

**OPRE 3360: Managerial Methods in Decision Making Under Uncertainty**  
**University of Texas at Dallas**  
**Fall 2018**

**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 3360.002
Course Title:	Managerial Methods in Decision Making Under Uncertainty
Term:	Fall 2018
Days and Time:	Tuesday, 1:00pm - 2:15pm, JSOM 1.107 Thursday, 1:00pm - 2:15pm, JSOM 1.107
<b>Instructor:</b>	Negin Enayaty Ahangar
Office:	JSOM 3.420
Office Hours:	Monday and Wednesday, 10:00am - 12:00pm Tuesday and Thursday, 2:30pm - 4:30pm
Email:	negin@utdallas.edu
Phone:	972-883-5115
<b>Teaching Assistant:</b>	Arunima Jain
Office:	JSOM 2.604
Office Hours:	Tuesday, 10:00am - 12:00pm Wednesday, 2:00pm - 4:00pm
Email:	arunima.jain@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 (6<sup>th</sup> 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.

### Course Notes/Handouts

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 Managerial Methods in Decision Making Under Uncertainty webpage should be available. Presentation slides, handouts, data files, homework assignments, 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, examples, and homework materials to lecture. The instructor will also post helpful links to supplementary content that may be helpful in learning the required material. 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 (or current) session. This means you are expected to attend every class, carefully follow the lectures, and actively participate in discussions.
3. The two quizzes with the lowest grades will be dropped and the top eight 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.

### 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 extra credit in this course under any circumstances.
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 <sup>+</sup>	87-89.99	B <sup>+</sup>	77-79.99	C <sup>+</sup>	67-69.99	D <sup>+</sup>
93-96.99	A	83-86.99	B	73-76.99	C	63-66.99	D
90-92.99	A <sup>-</sup>	80-82.99	B <sup>-</sup>	70-72.99	C <sup>-</sup>	60-62.99	D <sup>-</sup>

Once a graded item has been returned, a student has 48 hours to challenge the grade. To challenge a grade, a student must submit a typed description of the grading error to the grader (tests: instructor). This description must include the students name and e-mail address. The grader responds to a challenge within 48 hours of its receipt.

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, August 21	Data and Statistics	Chapter 1	
1	Thursday, August 23	Data and Statistics	Chapter 1	
1	Tuesday, August 28	Descriptive Statistics: Tabular and Graphical Display	Chapter 2	Quiz 1
1	Thursday, August 30	Descriptive Statistics: Tabular and Graphical Display	Chapter 2	
2	Tuesday, September 4	Descriptive Statistics: Numerical Measures	Chapter 3	Quiz 2
2	Thursday, September 6	Descriptive Statistics: Numerical Measures	Chapter 3	
3	Tuesday, September 11	Descriptive Statistics: Numerical Measures	Chapter 3	Quiz 3
3	Thursday, September 13	<b>Exam 1</b>	<b>Chapters 1, 2, 3</b>	
4	Tuesday, September 18	Introduction to Probability	Chapter 4	
4	Thursday, September 20	Introduction to Probability	Chapter 4	
5	Tuesday, September 25	Introduction to Probability	Chapter 4	
5	Thursday, September 27	Discrete Probability Distributions	Chapter 5	Quiz 4
6	Tuesday, October 2	Discrete Probability Distributions	Chapter 5	
6	Thursday, October 4	Discrete Probability Distributions	Chapter 5	
7	Tuesday, October 9	Continuous Probability Distributions	Chapter 6	Quiz 5
7	Thursday, October 11	Continuous Probability Distributions	Chapter 6	
8	Tuesday, October 16	Continuous Probability Distributions	Chapter 6	Quiz 6
8	Thursday, October 18	<b>Exam 2</b>	<b>Chapters 4, 5, 6</b>	
9	Tuesday, October 23	Sampling and Sampling Distributions	Chapter 7	
9	Thursday, October 25	Sampling and Sampling Distributions	Chapter 7	
10	Tuesday, October 30	Sampling and Sampling Distributions	Chapter 7	
10	Thursday, November 1	Interval Estimation	Chapter 8	Quiz 7
11	Tuesday, November 6	Interval Estimation	Chapter 8	
11	Thursday, November 8	Hypothesis Tests	Chapter 9	Quiz 8
12	Tuesday, November 13	Hypothesis Tests	Chapter 9	
12	Thursday, November 15	Hypothesis Tests	Chapter 9	
13	Tuesday, November 20	Fall break		
13	Thursday, November 22	Thanksgiving break		
14	Tuesday, November 27	Hypothesis Tests	Chapter 9	
14	Thursday, November 29	Simple Linear Regression	Chapter 14	Quiz 9
15	Tuesday, December 4	Simple Linear Regression	Chapter 14	Quiz 10
15	Thursday, December 6	<b>Exam 3</b>	<b>Chapters 7, 8, 9, 13, and 14</b>	