



**ECON 3373: Introduction to Econometrics**

**Course Syllabus**

**Rhet Smith**

**Spring 2024**

**CRN: 22242**

**Class time and Location:** TR, 9:00-10:20 AM, BUSN 321

**Email:** [rasmith4@utep.edu](mailto:rasmith4@utep.edu)

**Office:** BUSN 220, Zoom






**Office Hours:** TR, 12:00 PM – 2:30 PM; by appointment

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

**Course Description:**

This course provides an introduction to econometrics. Topics to be covered include basic probability, hypothesis testing, linear regression analysis, regression procedures under different conditions, panel data, binary data, and time series analysis.

**Course Objectives and Learning Outcomes:**

<u>Student Learning Objective</u>	<u>Outcome</u>
Test hypotheses and construct confidence intervals for the difference in population means and proportions for large and small samples by stating the null and alternative hypothesis, calculating the test statistic, calculating the critical value, and drawing a correct conclusion concerning the null hypothesis.	 Critical Thinking Skills
Apply the supply and demand model to real-world examples. Calculate and interpret the meaning of an elasticity coefficient.	 Entrepreneurship
Use spreadsheets (Excel, Stata) for examining data. Apply suitable traditional quantitative methods for both gaining insights from historical data as well as predicting possible future outcomes.	 Problem Solving
Develop and evaluate multiple regression models, determine how well an estimated model summarizes the data, develop nonlinear relationships, and calculate the effects of qualitative variables. Build statistical models based on objective criteria such as R <sup>2</sup> .	 Problem Solving
Learn to apply economic reasoning to questions and ideas that traditionally are not viewed as economic issues and ultimately present these ideas to classmates from an economic perspective.	 Communication Skills

## Prerequisites:

Prerequisite: ECON 2303 and ECON 2304 with a grade of “C” or better

## Course Materials:

1. **Textbook** (Optional): *Introduction to Econometrics*, 4<sup>th</sup> Edition, Stock & Watson; Pearson
2. **Stata**: student version. For this class the BE edition should be more than sufficient. 6 months of access is \$48. Otherwise, Stata is available in the computer labs. We will also occasionally use excel.

## Grading Policy:

- Your grade will be determined as follows:

-Chapter Homework	15%
-Quizzes	15%
-Research Project	55%
-Final Exam	10%
-Attendance/Participation	5%
- Grading Scale:

▪ A = 90-100%	▪ D = 60-69.99%
▪ B = 80-89.99%	▪ F = Below 60%
▪ C = 70-79.99%	

However, I reserve the right to adjust the grading scale.

## Homework:

There will be a total of 3 homework assignments that accompany the material covered in class. These assignments will vary in content and difficulty, and, depending on content, will be submitted to the instructor either during class or via email ([rasmith4@utep.edu](mailto:rasmith4@utep.edu)). There will be 4 in-class quizzes. These quizzes will be administered at the end of the scheduled class. The lowest quiz score will be dropped. I do not accept late assignments or offer make-up dates for missed quizzes.

The majority of students’ grades will be determined by the research project. This research project will be broken down into smaller assignments that will build off the previous assignment. The breakdown is as follows:

- 1) **Research Question Assignment (10%)**: Each individual student will come up with and clearly articulate 3 potential research questions. Accompanying each question, students will write a short paragraph describing why this question is important (why should your audience care?), and how you aim to answer that question (e.g. speculate potential data sources, policy/law changes that you could use to shed light on your question).
- 2) **Annotated References (10%)**: Many research questions have been asked already. An important aspect of research is understanding what has already been done and how your work can complement the existing research. Students will find approximately 7 academic articles that relate to their topic and then write 7 paragraphs describing the specific

research question, how the researchers answer that question (e.g. data sets and econometric techniques used), and the findings.

- 3) Data set discussion (10%): Students will present and discuss their data set to the class. Specifically, students will detail a data set, what type of information is available over what time period, limitations to the data, and where to access the data. Often, these descriptions are explicitly mentioned on the websites where the data are. Please restrain from copying and pasting those paragraphs.
- 4) Final Paper and presentation (25%): Combine the previous written assignments into a single document. Incorporate an estimation strategy, results, and conclusion to complete the written project. Present your findings to the class in a short (15-20 minute presentation).

Note: 1) is an individual student project. After 1), groups will be formed to complete the rest of the tasks. Group size will be determined by the instructor.

### **Attendance Policy:**

Notice attendance and participation account for 5% of your grade. This is a very involved class where simply showing up is not sufficient. Participating, asking questions, and offering comments improve the quality of the class and learning for everyone. This does not mean that you cannot miss a class or that you need to ask questions for the sake of asking questions, it just means that students are expected to be present and engaged (not working on other homework or on their phones).

