OPRE 3360: Managerial Methods in Decision Making Under Uncertainty
University of Texas at Dallas
Fall 2020

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 3360.008
Course Title:	Managerial Methods in Decision Making Under Uncertainty
Term:	Summer 2020
Days and Time:	Mondays 4:00 PM – 6:45 PM Online
Instructor:	Fariba Farajbakhsh Mamaghani, Ph.D.
Office:	JSOM 3.424
Office Hours:	By appointment, Online
Email:	fxf150430@utdallas.edu

Instructional Mode: Remote/Virtual
You can find the description in: `https://www.utdallas.edu/fall-2020/fall-2020-registration-information/`

Course Platform
This course will be delivered via MS Teams and Stream, and eLearning system. To learn more about how to use Microsoft Teams, please visit the following websites:

- OIT Microsoft Teams website: Basic technical information, including how to install Teams on your computer.
- OIT Office 365 Training and Resources: Resources you need to be productive with Office 365 applications, including live trainings and on-demand recorded trainings.

Asynchronous Learning Guidelines
You can choose asychronous online learning in this course. This means you can watch the recorded lecture videos at a different time than the scheduled class. However, the time for quizzes and tests would be the same for both sychronous and asychronous access.

COVID-19 Guidelines and Resources
The information contained in the following link lists the University's COVID-19 resources for students and instructors of record. Please see `http://go.utdallas.edu/syllabus-policies`.

Class Recording
The instructor may record meetings of this course. Any recordings will be available to all students registered for this class as they are intended to supplement the classroom experience. Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student Accessibility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law. Failure to comply with these University requirements is a violation of the Student Code of Content.

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 and regression. Emphasis will be given to modeling and solving business problems in Finance, Marketing, Accounting, and Operations Management.

Class Materials
The Instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course, however, these materials are for registered students' use only. 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 Accessibility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Content.

Course Pre-requisites, Co-requisites and/or Other Restrictions
MATH 1326 or MATH 2414 or MATH 2419

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.

Textbook: Modern Business Statistics with Microsoft Excel (6^{th} Edition)
You have two options to purchase the textbook:

1. Through UTD Bookstore
2. Through Cengage.

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). If you are using a Mac, it is recommended to install a Windows Virtual machine, such as Parallel Desktop, or VMWare Fusion 4 which will then allow the use of Windows within the Mac Operating System.
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 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.

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 class. 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 is a quiz at the end of almost every chapter.
2. The quiz will cover chapters taught previous and current weeks.
3. Quizzes will **NOT** be returned to students. However, you have one week, after grades are posted on eLearning, to check your graded quiz in a virtual meeting and have the feedback. When this is not possible, you should email to me to schedule another time.
4. To challenge a quiz grade, a student must email the instructor with a description of the grading error.
5. Graphing calculators are **NOT** allowed for the quizzes.

Exams

1. Three tests are given during the semester and will be **online**.
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 (It would be online) 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 online
2. Announcements/changes will be through the eLearning and emails. It is your responsibility to check it at least once a day.
3. If you missed a class, then please check the recorded video.
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:
   - Quizzes – Zero for the Quiz
   - 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.

Class Participation

Attendance at each session is important for your success in this course. Because of that, attendance is 5% of your final grade. It is also important to come to class prepared, so I expect that you have read the day's material, solved the practice questions, and completed the quizzes. You are allowed one "free" absence.
I expect that you remain engaged and treat others with respect. When the instructor or your fellow students are speaking, I expect you to pay attention to them. This specifically means that the use of phones, tablets or laptops is forbidden during the class, and you will print out the slides before class and use the printed version in class.

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.

Quizzes	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^-

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

Course Calendar

Week	Date	Topic	Book	Quiz
1	Monday, August 17	Introduction to OPRE 3360 & Descriptive Statistics	Chapter 1 & 2	
2	Monday, August 24	Descriptive Statistics: Tabular and Graphical Display	Chapter 2	
3	Monday, August 31	Descriptive Statistics: Numerical Measures	Chapter 3	Quiz 1 (Ch 1, 2 & 3)
4	Monday, September 7	**Labor Day: No Class**		
5	Monday, September 14	**Exam 1: Chapter 1,2, and 3**		
6	Monday, September 21	Introduction to Probability	Chapter 4	
7	Monday, September 28	Discrete Probability Distributions	Chapter 5	Quiz 2 (Ch 4)
8	Monday, October 5	Discrete & Continuous Probability Distributions	Chapter 5 & 6	
9	Monday, October 19	Continuous Probability Distributions	Chapter 6	Quiz 3 (Ch 5 & 6)
10	Monday, October 26	Sampling and Sampling Distributions	Chapter 7	
11	Monday, November 2	**Exam 2: Chapters 4, 5, 6**		
12	Monday, November 9	Interval Estimation	Chapter 8	Quiz 4 (Ch 7)
13	Monday, November 16	Hypothesis Tests	Chapter 9	
14	Monday, November 23	Hypothesis Tests	Chapter 9	Quiz 5 (Ch 8 & 9)
15	Monday, November 30	**Fall break**		
16	Monday, December 7	**Exam 3: Chapters 7, 8, 9**		