

OPRE 3340: Advanced Business Quantitative Methods
University of Texas at Dallas

Course Syllabus

Disclaimer:

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the instructor.

Course Information:

Course Number/Section: OPRE 3340.001
Course Title: Advanced Business Quantitative Methods
Term: Spring 2023
Lecture Time: Tuesday/Thursday, 1:00 pm – 2:15 pm
Lecture Location: JSOM 1.212
Instructional Mode: Face to Face

Instructor: Negin Enayaty Ahangar, Ph.D.
Office Information: JSOM 14.409
Office Hours: Tuesday/Thursday, 11:00 am – 12:00 pm
Email: Negin@UTDallas.edu

Teaching Assistant: Manvi Nishith Mehta
Office Hours: Monday/Wednesday, 1:00 pm – 2:00 pm (online via MS Teams)
Email: Manvi.Mehta@UTDallas.edu

Course Pre-requisites, Co-requisites and/or Other Restrictions:

Prerequisites: MATH 1325 or MATH 2413 or MATH 2417

Course Description:

This course is designed for students in business majors and focuses on strengthening analytical skills needed for addressing business problems. Mathematical concepts covered include differentiation, partial differentiation, integration, and optimization. Applications topics include model building, market equilibrium fundamentals, annuities, and the use of techniques such as Lagrange multipliers, L'Hospital's Rule, and Euler's method, in analyzing business-oriented problems.

Required Textbook:

Applied Calculus for the Managerial, Life, and Social Sciences - 10th edition

- Author: Soo T. Tan
- Ebook ISBN: 9781305887831

*** Cengage Unlimited eTextbooks: ISBN 9780357693339

The Statistics and Math lab:

This lab, located in room JSOM 2.414, offers assistance to students enrolled in OPRE 3333, OPRE 3340, or OPRE 3360. The schedule is to be announced on eLearning.

Grading Criteria:

Grades are assigned based on the following weighting.

Assignment Average	25%
Highest Exam Grade	30%
Median Exam Grade	25%
Lowest Exam Grade	20%
Attendance	4% (extra)

The letter grades are determined based on the following grading scheme.

Letter Grade:	A^+	A	A^-	B^+	B	B^-	C^+	C	C^-	D^+	D	F
Minimum Required Grade:	98	93	90	87	83	80	77	73	70	65	60	0

Course Calendar:

Week	Date	Topic	Assignment	Due Date
1	Tuesday, January 17	Preliminaries		
1	Thursday, January 19	Preliminaries		
2	Tuesday, January 24	Functions, Limits, and Derivative		
2	Thursday, January 26	Functions, Limits, and Derivative		
3	Tuesday, January 31	Functions, Limits, and Derivative		
3	Thursday, February 2	Functions, Limits, and Derivative		
4	Tuesday, February 7	Differentiation		
4	Thursday, February 9	Differentiation	Assignment 1	February 20
5	Tuesday, February 14	Applications of the Derivative		
5	Thursday, February 16	Applications of the Derivative		
6	Tuesday, February 21	Applications of the Derivative	Assignment 2	March 6
6	Thursday, February 23	Exam 1 (Lectures 1 – 3)		
7	Tuesday, February 28	Exponential and Logarithmic Functions		
7	Thursday, March 2	Exponential and Logarithmic Functions		
8	Tuesday, March 7	Exponential and Logarithmic Functions	Assignment 3	March 21
8	Thursday, March 9	Integration		
9	Tuesday, March 14	Spring Break		
9	Thursday, March 16	Spring Break		
10	Tuesday, March 21	Integration		
10	Thursday, March 23	Integration	Assignment 4	April 3
11	Tuesday, March 28	Additional Topics in Integration		
11	Thursday, March 30	Additional Topics in Integration		
12	Tuesday, April 4	Calculus of Several Variables		
12	Thursday, April 6	Exam 2 (Lectures 4 – 6)		
13	Tuesday, April 11	Calculus of Several Variables		
13	Thursday, April 13	Calculus of Several Variables		
14	Tuesday, April 18	Calculus of Several Variables		
14	Thursday, April 20	Calculus of Several Variables	Assignment 5	April 27
15	Tuesday, April 25	Differential Equations		
15	Thursday, April 27	Differential Equations	Assignment 6	May 1
16	Tuesday, May 2	Differential Equations		
16	Thursday, May 4	Exam 3 (Lectures 7 – 9)		

Course Policy:**1. General:**

- It is your responsibility to read the syllabus and check the eLearning for announcements/changes daily.
- You must pay close attention to all the due dates from the first day of class and schedule your personal activities around those dates.
- For any grade posted on eLearning, you have one week after it is posted to request for regrading.

2. Exams:

- Exams will be administered by the Testing Center. Students should visit <https://ets.utdallas.edu/testing-center> to register for a seat and for more information.
- Students should register for a seat no later than one week prior to the exam date. Failure to do so will result in a 10-point penalty on the exam grade.
- Exams will NOT be available to students after submission. However, you have one week after grades are posted on eLearning to review your graded exam during the instructor's office hours and have the instructor's feedback.
- There will be NO make-up for any missed exam except for medical emergencies in which a written statement is required to justify the situation along with the physician's address and phone number.

3. Assignments:

- The assignments will be assessed through eLearning.
- The lowest assignment grade will be dropped. Therefore, there will be NO make-up for any missed assignment.

4. Extra Credit:

- Extra credit will NOT be offered.

5. Academic Dishonesty/Cheating:

- Students are required to read, understand and abide by the university policy on academic honesty.
- Any student found responsible for committing an act of academic dishonesty will receive a grade of zero on that exam or assignment.
- The instructor reserves the right to change the grading policy without any notice due to unforeseen circumstances such as dishonesty, cheating, etc.

6. Mobile Phones, Laptops & Electronic Devices:

- Taking unauthorized pictures or recording during the lecture/classroom from presented materials with a mobile phone, laptop, camera or any other device is an infringement of privacy rights and is prohibited.

7. Class Materials: Classroom materials may not be reproduced or shared with those not in class or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Comet Creed:

This 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 Resources:

The information contained in the following link lists the University's academic support resources for all students. Please go to Academic Support Resources webpage for these policies.

UT Dallas Syllabus Policies and Procedures:

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please review the catalog sections regarding the credit/no credit or pass/fail grading option and withdrawal from class. Please go to UT Dallas Syllabus Policies webpage for these policies.