According to UTEP Catalog, “At the discretion of the instructor, a student can be dropped from a course because of excessive absences or lack of effort. A grade of “W” will be assigned before the course drop deadline and a grade of “F” after the course drop deadline.” See Policies and Regulations in the UTEP Undergraduate Catalog for a list of excuse absences. Therefore, if I find that, due to non-performance in the course, you are at risk of failing, I will drop you from the course. I will provide 24 hours advance notice via email.

### **Exams:**

There will be one comprehensive final exam. It will likely be administered via blackboard over a given time period that includes the time that our final exam is explicitly scheduled by UTEP’s academic calendar. Exam dates are non-negotiable and no make-up exams will be given.

### **Academic Honesty Policy**

Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as ones' own. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the Office of Student Conduct and Conflict Resolution (OSCCR) for possible disciplinary action. To learn more, please visit HOOP: Student Conduct and Discipline.

## Guidance on Artificial Intelligence

The use of generative AI tools such as Chat GPT is discouraged in this course.

Students must cite any borrowed content sources to comply with all applicable citation guidelines, copyright law, and avoid plagiarism. Instances that violate these guidelines will be referred to the Office of Student Conduct and Conflict Resolution.

## Students with Disabilities and other Course Resources

The Center for Accommodations and Support Services (CASS) aspires to provide students with disabilities, accommodations, and support services to help them pursue their academic, graduation, and career goals. If you have a disability and believe you may need services, you are encouraged to contact the center to discuss your needs with a counselor. All discussions and documentation are kept confidential. Contact: Monday through Friday 8:00 am - 5:00 pm Phone: (915) 747-5148. Location: Union Building East Room 106. E-mail: [cass@utep.edu](mailto:cass@utep.edu)

### Technology Resources

- [Help Desk](#): Students experiencing technological challenges (email, Blackboard, software, etc.) can submit a ticket to the UTEP Helpdesk for assistance. Contact the Helpdesk via phone, email, chat, website, or in person if on campus.

### Academic Resources

- [UTEP Library](#): Access a wide range of resources including online, full-text access to thousands of journals and eBooks plus reference service and librarian assistance for enrolled students.
- [University Writing Center \(UWC\)](#): Submit papers here for assistance with writing style and formatting, ask a tutor for help and explore other writing resources.
- [Math Tutoring Center \(MaRCS\)](#): Ask a tutor for help and explore other available math resources.
- [History Tutoring Center \(HTC\)](#): Receive assistance with writing history papers, get help from a tutor and explore other history resources.
- [RefWorks](#): A bibliographic citation tool; check out the RefWorks tutorial and Fact Sheet and Quick-Start Guide.

### Individual Resources

- [Student Success Help Desk \(SSHD\)](#): Students experiencing challenges or obstacles to academic success including registration, financial, food, housing, and transportation resources may submit a ticket request assistance to [studentsuccess@utep.edu](mailto:studentsuccess@utep.edu)
- [Military Student Success Center](#): Assists personnel in any branch of service to reach their educational goals.
- [Center for Accommodations and Support Services](#): Assists students with ADA-related accommodations for coursework, housing, and internships.
- [Counseling and Psychological Services](#): Provides a variety of counseling services including individual, couples, and group sessions as well as career and disability assessments.
- [UTEP Food Pantry](#): Non-perishable food items are available to students who are currently enrolled in classes. Bring a Miner Gold Card to Memorial Gym, Room 105, Monday through Friday, 10 a.m. to 2 p.m.

**If circumstances arise that prevent the professor from posting lectures at the scheduled time, I will send an announcement out electronically with information regarding the updated schedule.**

Week	Dates	Topics	Chapters	Comments
1	1/15	Syllabus; Introduction to Econometrics;	1	
2	1/22	Review of Probability	2	
3	1/29	Review of Statistics	3	Quiz 1
4	2/5	Linear Regression: Single Regressor	4	Quiz 2
5	2/12	Hypothesis Tests and confidence intervals with single regressor	5	
6	2/19	Linear Regression in multiple regression	6	Quiz 3
7	2/26	Linear Regression in multiple regression	6	
8	3/4	Hypothesis Tests and confidence intervals in multiple regression	7	
9	3/11			<b>SPRING BREAK</b>
10	3/18	Non-linear Regression Functions	8	Quiz 4
11	3/25	Assessing Studies based on Multiple Regression	9,10	<b>Withdrawal Date 3/28</b>
12	4/1	Regression with Panel Data	10	
13	4/8	Regression with Panel Data	10	
14	4/15	Experiments and Quasi-Experiments	13	
15	4/22	Regressions with Binary Dependent Variables	11	
16	4/29	Presentations		
	5/7	<b>FINAL EXAM All Chapters; 10:00-12:45</b>		<b>All outstanding assignments must be submitted by 11:59PM 5/5</b>