



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

NOTE: **Any** course material (such as lecture notes, spreadsheets, HW and HW solutions, video presentation, course codes, syllabus, etc.) provided by the instructor are for registered students' use only. These materials **MUST** not be reproduced or shared with those not in class or uploaded to other online platforms 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](#).

### Course Information

**Course Number:** OPRE 6301.5U1 / SYSM 6303.5U1  
**Course Title:** Statistics and Data Analysis  
**Term:** Summer 2021  
**Class Meeting:** Wednesdays, 6pm-10pm, Virtually via MS Teams

### Instructor Contact Information

**Instructor:** Rasoul Ramezani  
**Email:** [rasoul.ramezani@utdallas.edu](mailto:rasoul.ramezani@utdallas.edu), Please write the course and the section number on the subject line.  
**Office Hours:** Mon/Thurs 10am – 12pm, conducted virtually in MS Teams.

### TA Contact Information

**TA:** Amin Farzaneh  
**Email:** [mohammadamin.farzaneh@utdallas.edu](mailto:mohammadamin.farzaneh@utdallas.edu), Please write the course and the section number on the subject line.  
**Office Hours:** Tues/Fri 10am – 12pm, conducted virtually in MS Teams.

## Course Modality and Expectations

<b>Instructional Modality</b>	Remote/ Virtual Learning
<b>Course Platform</b>	Lectures will be delivered remotely. Students must join the class team in MS Teams (OPRE 6301.5U1/ SYSM 6303.5U1). The professor will conduct the class and record it in Microsoft Teams. For asynchronous access to presentations, class videos will be posted on MS Stream within 24 to 48 hours after the class is conducted. An access link will be provided to the class on eLearning.
<b>Expectations</b>	Students must connect during the class time and participate. It is expected that you turn on your camera and be engaged during the presentation of the material. To get the best out of the class, you should take advantage of the class time and ask questions as we move forward. Students are expected to conduct themselves with responsibility and class decorum during our weekly meetings. Any violation to <a href="#">Student Code of Conduct</a> will be referred to Dean of Students Office.
<b>Asynchronous Learning Guidelines</b>	Students may decide to attend the class asynchronously, that means, not attending the class on the scheduled time. If so, they would need to review the video presentations and course materials on their own. For more information see <a href="https://www.utdallas.edu/covid/response/faq/">https://www.utdallas.edu/covid/response/faq/</a>

## 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 Attendance

Regular and punctual class attendance is expected regardless of modality. Our class is Remote, so we expect to meet remotely during class time.

## 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](#).

## Class Recordings

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. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

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](#).

## Course Materials

- **Required Textbook:**

1. Keller, G. (2017). *Statistics for Management and Economics (11<sup>th</sup> Ed)*. ISBN-10:1337296945; ISBN-13: 978-1337296946

- **Required Software and Downloads:** Microsoft Excel

1. Data Analysis Add-In
2. **Statistics for Management and Economics + XLSTAT Bind-in**  
Excel files to solve assigned problems are available at [http://www.cengage.com/cgi-wadsworth/course\\_products\\_wp.pl?fid=M20b&product\\_isbn\\_issn=9781337093453&token](http://www.cengage.com/cgi-wadsworth/course_products_wp.pl?fid=M20b&product_isbn_issn=9781337093453&token)

## Communication

- **eLearning:** Students should have access to the course eLearning webpage and should regularly check the email account used with eLearning as well as *announcements* posted on eLearning. Lecture notes, assignments, assignments solution, reading assignments, practice questions, etc. are posted on eLearning.
- **Microsoft Stream:** Recorded lectures for asynchronous access will be uploaded into the Course group in Microsoft Stream. To access the video presentations,
  - *Log in to your Microsoft Stream account, using you UTD credentials at <https://web.microsoftstream.com/> => My Content => Group => OPRE 6301.5U1 / SYSM 6301.5U1*
- **Discussion Board:** Questions that are not personal should be posted to the course Discussion Board on eLearning. The instructor will receive these questions and comments, as well as other class members. Questions of a personal nature (or not relevant to others in the class) should be sent directly to the instructor and not posted to the Discussion Board.

Students are encouraged to respond to questions from fellow students. Answering questions helps both the student asking the question and the student working on the answer. In addition, since the conversation is open to the entire class, others can also learn from the exchange.

Follow the below steps to subscribe to the discussion board:

*Log in to e-Learning => select OPRE 6301.5U1 / SYSM 6301.5U1 from Course List => from the Course Menu, select Discussion Board => Click on the "Questions/Comments" forum => Click on Subscribe*

- **Online Meetings:** Online appointments will be conducted via Microsoft Teams. I will also ask you questions during the office hours. So, you should be well-prepared before attending the meetings.

## Course Description

This course is an introduction to statistical and probabilistic methods and theory applicable to situations faced by managers. Topics include: data presentation and summarization, regression analysis, fundamental probability theory and random variables, introductory decision analysis, estimation, confidence intervals, hypothesis testing, and ANOVA. The aim of the course is for the students to develop skills on problem formulation, identification of statistical techniques, computer implementation in Excel, and interpretation of results.

