ECONOMICS 331, Empirical Methods in Economics, Fall 2017

Jessica Hennessey   Class: MWF 10:30-11:20am, W lab 2:30-4:30 (RLY108)
Office: Riley 109B   MWF 11:30-12:20pm, Th lab 2:30-4:30 (RLY108)
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Course website: https://login.cengagebrain.com/course/MTPQ-GQMP-4WJM

COURSE DESCRIPTION
This course focuses on techniques for estimating regression models and on problems that are encountered in applying these estimation techniques. The goal of the course is to teach you the theory of econometrics and to give you experience in estimating econometric models with real data. The course involves an intensive course paper that will expose you to the different stages of the research process.

LEARNING OBJECTIVES
1. Interpret and evaluate the appropriateness of empirical regression models
2. Justify and critique techniques used in empirical analysis
3. Employ regression analysis as a research tool using Stata
4. Modify and manipulate real data
5. Present analyses in visual, oral, and written formats

TEXT
Required: Mindtap: Jeffrey Wooldridge. *Introductory Econometrics A Modern Approach*, 6th Edition (MTPQ-GQMP-4WJM)

There will be occasional readings from sources other than your textbook. I expect that you will read these papers and articles before you come to class, as they will be important components of our classroom discussion.

PREREQUISITES
ECN-111, MTH-141 or MTH-145 or MTH-150, and ECN-225 or MTH-120 or MTH-340. While we will review these fundamental concepts again, you should hopefully be familiar with the following topics: random variables, probability distributions, independence, expected value operator, variance of random variables, sampling distribution, hypothesis testing, and confidence intervals.

ACADEMIC INTEGRITY
Furman University policy 121.5 states, "academic integrity is the foundation of the academic enterprise and essential both to the validity of the educational process and to the healthy functioning of the learning community." Academic integrity is not just about honesty in your own academic work. Academic integrity on campus also involves encouraging values such as honesty, trust, respect, fairness, and responsibility.

As part of our effort to protect academic integrity at Furman, the University now subscribes to Turnitin.com, an online plagiarism detection service. In this course, I will utilize this service by submitting your research assignments electronically to Turnitin.com. In turn, I will receive an originality report highlighting matches between words or strings of words in the submitted papers and sources found on Turnitin's extensive database. Your papers, like all materials submitted to

Turnitin, will be stored on the service's restricted access database for the sole purpose of detecting possible plagiarism of such documents. For more information about Turnitin, refer to www.turnitin.com.

I expect all students to review Furman's policies on academic integrity. You are responsible for upholding these standards as you complete the assignments, conduct your research and take the exams for this course. You should be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. Detailed information on the expectations of students and consequences of academic dishonesty are available at www.furman.edu/integrity. I will report all academic integrity violations to the Associate Academic Dean. In this class, any academic integrity violation results in an F for the course.

COURSE REQUIREMENTS

Grades will be based on the following:
Mindtap Assignments 10%
Lab Assignments   10%
Exams (equal weight) 40%
Empirical Project: 40%

Grades will be determined by the following scale: A (93-100), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), F (0-59).

The Mindtap assignments are included in your online course for every chapter. Each point counts equally towards your overall Mindtap grade. No late Mindtap assignments are accepted for credit.

The lab assignments will help familiarize you with STATA and give you some experience in running and interpreting regressions. You may work with other students on these, but must submit your own materials to get credit for the lab assignments. Your assignments will be due to our shared folder. Lab assignments turned in late will be penalized 10 points (out of 100) for each day late.

The empirical project will give you exposure to gathering your own data, conducting analyses on that data, and summarizing the results you find. This is an important skill that will be useful to you in any profession. The project will also include a poster presentation to introduce your topic and allow you to get feedback at an early stage. There will also be a peer review of your paper. Deadlines for these components are spread throughout the term and are listed on the schedule below and in Mindtap.

Due to the time-sensitive nature of certain assignments, I will not accept anything after the date due for the poster session, draft of your paper, and your peer review. If you do not turn in one of these assignments on time, you will be given zero for that assignment. Other assignments for the empirical project that are turned in late will be penalized 10 points (out of 100) for each day late.

