



Course EPPS 2302.003
Course Title Methods of Quantitative Analysis in the Social and Policy Sciences
Instructor Seongdeok Oh
Term Fall, 2022
Meetings M/W 11:30am – 12:45pm, SCI 3.240

Instructor's Contact Information

Office Location GR 2.512
Email Address Seongdeok.Oh@UTDallas.edu
Office Hours M/W 2:00–3:00 PM, virtual via Microsoft Teams. In addition, I am available by appointment at a mutually agreeable time.

Course Description

The course introduces basic concepts and methods of statistical analysis used in different social and policy science research fields to understand better human relationships and the impacts of government action on them. Topics include data description, using probability to assess the reasonableness of claims about the world based on sample data, exploring cause-effect interactions through regression models, and applying software to ease visualization and calculation. Students completing this course will be good consumers of statistical information and have a solid foundation for further study of quantitative analysis.

NOTE: EPPS 2302 is required for all School of Economic, Political and Policy Sciences majors.

General Course Information

Prerequisites, Co-requisites, & other restrictions No prerequisites, but comfort with mathematic operations at a college level is strongly encouraged.

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- Learning Outcomes**
- Describe and visualize data.
 - Understand and apply basic statistical concepts such as a population, a sample, a sampling distribution, a probability distribution.
 - Formulate hypotheses and examine them appropriately.
 - Understand how to use regression analysis.
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Required Texts & Materials

- Sullivan (2021). *Statistics: Informed Decisions Using Data*; 6th ed.; Pearson. ISBN 978-0-136-66210-5. This ISBN is the only suitable version as it contains access to online resources.
- While we won't be working with large sets of numbers, the involved math will be sufficiently complex to require a calculator. Sophisticated, expensive graphing or programmable calculators are not necessary and will be of no use to you. Any calculator with the ability to take logs, exponents, factorials, and powers should suffice. For example, the TI-36X Pro is widely available and retails for under \$30.

Assignments & Academic Calendar

Week	Material
1: 8/22 & 8/24	Data Collection Read: Chapter 1
2: 8/29 & 8/31	Organizing and Summarizing Data Read & Watch: Chapter 2 Quiz 1 Due by 8/29 11:59 PM
3: 9/5 & 9/7	Numerically Summarize Data No Class 9/5 (Labor Day) Read & Watch: Chapter 3 Quiz 2 Due by 9/5 11:59 PM
4: 9/12 & 9/14	Describing the Relation Between Two Variables Read & Watch: Chapter 4 Quiz 3 Due by 9/19 11:59 PM
5: 9/19 & 9/21	Probability Read & Watch: Chapter 5 Quiz 4 Due by 9/26 11:59 PM
6: 9/26 & 9/28	Discrete Probability Distributions Read & Watch: Chapter 6 Quiz 5 Due by 10/3 11:59 PM
7: 10/3 & 10/5	The Normal Probability Distribution Read & Watch: Chapter 7 Quiz 6 Due by 10/10 11:59 PM
8: 10/10 & 10/12	Sampling Distributions Read & Watch: Chapter 8 Quiz 7 Due by 10/17 11:59 PM
9: 10/17 & 10/19	Estimating the Value of a Parameter Read & Watch: Chapter 9 Quiz 8 Due by 10/24 11:59 PM
10: 10/24 & 10/26	Hypothesis Tests Regarding a Parameter Read & Watch: Chapter 10 Quiz 9 Due by 10/31 11:59 PM
11: 10/31 & 11/2	Inferences on Two Population Parameters Read & Watch: Chapter 11 Quiz 10 Due by 11/7 11:59 PM
12: 11/7 & 11/9	Inference on a Categorical Variable Read & Watch: Chapter 12 Quiz 11 Due by 11/14 11:59 PM
13: 11/14 & 11/16	Comparing Three or More Means Read & Watch: Chapter 13 Quiz 12 Due by 11/21 11:59 PM
14: 11/21 & 11/23	Fall Break – No Class
15: 11/28 & 11/30	Inference on Least-Squares Regression Model & Mult. Regression Read & Watch: Chapter 14 Quiz 13 Due by 12/5 11:59 PM Quiz 14 Due by 12/5 11:59 PM
16: 12/5 & 12/7	Nonparametric Statistics Read & Watch: Chapter 15 Quiz 15 Due by 12/12 11:59 PM
17: 12/12-12/16	Final Exam (Online) Due by 12/16 11:59 PM

Course Policies

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](#).

