Overview, Objectives, and Prerequisites

Distinguished by the unification of economics, statistics, and mathematics, econometrics involves estimating economic relationships, confronting theory with empirical evidence, and testing hypotheses.

Success in economics, finance, and other areas of business may require the application of econometric methods, the interpretation of econometric results, the ability to communicate these results, and an understanding of the limitations of econometric methods and models. In this course, we will focus on two estimation methods: ordinary least squares and maximum likelihood estimation. The goal of this course is to provide students with the background necessary to develop and estimate appropriate econometric models, to interpret and communicate econometric results, and to think critically about econometric methods and models.

Success in this course requires familiarity with algebra, calculus, and statistics (ECON 5000 and ECON 5100 or comparable courses).

Textbook

Assignments

The course includes two group projects involving econometric analysis of real economic data. The first assignment concerns labor market outcomes, while the second concerns mortgage lending decisions. Please submit all components of each assignment on Canvas. I cannot accept late papers, in part because we will discuss the econometric models and findings in class. At the end of the quarter, students will evaluate the contributions of their group members.

The course includes numerous opportunities for discussion. In addition to the scheduled discussions of journal articles and course projects, I welcome questions and insights during lectures.

Exams

The course includes a midterm and a comprehensive final exam. If you cannot be present for an exam due to a work conflict or an emergency, please let me know in advance so that we can reschedule the exam as soon as possible.

Academic Honesty

In keeping with the mission of the school and university, students are expected and required to conform to the norms of academic honesty. Academic misconduct will be dealt with harshly. Academic misconduct includes (but is not limited to) using written or electronic materials on an exam, copying another student’s exam or allowing another student to copy yours, and passing off someone else’s writing or ideas as your own in writing assignments. Possible consequences for academic misconduct range from zero credit on an assignment to failing the class.

Special Accommodations

If you have, or think you may have, a disability (including an ‘invisible disability’ such as a learning disability, a chronic health problem, or a mental health condition) that interferes with your performance as a student in this class, you are encouraged to arrange support services and/or accommodations through the Disabilities Services staff in the Learning Center, Loyola 100, (206) 296-5740. Disability-based adjustments to course expectations can be arranged only through this process.
Etiquette

Laptops, tablets, and similar forms of technology may be used in this class for note taking and for viewing course materials as long as their use does not interfere with your participation or engagement in class discussions. Surfing the web, checking email, texting, and similar activities are distracting to students and to me and ultimately detrimental to the learning environment. Please do not use any of these forms of technology during a guest lecture. A violation of this policy may result in appropriate grade sanctions.

Grading

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Midterm Exam</td>
<td>25%</td>
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<tr>
<td>Comprehensive Final Exam</td>
<td>25%</td>
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<tr>
<td>Papers</td>
<td>35%</td>
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<tr>
<td>Contributions and Peer Reviews</td>
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<tr>
<td>Participation</td>
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Course Outline

Introduction to Econometrics: Chapter 1

Simple Linear Regression: Chapter 2

Multiple Regression: Chapters 3, 4, and 7

Nonlinear Models: Chapters 2, 3, 4, 6, and 7

Limited Dependent Variable Models: Chapters 7 (section 5) and 17 (sections 1 and 2)
Schedule

Assigned Readings

The last page of each Canvas module lists the assigned readings for the following class session. Discussion questions for selected readings are also posted. The quantity and quality of your contributions to class and online discussions influence your grade in this course.

Project Deadlines*

Labor Market Analysis

Week 2 Division of Labor and Research Questions
Week 3 Exploratory Data Analysis, Sample Selection Criteria, and Descriptive Statistics for Selected Sample
Week 4 Preliminary Econometric Estimates
Week 5 Revised Econometric Estimates
Week 7 Final Paper

Mortgage Lending Decisions

Week 8 Exploratory Data Analysis, Sample Selection Criteria, and Descriptive Statistics by Race and Ethnicity for Selected Sample
Week 9 Logit Estimates and Odds Ratios; Probit Estimates
Week 10 Final Paper and Confidential Peer Reviews

*Each component of each assignment is due 36 hours prior to the start of class.

Exams

Week 6 Midterm
Week 11 Final