Makeup Exam Policy:
No makeup exams will be given for any reason. If a student misses an exam due to serious illness or other compelling circumstance beyond the student's control, the weight of the missed exam will be transferred to the last exam.   If you have an anticipated excused absence (required extra-curricular activity, official representative of Furman), you must talk to me in advance so we can make alternate

arrangements. If you don't talk to me until after the missed exam, I will consider that an unexcused absence and you will receive a zero for that exam.

Scheduling project meetings:
There are four times this term when you are required to meet with me to talk about your course project. To schedule these meetings with me, please use jessicahennessey.youcanbook.me to schedule a 20-minute slot.

Additional resources in the Center for Academic Success (CAS; LIB 002):
The Writing & Media Lab (WML) is staffed by student Consultants who are trained to help you improve your writing and multimodal communication skills. The consultation process is non-directive and intended to allow students to maintain ownership of their work. In addition to helping with the nuts and bolts, WML Consultants also support you in developing your own ideas thoughtfully and critically, whether you're writing an essay or planning a video or other multimedia project. You may drop into the WML during its regular hours (LIB 002; 9 AM to 10 PM) or visit wml.furman.edu to make an appointment online.

Peer Tutors are available free of charge for many classes and may be requested by dropping by CAS (LIB 002) or online here: www.furman.edu/CAS. Tutors are typically recommended by faculty and have performed well in the class.

Professional Academic Assistance Staff in CAS can provide students assistance with time management, study skills, and organizational skills.

The Writing and ESL Specialist provides professional writing support as well as support for students whose primary language is not English.

Accommodation Requests:
The Student Office for Accessibility Resources is committed to helping qualified students with disabilities achieve their academic goals by providing reasonable academic accommodations under appropriate circumstances. If you have a disability and anticipate the need for an accommodation in order to participate in this class, please register with the Student Office for Accessibility Resources. They will assist you in getting the resources you may need to participate fully in this class. You can contact the SOAR office at 864.294.2320 or at soar@furman.edu. You can find additional information and request academic accommodations at the SOAR webpage.

HOW TO GET THE MOST OUT OF THIS COURSE

"Learning results from what the student does and thinks, and only from what the student does and thinks. The teacher can advance learning only by influencing what the student does to learn." – Herb Simon.

Your goals for this course may range from it being preparation for graduate school, learning tools for practical empirical applications, or just to meet a requirement for graduation. Whatever the case may be, I think there are common studying practices that will enable you to get the most out of the course.

First, and hopefully most obvious, come to class and be an **engaged participant**. Make sure and read any assignments that are specific to that class. It will also help if you skim the relevant chapter in the textbook before class. This will serve as an introduction to the topic, and allow you to come to class with questions about the material.

Second, and most important for your grade, be ready for exams by keeping up with the reading, working through the homework, and reviewing your notes after each class to make sure you are keeping up. And, when you get your exams back, go through the provided solutions to see what you did wrong. **Deliberate practice** is important because you identify things that are a reach for you.

Third, learning often happens faster and easier when **working in groups** rather than working alone. I often learn best by seeing how others approach problems, and by explaining to others how I work through problems. It's also nice to have peers to turn to when you're completely lost. *You are more than welcome to work in groups on the assignments.*

Fourth, take your empirical project seriously! Start on it early, come talk to me about ideas or questions even if they are not concrete, and keep a continuous eye on it. When you put a research project aside and come back to it later, there is a definite start-up cost each time you get back into it. Also, the quality of the paper is important not just for your grade, but can be important for future job and school prospects. Former students have talked about their empirical projects on their job interviews or submitted it as part of their grad school application. Take the time now to produce a quality project that you are proud to share – it can pay dividends in the long run!

Fifth, my door is always open. I am here to answer questions or discuss anything you may want to learn more about.