Classroom Conduct Requirements Related to Public Health Measures

UT Dallas will follow the public health and safety guidelines put forth by the Centers for Disease Control and Prevention (CDC), the Texas Department of State Health Services (DSHS), and local public health agencies that are in effect at that time during the Spring 2022 semester to the extent allowed by state governance. Texas Governor Greg Abbott's Executive Order [GA-38](#) prohibits us from mandating vaccines and face coverings for UT Dallas employees, students, and members of the public on campus. However, we strongly encourage all Comets to get vaccinated and wear face coverings as recommended by the CDC. Check the [Comets United: Latest Updates webpage](#) for the latest guidance on the University's public health measures. Comets are expected to carry out [Student Safety](#) protocols in adherence to the Comet Commitment. Unvaccinated Comets will be expected to complete the [Required Daily Health Screening](#). Those students who do not comply will be referred to the Office of Community Standards and Conduct for disciplinary action under the [Student Code of Conduct – UTSP5003](#).

Class Attendance

The University's attendance policy requirement is that individual faculty set their course attendance requirements. Regular and punctual class attendance is expected. Students who fail to attend class regularly are inviting scholastic difficulty. To encourage attendance, you will receive 30 points for your regular attendance. Absences due to University-required COVID-19 isolation will not count against your grade.

Class Participation

Regular class participation is expected. Students who fail to participate in class regularly are inviting scholastic difficulty. A portion of the grade for this course is directly tied to your participation in this class. It also includes engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures (and/or labs). 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. These recordings will be made available to all students registered for this class if the intent is to supplement the classroom experience. 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.

Communication Student will be responsible for all information communicated in class. Information will also be communicated via email, eLearning announcements, and other information posted on eLearning. To be successful, students must regularly attend class, check email, and stay up to date on eLearning information. Please remember that I can **only respond to UTD email accounts**. All official student email correspondence will be sent only to a student's UTD email address and UTD will only consider email requests originating from an official UTD student email account.

	Item	Points	Total
Grading Criteria	Best 12 of 15 Quizzes	60 Points	720 Points
	Attendance	30 Points	30 Points
	Final Exam	250 Points	250 Points
	Total		1,000 Points

Grading Scale	A-: 90%–92%	A: 93% & Up	
	B-: 80%–82%	B: 83%–86%	B+: 87%–89%
	C-: 70%–72%	C: 73%–76%	C+: 77%–79%
		F: Under 70%	

The Flipped Classroom Model

This course uses the flipped classroom model. Materials for each week will be made available Monday at 8:00 AM. Beginning with Chapter 2, you will find three or more 10-minute videos that explain core course concepts. Please watch these videos before coming to class on Monday.

We will use our time in class to review the techniques included in the videos and apply them to real-world problems. This will be a hands-on, exercise-oriented class session. If you prepare by watching the videos, you will get more out of your time in the classroom.

Course Activities

Online Quizzes

Our material each week will start on a Monday. The quiz over that material will be due by 11:59 PM on the following Monday.

1. You may begin this quiz at any time after the week's material is released.
 2. You may make unlimited attempts on the quiz. Your highest grade will be recorded.
 3. You have as long as you need to complete the quiz, but you must complete it by 11:59 PM on the due date.
 4. Your best 12 of 15 quizzes will count toward your final grade.
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	<p><i>Open Book</i></p> <p>In the real world, your employer will not ask you to perform statistical calculation “without referring to your notes;” neither will I. Your quizzes and the final exam will be open note / open book. Resist the temptation to think these will be easy. Open book tests are generally harder because the answer is not in the book.</p> <p>While you may rely liberally on your notes and text for exams, you may not rely on your classmates or any other external material (see Incorporation of University Policies).</p> <p><i>Showing Your Work & Partial Credit</i></p> <p>All quizzes and exams for this class must show all steps (i.e., all calculations) where space is allotted. To receive any credit for an answer, all work must be shown where space is allocated.</p> <p>Provided you have shown your work, your answer will be considered correct within a rounding error of the answer I have calculated on the key.</p>
Make-up Exams	You may miss up to three of the 15 chapter quizzes with no penalty; thus, no make-up work is permitted for missed chapter quizzes. Should you encounter an emergency that challenges your ability to meet these dates, please reach out to the Instructor ASAP.
Extra Credit	Grades in this class are based on the work that you do. There will be NO end-of-semester extra-credit assignments made on an individual student basis.
Late Work	As a general rule, late work will not be accepted. Should you encounter an emergency that challenges your ability to meet these dates, please reach out to the Instructor ASAP.
Special Assignments	There will be no special assignments.
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.
Sharing confidential information	Students considering sharing personal information in email, in person, or within assignments or exams should be aware that faculty members and teaching associates/assistants and graduate/research assistants are required by UT Dallas policy to report information about sexual misconduct to the UT Dallas Title IX Coordinator. Per university policy, Prohibited Discrimination and Sexual Harassment Sexual Misconduct Policy - UTDBP3102, faculty have been informed that they must identify the student to the UT Dallas Title IX Coordinator. Students who wish to have confidential discussions of incidents related to sexual harassment or sexual misconduct should contact the Student Counseling Center (972-883-2575 or the 24/7 Crisis Hotline at 972-UTD-TALK or 972-883-8255), the Galerstein Gender Center (972-883-6555), a health care provider in the Student Health Center (972-883-2747), the clergyperson (or other

legally recognized religious advisor) of their choice, or an off-campus resource (i.e., rape crisis center, doctor, psychologist). Students who are sexually assaulted, harassed, or victims of sexual misconduct, domestic violence, or stalking, are encouraged to directly report these incidents to the UT Dallas Police Department at 972-883-2222 or to the Title IX Coordinator at 972-883-2306. Additional information and resources may be found at <http://www.utdallas.edu/oiec/title-ix/resources>.

