

# Course Syllabus

## Course Information

Course Number:	OPRE 3360.001
Course Title:	Managerial Methods in Decision Making Under Uncertainty
Term:	Fall 2018
Meetings:	Mondays and Wednesdays, 8:30 AM – 9:45 AM at JSOM 1.117
Instructor:	Dr. Aysegul Toptal Bilhan
Office:	JSOM 2.409
Office Hours:	Mondays 10:30 AM-12:30 PM, Thursdays 2:00 PM-4:00 PM
Email:	Aysegul.ToptalBilhan@utdallas.edu
Phone:	972-883-5993
Teaching Assistant (TA)	Nilay Kulkarni
TA Email	Nilay.Kulkarni@utdallas.edu
TA Office Hours	Tuesdays 1:00 PM-2:30 PM at JSOM 2.414

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

MATH 1325 or MATH 2413 or MATH 2417

## Course Description

This course introduces the concept of probability and statistics for managerial decision-making. Concepts will be developed in lecture and exercises using software packages and topics including: summarizing and presenting data, probability theory, sampling, estimation, confidence intervals, hypothesis testing, regression, and ANOVA. Credit cannot be received for both courses, OPRE 3360 and STAT 3360.

## Student 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 acquainted with the concept of sample and population.
- Be able to calculate and interpret statistics in context.
- Be able to use statistics to describe samples and test hypothesis to make inferences about populations.
- Be able to present data using Excel as an analytic tool.

## Required Textbooks and Materials

**Textbook:** Anderson, D. R., Sweeney, D. J., Williams, T. A., Camm, J. D., and Cochran, J.J. (2017). Modern Business Statistics with Microsoft® Office Excel® (6th Edition). Boston, MA: Cengage Learning

You have the following options to purchase the textbook:

1. Through UTD Bookstore
2. Through Cengage link:

<https://www.cengage.com/dashboard/#/course-confirmation/MTPOXZFP7PLX/initial-course-confirmation>

**Software:** Microsoft® Office Excel®

This course uses a laptop, eLearning, Internet access, Microsoft Excel 2007 or higher (no trial versions), and Web Data Files (available for download from the textbook Publisher's website for your textbook at CengageBrain.com).

**Calculator:** A calculator is required for this course. You are required to bring your calculator to each quiz and exam. You will not be allowed to share calculators. You will not be allowed to use cell phones as a calculator.

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

### Assignments and Tentative Schedule

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 Blackboard. It is your responsibility to keep track of announcements regarding changes to this schedule.

Week	Day	Chapter / Lecture	Reading Assignment
Week 01	Aug 20	• Introduction to OPRE 3360	Syllabus
	Aug 22	• Chapter 1 - Introduction to Data and Statistics	1.1 – 1.9
Week 02	Aug 27	• Chapter 2 - Descriptive Statistics: Tabular & Graphical Displays	2.1 – 2.2
	Aug 29	• Chapter 3 - Descriptive Statistics: Numerical Measures	3.1 – 3.3, 3.5
Week 03	Sept 3	<b>No Class (Labor Day)</b>	
	Sept 5	• Chapter 3 (Cont'd)	
Week 04	Sept 10	• Chapter 3 (Cont'd) • <b>Quiz 1</b> - In Class: Chapters 1, 2, 3	
	Sept 12	• Chapter 4 - Introduction to Probability	4.1 – 4.4
Week 05	Sept 17	• Chapter 4 (Cont'd)	
	Sept 19	• Chapter 5 - Discrete Probability Distributions	5.1 – 5.3, 5.5 – 5.6
Week 06	Sept 24	• Chapter 5 (Cont'd) • Review and Practice	
	Sept 26	• <b>Exam 1 - In Class: Chapters 1, 2, 3, &amp; 4</b> <b>(Please arrive in class no later than 8:20 AM)</b>	
Week 07	Oct 1	• Chapter 5 (Cont'd)	5.1 – 5.3, 5.5 – 5.6
	Oct 3	• Chapter 6 - Continuous Probability Distributions • <b>Quiz 2</b> - In Class: Chapters 4& 5	6.1 – 6.2
Week 08	Oct 8	• Chapter 6 (Cont'd)	
	Oct 10	• Chapter 6 (Cont'd)	
Week 09	Oct 15	• Chapter 7 - Sampling & Sampling Distributions • <b>Quiz 3</b> - In Class: Chapter 6	7.1 – 7.6
	Oct 17	• Chapter 7 (Cont'd)	
Week 10	Oct 22	• Chapter 7 (Cont'd)	
	Oct 24	• Chapter 8 - Interval Estimation	8.1 – 8.4