COURSE SCHEDULE (Any important changes will be announced in class)

	Class	Research Assignments Due	Associated readings for class (required in bold)
8/23	Introduction to Econometrics		Wooldridge Ch 1
LAB	*No lab this week*		
8/25	*Research* : The research process		**Acemoglu, Johnson and Robinson (2001) article**
8/28	Review of Probability and Statistics		Wooldridge Appendix B&C
8/30	Review of Probability and Statistics		Wooldridge Appendix B&C
LAB	*Lab 1:* Intro to STATA		**Wheelan Ch 7,** Greenlaw Ch 8 & 9
9/1	Review of Probability and Statistics		Wooldridge Appendix B&C
9/4	*No class - Labor Day Holiday*		
9/6	Simple Linear Regression		Wooldridge Ch 2
LAB	*Lab 2:* SLR		
9/8	Simple Linear Regression		Wooldridge Ch 2
9/11	Simple Linear Regression		Wooldridge Ch 2
9/13	Multiple Linear Regression: Estimation	Research Proposal (due to shared folder)	Wooldridge Ch 3
LAB	*No lab - at a conference*		
9/15	*No class - at a conference*		
9/18	Multiple Linear Regression: Estimation		Wooldridge Ch 3
9/20	*Research:* Theory and Literature Review	Meet with me this week about your proposal	**Greenlaw Ch 3 & 6**
LAB	*Lab 3: MLR*		
9/22	Multiple Linear Regression: Inference		Wooldridge Ch 4
9/25	Multiple Linear Regression: Inference		**Cult of Statistical Significance**
9/27	*Research: Next steps*		
LAB	**First Exam: Stats review, Ch 2, 3 & 4**		
9/29	Multiple Regression: Further Issues		Wooldridge Ch 6
			Lab 4 - MLR
10/2	Multiple Regression: Further Issues		Wooldridge Ch 6
10/4	Multiple Regression: Further Issues	Model and Annotated Bibliography (due to shared folder)	Wooldridge Ch 6
LAB	*Lab 4: Further Issues*		
10/6	Qualitative Information		Wooldridge Ch 7
10/9	No class - Fall break		
10/11	*Research:* Presenting Data		**Tufte Ch 1,** Tufte Ch 9
LAB	*Lab 5: Tableau*		
10/13	*Research* : Poster discussion		
		Meet with me about your model	
10/16	Qualitative Information		Wooldridge Ch 7
10/18	Qualitative Information		Wooldridge Ch 7
LAB	*Lab 6:* Qualitative data		
10/20	Heteroskedasticity		Wooldridge Ch 8

COURSE SCHEDULE (Any important changes will be announced in class)

	Class	Research Assignments Due	Associated readings for class (required in bold)
10/23	Heteroskedasticity		Wooldridge Ch 8
10/25	*Research:* Writing in Economics		**McCloskey - Economical Writing**
LAB	**Second Exam: Ch 6, 7 & 8**		
10/27	Data Problems		Wooldridge Ch 9
10/30	Data Problems	Poster and data files (due to shared folder by 9am)	Wooldridge Ch 9
11/1	Poster Session		
LAB	*Lab 7:* Data problems		
11/3	Introduction to Time Series Analysis	Meet with me about your poster	Wooldridge Ch 10 & 12
11/6	Introduction to Time Series Analysis		Wooldridge Ch 10 & 12
11/8	Introduction to Time Series Analysis		Wooldridge Ch 10 & 12
LAB	*Lab 8:* Time Series		
11/10	Panel Data Methods		Wooldridge Ch 13 & 14
11/13	Panel Data Methods	Draft of Paper and data (due to peer and me by email)	Wooldridge Ch 13 & 14
11/15	Panel Data Methods		Wooldridge Ch 13 & 14
LAB	*Lab 9:* Panel Data		
11/17	*Research: peer review*		
11/20	Instrumental Variables	Peer Review (due to peer and me by email)	Wooldridge Ch 15
11/22	*No class - Thanksgiving break*		
LAB	*No class - Thanksgiving break*		
11/24	*No class - Thanksgiving break*		
11/27	*Lab 10:* Instrumental Variables		
11/29	*Research: Editing your paper*	Meet with me about your draft	
LAB	**Third Exam: Ch 9, 10, 12, 13, 14 &15**		
12/1	Advanced Econometrics Topics		
12/4	Reflection on the course		
12/11		Final Paper (due to shared folder)	