

The University of Texas at Dallas Jindal School of Management
Course Syllabus
Spring 2024

Course Information

Course Number: OPRE 3360.501

Course Title: Managerial Methods in Decision Making Under Uncertainty

Class Meeting: Monday, 7:00-9:45 p.m.

Class Location: JSOM 2.115

Instructor Contact Information

Instructor: Mike Hegedus

Email: mgh230001@utdallas.edu

Please write the course and the section number in the subject line.

Student Hours: Monday, 3 pm – 5 pm, Schedule (via email) a Teams Meeting

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 Information

TA: None

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.

Student 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

- 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: I post the class materials on the course page in eLearning. Please read the emails I send via eLearning and the announcements I post on eLearning.
- Meetings: We can meet regularly during student hours (mentioned above) to discuss your questions. Please consider these meetings as conversations instead of Q&A sessions.

Topics and Tentative Academic and Assignments Calendar

Note: This timeline is tentative and subject to change. Lectures may overlap from one class to the next.

Week	Date	Topics	Homework
1	1/22/24	Introduction, Data and Statistics, Sampling Techniques, Graphical Descriptive Statistics	
2	1/29/24	Descriptive Statistics - Numerical	HW1
3	2/5/24	Introduction to Probability	HW2
4	2/12/24	Discrete Probability Distributions	HW3
5	2/19/24	Exam Review and Exam I	HW4
6	2/26/24	Discrete Probability Distributions	
7	3/4/24	Continuous Probability Distributions	HW5
8	3/11/24	Spring Break	
9	3/18/24	Sampling Distributions	HW6
10	3/25/25	Exam Review and Exam II	HW7
11	4/1/24	Interval Estimation	
12	4/8/24	Hypothesis Testing	HW8
13	4/15/24	Analysis of Variance	HW9

14	4/22/24	Simple Linear Regression	HW10
15	4/29/24	Multiple Linear Regression	HW11
16	5/6/24	Final Exam	

• *Note: The assignments are due at midnight on the day before class. If you miss the deadline, you could submit by no later than 12 hours after the due date for partial credits.*

Grading Policy

Attendance	2%
Exam 1	26%
Exam 2	26%
Final Exam	26%
Assignments	20%

Grading Scale

≥ 96	A+	86-89	B+	77-80	C+	67-70	D+
92-96	A	83-86	B	73-77	C	63-67	D
89-92	A-	80-83	B-	70-73	C-	60-63	D-

Course Policies

Homework Assignments

- Homework assignments will be given weekly via eLearning.
- Students are encouraged to work in groups, but each student is required to submit their results individually.
- Students should sign up for a group on the course homepage on eLearning.

Exams

- Three noncumulative exams will be given.
- Exams will be given online in eLearning in class or in the testing center.
 - Registration deadline: You reserve a time slot no later than 48 hours before the exam appointment time at <https://ets.utdallas.edu/testing-center/students/>

- Please note that no makeup exam (in any form) is offered if you miss the booking deadline.
- The types of questions to be asked in the test include but are not limited to, multiple-choice, fill-in-the-blank, and short-answers.
- You can have one double-sided A4 cheat sheet.
- You can use Excel during the exam.
- No online search and communication in any form during the exam are allowed.
- Traumatic events are unwelcome, and because I understand how difficult these times are, if you contact me within 24 hours of the event, I will be happy to give you a makeup exam.

Final Note: Claims against grading can only be made for one week following the return of the exam or assignment. Periods when the university is not holding classes will not count towards this week.

Class Attendance

Regular and punctual class attendance is expected. To get the most out of this class, you must attend regularly. 2% of your final grade is based on attendance and requires a 75% attendance rate to earn it..

Class Participation

Regular class participation is expected regardless of course modality. Students who fail to participate in class regularly are inviting scholastic difficulty. Class participation is documented by faculty. Successful participation is defined as consistently adhering to university requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

Classroom Citizenship:

- Coming on time and leaving at the end. No talking please. No cell phones in class, please.
- Any inappropriate and disruptive behavior will be referred to the dean. See Section 49.07: Faculty Role in Removal for Misconduct at <https://policy.utdallas.edu/utdsp5003>

University Policies

For information on a host of UTD course policies, see <http://go.utdallas.edu/syllabus-policies>. 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 Course syllabus Page 5 of 7 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 <https://policy.utdallas.edu/utdbp3090>.

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 accommodations 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 studentaccess@utdallas.edu.

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.

Section C. 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 [Academic Support Resources](#) 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.