



**Master of Science in Applied Economics
ECON644: Empirical Analysis II
(Introduction to Economic Models)**

Spring 2021

Monday 6:30-9:15 PM

Section PCE1 – fully online

Section PWE1 – blended with some in person components

<p>Instructor: Hossein Abbasi Office: Tydings Hall 3127D Tel: 301-405-4784 Email: abbasi@econ.umd.edu. Office Hours: Online (The day and time will be determined soon)</p>	<p>Course Page: The course webpage can be found at www.elms.umd.edu. TA: Office hours:</p>
---	---

Course Description and Objectives:

Econometrics applies modern statistical methods to economic problems. It introduces techniques for estimating the effect of one or more explanatory variables on a variable of interest. This course emphasizes practical aspects of estimating econometric models of various types and tests of hypotheses. The objective of this course is to provide students with the knowledge and skills of basic applied econometrics that enables them to understand and critically discuss econometrics analyses and to conduct basic econometrics analyses. Students use Stata to conduct econometrics analyses.

Learning Outcomes:

- Our program has 7 general learning outcomes for students:
 1. Ability to understand, evaluate and analyze economic data
 2. Ability to understand and interpret statistical evidence from economic data
 3. Ability to apply empirical evidence to assessing economic arguments
 4. Ability to apply macroeconomic theories to policy discussions
 5. Ability to apply microeconomic theories to policy discussions
 6. Ability to communicate economic ideas to a broader audience
 7. Ability to evaluate the effectiveness of policy programs using sound economic techniques

The learning outcomes that pertain to this course are: 1, 2, 3, 6, and 7 (partially).

Prerequisites:

This course is the second course in our program's 3-course Empirical Analysis sequence. The pre-requisite for this course is ECON643: Empirical Analysis I.

Structure of the course:

The PCE1 section is fully online. The PWE1 section has some in person components. All online components of the course are shared for the 2 sections. The in person components of the PWE1 section are also available online for students in the PCE1 section. All materials will be available through ELMS each week on Sunday mornings.

Materials will be provided in the form of recorded lectures. We will meet on Zoom every week to discuss materials and to practice.

The in-person components in the PWE1 section will include in-person exams on our main campus in College Park with a proctor. Other in person components will consist of presentations by faculty and alumni of our department related to the application of econometrics in their careers. Masks, social distancing and other practices for safe in person components will be required.

Following UMD policies, online alternatives for in-person sessions will be provided. Depending on public health conditions, and policies in the state, county, and at the university, the in person components of the PWE1 section may need to be replaced by fully online substitutes.

Textbooks and other required technology:

You have some of these materials from ECON643, and will use some of them for ECON645.

You should use a computer. A smartphone, notebook, or tablet are not suitable for this course.

We use Stata/IC. Small Stata is not acceptable.

(I assume you have a laptop and Stata from your previous courses. If not, please contact me and I will provide you information about buying a laptop that works in this course and about Stata.)

Stock, James S. and Mark W. Watson: *Introductory Econometrics*. 4rd edition (3rd edition is also acceptable); Pearson Education, Inc. 2019.

Mitchel: *Data Management Using Stata: A practical Handbook*. By: Michael N. Mitchell, Stata Press 2010.

The following books are useful as guides for using Stata.

Acock: *A Gentle Introduction to Stata* by: Alan C. Acock, 5th Edition; Stata Press 2014.

Baum: *An Introduction to Modern Econometrics Using Stata* by: Christopher F. Baum; Stata Press 2006.

Policies:

Dear students,

As you are well aware, this semester is not normal. All of us are dealing with additional stress and anxiety. I'm writing this to let you know that I am very open to being flexible should life events arise that make it hard for you to keep up with the class. Such events might include things happening to you personally or things happening to family members. Please know that I want to do everything I can to support you. To do this, though, I need to know about a problem when it starts, not after it has already derailed your ability to keep up with class. I don't need to know details. Whatever you are comfortable telling me is fine. Letting me know sooner rather than later, though, is key. I'm in a much better position to help you and make accommodations if you tell me when the problem arises. It is MUCH harder to do this if you wait until the end of the term. You can email me or come to office hours.

Upshot: I am here to help. If you are having life issues that are making it hard for you to keep up with class, PLEASE let me know so I can help.

Course Website: Copies of the course syllabus, your grades, and other relevant links and documents will be posted on the course's ELMS/Canvas website. You can access the site via www.elms.umd.edu. You will need to use your University of Maryland "directory ID" and password.

