

Seattle University
Albers School of Business and Economics
Economics 5300 | Applied Econometrics
Winter 2021
Wednesday 6:00 p.m. | ZOOM

As the pandemic continues to disrupt our collective experiences on campus, I will seek to foster our intellectual growth and social connection through synchronous delivery of most course content and complementary asynchronous materials, discussions, and practice problems.

Adapted from <https://www.chronicle.com/article/Nobody-Signed-Up-for/248298>.

Instructor: Bridget Hiedemann, Ph.D.
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Office Hours: Monday & Friday 11:00 a.m. or by appointment (over Zoom)

Office hours provide a chance for you to meet with me one-on-one or in small groups to discuss course content or assignments. I encourage you to attend office hours at least once during the beginning of the quarter so that I can get to know you a little better. I will hold office hours via Zoom, provided we have the bandwidth; otherwise, we can communicate via phone. You can access my office hours from the Zoom section of Canvas. I set up a waiting room to ensure that you receive my full attention during your time slot and to maintain your privacy.

If you have a question that I can address over email or if you would like to schedule an appointment outside of regularly scheduled office hours, please send me a message through Canvas.

Rationale for the Course

Integrating economics, statistics, and mathematics, econometrics involves estimating economic relationships, confronting theory with empirical evidence, and testing hypotheses. Success in economics, finance, and business analytics may require the application of econometric methods; the interpretation of econometric findings; the ability to communicate models, methods, and findings to technical and non-technical audiences; and an understanding of the limitations of the models, methods, and findings.

Learning Outcomes

This course will enhance your ability to:

- use Excel and R to work with real-world data
- develop and estimate econometric models
- understand and assess underlying assumptions
- understand the difference between a model and an estimation method
- understand and distinguish between ordinary least squares and maximum likelihood estimation
- interpret findings of linear and logarithmic models
- interpret findings of probit and logit models
- communicate findings to technical and non-technical audiences
- think critically and recognize limitations of econometric models, methods, and findings

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

Instructional Methods

This course includes a mix of synchronous and asynchronous learning. The synchronous learning will take place over Zoom during the regularly scheduled class times. See Canvas for links to Zoom sessions. Our time together will include interactive lectures, practice problems, and discussions. At times, we will all be together; other times, we will use breakout rooms. Canvas includes a separate module for each Zoom session.

The asynchronous components include assigned readings, practice problems, and/or course projects – essentially any work that you would normally complete outside of a face-to-face class – as well as other materials that substitute for face-to-face class time such as videos or Canvas discussions.

Canvas alternates between asynchronous and synchronous modules. Please complete each asynchronous module prior to the next Zoom session. There is also a project module with resources related to the projects including sample R code.

Attendance

As in a face-to-face course, I expect you to attend each class session. However, I understand that

emergencies and other unexpected circumstances occasionally prevent students from attending class. In this case, please let me know so that we can arrange for you to catch up on missed material.

Class Norms and Etiquette

As members of a shared community of learning, we will be present for one another through visible and vocal participation. To participate in class discussions, you will need sound.

Showing your face in meetings helps build community, enables greater communication, and demonstrates professional courtesy, so please turn the video on during our Zoom sessions. You are welcome to use a virtual background if you have the bandwidth to do so.

Of course, any one of us can suffer an occasional technology failure, but we make apologies and have a plan for fixing it before the next meeting. If possible, please prepare a backup technology plan for the midterm and final. Please raise any individual concerns with me as soon as possible.

Webcams and microphones are often sold as a single piece of equipment and start around \$30. The University is lending laptops with webcams and mics, as well as internet hotspots, to qualifying students free of charge (<https://www.seattleu.edu/library/>). Another alternative is to join Zoom with one device (e.g., desktop) to hear the session audio, and then join Zoom with another device (e.g., a smartphone with a functioning camera and mic) to turn on your video and audio. Consider practicing this alternative ahead of time.

In class, you would be dressed appropriately and sitting at a desk or table. You would refrain from distractions such as other electronics or activities unrelated to the course. Expectations for Zoom classes are the same. During our Zoom sessions, please limit your use of computers, tablets, or smart phones to class-related activities; i.e., please refrain from surfing the web, checking or sending email or texts, and similar activities during our time together on Zoom. Many employers are looking to hire graduates who can be professional and focused in an online setting, so the etiquette practiced here will contribute to your professional formation.

Readings, Assignments, and Exams

Readings, practice problems, group projects, discussions, and exams relate to the learning objectives above.

The **textbook** for the course is:

Wooldridge, Jeffrey M., *Introductory Econometrics*, Mason, OH: Thomson (5th, 6th, or 7th ed.)

Assigned **readings** include textbook chapters, journal articles, and newspaper articles. I will post links to assigned journal and newspaper articles in the relevant Canvas modules.

Though ungraded, please do not treat **practice problems** as optional. These assignments will help you master important concepts that are critical for success on the exams and projects.