Sexual misconduct

UTD prohibits sexual misconduct as defined in the University Policy Statement. The University will promptly discipline any individuals or organizations within its control who violate this policy. If you or someone you know has been sexually assaulted, harassed, or been a victim of relationship violence or stalking, you can find the appropriate resources here: <https://institutional-initiatives.utdallas.edu/title-ix/> . Students considering sharing personal information in email, in person, or within assignments or exams should be aware that faculty members and teaching associates/assistants and graduate/research assistants are required by UTD policy to report information about sexual misconduct to the UTD Title IX Coordinator. Per university policy, Sexual Misconduct Policy - UTDBP3102, faculty have been informed that they must identify the student to the UTD Title IX Coordinator. Students who wish to have confidential discussions of incidents related to sexual harassment or sexual misconduct should contact the Student Counseling Center (972-883-2575 or the 24/7 Crisis Hotline at 972-UTD-TALK or 972-883-8255), the, a health care provider in the Student Health Center (972-883-2747), a clergy person (or other legally recognized religious advisor) of their choice, or an off-campus resource (e.g., rape crisis center, doctor, psychologist). Students who are sexually assaulted, harassed, or are victims of sexual misconduct, domestic violence, or stalking, are encouraged to directly report these incidents to the UTD Police Department at 972-883-2222 or to the Title IX Coordinator at 972-883-5202. Additional information and resources may be found at <https://institutional-initiatives.utdallas.edu/title-ix/>.

Accommodations for persons with disabilities

It is the policy and practice of UTD to make reasonable accommodations for students with properly documented disabilities. If you are a student with a disability and believe you will need academic accommodations for this class, you are encouraged to register with the Office of Student Accessibility (OSA). Some aspects of the course, the assignments, the in-class activities, and the way the course is typically taught may be accommodated to facilitate your participation and progress. OSA will assist you in determining academic accommodations that are appropriate for your situation. Any information you provide is private and confidential and will be treated as such. To avoid any delay, please contact OSA as soon as possible. Please note that accommodations are not retroactive and disability accommodations cannot be provided until an OSA Letter of Accommodation has been given to the instructor. 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 OSA for a confidential discussion. OSA is located in the Student Services Building, AD 2.224 They can be reached by phone at 972-883-2098, or by email at studentaccess@utdallas.edu

Mental Health Service	<p>The fact the time we live in, especially with the public health crisis and COVID-19, can produce anxiety and distress in students. This is a gentle reminder that you have mental health services available to you on campus. Students experiencing anxiety or distress, either from the topics discussed in this class or from other stressors, are encouraged to seek self-care via the on-campus services provided: Student Counseling Center Phone: 972-883-2575 Location: Student Services Building SSB 4.600 If you are having a mental health crisis you can call the 972-UTD-TALK or 911 24 hrs a day/7 day a week</p>
Academic Integrity	<p>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. See https://www.utdallas.edu/conduct/integrity/.</p>
Academic Dishonesty	<p>Academic dishonesty can occur in relation to any type of work submitted for academic credit or as a requirement for a class. It can include individual work or a group project. Academic dishonesty includes plagiarism, cheating, fabrication, and collaboration/collusion. In order to avoid academic dishonesty, it is important for students to fully understand the expectations of their professors. This is best accomplished through asking clarifying questions if an individual does not completely understand the requirements of an assignment. Additional information related to academic dishonesty and tips on how to avoid dishonesty may be found here: https://www.utdallas.edu/conduct/dishonesty/.</p>
Comet Creed	<p><i>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:</i></p> <p><i>“As a Comet, I pledge honesty, integrity, and service in all that I do.”</i></p>
Academic Support Resources	<p><i>The information contained in the following link lists the University’s academic support resources for all students.</i></p> <p><i>Please go to http://go.utdallas.edu/academic-support-resources.</i></p>
UT Dallas Syllabus Policies and Procedures	<p><i>The information contained in the following link constitutes the University’s policies and procedures segment of the course syllabus. Please review the sections regarding the credit/no credit grading option and withdrawal from class.</i></p> <p><i>Please go to http://go.utdallas.edu/syllabus-policies for these policies.</i></p>

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