

Jindal School of Management Course Syllabus Fall 2024

Course Information

Course Number:	OPRE 3360.002/ 006/ 007
Course Title:	Managerial Methods in Decision Making Under Uncertainty
Meeting Sec. 002:	Tues & Thurs, 1:00 pm-2:15 am, JSOM 2.106
Meeting Sec. 006:	Tues & Thurs, 10:00 am-11:15 am, JSOM 1.107
Meeting Sec. 007:	Thurs, 4:00 pm-6:45 pm, JSOM 12.212

Instructor Contact

Instructor:	Rasoul Ramezani
Email:	rasoul.ramezani@utdallas.edu
	Please write the course and the section number in the subject line.

Student Hours: Tuesdays, 4 pm - 6 pm, JSOM 3.427 Please feel free to drop in. If these hours don't work for you, please let me know, and we can find

another time to meet.

TA Contact

TA:	Nandhakumar Raj Shankar
Email:	nxs230038@utdallas.edu
Please write the course	e and the section number in the subject line.
Student Hours:	Wednesdays 10:00am to 12:00pm (online via MS Teams <u>Click Here</u>)

Pre-requisite and Co-requisites: None.

The topics discussed in this course are inherently mathematical. Although the level of math is not advanced, students are encouraged to explore supplementary resources early in the semester.

Course Description

This course introduces the concepts of probability and statistics for managerial decision-making. Concepts will be developed in lectures and exercises using software packages and topics, including summarizing and presenting data, probability theory, sampling, estimation, confidence intervals, hypothesis testing, regression, and ANOVA. Emphasis will be given to modeling and solving business problems in Finance, Marketing, Accounting, Operations Management, and other business areas.

Learning Objectives/Outcomes

As in any other statistics course, this class requires work outside the classroom. Active and informed participation is expected from every student. Keeping with the timeframe defined by the professor is critical for the success in this course.

Because reading is a major source of learning, students are expected to study this material as it is assigned. Though it shall vary from week to week, you should plan to spend an estimated 6 to 9 hours per week on this class. 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 conduct hypothesis tests to make inferences about populations.
- Be able to present data using Excel as an analytic tool.

Course Materials

- **Recommended Textbook:** Anderson et al. (2021). *Modern Business Statistics with Microsoft Excel* (7th Ed). ISBN-10: 1337115185; ISBN-13: 978-1337115186
- **Software:** Microsoft Excel

Communication

- **eLearning:** Class materials will be posted on the course page in eLearning. Please ensure you read the emails and announcements I send via eLearning.
- **Meetings:** We can meet regularly during the scheduled student hours (mentioned above) to discuss your questions.

То	nics	and	Tentative	Academic	and	Assignments	Calendar
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Week	Week of	Topics	Assignment	Due Date			
Week 1	Aug 19	Syllabus review, Syllabus Quiz Data and Statistics		Sep 15			
)	Sampling Techniques	HW 1				
Week 2	Aug 26	Tabular and Graphical Descriptives					
Week 3	Sep 2	Numerical Descriptives					
Week 4	Sep 9	Introduction to Probability					
Week 5	Sep 16	Tues: Exam 1 Review/ Q&A Session Exam 1: Online on eLearning between Sep 18 to	Sep 23 in the T	esting Center.			
Week 6	Sep 23	Discrete Probability Distribution		Oct 6			
Week 7	Sep 30	Continuous Probability Distributions	HW 2				
Week 8	Oct 7	Sampling Distributions					
Week 9	Oct 14	Tues: Exam 2 Review/ Q&A Session Exam 2: Online on eLearning between Oct 16 to Oct 21 in the Testing Center					
Week 10	Oct 21	Interval Estimation					
Week 11	Oct 28	Hypothesis Tests	HW 3	Nov 10			
Week 12	Nov 4	Analysis of Variance					
Week 13	Nov 11	Decreasion Analysis	HW 4				
Week 14	Nov 18	Regression Analysis	Peer	Dec 1			
Week 15	Nov 25	Fall Break – No Class	Evaluation				
Week 16	Dec 2	Exam 3: Online on eLearning between Dec 9 to 1	Dec 13 in the Te	esting Center.			