Email: The University has adopted email as the primary means of communication outside the classroom, and I will use it to inform you of important announcements. Students are responsible for updating their current email address via <http://www.registrar.umd.edu/current/> (Under the first major heading of "Online Transactions" there is a link to "Update Contact Information".) AND for paying attention to messages I send to the class via ELMS. Failure to check email, errors in forwarding email, and returned email due to "mailbox full" or "user unknown" will not excuse a student from missing announcements or deadlines. I will do my best to respond to email within 36 hours. I will use announcement on ELMS to communicate with you about the course. Check announcements frequently.

Work Load: Mastering the material covered in this course requires a significant amount of work outside of class. Students should expect to spend more time outside of class than in class – typically at least twice as much time.

Academic Integrity: The University of Maryland, College Park has a nationally recognized Code of Academic Integrity. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information on the Code of Academic Integrity or the Student Honor Council, please visit <http://www.studentconduct.umd.edu>

Student Conduct: Students are expected to treat each other with respect, both during in-person sessions and in online sessions. Disruptive behavior of any kind will not be tolerated. Students who are unable to show civility to one another or myself will be referred to the Office of Student Conduct. You are expected to adhere to the Code of Student Conduct.

Excused Absences: The University of Maryland's policy on excused absences is posted here: <http://www.president.umd.edu/administration/policies/section-v-student-affairs/v-100g>

Please note:

If you miss any class meetings for any reason, you are still responsible for all material covered during the meeting you missed. It is your responsibility – not the instructor's – to make sure you catch up on the missed material. Instructors routinely facilitate things by posting lecture notes, etc.

If you need to miss an exam or other graded course requirement because of illness, injury, or some other emergency: Follow doctor's orders and get documentation. Get in touch with the instructor as soon as you're able – preferably prior to missing the exam or deadline. Communicate with the instructor to make up the course requirement as soon as possible. You are entitled to recover before you make up the course requirement, but you are not entitled to extra days to study beyond the time the doctor's note says you're incapacitated. If you are incapacitated for more than a week or so beyond the end of the term, your grade in the course will be an "Incomplete". In such cases you must negotiate a plan with your instructor for completing the course requirements. Once you make up the course requirement the instructor will change your "I" to the appropriate letter grade.

Anticipating the potential for unanticipated absences during the pandemic, Self-certified notes will serve as documentation for COVID-19-related absences or missed course expectations. Please contact me as soon as you can to arrange for necessary accommodations (to make up the missed assignments and exams)

School Closings and Delays (relevant only for in-person meetings): Information regarding official University closing and delays can be found on the campus website and the snow phone line: (301) 405-SNOW (405-7669) The program director will also announce cancellation information to the program as an announcement on the program's ELMS/Canvas site. This will generally be done by 1:00 p.m. on days when weather or other factors are an issue. If classes need to be cancelled during the semester, it may be necessary to move the final exam back a week so missed classes can be made up.

UMD Counseling Center: Sometimes students experience academic, personal and/or emotional distress. The UMD Counseling Center in Shoemaker Hall provides comprehensive and confidential support services that promote personal, social, and academic success. The cost of these services is covered by the fees you already paid when you registered for classes, and there is no additional charge if you use the services. Proactively explore the range of services available, including the Counseling Service, Accessibility and Disability Service, Learning Assistance Service, and the Testing Office, all described at <http://www.counseling.umd.edu/>

Students with Disabilities: The University of Maryland does not discriminate based on differences in age, race, ethnicity, sex, religion, disability, sexual orientation, class, political affiliation, or national origin. Reasonable accommodations will be arranged for students with documented disabilities. Students who have an accommodations letter from the Accessibility and Disability Service (ADS) should meet with me during the first few weeks of the semester to discuss and plan for the implementation of your accommodations. If you require reasonable accommodations but have not yet registered with ADS, please contact the Accessibility and Disability Service at 301-314-7682 or adsfrontdesk@umd.edu.

Academic Progress: The graduate school requires that students maintain a GPA of at least 3.0. Students whose cumulative GPA falls below 3.0 will be placed on academic probation by the graduate school. Students on academic probation must ask the program's director to petition the graduate school if they want to remain in the program. The petition must include a plan for getting the student's GPA up to at least 3.0. Students who do not live up to their plan can be forced to leave the program without having earned the degree. Note: a grade of "B" corresponds to a GPA of 3.0. A grade of "B-" corresponds to a GPA of 2.7.

