Course Syllabus

Course Information

Course Number: OPRE 3360.007/012

Course Title: Managerial Methods in Decision Making Under Uncertainty

Term: Fall 2020

Instructional Mode: Remote/Virtual Learning

Meeting Day & Time: Section 012: Tuesday, 1:00 PM – 3:45 PM

Section 007: Tuesday, 4:00 PM – 6:45 PM

Meeting Location: eLearning & MS Teams

Instructor: Mo Naseri

Instructor Email: <u>naseri@utdallas.edu</u>

Office Hours: Via MS Teams, to be scheduled weekly through the link on eLearning Asynchronous Option: All lectures and class meetings are recorded and posted on eLearning

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 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.

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.

Required Textbooks & Materials

Textbook: Modern Business Statistics with Microsoft® Excel® (6th Edition) Authors: Anderson, Sweeney, Williams

(Can be purchased through Cengage link posted on eLearning)

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), and Web Data Files (available for download from the textbook Publisher's website for your textbook at CengageBrain.com).

The Statistics and Math lab, offers assistance to undergraduate students for OPRE 3333 and OPRE 3360. During the lab's hours, you may reach out to the TA, Sparsh Sharma (Net-ID: sxs190202) via MS Teams.

Tentative Schedule

Week - Day	Chapter / Lecture					
Week 1	Introduction to OPRE 3360					
Aug 18	Chapter 1 - Introduction to Data and Statistics					
Week 2	Chapter 2 - Descriptive Statistics: Tabular & Graphical Display					
Aug 25	Excel Tutorial (Optional)					
Week 3	Chapter 3 - Descriptive Statistics: Numerical Measures					
Sep 1	• Quiz 1 - online: Chapters 1 & 2 - from 7pm on Tuesday to 7pm on Wednesday					
Week 4	Chapter 4 - Introduction to Probability					
Sep 8	• Quiz 2 - online: Chapters 1 to 3 - from 7pm on Tuesday to 7pm on Wednesday					
Week 5	Chapter 5 - Discrete Probability Distributions					
Sep 15	• Quiz 3 - online: Chapters 1 to 4 - from 7pm on Tuesday to 7pm on Wednesday					
Week 6	Chapter 6 - Continuous Probability Distributions					
Sep 22	• Quiz 4 - online: Chapters 1 to 5 - from 7pm on Tuesday to 7pm on Wednesday					
Week 7	• Q&A					
Sep 29	• Quiz 5 - online: Chapters 1 to 6 - from 7pm on Tuesday to 7pm on Wednesday					
Week 8	• Exam 1 - online: Chapters 1 to 6					
Oct 6	(from 9am on Monday 5 th to 9pm on Tuesday 6 th)					
Week 9	Chapter 7 - Sampling & Sampling Distributions					
Oct 13	• Quiz 6 - online: Chapter 6 (only Normal Distribution) - from 7pm on Tuesday to 7pm on Wednesday					
Week 10	Chapter 8 - Interval Estimation					
Oct 20	• Quiz 7 - online: Chapter 7 - from 7pm on Tuesday to 7pm on Wednesday					
Week 11	Chapter 9 - Hypothesis Tests					
Oct 27	• Quiz 8 - online: Chapters 7 & 8 - from 7pm on Tuesday to 7pm on Wednesday					
Week 12	Chapter 9 - Hypothesis Tests					
Nov 3	• Quiz 9 - online: Chapters 7 to 9 - from 7pm on Tuesday to 7pm on Wednesday					
Week 13	Chapter 14 - Simple Linear Regression					
Nov 10	• Quiz 10 - online: Chapters 7 to 9 - from 7pm on Tuesday to 7pm on Wednesday					
Week 14	• Q&A					
Nov 17	• Quiz 11 - online: Chapters 7 to 9, & 14 - from 7pm on Tuesday to 7pm on Wednesday					
Week 15	• Exam 2 - online: Chapters 7 to 9, & 14					
Nov 24	(from 9am on Monday 23 rd to 9pm on Tuesday 24 th)					

Grading Policy

Percentage	Scale				
Exam 1	30 Points	97 - 100 = A+	87 - 89 = B+	77 - 79 = C+	67 - 69 = D+
Exam 2	30 Points	93 - 96 = A	83 - 86 = B	73 - 76 = C	63 - 66 = D
Quizzes (top 8, 5 points each)	40 Points	90 - 92 = A-	80 - 82 = B-	70 - 72 = C-	60 - 62 = D-
					Below $60 = F$

Course Policies

Lectures

- 1. Pre-recorded lectures are posted on eLearning prior to each class. Students will need to study pre-recorded lectures, which includes slides and practice problems, on weekly basis.
- 2. During live session class on Tuesdays via MS Teams, instructor will briefly explain new recorded lecture, and then will go through questions regarding previous topics and practice problems from last week.

Exams & Quizzes

- 1. Students are not allowed to take picture or copy exam/quiz questions and are not allowed to use any other resources other than their formula sheet and Excel during any tests.
- 2. There will be NO make-up/rescheduling exam except for medical emergencies (written statement justifying the situation from a physician required). Written statement should include the physician's (not a physician assistant) address and phone number for the verification purpose. Scheduling a surgery/operation on an exam date is not considered a medical emergency!
- 3. The exams and quizzes are multiple-choice and will be through eLearning.
- 4. There are 11 quizzes in total. The lowest three quizzes will be dropped and the top eight will be considered.
- 5. Be advised, there is no need to provide any documents (like doctor note) or justifications in case of absence. Students may miss three quizzes and still no points will be deducted from their overall grades. This means there will be no make-up (no justifications) for a missed quiz 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 a quiz, I will not violate the course policy.
- 6. Students can take the quiz only during the allotted time announced by instructor.
- 7. Graphing calculators are NOT allowed for any quizzes/exams. Using cell phone or any other electronic devices are NOT allowed either.
- 8. The instructor each week will post a feedback so students can review questions and answers.

Class Recordings

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 AccessAbility 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 Conduct.

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 AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

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.

Distance Learning Student Resources

Online students have access to resources including the McDermott Library, Academic Advising, The Office of Student AccessAbility, and many others. Please see the <u>eLearning Current Students</u> webpage for more information.

Server Unavailability or Other Technical Difficulties

The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online eLearning Help Desk. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

General Rules, Communication and Academic Dishonesty

- 1. According to FERPA and without exception, students MUST communicate with the instructor via their UTD email only (emails from personal email accounts such as Gmail, Yahoo, etc. will not be answered).
- 2. Announcements/changes will be through the eLearning and/or UT Dallas email and it is student' responsibility to log into eLearning and UTD email periodically (daily) and review the provided materials.
- 3. If student missed a class, then he/she should ask classmates about what was covered in class.
- 4. 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."

Academic Support Resources

The information contained in the following link lists the University's academic support resources for all students. Please go to <u>Academic Support Resources</u> webpage for these policies.

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.