The course includes two **group projects** involving an econometric analysis of real economic data. The first project concerns labor market earnings, while the second concerns mortgage approvals. These projects consist of multiple components. 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. Along with the submission of the final paper for each project, your group will provide a summary of everyone's contributions to the projects. At the end of the quarter, you will each submit a confidential peer review evaluating your group members' contributions.

The course includes numerous opportunities for **discussion** over Zoom and Canvas. In addition to the scheduled discussions of assigned readings, practice problems, and course projects, I welcome questions and insights during our time together on Zoom and between class sessions in office hours or via email.

The course includes two **exams** -- a midterm and a comprehensive final. I cannot reschedule an exam unless there is an emergency or other compelling reason. If you think you need to reschedule an exam, you need to let me know ahead of time.

Asynchronous modules will help you stay on top of assignments. Also please check your email regularly in case there are announcements related to assignments.

Grading

Midterm and Comprehensive Final	40%
LMA and MLD Projects	40%
Attendance	9%
Canvas Discussions	6%
Overall Engagement	3%
Peer Reviews	2%

Each exam will include six questions/problems with multiple parts. You may answer any five of the six questions. Exams may be graded on a curve.

Each project will receive an overall score out of 50 points based on the following scale:

A	47
A-	44
B+	42
B	40
B-	38
C+	36
C	34
C-	32

See Canvas for a detailed scoring rubric for the group projects.

If peer reviews suggest that the contributions to the projects were similar in terms of effort and quality, all group members will receive the same score. If evidence **clearly** indicates that contributions were dissimilar in terms of effort and/or quality, members of the same group will receive different scores. Typically, these adjustments will be in the range of a 5-10% bonus or penalty. However, if a student did not participate in a group project, the student will receive no credit for the project.

The class includes nine sessions over Zoom not including the midterm. You will receive one point for each full session you attend, for a maximum of nine points.

The class includes numerous online discussions. You will receive one point for each discussion where you provide a thoughtful, substantive contribution, for a maximum of six points.

Keeping your camera on during Zoom sessions (as expected), actively participating in breakout room discussions, providing insightful comments or answering questions during Zoom sessions, sharing annotated handouts with the class, attending office hours, emailing me with questions, and sharing relevant newspaper articles are all ways a student could demonstrate engagement in the course. For the full three points, please keep your camera on during Zoom sessions, actively participate in breakout room discussions, and contribute meaningfully on several occasions in at least one other way. If you have a valid reason not to keep your camera on, please communicate with me separately about this issue.

Thoughtful peer reviews submitted on time are worth one point for each project, for a maximum of two points.

Rough 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

The projects include numerous components. Please see the assignments themselves for the various deadlines for each project.

The exams will take place during the regularly scheduled class time on **February 10** and **March 17** using the Quiz feature in Canvas. During the exams, I will be available for questions over Zoom, but you do not need to join the Zoom meeting unless you have a question.

Academic Policies

Review the following university academic policies on the Registrar's website:

- [Academic Integrity Policy](#)
- [Academic Grading Grievance Policy](#)
- [Complete Set of Policies](#)

Academic Resources

The university offers numerous academic resources for students. Some or all of the following resources may be relevant for students in this course:

[Advice on Study Habits](#)

[Library and Learning Commons](#)

[Writing Center](#)

[Learning Assistance Programs](#)

[English-Language Learning Center \(ELLC\)](#)

[Academic Integrity Tutorial](#)

Accommodation for Disabilities

Seattle University values diverse types of learners. Faculty are committed to providing each student with an equal opportunity to participate in learning experiences. For disability and other learning-related needs and accommodations that you have already arranged via Disability Services, please communicate with me during the first week of class through email or during office hours. Should concerns arise at any point in the quarter, please let me know as soon as possible.

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, but have not yet arranged support services and/or accommodations, I encourage you to do so through Disability Services staff at DS@seattleu.edu or (206) 296-5740. Disability-based adjustments to course expectations can be arranged only through this process. I am committed to working with you, so please do not hesitate to contact me.

Religious Accommodations

It is the [policy](#) of Seattle University to reasonably accommodate students who, due to the observance of religious holidays, expect to be absent or endure a significant hardship during certain days of their academic course or program.

Office of Institutional Equity

Title IX of the Education Amendments of 1972 (Title IX) prohibits discrimination based on sex in educational programs or activities that receive Federal financial assistance. This prohibition includes sexual misconduct, which encompasses sexual harassment and sexual violence. Seattle U remains committed to providing a safe and equitable learning, living, and working environment. Seattle U offers emergency, medical, and other support resources, as well as

assistance with safety and support measures, to community members who have experienced or been impacted by sexual misconduct.

Seattle U requires all faculty and staff to notify the University's Title IX Coordinator if they become aware of any incident of sexual misconduct experienced by a student.

For more information, please visit <https://www.seattleu.edu/equity/>. If you have any questions or concerns, you may also directly contact the Title IX Coordinator in the Office of Institutional Equity (email: oiie@seattleu.edu; phone: 206.296.2824).