

OPRE 3360: Managerial Methods in Decision Making Under Uncertainty
University of Texas at Dallas
Spring 2019

Course Syllabus

Disclaimer

The material contained in this syllabus is subject to change upon announcement by the instructor in class.

Course Information

Course Number:	OPRE 3360.003
Course Title:	Managerial Methods in Decision Making Under Uncertainty
Term:	Spring 2018
Days and Time:	Tuesday, 1:00pm - 2:15pm, JSOM 1.102 Thursday, 1:00pm - 2:15pm, JSOM 1.102
Instructor:	Negin Enayaty Ahangar, Ph.D.
Office:	JSOM 3.420
Office Hours:	Monday, 1:00pm - 3:00pm Thursday, 10:00am - 12:00pm
Email:	negin@utdallas.edu
Phone:	972-883-5115
Teaching Assistant:	Junwoo Cha
Office:	JSOM 2.414
Office Hours:	Tuesday, 4:00pm - 6:00pm Wednesday, 9:00am - 11:00am
Email:	jxc180012@utdallas.edu

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

MATH 1325 or MATH 2413 or MATH 2417

Course Description

Introduces the concept of probability and statistics to managerial decision making. Concepts will be developed in lecture and exercises using software packages. Topics include: summarizing and presenting data, probability theory, sampling, estimation, confidence intervals, hypothesis testing, regression, and ANOVA. Emphasis will be given to modeling and solving business problems in Finance, Marketing, Accounting, and Operations Management.

Learning Outcomes

Students are expected to develop skills on problem formulation, identification of appropriate statistical techniques, computer implementations in Excel and manual calculations and written explanations, and interpretation of empirical results. At the end of this course you should be able to:

- Be acquainted with the concept of sample and population.
- Calculate and interpret statistics in context.
- Use statistics to describe samples and test hypothesis to make inferences about populations.
- Present data using Excel as an analytic tool.

Textbooks:

Modern Business Statistics with Microsoft Excel (6th Edition)

Authors: Anderson, Sweeney, Williams

New textbooks come with a card having an access code. This code will enable you to log into the publisher's website and obtain online materials and web data files. You have two options to purchase the textbook:

1. Through UTD Bookstore.
2. Through Cengage

The Statistics and Math lab offers assistance to undergraduate students for OPRE 3333 and OPRE 3360. The schedule is 10am-6pm Monday to Friday and it is located in room 2.414.

Software: Microsoft Office Excel

This course uses a laptop, eLearning, Internet access, Microsoft Excel 2007 or higher (no trial versions), Data Analysis Activated (this comes with Excel).

Course Notes

A portion of course material will be presented through course notes and handouts. It is each student's responsibility to take appropriate notes during lecture. If a student misses a lecture for any reason, it is his/her responsibility to obtain notes from a classmate.

Communication

UTD eLearning is used to disseminate the materials for this course. Students can visit <https://elearning.utdallas.edu> and login using their net ID and password. Upon successful login, the Quantitative Business Analysis webpage should be available. Presentation files, handouts, data files, and review questions will be available on this webpage. The instructor expects students to keep up with these materials. It is each student's responsibility to check the website before each class and bring that day's lecture to lecture. Students who have questions should make every attempt to consult the instructor and TA during office hours. When this is not possible, the student should email the instructor and TA with a description of the question.

Quizzes

1. There will be a quiz at the end of almost every chapter.
2. The quiz will cover the chapters finished in the previous session. This means you are expected to attend every class, carefully follow the lectures, and actively participate in discussions.
3. As stated in the grading policy above, the two quizzes with the lowest grades will be dropped and the top five will be considered only.
4. Please be advised, there is no need to provide any documents (like doctor note) or justifications or emails to me in case of absence. You may miss two quizzes and still no points will be deducted from your overall grades. This means there will be no make-up (no justifications) for a missed class under any circumstances. This is a policy with no exception, so PLEASE do not ask to reschedule a quiz/for a make-up quiz when you miss any class, I will not violate the course policy.
5. I strongly advise you do not skip classes/quizzes and keep the two chances for unexpected circumstances.
6. Quizzes will NOT be returned to students. However, you have one week, after grades are posted on eLearning, to check your graded quiz in TA's office hours and have the TA's feedback. When this is not possible, the student should email the TA to schedule another time.
7. To challenge a quiz grade, a student must email the instructor with a description of the grading error.
8. Graphing calculators are NOT allowed for the quizzes.

