circumstance.
- Legitimated excuse for absence: illness (proof from doctor required), observation of religious holy days, or other situation with the instructor's authorization.
- Late homework assignment will not be accepted.

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

# **COURSE TOPICS, SCHEDULES and DEADLINES:**

This course consist two modules. The first module is "Managing Processes with Deterministic Flow," which includes sessions 1-9. In this module, we introduce the spectrum of manufacturing and service processes in a static context. We introduce concepts of process flows and bottlenecks, and discuss the opportunities for competitive advantage in each type of production system. The second module is "Managing Processes and Supply Chain with Randomness," which includes sessions 10-13. In this module, we visit business contexts in which variability complicates the planning and management of process flows.

Session	Date	Торіс	<b>Class Material</b>	Homework	Due
1	08/25	Introduction, Process Flow Analysis		HM1	09/07 23:59
	09/01	Labor Day			
2	09/08	Process Flow Analysis	Case - Kristen's Cookie	HM2	09/14 23:59
3	09/15	Process Flow Analysis		HM3	09/21 23:59
4	09/22	Process Flow Analysis	Case - National Cranberry	HM4	09/28 23:59
5	09/29	Project Management		HM5	10/05 23:59
6	10/06	Inventory Management - EOQ	Case - Blanchard	HM	No Submission
7	10/13	Exam I			
8	10/20	Linear Programming		HM6	10/26 23:59
9	10/27	Linear Programming		HM7	11/02 23:59
10	11/03	Quality Management	Game - House Building	HM8	11/09 23:59
11	11/10	Queuing Theory	Case - Logan Airport	HM9	11/16 23:59
12	11/17	Inventory Management - Newsvendor	Case - L.L. Bean	HM10	11/23 23:59
	11/24	Thanksgiving			
13	12/01	Supply Chain Coordination	Game - Beer Game		
14	12/08	Exam II			