# OPRE 3360: Managerial Methods in Decision Making Under Uncertainty University of Texas at Dallas Summer Semester 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 3360.0U1
Course Title:	Managerial Methods in Decision Making Under Uncertainty
Term:	Summer 2019
Lecture Time:	Monday/Wednesday, 12:30pm - 2:45pm
Lecture Location:	JSOM 2.106
<b>Instructor:</b> Office Information:	Negin Enayaty Ahangar, Ph.D. JSOM 3.420
Office Hours: Email:	Tuesday, 10:00am - 12:00pm or by appointment negin@utdallas.edu
Phone:	972-883-5115
<b>Teaching Assistant</b> : Office Information: Office Hours: Email:	Ping Tang JSOM 14.315 Tuesday, 1:00pm - 3:00pm pxt170008@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.

## 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.

# No textbook required.

# (optional) textbook:

Modern Business Statistics with Microsoft Excel ( $6^{th}$  Edition)

Authors: Anderson, Sweeney, Williams

You may purchase the textbook from UTD bookstore, Cengage publisher or Amazon.

### **OPRE 3360 - Course Syllabus**

#### 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).

## The Statistics and Math lab

Students enrolled in OPRE 3333 or OPRE 3360 may use the lab in room 2.414 from 10AM - 6PM, Monday through Friday.

#### Grading Criteria

Grades are assigned based upon the following scale and weighting.

Assignme	nts	25%					
Exam $1$		25%					
Exam $2$		25%					
Exam $3$		25%					
07 100	4+	07 00 00	$D^{\pm}$		$\alpha^{\pm}$	c <del>7</del> c0 00	$D^+$
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	$D^{-}$

## **Course Policy:**

#### 1. General

- (a) It is your responsibility to read the syllabus and check the eLearning for announcements/changes daily.
- (b) If a student missed a class, then he/she should ask classmates about what was covered in class. There is no need to let me know if you are going to miss a class.
- (c) You must pay close attention to all the due dates from the first day of class and schedule your personal activities around those dates.
- (d) A portion of course material will be presented through course notes and handouts. It is each students 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.
- (e) 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. Lectures, 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 class.
- (f) 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.

### 2. Exams, Assignments, Extra Credit:

- (a) The tests are closed-book and closed-note.
- (b) On each test, students will be allowed to use a non-graphing calculator and a formula sheet to be provided by the instructor.
- (c) 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.
- (d) There will be NO make-up for any missed exam except for medical emergencies in which a written statement is required for justifying the situation along with the physician's address and phone number.
- (e) There will be an assignment at the end of almost every chapter.
- (f) These assignments will be assessed using elearning quizzes, which will be made available for the duration of the assignment.
- (g) The two lowest graded assignments will be dropped.
- (h) There will be NO make-up for any missed assignment.
- (i) Extra credit will NOT be offered.

## 3. Academic Dishonesty/Cheating:

- (a) Students are required to read, understand and abide by the university policy on academic honesty.
- (b) Any student who is found responsible for committing an act of academic dishonesty will receive a grade of F or 0 (zero) on that quiz, exam, assignment, project or course.
- (c) The instructor reserves the right to change the grading policy without any notice due to unforeseen circumstances such as dishonesty, cheating, etc.

# 4. Mobile Phones, Laptops & Electronic Devices:

- (a) 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.
- (b) No use of mobile phones for talking or texting is allowed while in classroom. If you must make a call, then please step outside of the classroom.

#### 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.

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	Assignment
1	Monday, May 27	No class - Memorial Day		
1	Wednesday, May 29	Data and Statistics	Chapter 1	
2	Monday, June 3	Descriptive Statistics: Tabular and Graphical Display	Chapter 2	
2	Wednesday, June 5	Descriptive Statistics: Numerical Measures	Chapter 3	
3	Monday, June 10	Descriptive Statistics: Numerical Measures	Chapter 3	Assignment 1 (Chapters $1,2,3$ )
3	Wednesday, June 12	Introduction to Probability	Chapter 4	
4	Monday, June 17	Introduction to Probability	Chapter 4	Assignment 2 (Chapter 4)
4	Wednesday, June 19	Exam 1		Chapters 1, 2, 3
5	Monday, June 24	Discrete Probability Distributions	Chapter 5	
5	Wednesday, June 26	Discrete Probability Distributions	Chapter 5	Assignment 3 (Chapter 5)
6	Monday, July 1	Continuous Probability Distributions	Chapter 6	
6	Wednesday, July 3	Continuous Probability Distributions	Chapter 6	Assignment 4 (Chapter 6)
7	Monday, July 8	Sampling and Sampling Distributions	Chapter 7	
7	Wednesday, July 10	Exam 2		Chapters 4, 5, 6
8	Monday, July 15	Sampling and Sampling Distributions	Chapter 7	Assignment 5 (Chapter 7)
8	Wednesday, July 17	Interval Estimation	Chapter 8	
9	Monday, July 22	Interval Estimation	Chapter 8	Assignment 6 (Chapter 8)
9	Wednesday, July 24	Hypothesis Tests	Chapter 9	
10	Monday, July 29	Hypothesis Tests	Chapter 9	
10	Wednesday, July 31	Linear Regression	Chapter 14, 15	Assignment 7 (Chapters 9, 14, 15)
11	Monday, August 5	Exam 3		Chapters 7, 8, 9, 14, 15