

## **OPRE 3360.0U1**

Course Managerial Methods in Decision Making Under

Uncertainty.

**Professor** Dr. Monica Brussolo

**Term** Summer 2016

**Meetings** Monday/Wednesday 12:30 - 2:45 PM at JSOM 12.206

#### PROFESSOR'S CONTACT INFORMATION

Phone	972-883-4411
Office location	JSOM 3.231
Email address	monica.brussolo@utdallas.edu
Office hours	By appointment.
Other information	E-mail is recommended for <b>ALL</b> communications during the semester.
	eLearning will be used as well to post announcements, assignments and grades.
Teaching Assistant	Mehdi Hosseinabadi Farahani,
	PhD Student Management Sciences

#### GENERAL COURSE INFORMATION

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Pre-requisites, Co- requisites, & other restrictions	OPRE 3360 and STAT 3360 cannot both be used to fulfill degree requirements.
	Prerequisite: MATH 1326 Applied Calculus II, MATH 2414 Integral Calculus or
	MATH 2419 Calculus II.
	The topics discussed in this course are inherently mathematical. Although the level
i esti ictions	of math in this course is not advanced, students are encouraged to explore
	supplementary resources early on the semester.
	Introduces the concept of probability and statistics to managerial decision making.
	Concepts will be developed in lecture and exercise. Topics include: summarizing
Course Description	and presenting data, probability theory, sampling, estimation, confidence intervals,
Course Description	hypothesis testing, regression, and ANOVA. Emphasis will be given to modeling
	and solving business problems in Finance, Marketing, Accounting, and Operations
	Management.
	Students are required to take the initiative to learn, understand and apply statistics to
	real world business data. At the end of this course you should:
	Be acquainted with the concept in sample and population
<b>Learning Outcomes</b>	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.
	Anderson, D., Sweeney, D. and Williams, T. (2014) Modern Business Statistics with
	Microsoft Office Excel, 5th ed. with Cengage Aplia online learning resource,
	Choose one of the following two options:
	Option 1- Aplia and ebook – ISBN 9781305255128
	Option 2- Aplia, ebook and 3-ring loose leaf textbook – ISBN 9781305029125
Required Texts &	Purchasing Options:
Materials	Option 1 – UTD Bookstore
	Option 2 – Cengage microsite (provided in class)
	A calculator is required for this course. Any calculator of your choice is authorized
	as long as it has the following minimum capabilities: basic 4-functions, square root,
	exponent, and display 4 or more decimal places. You are required to bring this
	calculator to each exam and know how to use it.

## **OPRE 3360.0U1.16**

# Managerial Methods in Decision Making under Uncertainty TENTATIVE CALENDAR & ASSIGNMENTS

05/23/2016-08/08/2016 Room: JSOM 12.206 Day & Time: M/W 12:30 – 2:45 pm.

Class Date	Reading Assignments, Chapters to be Covered
May 23	Introduction, Chapter 1: Data and Statistics
May 25	Chapter 3: Descriptive Statistics: Numerical Measures
May 30	Memorial Day - No class today
June 1	Chapter 3: Descriptive Statistics: Numerical Measures (continuation)
June 6, 8	Chapter 4: Introduction to Probability
June 13	EXAM 1: Chapters 1, 3 and 4; see note below for details*
June 15, 20	Chapter 5: Discrete Probability Distributions
June 22	Chapter 6: Continuous Probability Distributions
	Chapter 6: Continuous Probability Distributions (continuation)
June 27	Chapter 7: Sampling and Sampling Distributions
June 29	Chapter 7: Sampling and Sampling Distributions
July 4	Independence Day – No class today
July 6	Chapter 8: Interval Estimation
July 11	EXAM 2: Chapters 5-8; see note below for details*
July 13,18	Chapter 9: Hypothesis Tests
July 20, 25	Chapter 13: Experimental Design and Analysis of Variance
July 27, Aug 1	Chapter 14&15: Simple and Multiple Linear Regression (combined)
Aug 3	EXAM 3: Chapters 9, 13-15; see note below for details*

<sup>\*</sup> Calculator required. Formula-sheet allowed half of letter size page, written one side which will be turned in with the exam. Be sure to write your name on it. Students are not allowed to share calculators nor to use cell phone for calculations, so bring your own.

#### **COURSE POLICIES**

	3 In-class exams 25% each (75% of final grade). The material of the exams is not cumulative but the knowledge is, as some of the early concepts are relevant to understand more advanced notions.  Aplia Assignments; the due dates will be listed in Aplia; the lowest homework grade will be dropped. They contribute 20% of final grade.
Grading (credit) Criteria	Attendance and participation (5%)
	97-100 points = A+; 93-96.9 points = A; 90-92.9 points = A- 87-89.9 points = B+; 83-86.9 points = B; 80-82.9 points = B- 77-79.9 points = C+; 73-76.9 points = C; 70-72.9 points = C-
	67-69.9 points = D+; 63-66.9 points = D; 60-62.9 points = D- (Passing grades) Below 60 = F

