



# Operations Management (OPRE 3310-009)

Spring 2023

## **Lectures:**

Tuesdays, 4:00 pm – 6:45 pm,  
Face-to-face, JSOM 1.217

## **Instructor:**

Prof. Neda Mirzaeian,  
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## **Teaching Assistants:**

Beyza Celik, JSOM 13.203  
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## **Instructor Office Hours:**

Thu. 4-5 pm or by appointment

## **TA Office Hours:**

Mon. 4-5 pm or by appointment

## **Required Text:**

- A course packet, which contains case studies we will discuss in class. It is available for purchase (\$22.24) at:  
<https://hbsp.harvard.edu/import/998852>

- A course packet, which contains some reading materials, available for purchase (\$7.90) at:  
<https://wdi-publishing.com/coursepack/purchase/>. Use code BEVX3.

## **Optional Text:**

- Operations Management, 3e.  
Cachon and Terwiesch,  
McGraw-Hill, 2012.  
- Operations Management, 14e.  
Stevenson, McGraw-Hill, 2020.

## **Pre- or co-requisite:**

MATH 1325 or 2413 or 2417,  
STAT 3360 or OPRE 3360

## **Course Description**

This course covers concepts useful in efficiently managing the transformation of materials, labor, and capital into products or services in process operations and supply chains. Topics covered include: the role of supply chain and operations management in the firm's overall competitive strategy, key performance measures of operational performance, and tools for improving them. The level of discussion varies from long-term strategic planning to daily control of business processes.

The objective of this course is to introduce you to the strategic issues and decisions involved in managing business/operational processes within an enterprise. The course aims to provide you with a conceptual framework and a set of analytical tools that enable you to better understand why processes behave as they do. This knowledge helps you to involve yourself in an organization's defining strategic decisions that affect your organization's performance. Further, an important goal of this course is for you to understand the fundamental concepts, opportunities and challenges in the area, so that in the future, as a manager/consultant, you can act wisely.

## **Learning Outcomes**

Students will understand the role supply chain and operations management plays in business. Upon completion of the course, students will also be able to:

- Articulate supply chain and operations management concepts
- Use both analytics and qualitative tools to solve typical supply chain and operations management problems
- Apply these concepts, analytics, and tools to create value shared by managers, workers, customers, and shareholders

## WORKLOAD EXPECTATION

The key to competence is **PRACTICE**. You will be given the opportunity to work on many practice problems in this course. Note that university guidelines recommend you study 2-3 hours per week for every credit hour in which you are enrolled in. This means that, based on the University guidelines, you are advised to spend 6-9 hours outside of class every week on assignments and studying for this course. A rule of thumb for time requirements is that I expect students to spend approximately 3 hours preparing for and reviewing each class, with additional time spent on working on the homework assignments, solving practice problems and preparing for exams. Trimming this time input will diminish the value of the educational experience for you. Please recognize the importance of advance preparation, and begin now to level-load your course time input.

## Course Materials and Platform

This course will use eLearning (<https://elearning.utdallas.edu>) substantially. Students will use their UTD NetID to access eLearning. Students will find the following on the course website:

- a) **Course Notes:** Before each lecture, a PDF version of the slides will be posted. These slides will be incomplete, and students are expected to fill in the blanks in class. Completed slides (containing the annotations made by the instructor during the lecture) will be posted by the end of each class day.
- b) **Assignments and Solutions:** Homework assignments will be posted at least five days before their due date. Solutions will be made available immediately after the due date/time has passed.
- c) **Practice problems and exams:** A list of suggested questions (with solutions) will be posted periodically. Students are strongly advised to work on these questions and problems. This gives students an opportunity to practice their critical thinking skills on small, well-defined problems, and will be useful in tackling cases and test questions.
- d) **Forums (discussion board):** Students are invited to ask questions on the material via the eLearning Discussion Board. They can also post comments, criticism, and suggestions anonymously regarding the course and the instructor.
- e) **Grades:** Grades on quizzes, exams and assignments will be posted on eLearning.

## Performance Evaluation

Students' grades will be assessed through homework assignments, exams, quizzes, and class participation. Below you can find the assessment criteria, followed by a description of how various assignments and tests contribute to the students' grades.

