



ECO 209 Analysis of Economic Data

Summer 2023

Course Credits: 4

Contact Hours: 55 hours

Instructor: TBA

Email: TBA

COURSE OBJECTIVES

This course provides an introduction to statistical techniques used in the analysis of economic data. The course emphasizes the practical application of mathematics, statistics, and computer technology to solve statistical problems. Students will learn fundamental methods used by economists to approach statistical analysis and will be exposed to a variety of statistical tools commonly used in the field.

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

1. Be familiar with the essential techniques in economic data analysis and forecasting
2. know how to specify a model that is consistent with economic theory
3. Develop a fundamental understanding of probability theory and its application to economic analysis
4. Apply statistical tools to economic data using computer software such as Excel and R
5. Interpret and communicate statistical results to a non-technical audience
6. Critically evaluate the use of statistical methods in empirical research

PREREQUISITES

N/A

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:

Daniels, L. & Minot, N. (2019) *An Introduction to Statistics and Data Analysis Using Stata*. Sage, 1st Edition.

Recommended (Optional) Texts or Other Materials:

None

COURSE TOPICS

MODULE	TASKS
Module 1	<p>Topics: Topic 1: Descriptive Statistics Topic 2: Measures of Central Tendency Topic 3: Dispersion, and other Characteristics of Distributions Topic 4: Frequency Distributions</p> <p>Assessments: Quiz#1</p>



Module 2	Topics: Topic 5: Theory of Probability Topic 6: Discrete Distributions Topic 7: Binomial Distribution Topic 8: Continuous Distributions Assessments: Quiz#2
Module 3	Topics: Topic 9: Normal Distribution Topic 10: Sampling Theory Topic 11: Sampling Distributions Topic 12: Estimation Assessments: Midterm#1
Module 4	Topics: Topic 13: Confidence Intervals Topic 14: The T-distribution Topic 15: The χ^2 Distribution Topic 16: Data Transformations Assessments: Midterm#2
Module 5	Topics: Topic 17: Hypothesis Testing with Critical Value Approach, Confidence Intervals Topic 18: T-tests of Hypotheses involving Two Populations Topic 19: χ^2 Tests Topic 20: Regression Analysis Assessments: 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

Soochow University is committed to maintaining a barrier-free environment so that



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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.