	Make-up exams may be offered under justified circumstances. Discuss it with the
Make-up Exams	instructor. Not showing up the day of the exam without contacting the professor before
The state of the s	the exam begins with a justifiable reason, results in a grade of zero in that exam.
I oto Worls	LATE SUBMISSION IS NOT ACCEPTABLE. All assignments should be submitted
Late Work	before their due date. Check Aplia/eLearning often for any updates.
Extra Credit	Extra credit may be given for class participation during class discussion.
Class Attendance	<b>EXPECTED</b> . Looking at previous experiences with this and other classes, tardiness and
Class Attenuance	absence are the main contributing factors to poor and failing grades.
Classroom Citizenship	<ul> <li>i. 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.</li> <li>ii. Using your phone during class is not permitted. Keep it on silent at all time. No texting and NO pictures. 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 which will be returned at the end of the class session.</li> <li>iii. Use of your computer is allowed as long as it is not interrupting the class or distracting other students in the classroom. If such situation occurs, the first time you will be asked to turn off your computer. Recurrent offenders will be asked to leave the classroom. The days scheduled for Excel applications or days announced in advance by the instructor, computers will be used during the second part of the session.</li> <li>Given that this is a statistics class, the material discussed will need for you to take notes in a conventional way most of the time. Therefore, I encourage you to use your computer wisely. In my experience, abusing the use of computers during class time results in unsatisfactory final grades.</li> <li>iv. Use of tablets is allowed, as long as they are used to read the textbook, or the</li> </ul>
	class notes.
	v. These rules will be enforced.
Expectation	University guidelines recommend that you study 2-3 hours per week for every credit hour in which you are enrolled. That is, University expectations suggest <b>you spend 6-9 hours</b> outside of class every week on homework and studying for this course.
Syllabus Changes	Though this syllabus is intended to be a guide for our course, I reserve the right to modify any of its contents throughout the semester if necessary. Any changes will be discussed in class and posted immediately on the UTD eLearning site so you can plan accordingly. Be sure to check for any announcements, since this document functions as a contract of what to expect in this class.
Student Conduct and Discipline	The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, <i>A to Z Guide</i> , which is provided to all registered students each academic year.  The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the <i>Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3</i> , and in Title V, Rules on Student Services and Activities of the university's <i>Handbook of Operating Procedures</i> . Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SSB 4.400, 972-883-6391).

	A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.
	The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrates a high standard of individual honor in his or her scholastic work.
Academic Integrity	Scholastic dishonesty includes, but is not limited to, statements, acts or omissions related to applications for enrollment or the award of a degree, and/or the submission as one's own work or material that is not one's own. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings.
	Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over 90% effective.
Email Use	The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.
Withdrawal from Class	The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.
Student	Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's <i>Handbook of Operating Procedures</i> .  In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent").
Grievance Procedures	Individual faculty members retain primary responsibility for assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy of the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the deal will appoint and convene an Academic Appeals

	Panel. The decision of the Academic Appeals Panel is final. The results of the academic
	appeals process will be distributed to all involved parties.
	Copies of these rules and regulations are available to students in the Office of the Dean
	of Students, where staff members are available to assist students in interpreting the rules
	and regulations.
	As per university policy, incomplete grades will be granted only for work unavoidably
	missed at the semester's end and only if 70% of the course work has been completed. An
Incomplete	incomplete grade must be resolved within eight (8) weeks from the first day of the
Grades	subsequent long semester. If the required work to complete the course and to remove the
	incomplete grade is not submitted by the specified deadline, the incomplete grade is
	changed automatically to a grade of $\underline{F}$ .
	The goal of Student AccessAbility is to provide students with disabilities educational
	opportunities equal to those of their non-disabled peers. Student AccessAbility services
	is located in room SSB 3.200 with office hours from Monday through Thursday, 8 am to
	6 pm and Friday, 8 am to 5 pm.
	The Contact information for the Office of Student AccessAbility:
	The University of Texas at Dallas, SSB 3.200 studentaccess@utdallas.edu
	(972) 883-2098 (voice or TTY)
	Essentially, the law requires that colleges and universities make those reasonable
	adjustments necessary to eliminate discrimination on the basis of disability. For example,
Disability	it may be necessary to remove classroom prohibitions against tape recorders or animals
Services	(in the case of dog guides) for students who are blind. Occasionally an assignment
Bervices	requirement may be substituted (for example, a research paper versus an oral presentation
	for a student who is hearing impaired). Classes enrolled students with mobility
	impairments may have to be rescheduled in accessible facilities. The college or
	university may need to provide special services such as registration, note-taking, or
	mobility assistance.
	It is the student's responsibility to notify his or her professors of the need for such an
	accommodation. AccessAbility Services provides students with letters to present to
	faculty members to verify that the student has a disability and needs accommodations.
	Individuals requiring special accommodation should contact the professor after class or
	during office hours.
	The University of Texas at Dallas will excuse a student from class or other required
	activities for the travel to and observance of a religious holy day for a religion whose
	places of worship are exempt from property tax under Section 11.20, Tax Code, Texas
	Code Annotated.
	The student is encouraged to notify the instructor or activity sponsor as soon as possible
	regarding the absence, preferably in advance of the assignment. The student, so excused,
	will be allowed to take the exam or complete the assignment within a reasonable time
	after the absence: a period equal to the length of the absence, up to a maximum of one
Religious	week. A student who notifies the instructor and completes any missed exam or
Holy Days	assignment may not be penalized for the absence. A student who fails to complete the
	exam or assignment within the prescribed period may receive a failing grade for that
	exam or assignment.
	If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious boly day] or if there is similar disagreement about whether the
	of observing a religious holy day] or if there is similar disagreement about whether the
	student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief
	examinations, either the student of the instructor may request a runing from the chief executive officer of the institution, or his or her designee. The chief executive officer or
	designee must take into account the legislative intent of TEC 51.911(b), and the student
	and instructor will abide by the decision of the chief executive officer or designee.
	and instructor win abide by the decision of the effect executive officer of designee.