• Notes:

- 1. This timeline is tentative and may be adjusted. Lectures might overlap between classes.
- 2. Assignments are due by midnight on the specified date. These deadlines are set to help you achieve all course objectives by the end of the semester. Please plan to complete and submit all assignments on time. If you miss a deadline, you may submit up to 12 hours late for partial credit.

Grading

Assignments	Exam 1	Exam 2	Exam 3	Syllabus Quiz
30%	23%	23%	23%	1%

≥96	A+	86-89	B+	77-80	C+	67-70	D+	< 60	F
92-96	А	83-86	В	73-77	С	63-67	D		
89-92	A-	80-83	B-	70-73	C-	60-63	D-		

Course Policies

<u>Assignments</u>

- Four homework assignments, each carrying equal weight, will be assigned.
- Homework assignments should be completed in groups of five students.
- The instructor randomly assigns students to groups.
- Students are responsible for contacting their group members to arrange further details.
- All team members share collective responsibility for the assignments throughout the semester.
- Each team must designate a leader responsible for submitting the typed homework solutions in PDF format on e-learning.
- The final homework grade will be subject to peer evaluations at the end of the semester.
 - For example, if your team's average score on all assignments is 95, and you receive an average peer evaluation of 96%, your overall score for the homework assignments will be $95 \times 96\% = 91.2\%$.
 - Refer to the last page of this syllabus for a sample completed peer evaluation. The same form will be posted in Excel format on eLearning for you to download, complete, and submit.
 - If you miss the submission deadline, the self-evaluation score will be considered as 0 (in the last column).
 - You must include the members' names in the table. Failure to do so will result in a "no submission" status, as the given scores cannot be attributed to specific individuals.

<u>Exams</u>

- There will be three noncumulative exams.
- Exams will be administered online via eLearning at the testing center.
 - **Registration deadline:** Reserve a time slot at least 48 hours before your exam appointment at <u>UT Dallas Testing Center</u>.
 - **Check-in Time:** If your exam duration is, for example, 2 hours, you must arrive at least 2 hours before the Testing Center's closing time. Arriving later than this will prevent you from taking the test. If you receive extra time accommodations from the AccessAbility Resource Center, make sure to account for this additional time in your arrival plan.
- You can begin booking a seat at the testing centers as soon as the semester starts. Please do so as soon as possible.
- No makeup exams will be offered if you miss the booking deadlines, regardless of the reason.
- You are allowed to have one double-sided, handwritten A4 cheat sheet. Typed or photocopied cheat sheets are not permitted.
- You may use Excel during the exams.
- Online searches and any form of communication are prohibited during the exam.

- Traumatic events are unfortunate, and I understand how difficult these times can be. If you experience a traumatic event, I will gladly provide a makeup exam if you contact me within 24 hours.
- Grading claims must be made within one week of the return of the exam or assignment. Periods when the university is not in session will not count towards this week.

Classroom Citizenship:

Please ensure you manage your time to arrive promptly and stay until the end of each class. Maintain a respectful learning environment by refraining from talking and silencing your cell phones. Avoid inappropriate and disruptive behavior. For more information, refer to Section 49.07: Faculty Role in Removal for Misconduct at <u>UT Dallas Policy</u>.

University Policies

For information on a host of UTD course policies, see <u>http://go.utdallas.edu/syllabus-policies</u>. Several, but not all, of these policies are addressed in more detail below.

Nondiscrimination

UTD's Nondiscrimination Policy states that, "The University of Texas at Dallas is committed to providing an educational, living and working environment that is welcoming, respectful and inclusive of all members of the university community. An environment that is free of discrimination and harassment allows members of the university community to excel in their academic and professional careers. To that end, to the extent provided by applicable federal and state law, the University prohibits unlawful discrimination against a person because of their race, color, religion, sex (including pregnancy), national origin, age, disability, genetic information, or veteran status. The University's commitment to equal opportunity extends its nondiscrimination protections to include sexual orientation, gender expression and gender identity.