Exams

1. Three tests are given during the semester.
2. Tests are not cumulative.
3. Tests will NOT be returned to students. However, you have one week, after grades are posted on eLearning, to check your graded test in the instructor's office hours and have the instructor's feedback. When this is not possible, the student should email the instructor to schedule another time.
4. To challenge a test grade, a student must email the instructor with a description of the grading error.
5. Graphing calculators are NOT allowed for the tests.

Course Policy

1. The quizzes will be taken in class.
2. Announcements/changes will be through the eLearning. It is your responsibility to check it at least once a day.
3. If you missed a class, then please ask your classmates about what was covered in class.
4. There will be NO make-up exam except for extenuating circumstances with prior permission only. In such circumstances, student will be required to provide justifying documents.
5. There will be NO make-up quiz.
6. Students in this course suspected of academic dishonesty are subject to disciplinary proceedings, and if found responsible, the following minimum sanctions will be applied:
 - Homework - Zero for the Assignment
 - Case Write-ups - Zero for the Assignment
 - Quizzes - Zero for the Quiz
 - Presentations - Zero for the Assignment
 - Group Work - Zero for the Assignment for all group members
 - Tests - F for the course

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.

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of course syllabus. Please go to <https://go.utdallas.edu/syllabus-policies> for these policies.

Grading

Grades are assigned based upon the following scale and weighting.

Quiz	25%
Exam 1	25%
Exam 2	25%
Exam 3	25%

97-100	A ⁺	87-89.99	B ⁺	77-79.99	C ⁺	67-69.99	D ⁺
93-96.99	A	83-86.99	B	73-76.99	C	63-66.99	D
90-92.99	A ⁻	80-82.99	B ⁻	70-72.99	C ⁻	60-62.99	D ⁻

The following is a tentative schedule, which will be followed as closely as possible. However, should any changes become necessary, it will be announced in the class or via eLearning. It is your responsibility to keep track of announcements regarding changes to this schedule.

Course Calendar

Week	Date	Topic	Book	Quiz
1	Tuesday, January 15	Data and Statistics	Chapter 1	
1	Thursday, January 17	Data and Statistics	Chapter 1	
2	Tuesday, January 22	Descriptive Statistics: Tabular and Graphical Display	Chapter 2	
2	Thursday, January 24	Descriptive Statistics: Tabular and Graphical Display	Chapter 2	
3	Tuesday, January 29	Descriptive Statistics: Numerical Measures	Chapter 3	
3	Thursday, January 31	Descriptive Statistics: Numerical Measures	Chapter 3	
4	Tuesday, February 5	Descriptive Statistics: Numerical Measures	Chapter 3	Quiz 1 (Chapters 1,2,3)
4	Thursday, February 7	Introduction to Probability	Chapter 4	
5	Tuesday, February 12	Introduction to Probability	Chapter 4	
5	Thursday, February 14	Exam 1	Chapters 1, 2, 3	
6	Tuesday, February 19	Introduction to Probability	Chapter 4	Quiz 2 (Chapter 4)
6	Thursday, February 21	Discrete Probability Distributions	Chapter 5	
7	Tuesday, February 26	Discrete Probability Distributions	Chapter 5	
7	Thursday, February 28	Discrete Probability Distributions	Chapter 5	Quiz 3 (Chapter 5)
8	Tuesday, March 5	Continuous Probability Distributions	Chapter 6	
8	Thursday, March 7	Continuous Probability Distributions	Chapter 6	
9	Tuesday, March 12	Continuous Probability Distributions	Chapter 6	Quiz 4 (Chapter 6)
9	Thursday, March 14	Sampling and Sampling Distributions	Chapter 7	
10	March 19, 21	Spring Break		
11	Tuesday, March 26	Sampling and Sampling Distributions	Chapter 7	
11	Thursday, March 28	Exam 2	Chapters 4, 5, 6	
12	Tuesday, April 2	Sampling and Sampling Distributions	Chapter 7	
12	Thursday, April 4	Sampling and Sampling Distributions	Chapter 7	Quiz 5 (Chapter 7)
13	Tuesday, April 9	Interval Estimation	Chapter 8	
13	Thursday, April 11	Interval Estimation	Chapter 8	
14	Tuesday, April 16	Interval Estimation	Chapter 8	Quiz 6 (Chapter 8)
14	Thursday, April 18	Hypothesis Tests	Chapter 9	
15	Tuesday, April 23	Hypothesis Tests	Chapter 9	
15	Thursday, April 25	Hypothesis Tests	Chapter 9	Quiz 7 (Chapter 9)
16	Tuesday, April 30	Hypothesis Tests	Chapter 9	
16	Thursday, May 2	Exam 3	Chapters 7, 8, 9	