



# ECO 317 Introduction to Econometrics

Summer 2024

**Course Credits:** 4

**Contact Hours:** 56 hours

**Instructor:** TBA

**Email:**TBA

## **COURSE OBJECTIVES**

This course makes an introduction of regression econometric methods and their applications in different areas of economics and business. The main topics include statistics, probability, density functions, simple regression model, multiple regression, panel data methods, random variables, instrumental variables estimation, estimation, simultaneous equations models, correlation analysis, hypothesis testing in the linear regression model, as well as other critical econometric methods and packages.

Upon Completion of this Course, students will be able to:

1. Develop understanding of the basic concepts of applied econometrics
2. Collect and analyze data with regression methods and models applying econometric principles
3. Deal with multiple variable models
4. Comprehend the basic theories of applied econometrics
5. Collect and analyze data with regression methods and models to address economic and commercial issues
6. Acquire the ability to effectively apply the knowledge to the practice;
7. Use regularly information and communication technology in the professional performance

## **PREREQUISITES**

MAT 204 Introduction to Probability

## **GRADING**



Grades will be determined by accumulating points, with 100 points being the maximum, as follows:

| ITEM       | POINTS     |
|------------|------------|
| Quizzes    | 20 Points  |
| Midterm 1  | 20 Points  |
| Midterm 2  | 20 Points  |
| Final Exam | 40 Points  |
| Total      | 100 Points |

Late submissions will be graded at the end of the course. Grades will be assigned according to the following rule:

$A \geq 90 > B \geq 80 > C \geq 70 > D \geq 60 > F$ .

We reserve the right to make adjustments to the overall grading policy.

## COURSE MATERIALS

### **Required Texts:**

Jeffrey M. Wooldridge. 2013. *Introductory Econometrics: A Modern Approach*, 5th edition. South-Western, Cengage Learning.

### **Recommended (Optional) Texts or Other Materials:**

None

## COURSE TOPICS

| MODULE   | TASKS   |
|----------|---|
| Module 1 | <b>Topics:</b><br>Topic 1: The Nature of Econometrics and Economic Data<br>Topic 2: Descriptive Statistics<br>Topic 3: Frequency Distribution<br>Topic 4: Measures of Central Tendency, Measures of Dispersion<br><b>Assessments:</b><br>Quiz#1 |



|          |   |
|----------|---|
| Module 2 | <b>Topics:</b><br>Topic 5: Probability and probability Distribution<br>Topic 6: Probability of Single and Multiple Event<br>Topic 7: Discrete Probability Distributions: The Binomial Distribution<br>Topic 8: Continuous Probability Distributions: The Normal Distribution<br><b>Assessments:</b><br>Quiz#2         |
| Module 3 | <b>Topics:</b><br>Topic 9: Multiple Regression Analysis: Estimation<br>Topic 10: Multiple Regression Analysis: Inference<br>Topic 11: Variations of the Multiple Variable Regression Model<br>Topic 12:<br><b>Assessments:</b><br>Midterm#1   |
| Module 4 | <b>Topics:</b><br>Topic 13: Statistical Inference: Hypothesis Testing<br>Topic 14: Linear Regression with One Regressor<br>Topic 15: Linear Regression with a Single Regressor: Hypothesis Tests and Confidence Intervals<br>Topic 16: Linear Regression with Multiple Regressors<br><b>Assessments:</b><br>Midterm#2 |
| Module 5 | <b>Topics:</b><br>Topic 17: Hypothesis Tests and Confidence Intervals in Multiple Regression<br>Topic 18: Regression with Panel Data<br>Topic 19: Panel Data (cont.d) Regression with a Binary Dependent Variable<br>Topic 20: Instrumental Variable Regression<br><b>Assessments:</b><br>Final Exam                  |

## ATTENDANCE

1) Class attendance is required. Missing classes without permission will lead to decrease in overall grade.

Missing less than two classes: no penalty.

Missing more than two classes: 7% will be taken off from the overall grade.

If the instructor reports a student's frequent missing of class to the Soochow University Academic Administration Office, the student might get a written warning and might be prohibited from attending final exam.



2) Participants in this course are expected to arrive in class promptly and adequately prepared. The primary objective of this course is to critically engage with the readings and the subject matter. Therefore, course participants are expected to have completed the reading prior to class and prepare thoughtful reflections/commentaries to share with fellow colleagues.

### **LEARNING REQUIREMENTS**

- 1) Late assignments are not acceptable and are subjected to grade deductions.
- 2) Assignments submitted in the wrong format will be counted as not submitted.
- 3) Failure to submit or fulfill any required course component results in failure of the class.
- 4) Make-up for midterm and final exams only with valid excuses, as defined by the University.
- 5) In order to earn a Certificate of Completion, participants must thoughtfully complete all assignments by stated deadlines and earn an average quiz score of 50% or greater.

### **TECHNOLOGY POLICY**

The use of electronic devices in class is distracting, both for the user and for the rest of the class. Only non-programmable calculators can be used in the tests and exam. Any attempts to use cell phones and other electronic communication devices will be seemed as cheating. Laptops are discouraged, unless you use them for activities DIRECTLY related to the course (eg., note taking, reading course documents).

### **ACADEMIC INTEGRITY POLICY**

Soochow University highly values the academic integrity and aims to promote the academic fairness, honesty and responsibility. Any academic dishonesty behaviors and any attempts to cheats and plagiarism will be reported to the university administration office. A written warning and the relevant penalties will be imposed. The record might be shown on the official university transcript.

### **DISABILITY ACCOMMODATION**



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Soochow University is committed to maintaining a barrier-free environment so that students with disabilities can fully access programs, courses, services, and activities at Soochow University. Students with disabilities who require accommodations for access to and/or participation in this course are welcome.

Note:

Please contact the University Administrative Office immediately if you have a learning disability, a medical issue, or any other type of problem that prevents professors from seeing you have learned the course material.