Criterion	%
Exam I	20
Exam II	20
Assessment Quiz	10
Individual assignments	20
Group assignments	20
Class attendance/participation	10

## GRADING SCALE

**Extra credit 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-
[77-80)	C+
[73-77)	C
[70,73)	C-
[67-70)	D+
[63-67)	D
[60-63)	D-
[0-60)	F

## MAKE-UP EXAM

**NO** make-up exam will be offered except in case of medical emergency (proof required).

## EXAMS

There will be two exams. Exam I will cover the material from sessions 1-7 and Exam II will cover the material from sessions 9-14. The time windows to start taking the exams will be as follows:

- Exam I: Tuesday, March 7 from 8:30 am to 9 pm
- Exam II: Tuesday, May 2 from 8:30 am to 9 pm

Once each exam is started, students have 2.5 hours to complete it. So, for example, if a student starts Exam I at 11 am on March 7, the student has until 1:30 pm on that day to complete it. Students are not allowed to communicate with anyone during the exam time window, in particular, students may not share exam questions and/or answers with anyone.

The exams are open book and open notes and will take place at the **UTD testing center**. Please see the UTD Testing Center Website for more information and check the hours of operation and testing center policies. Please be sure to view and follow the Testing Center Student Guidelines found on the Testing Center main web page. Students are **required to make an appointment** using the Reserve Your Seat application (at <https://www.registerblast.com/utdallas/Exam/List>) to take the exam during the required exam test windows as specified above.

These exams will consist of both quantitative and qualitative questions related to the readings, lectures, and course-discussions. A practice test with solutions will be available on eLearning. The combination of readings, self-study exercises, classwork, practice, and graded individual and group assignments will fully prepare students to take the test. Students are responsible for making sure they appear for the exams on time. Students who fail to take either of the exams, without prior written permission from the instructor, will not be given any make-up exams. Any concern regarding the grading of exams should be discussed directly with the instructor, not the TA, no later than two weeks after the graded exam was returned in class.

## ASSESSMENT QUIZ

The assessment quiz focuses on the topic of inventory management. Because OPRE 3310 is a core course, certain measures (such as the assessment quiz) are implemented to ensure uniformity of learning across all sections. The results of this quiz are provided to University

## Course Policies

- Students are expected to arrive to class on time, maintain class decorum and be respectful toward fellow students in the class.
- Students are expected to keep their cellphones silent. Texting, social media, or any other cell phone usage is prohibited.
- Students are allowed to use a laptop or tablet to take notes during class. However, all other electronics usage (such as e-mail, internet, games, shopping, instant messenger, etc.) are strictly prohibited and regarded as class disruptions.
- Students are expected to read the required materials prior to each class.

Accreditation Associations during their periodic audits. The standard rubric for this quiz measures three essential elements of learning: 1) understanding of the material, 2) writing, and 3) correct answers. Therefore, students are encouraged to express their understanding of the problems in a clear and concise written format.

### INDIVIDUAL ASSIGNMENTS

There will be 5 individual assignments due 4 pm of the dates specified in the course overview table on page 7. Student must submit their answers for each assignment on eLearning. Late submissions are not accepted, and these assignments must be performed entirely individually. If you have any questions, the TA and I will help you.

When computing the average grade on individual assignments, the lowest grade will be dropped. In other words, the students' final score will be the average of their best 4 scores from homework assignments 0 to 4 (each individual assignment having equal weight).

### GROUP CASE REPORTS

The students are expected to **form groups of (no more than) 4 by Jan 24** and complete 4 case reports. Each group must consist of team members from the same section and is expected to remain unchanged throughout the semester.

When computing the average grade on group assignments, the lowest grade will be dropped. In other words, the students' final score will be the average of their best 3 scores (each group assignment having equal weight).

It is an important part of the honor code for each member of the group to contribute to the write-ups. It is also the group's responsibility to ensure that this happens. At the end of the semester, all students will be required to complete a peer evaluation form and evaluate the contribution of their group members. Each student's grade may be adjusted up or down based on feedback from other team members. **Late submissions will not be accepted.**

### CLASS ATTENDANCE AND PARTICIPATION

Class attendance and participation points can be earned by taking part in live quizzes and asking/answering questions during the lectures and on eLearning. During each session, there is a **short (and simple) quiz**

## Comet Creed

The Comet creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same: *"As a Comet, I pledge honesty, integrity, and service in all that I do."*

## Academic Support

Please refer to [Academic Support Resources webpage](#) for the University's academic support resources.

