

ECON 382

Introduction to Econometrics

5 Credits

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Office Hours: TuTh 7:15-8:15 AM in Savery 325, and primarily by appointment.

Economics 382 is a course in economic statistics and econometrics. Econometrics is distinguished by the unification of economic theory and statistical methodology. It is concerned with estimating economic relationships, confronting economic theory with facts, and testing hypotheses involving economic behavior. Specific topics addressed in this course include mathematical statistics, single and multiple variable regression analysis, the Gauss-Markov Theorem, hypothesis testing, model specification, multicollinearity, dummy variables, heteroskedasticity, serial correlation, and distributed lag models.

As a course in applied econometrics, we will frequently use these methods with real world financial and economic data. Students will be introduced to data and regression analysis in EViews. Given the applied nature of much of the coursework, some mathematical, statistical, and computer proficiency will be assumed.

Course Objectives

When you have finished this course, you will be able to:

- Interpret and implement multiple regression and related statistical techniques
- Identify the limitations and pitfalls of regression methods
- Write a focused explanation of the findings of a statistical investigation, clearly and concisely

Required Materials

Textbook: A.H. Studenmund, *Using Econometrics: A Practical Guide*, Pearson/Addison Wesley, 7th edition, 2016 (www.pearsonhighered.com/studenmund).

Software: EViews, Quantitative Micro Software (www.eviews.com). The student version of EViews is available for either PCs or Macs for approximately \$40. There is also a free student lite version which is sufficient for our purposes.

Weekly MyEconLab online graded homework assignments may be accessed through the class website on Canvas (which may be accessed through your MyUW webpage).

Grading

Your grade is based on weekly MyEconLab homework assignments, a midterm exam, a final paper, and a final exam as follows:

MyEconLab homeworks (20%), Midterm Exam (30%), Final Paper (20%), Final Exam (30%)

Tentative Course Schedule

| Week | Lesson | Readings |
|------|---|---|
| 1 | Introduction to the Course and an Overview of Regression Analysis | Studenmund, Chapter 1 |
| 2 | Statistical Principles | Studenmund, Chapter 17 |
| 3 | Classical Statistics | Studenmund, Chapter 17 Studenmund, Section 5.1 |
| 4 | Ordinary Least Squares | Studenmund, Chapters 2 and 3 |
| 5 | The Classical Regression Model | Studenmund, Chapter 4 |
| 6 | Hypothesis Testing | Studenmund, Chapter 5 Studenmund, Sections 6.1 and 6.2 |
| 7 | Model Specification, Multicollinearity, and Dummy Variables | Studenmund, Chapters 6, 7, and 8 |
| 8 | Heteroskedasticity | Studenmund, Chapter 10 |
| 9 | Serial Correlation | Studenmund, Chapter 9 |
| 10 | Distributed Lag Models | Studenmund, Sections 12.1-12.3 |

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at Faculty Syllabus Guidelines and Resources. Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form available at <https://registrar.washington.edu/students/religious-accommodations-request/>.

Exam Rules

1. If you are unable to make it to an exam period due to illness or another unexpected happening, do the following:
 - i. Notify me no later than the time of the exam that you are not able to take the exam and why.
 - ii. If you missed the exam for health *reasons*, you need to show me a note issued by a medical professional documenting the reason you missed the exam.
 - iii. If there was some other reason for missing the exam come and see me to explain the reason. You will need to show appropriate documentation. Not waking up or missing your bus/plane is not an acceptable excuse.
2. If you know that you are going to be away due to a University-related activity, such as participation in an away sport or debate, let me know well in advance so that arrangements can be made.

II Exam Taking Rules

1. Material allowed during a closed book exam.
 - i. All books, papers, notebooks, etc., must be placed inside your backpack or other type of bag, which must be securely and fully closed. If you do not have a bag, you must place all your material out of your reach.
 - ii. Only a basic 4-function calculator may be used during an exam. Graphing calculators and calculators with memories will not be allowed. Sharing of calculators is not permitted.
 - iii. No other electronic devices can be accessible during the exam. Cellular phones must be turned off before entering the class and placed in your closed bag (not in your pocket). You are not allowed to use a cellular phone during an exam. Doing so will result in the termination of your exam time.
 - iv. Baseball caps and any other kinds of headgear that conceal your eyes are not permitted.
2. Attendance and special accommodation
 - i. You are not allowed to leave the room during the exam. This includes restroom use; be sure to use the restroom before the beginning of the exam.
 - ii. If you arrive late to an exam, you cannot expect to get extra time after the official end of the exam to make up for the missing time at the beginning.
 - iii. If you have a documented disability, please show me documentation from the Office of

Disability Resources for Students on the first day of class, so that I can make any arrangements required for accommodations.

III Academic Honesty

1. Exams are individual work and cheating will not be tolerated. You are not allowed to look at your neighbors' exams. Doing so will result in the termination of their exam time.
2. Altering an exam before submitting it for a review of the grading, obtaining an advance copy of an examination, or arranging for a surrogate test-taker are all flagrant violations of University policy.
3. Cheating of any kind may result in expulsion from the University. The Department will follow University policy in case of academic misconduct. I strongly recommend that you review University policy at <http://www.washington.edu/uaa/advising/help/academichonesty.php> . Students found to have engaged in academic dishonesty will be subject to sanctions, which range from a disciplinary warning to permanent expulsion from the University, depending on the seriousness of the misconduct.

The following message is forwarded to you from UW Human Resources.

UW SafeCampus

Preventing violence is everyone's responsibility. If you're concerned, tell someone.

* Always call 911 if you or others may be in danger.

* Call 206-685-SAFE (7233) to report non-urgent threats of violence and for referrals to UW counseling and/or safety resources. TTY or VP callers, please call through your preferred relay service.

* Don't walk alone. Campus safety guards can walk with you on campus after dark. Call Husky NightWalk 206-685-WALK (9255).^[1]^[2]* Stay connected in an emergency with UW Alert. Register your mobile number to receive instant notification of campus emergencies via text^[1]^[2]and voice messaging. Sign up online at www.washington.edu/alert

For more information visit the SafeCampus website at ***www.washington.edu/safecampus***.