Grading of Assignments:

- **Homework assignments: 25%** (Five assignments, 5% each)
There will be five homework assignments. In these assignments, a data set and sometimes a research paper, published in a professional journal, along with an instruction/question document will be provided. You are expected to use the data to reproduce some of the results of the paper, and answer questions in the instruction. We will work on these assignments during Stata sessions.
Each assignment has two parts with separate points: your log file containing your codes and results (50% of the assignment score) to be uploaded on ELMS, and your answers to questions in instruction/question document (50% of the assignment score) to be uploaded on ELMS.
ALL ASSIGNMENTS ARE DUE AT 11:59 PM ON SATURDAYS.
- **Term Project: 15% (5 points for data work, 5 points for explanations, and 5 points for having all the required sections and professional structure and appearance of your paper)**
The goal of this project is to help you understand the components of academic research. You may pick your topic and collect data accordingly, or you can reproduce the results of a published paper. There will be a project proposal and an almost-final report and the accompanying log file, and a final draft (see the due dates below). I will provide extensive comments on the proposal, and some comments on the almost-final draft to help to complete the paper. The details of what I expect to see in this report and some guidance on how to choose your resources will be provided in a separate document.
I will evaluate your reports based on four learning outcomes mentioned in the learning outcome part of the syllabus.
- **Exams:** (Thee exams, 20% each)
 - Exams are mandatory.
 - Exams have two parts: Stata coding (weight: 1/3) and analytical questions (weight: 2/3).
 - More information about the structure of exam will be provided in class.

Grade Breakdown:

At the end of the semester I will add up each student's course points. This will be a number between 0 and 100. Numerical course grades will be translated into letter grades as follows:

93-100	A	50-59	C+
90-92	A-	40-49	C
80-89	B+	30-39	C-
70-79	B	20-29	D+
60-69	B-	10-19	D
		0-9	F

I might give an A+ to a student or two at the very top of the class' grade distribution.

Tentative Course Outline:

Dates	Topics: Theory (From Stock and Watson) and Stata	Assignments dates
1/25-1/30 (Meeting: M 1/25)	Introduction Chapters 1, 2, 3: review of probability and statistics	
1/31-2/6 (Meeting: M 2/1)	Chapter 4: Regression with one regressor: estimation Stata: Working with do files and log files, reading and saving data. (Acock, Ch. 4: will be provided)	
2/7-2/13 (Meeting: M 2/8)	Chapter 4: Regression with one regressor: estimation Stata: Data cleaning and filtering: generating variables and new files. Descriptive statistics, and graphs (Mitchel Ch. 2 and 3)	
2/14-2/20 (Meeting: M 2/15)	Speaker 1 Chapter 5: Regression with one regressor: hypothesis testing	HW1 (Due on Saturday 2/20 at 11:59 PM)
2/21-2/27 (Meeting: M 2/22)	Chapter 5: Regression with one regressor: binary variables Stata: Working on HW1 + egen and collapse (Mitchel Ch. 5)	
2/28-3/6 (Meeting: M 3/1)	Chapter 6: Regression with multiple regressors: estimation Stata: Data cleaning and filtering: generating new files and merging: class size (Mitchel Ch. 6)	HW2 (Due on Saturday 3/6 at 11:59 PM)
3/7-3/13 (Meeting: M 3/8)	Stata: Working on HW2+graphs First Exam (Chapters 4, 5)	
3/14-3/20	Spring break	
3/21-3/27 (Meeting: M 3/22)	Chapter 6: Regression with multiple regressors: binary variables Stata: Regression: working with scalars and regress command (class size data)	

3/28-4/3 (Meeting: M 3/29)	<u>Speaker 2</u> Chapter 7: Regression with multiple regressors: hypothesis testing	
4/4-4/10 (Meeting: M 4/5)	Chapter 8: Nonlinear functions: quadratic and logarithmic Stata: Data preparation (population policy paper)	HW3 (Due on Saturday 4/10 at 11:59 PM)
4/11-4/17 (Meeting: M 4/12)	Stata: Working on HW3 + Functional forms (Teacher evaluation data) <u>Exam 2 (Chapters 6 and 7)</u>	
4/18-4/24 (Meeting: M 4/19)	Chapter 8: Nonlinear functions: interaction and binary Chapter 11: Regression with a binary dependent variable 1	HW4 (Due on Saturday 4/24 at 11:59 PM)
4/25-5/1 (Meeting: M 4/26)	Chapter 11: Regression with a binary dependent variable 2 Stata: Working on HW4	
5/2-5/8 (Meeting: M 5/3)	<u>Speaker 3</u> Stata: Data preparation (oil and talent paper)	HW5 (Due on Saturday 5/8 at 11:59 PM)
Meeting 5/10	Stata: Working on HW5 <u>Third Exam (Chapters 8 and 11)</u>	

This lecture class and all other materials are copyrighted, and they may not be reproduced for anything other than personal use without written permission. ©2021 Hossein Abbasi