Soochow University

ECO 325 Business Econometrics with Applications

Summer 2023

Course Credits: 4
Contact Hours: 55 hours
Instructor: TBA
Email: TBA

COURSE OBJECTIVES

This course introduces students to the fundamentals of applied econometrics, providing them with a solid foundation in statistical methods used for analyzing economic data. Through a combination of theoretical concepts and hands-on applications, students will learn how to use econometric techniques to estimate and test economic models, interpret results, and make informed policy recommendations.

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

1. Understand the basic principles and concepts of econometrics

2. Develop the ability to apply econometric techniques to real-world economic data

3. Gain proficiency in using statistical software (e.g., Stata, R) for empirical analysis

4. Learn how to critically evaluate empirical studies and interpret econometric results

5. Enhance problem-solving and analytical skills in economics

PREREQUISITES

N/A

GRADING

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

ITEM	POINTS
Quizzes	20 Points
Problem Sets	20 Points
Midterm	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, *Econometric Analysis of Cross Section and Panel Data*, Cambridge: MIT Press, 2002.

Recommended (Optional) Texts or Other Materials:

None

COURSE TOPICS

MODULE	TASKS
Module 1	**Topics:** Topic 1: Simple Linear Regression Topic 2: Assumptions and Properties of the Model Topic 3: Estimation and Inference Topic 4: Goodness-of-fit Measures **Assessments:** Quiz#1
Module 2	**Topics:** Topic 5: Multiple Linear Regression Topic 6: Estimation Methods: Ordinary Least Squares Topic 7: Nuances of Interpretation in Multiple Regression Models Topic 8: Inference in Multiple Regression Models **Assessments:** Quiz#2

Module 3	**Topics:** Topic 9: Non-Linearities Topic 10: Interaction Terms Topic 11: Measurement Error, Missing Data, and Outliers Topic 12: Limited Dependent Variables **Assessments:** Quiz#3 Midterm
Module 4	**Topics:** Topic 13: Randomized Control Trials Topic 14: Time Series Analysis Topic 15: Stationarity and Non-stationarity Topic 16: Autoregressive and Moving Average Models **Assessments:** Quiz#4
Module 5	**Topics:** Topic 17: Introduction to Panel Data Analysis Topic 18: Fixed Effects Models Topic 19: Instrumental Variable Panel Data Models Topic 20: Limited Dependent Variable Models **Assessments:** Problem Sets 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).

ACEDEMIC 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

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.