"Retaliation against a person who files a claim of discrimination, participates in a discrimination investigation or proceeding, or otherwise opposes an unlawful employment practice is prohibited.

"A person who believes that he or she has been subjected to discrimination or harassment in violation of this policy and seeks to take action may use either the informal resolution process or the formal complaint process, or both. The informal resolution and formal complaint process described in this policy are not mutually exclusive and neither is required as a pre-condition for choosing the other; however, they cannot both be used at the same time."

For the full policy statement, see <u>https://policy.utdallas.edu/utdbp3090</u>.

AccessAbility Services

It is the policy and practice of The University of Texas at Dallas to make reasonable disability-related accommodations and/or services for students with documented disabilities. However, written notification from the Office of Student AccessAbility (OSA) is required (see

http://www.utdallas.edu/studentaccess). If you are eligible to receive disability-related accommodations and/or services and to ensure accommodation will be in place when the academic semester begins, students are encouraged to submit documentation four to six weeks in advance. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact the Office of Student AccessAbility for a confidential discussion.

The Office of Student AccessAbility provides:

- a) Academic accommodations for eligible students with a documented permanent physical, mental or sensory disability
- b) Facilitation of non-academic and environmental accommodations and services

c) Resources and referral information, and advocacy support as necessary and appropriate.

OSA is located in the Student Services Building, suite 3.200. They can be reached by phone at 972-883-2098, or by email at <u>studentaccess@utdallas.edu</u>.

Academic Integrity

Students are expected to adhere to UTD's Student Code of Conduct:

Because the value of an academic degree depends on the absolute integrity and character of the student the university expects all students to maintain a high level of responsibility with respect to their behavior. As a member of the university community, it is imperative that a student maintain a high standard of individual responsibility and civility.

The dean may initiate disciplinary proceedings under Subchapter D against a student accused of a violation of the Code of Conduct upon complaint by a faculty member, a student or other source.

Academic dishonesty could result in disciplinary action from the university. Penalties could include receiving a grade of "F" for this course, expulsion or even the revocation of a degree. With respect to academic dishonesty, see Section 49.10 from the Student Code of Conduct (http://policy.utdallas.edu/utdsp5003), which includes:

- a) **Plagiarism:** The adoption or reproduction of ideas, words, statements, images or works of another person as one's own without proper acknowledgement.
- b) **Cheating:** Using or attempting to use unauthorized materials, information, or study aids in any academic exercise. Academic exercise includes all forms of work submitted for credit or hours.
- c) Fabrication: Falsification or creation of any information, data or citation in an academic exercise.
- d) **Collaboration and/or Collusion:** Seeking or providing aid to another student in completion of any assignment submitted for academic credit without permission from the faculty member.

Student Standards of Conduct

https://policy.utdallas.edu/utdsp5003

Cheating: Includes but is not limited to the use, attempted use, or providing of unauthorized materials, information, or study aids in any academic exercise; the use of sources beyond those authorized by the instructor in completing any academic exercise. Any type of discussion about questions and answers on assignments/tests, including those held in social media platforms and other electronic chat groups, may be considered cheating. Failure to submit a test within the timeframe allocated by the professor, whether in the classroom or in the University testing center, may be considered cheating. Academic exercise includes all forms of work submitted for credit or hours.

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 the course syllabus.

Please go to UT Dallas Syllabus Policies webpage for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.

Appendix: Peer Evaluation Form for Group Homework

OPRE 3360 – Managerial Methods in Decision Making Under Uncertainty

Instructions: The information submitted is final and cannot be changed. So please rate each of your fellow team members with respect to the criteria listed in the table below. Be honest, reasonable, and fair.

Group number: _____

	Amy Becker	Chris Drake	Eileen Flay	Gene Hanks	Yourself
Meeting attendance (15%)	13%	15%	15%	14%	15%
Punctuality of work (15%)	13%	15%	14%	15%	13%
Fair share of work (30%)	28%	30%	26%	27%	29%
Quality of work (40%)	34%	40%	40%	35%	36%
Total (100%)	88%	100%	95%	91%	93%

Name: _____

Date: _____

Comments: