Econometrics

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Tuesdays 7:20-10:00pm
Location: Planetary Hall 206
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Office Hours: Econ Department (D167-2) Tuesdays 6:15-7:15, after class, or by appointment

Course This course is designed to teach an introduction of the econometric toolset. Students will leave this class with a basic understanding of econometric models, and a working knowledge of techniques used to analyze economic data. This course is designed to be fun, thought engaging, and offer students a new skill set. Programming is not part of this curriculum, although students are expected to interpret regression output tables from R, SAS, Excel and Stata.

Text Introductory Econometrics: A Modern Approach, by Jeffrey Wooldridge. (6* Edition)
(Note: the 5* edition, which is available online in PDF form, will work. However, students are responsible to make sure that any chapter readings correspond with the topics from the 6* edition, and that any homework problems are consistent as well.)

Grades

Homework	20%
Participation	5%
Quizzes	10%
Midterm	20%
Final	25%
Papers	20%

GENERAL NOTE ON HOMEWORK AND QUIZZES: Looking at this syllabus, one might think, there is a lot of quizzes and homework. These will be reasonable assignments to help make sure you are keeping up with the topics. As with the cultivation of any new skill, particularly a subject in math, the hardest part is the beginning. From there, we'll be making marginal steps! The Homework and quizzes are just designed to make sure that no one is left behind when we make that initial leap!

Homework: Four Problem sets (PS) will be handed out, emailed or put up on blackboard. These are due by the start of the next class. Feel free to work in groups, but all submissions must be individual. That is, you may discuss your work with classmates while working together, but you may not allow a classmate to simply copy your answer. Homework should be submitted via email, with the course and PS number [Econ 345–Last Name- PS#] as both the subject line and the name of the document. PSs are graded on a scale from 0-5. A 5 is a perfect score. A 4.5 reflects a great effort with some minor errors. A 4 connotes little effort but understanding. A 3.5 suggests a lot of effort, but little understanding. A 3 is reserved for those who submit work without care or knowledge. Finally, 0's are reserved for PS that does not make the submission deadline.

Participation: I will make every attempt to hold an engaging class. I welcome all topic-related questions and any discussion that enhances the learning process. Participation can mean the difference between a B+ and an A-, as well as between clarity and confusion.

Usage of my office hours and engaging email count! Half of the participation grade is determined by attendance and the other half is through the asking of questions. Again, as not everyone is comfortable asking a question in the classroom, my office hours and email are available. Also, there is to be **no cell phone use** in class. If I see you with your phone out at any point during class you will lose participation points. Please put phones away before class begins.

Quizzes: There are three 15 minute quizzes (Q). These are designed to make sure you stay on top of the material. There are no make-up Qs; however, your lowest score is dropped.

Exams: Two 2-hour-long exams, each worth 25% of the grade. The first exam will focus on the first half of the class and the second exam focuses on the second half. Make-up exams will only be offered in case of a documented medical excuse or family emergency.

Papers: Paper 1 is a four page research project, not including graphs/tables, will demonstrate the student's aptitude for econometrics in a real-life situation. The report assignment will be handed out and demonstrated a few weeks before being due. Students will email their paper in word or PDF form, with the course and PS number [Econ 345 – Last Name - Paper] as both the subject line and name of their saved document. Students will be responsible for analyzing data from the General Social Survey (GSS), using an online regression tool: http://sda.berkeley.edu/cgi-bin/hsda?harcsda+gss08. The assignment requirements will be handed out with the midterm. Moreover, students will receive feedback on the assignment, and one revision, with the possibility of an improved grade, is available.

In paper 2, students will submit a four page report describing the econometrics of a published economic paper. The assignment requirements will be handed out upon receipt of your midterm grades. The report may be submitted any time before the final.

There will be class time devoted to support the writing effort. In addition, these assignments will constitute the class' Writing Intensive (WI) requirement:

As part of the university's commitment to student writers in all undergraduate programs, at least one upper-division course in each major has been designated as fulfilling WI requirement. While other courses in the major may require written projects, teachers of the designated WI courses will devote class time to instruction on how to complete assignments successfully, assign and grade a minimum of 3500 words, provide constructive feedback on drafts, and allow revision of at least one graded assignment. (http://masoncore.gmu.edu/writing-intensive-2/)

Academic Integrity

George Mason University has an Honor Code, which requires all members of this community to maintain the highest standards of academic honesty and integrity. Cheating, plagiarism, lying, and stealing are all prohibited. All violations of the Honor Code will be reported to the Honor Committee. See honorcode.gmu.edu for more detailed information.

Office of Disability Services

If you have a disability and require accommodation, please inform me and contact the office of disability services. All accommodations must be arranged through that office. http://ods.gmu.edu/

Enrollment

Students are responsible for verifying their enrollment in this class. Schedule adjustments should be made by the deadlines published in the Schedule of Classes. (Deadlines each semester are published in the Schedule of Classes available from the Registrar's Website registrar.gmu.edu.)

Week	Date	Due	Lecture	Reading/ Watching
1	1 / 23		Introduction & Data	Chapter 1, A1-A3, B.3
2	1 / 30	Q1	Regression	Chapter 2 http://www.cazaar.com/ta/econ113/interpreting-beta https://www.youtube.com/watch?v=vEP4RllDKuE48t=662s
3	2 / 6	PS1	Multiple regression	3.1-3.3 https://www.youtube.com/watch?v=Wxi4Q5tYeq8&list=PLB2704711C3E47C90 https://www.youtube.com/watch?v=NjTpHS5xLP8 https://www.youtube.com/watch?v=ti9r-Au8LQw
4	2 / 13	Q2	Issues & Inference	Chapter 3, C5-C6
5	2 / 20	PS2	Testing	Chapter 4 https://www.youtube.com/watch?v=q_ma0FtFp04
6	2 / 27		More Issues	Chapter 5-6
7	3 / 6	MIDTERM*		
8	3 / 13	SPRING BREAK		
9	3 / 20		Dummy Variables/Interactions	Chapter 7 https://www.youtube.com/watch?v=s7EyQwJahgw8t=9s
10	3 / 27	PAPER 1	Heteroskedasticity	Chapter 8
11	4 / 3	PS3	Specification	Chapter 9
12	4 / 10	Q3	Time Series 1*	Chapter 10
13	4 / 17		Time Series 2*	Chapter 11-12 https://www.youtube.com/watch?v=...
14	4 / 24	PS4	Panel Data 1*	Chapter 13
15	5 / 1	Review	Panel Data 2*	Chapter 14.1-14.2
16	5 / 8	FINAL		

* Depending on pacing, we may push midterm back a week and squeeze the last few lectures! If this happens the PS/Quiz schedule will remain intact. However, the lectures and assignments will be rescheduled accordingly. Other revisions are possible.