## Tips for Success

1. Come to the lectures in person each week.
2. Complete required readings and skim through lecture notes prior to class.
3. Ask questions during class, during office hours, via the eLearning discussion board or by email.
4. Start working on the homework assignments early, especially if there is a case study to read. If working in a team, make sure you work on all the questions fully (do not divide up the work).
5. Solve the practice problem sets posted on eLearning.
6. Resist the temptation to take shortcuts. Do not cheat and do not tolerate those who do.
7. Focus on the learning experience, not on your final grade. "Exams and grades are temporary, but education is permanent".
8. Have fun! Find pleasure in solving operations management problems!

## Student AccessAbility

It is the policy and practice of The University of Texas at Dallas to make reasonable accommodations for students with properly documented disabilities. However, written notification from the AccessAbility Resource Center (ARC) is required.

It is the student's responsibility to notify the instructor of the need for such an accommodation. ARC provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals requiring special accommodation should contact the instructor immediately during the **first class**.

Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact ARC for a confidential discussion. ARC is located in the Administration Building, room 2.224. They can be reached by phone at 972-883-2098, or by email at [studentaccess@utdallas.edu](mailto:studentaccess@utdallas.edu). Please find more information [here](#).

## Students' Health and Well-Being

Take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep, and taking some time to relax. This will help you achieve your goals and cope with stress. The Student Wellness Center offers a variety of services that might be helpful to you. Please check out their [website](#) for more info.

All of us benefit from support during times of struggle. There are many helpful resources available on campus. If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, I strongly encourage you to seek support. Student Counseling Center (SCC) is here to help; call 972-883-2575 and visit their [website](#).

If you or someone you know is feeling suicidal or in danger of self-harm, call:

UTD Police: 972-883-2222  
or 911

### **COVID-19**

All students are encouraged to regularly visit [Comets United webpage](#) to obtain the latest information on the University's guidance and resources for campus health and safety.

## **Academic Integrity**

As a member of the UTD community, the highest standards of academic behavior are expected of you. It is your responsibility to make yourself aware of the standards and adhere to them. UT Dallas policies and procedure regarding student conduct and discipline, academic integrity, religious holidays, etc. can be found [here](#). If a student is found to have violated academic standards, disciplinary actions will result. Students are to follow the principles of academic integrity. In particular:

- They cannot copy and paste from external sources without proper reference citation.
- They cannot submit answers to a homework assignment if they have not done a fair share of the work.
- They cannot communicate with other students during the exam time window. They may not share exam questions and/or answers with anyone.
- They cannot refer to material from this course taught in previous semesters, especially solutions to homework assignments or exams from previous semesters (mostly because they are changed from semester to semester).
- They cannot reproduce or share the course content with those not registered in the course, or upload to other online environments except to implement an approved Office of Student AccessAbility accommodation.
- They cannot record the lectures or upload videos of the lectures on any platform without explicit permission from the instructor.

Students in this course suspected of academic dishonesty are subject to [disciplinary proceedings](#), and if found responsible, the sanctions will be determined according to the severity and the nature of the violation with the following minimum sanctions being applied: zero point for the assignment/exam.

## Course Overview

SESSION	DATE	TOPIC	READING	ASSIGNMENT
INTRODUCTION TO OPERATIONS MANAGEMENT				
1	Jan 17	Course Introduction & Overview		
PROCESS ANALYSIS				
2	Jan 24	Process Analysis Measures	Kristen’s Cookie Co.	HW #0 (I)
3	Jan 31	Process Analysis and Little’s Law	Variability, Buffers, and Inventory	NCC (G)
4	Feb 7		Making Supply Meet Demand	
WAIT LINE MANAGEMENT				
5	Feb 14	HW #1 (I)		
PROJECT MANAGEMENT				
6	Feb 21	Logan Airport (G)		
EXAM 1				
7	Feb 28	Exam 1 Review	HW #2 (I)	
8	Mar 7	Exam 1 (no class)		
(Spring Break)				
LEAN OPERATIONS & QUALITY MANAGEMENT				
9	Mar 21	Toys City (G)		
INVENTORY MANAGEMENT				
10	Mar 28	EOQ	Toyota Production System	
11	Apr 4	<a href="#">Newsvendor game</a>	Managing Inventories	HW #3 (I)
STRATEGIC OPERATIONS				
12	Apr 11	<a href="#">Beer game</a>	Assessment Quiz	
13	Apr 18	Supply chain coordination and global sourcing	Betapharm (G)	
EXAM 2				
14	Apr 25	Exam 2 Review	HW #4 (I)	
15	May 2	Exam 2 (no class)		

\*\* (I) and (G) denote Individual and Group assignments, respectively. \*\*