## Student Learning Objectives/Outcomes

Active and informed participation is expected from every student. Class sessions will consist primarily of lecture, with some discussions and in-class exercises as appropriate to the topic being covered. Textbook

readings are a major source of learning in this course. Therefore, students are expected to read the appropriate textbook chapters in preparation for exams. Students should expect to spend an average of 9 to 12 hours per week on class preparation and studying activities outside of class meetings.

Learning outcomes – upon completion of this course, students will be able to accomplish the following:

1. Organize and summarize raw data;
2. Build and evaluate a regression model from raw data;
3. Apply the basic rules of Probability Theory;
4. Apply the concept of a random variable to solve business problems;
5. Apply the Normal, Poisson, and Binomial Distributions to solve business problems;
6. Identify significant changes in averages and proportions;
7. Determine if two populations have the same mean or the same proportion;
8. Determine if several populations have the same mean.

### Topics and Tentative Academic and Assignments Calendar

*Please note that the timelines below are tentative and subject to change. Lectures and assigned readings may overlap from one class to the next.*

Week 1	May 24	Syllabus review Ch 2: Graphical Descriptive Techniques I Ch 3: Graphical Descriptive Techniques II
Week 2	May 31	Ch 4: Numerical Descriptive Techniques Ch 5: Data Collection and Sampling
Week 3	Jun 7	Ch 6: Probability Ch 7: Random Variables and Discrete Probability Distributions
Week 4	Jun 14	Ch 7 ( <i>continue</i> ) Ch 8: Continuous Probability Distributions
<b>Week 5</b>	<b>Jun 21</b>	<b>Exam 1 (covers materials from week 1 – week 4)</b>
Week 6	Jun 28	Ch 9: Sampling Distributions
Week 7	Jul 5	Ch 10: Introduction to Estimation Ch 11: Introduction to Hypothesis Testing
Week 8	Jul 12	Ch 12: Inference about One Population Ch 13: Inference about Two Populations
Week 9	Jul 19	Ch 14: Analysis of Variance (ANOVA) Ch 16: Simple Linear Regression
Week 10	Jul 26	Ch 16: Simple Linear Regression (con't) Ch 17: Multiple Linear Regression
<b>Week 11</b>	<b>Aug 2</b>	<b>Exam 3 (covers materials from week 6 – week 10)</b>

### Grading Policy

Assignments	25%
Exam 1	35%
Exam 2	40%

## Grading Scale

≥ 91	A	83-86	B	70-75	C
89-91	A-	79-83	B-	< 70	F
86-89	B+	75-79	C+		

## Important Dates

Assignments /Exam	Date/Due date	Comments
Assignment 1	Jun 9	Due at 6 pm
Assignment 2	Jun 16	Due at 6 pm
Assignment 3	Jun 23	Due at 12 pm
<a href="#">Exam 1</a>	<a href="#">Jun 23</a>	<a href="#">Given online in eLearning.</a>
Assignment 4	Jul 7	Due at 6 pm
Assignment 5	Jul 14	Due at 6 pm
Assignment 6	Jul 21	Due at 6 pm
Assignment 7	Jul 28	Due at 6 pm
Assignment 8	Aug 4	Due at 12 pm
<a href="#">Exam 2</a>	<a href="#">Aug 4</a>	<a href="#">Given online in eLearning.</a>

- Assignment 3 and 8 are due at 12 pm since I want students to have HWs' solution before the test.
- Exams will be made available at the beginning of the class time on the scheduled day.

## Course Policies

### Homework Assignments

- Students are allowed to work in groups of maximum three on homework assignments.
- Only one submission per group is required. Solutions must be submitted into eLearning.
- Group's members name must be clearly typed on the solution's cover page. Otherwise, the missing name would not receive any credits.
- All typed solutions (converted to pdf) must be submitted via eLearning by the deadline.
- No late submission will be accepted, no matter what. If you miss the deadline (for any reason) and ask me for a late submission, I will refer you here!
- No solution will be accepted via email.
- Please do not email me asking if your answer to a question is correct.
- All general questions regarding assignments must be posted on the course Discussion Board. I will not respond to emails asking questions about assignments.

### Exams

- Two noncumulative exams will be given, with exam 1 accounting for 35 percent of the overall grade and exam 2 accounting for 40 percent of the overall grade.
- Exams will be given online via eLearning.
- Exams will cover material from the textbook, instructor's lectures, handouts, and homework.
- If you miss an exam without a properly documented excuse conforming to university policy, your grade will be zero for the missed exam(s).

- Make-up exams are offered only for legitimate and documented reasons, such as documented illness or family emergencies.
- Under no circumstances will a make-up exam be offered because a student is going on a trip or conducting other personal business.
- **Any action beyond what are allowed during the test is considered cheating and will be referred to Dean of Students Office. See below.**

### **Extra Credits**

I reserve the right to reward students who engage in the discussion board's activities (such as asking questions, answering both my and fellow classmates' questions, providing comments and suggestions, etc.) by raising their final grade by a maximum of half a letter grade.

**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.*

### **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 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](mailto: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.

## 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.***