Week	Day	Chapter / Lecture	Reading Assignment
Week 11	Oct 29	<ul style="list-style-type: none"><li>Chapter 8 (Cont'd)</li><li>Review &amp; Practice</li></ul>	
	Oct 31	<ul style="list-style-type: none"><li><b>Exam 2 - In Class: Chapters 5, 6, &amp; 7</b> <b>(Please arrive in class no later than 8:20 AM)</b></li></ul>	
Week 12	Nov 5	<ul style="list-style-type: none"><li>Chapter 8 (Cont'd)</li></ul>	8.1 – 8.4
	Nov 7	<ul style="list-style-type: none"><li>Chapter 8 (Cont'd)</li></ul>	
Week 13	Nov 12	<ul style="list-style-type: none"><li>Chapter 9 - Hypothesis Tests</li><li><b>Quiz 4</b> - In Class: Chapter 8</li></ul>	9.1 – 9.5
	Nov 14	<ul style="list-style-type: none"><li>Chapter 9 (Cont'd)</li></ul>	
Week 14	Nov 19	<b>No Class (Fall break)</b>	
	Nov 21		
Week 15	Nov 26	<ul style="list-style-type: none"><li>Chapter 9 (Cont'd)</li></ul>	9.1 – 9.5
	Nov 28	<ul style="list-style-type: none"><li>Chapter 9 (Cont'd)</li></ul>	
Week 16	Dec 3	<ul style="list-style-type: none"><li><b>Quiz 5</b> - In Class: Chapter 9</li><li>Review &amp; Practice</li></ul>	
	Dec 5	<ul style="list-style-type: none"><li><b>Exam 3 - In Class: Chapters 8 &amp; 9</b> <b>(Please arrive in class no later than 8:20 AM)</b></li></ul>	

## Grading Policy

The following table summarizes the grading policy.

Percentage		Scale			
Exam 1	28%	97 - 100 = A+	87 - 89.9 = B+	77 - 79.9 = C+	67 - 69.9 = D+
Exam 2	30%	93 - 96.9 = A	83 - 86.9 = B	73 - 76.9 = C	63 - 66.9 = D
Exam 3	30%	90 - 92.9 = A-	80 - 82.9 = B-	70 - 72.9 = C-	60 - 62.9 = D-
Quizzes (top 4 quizzes, 3% each)	12%				Below 60 = F

## Course & Instructor Policies

- Students are responsible for checking the course website for course material, updates and announcements. It is suggested that you check it at least once a day.
- Students are responsible for all announcements made in class and in e-mails by the instructor through e-learning.
- E-mails to the instructor and the teaching assistant(s) should be sent from accounts assigned to you by UTD. No e-mail message from external domains will be replied. E-mails must be electronically signed (i.e., with your name and last name). Please include "OPRE 3360" in the subject line of your e-mail.
- Make-up exams will be offered only under the following circumstances, given that you provide justifying documents:
  - Illness:** An official certification from your doctor-stating that you are not well enough to take the exam, is required. This certification must be handed in to me no later than seven days (weekends included) after the date of the missed exam.
  - Mandatory courtroom appearance:** A copy of your official court summons with the date of your attendance, is required. This certification must be handed in to me no later than seven days (weekends included) after the date of the missed exam.

I only allow one missed exam to be made up for each student. You will be assigned zero for any other missed exam.

5. There will be NO extra credit in this course under any circumstances.
6. Exams will be closed-book and closed-notes. You are allowed to bring one letter-size paper (8.5 inches wide and 11 inches long) for formulas and notes, and you must use only one side of it (i.e., other side of the paper must be blank).
7. Quizzes and exams may include a combination of true/false, multiple-choice, fill-in-the-blank, and essay type questions. All re-evaluation requests must be done in writing. A re-evaluation request may result in a lower, same or higher score.
8. Students in this course suspected of academic dishonesty are subject to disciplinary proceedings, and if found responsible, the following minimum sanctions will be applied:
  - Quizzes – Zero for the Quiz
  - Exams – Zero for the Exam

#### **Quizzes:**

1. Five quizzes will be offered. The quiz with the lowest grade will be dropped, and the top four will be considered only.
2. There will NOT be a make-up for missed quizzes.
3. Please do not forget to bring a calculator on the quiz day. I will let you know in advance if you need a laptop for a particular quiz. Other than that, you will not be allowed to use your laptops and cellphones during quizzes.
4. Quizzes will be open-book and open-notes.

#### **Classroom Citizenship:**

1. Class begins on time. Please maintain class decorum and be respectful towards fellow students in the class. If you have a doubt or misunderstanding regarding course work, feel free to discuss it with me.
2. Using your phone during class is not permitted and it is rude. Keep it on silent at all times and away from your desk. No texting. Offenders will be asked to turn off their phones. If this is a recurring problem, students will be asked to give their phones to the instructor who will return them at the end of the class session.
3. Students are encouraged to bring a laptop to class. Use of computers for the purpose of e-mail, internet, games, instant messenger, etc., are strictly prohibited and regarded as class disruptions.
4. Please bring your nameplate to every class.

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#### **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.”*

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#### **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.

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***These descriptions and timelines are subject to change at the discretion of the Professor.***