



**Master of Professional Studies in Applied Economics**  
**ECON644: Empirical Analysis II**  
**(Introduction to Economic Models)**  
**Spring 2018**  
**MOR 1101**  
**W 6:30-9:15 PM**

<p><b>Instructor:</b> Hossein Abbasi  <b>Office:</b> Tydings Hall 3127D (I will be in Morrill Hall before class starts)  <b>Tel:</b> 301-405-4784  <b>Email:</b> <a href="mailto:abbasi@econ.umd.edu">abbasi@econ.umd.edu</a>.  <b>Office Hours:</b> Tuesday 6:00-6:30 or by appointment</p>	<p><b>Course Page:</b> The course webpage can be found at <a href="http://www.elms.umd.edu">www.elms.umd.edu</a>.  <b>TA:</b> Burak Turkgulu  <b>Email:</b> <a href="mailto:Turkgulu@econ.umd.edu">Turkgulu@econ.umd.edu</a>  <b>Office Hours:</b> Wednesday and Thursday from 5:15-6:30 in Morrill 1102D</p>
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### 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, and 6.

### 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.

## Textbooks and other required technology:

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

**You have to bring a laptop to class. A notebook or tablet are not acceptable.**

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

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

**Stock, James S. and Mark W. Watson:** *Introductory Econometrics*. 3<sup>rd</sup> edition; Pearson Education, Inc. 2010.

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

The following books are also useful as guides for using Stata.

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

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

## Policies:

**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](http://www.elms.umd.edu). You will need to use your University of Maryland "directory ID" and password.

**Email:** Email is 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.testudo.umd.edu/apps/saddr/> 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.

**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 has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards applicable to all undergraduate and graduate students, and you are responsible for upholding these standards as you complete assignments and take exams in this course. Please make yourself aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information see [www.studenthonorcouncil.umd.edu](http://www.studenthonorcouncil.umd.edu)

**Student Conduct:** Students are expected to treat each other with respect. 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.

**School Closings and Delays:** 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 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](mailto: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.

**Access to Morrill Hall and Morrill 1102:** Morrill Hall is locked every day from 7:00 p.m. - 7:00 a.m. Your university ID gives you swipe access to the back door of the building.

## Grading of Assignments:

➤ **Homework assignments: 25%** (Five assignments, 5% each)

There will be five homework assignments. In these assignments, a data set and 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. I will randomly call students to present the results in class.

Each assignment has three parts with separate points: your log file containing your codes and results (40% of the assignment score) to be uploaded on ELMS, your answers to questions in instruction/question document (40% of the assignment score) to be uploaded on ELMS, and your presentation in class (20% of the assignment score). ALL ASSIGNMENTS ARE DUE AT 6:30 PM OF THE DAY WE WORK ON THEM IN CLASS.

➤ **Term Project: 20%**

The goal of this project is to reproduce the results of a published paper. You are expected to choose a paper published in professional journal where data sets are also available, and work on the data and regression results.

There will be a project proposal, due on March 7, and a final report and the accompanying log file, due on the day

of final exam. On March 14, I will briefly talk to each student about the proposal. 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:** (midterm: 20%, final exam: 35%)
  - Exams are mandatory.
  - Final exam will be comprehensive. 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
90-92	A-
80-89	B+
70-79	B
60-69	B-
50-59	C+
40-49	C
30-39	C-
20-29	D+
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	Topics: Stata	Assignments dates (all due in one week)
1/24	Introduction Chapters 1, 2, 3: review of probability and statistics		
1/31	Chapter 4: Regression with one regressor: estimation	Working with do files and log files (Stata Practice 01)	
2/7	Chapter 4: Regression with one regressor: estimation	Data cleaning, descriptive statistics, and graphs (Stata Practice 02)	HW1 (descriptive statistics and graphs)
2/14	Chapter 5: Regression with one regressor: hypothesis testing	Working on HW1	
2/21	Chapter 5: Regression with one regressor: binary variables	Data cleaning data and working with multiple datasets (Stata Practice 03)	HW2 (data analysis and working with variables)
2/28	Chapter 6: Regression with multiple regressors: estimation	Working on HW2	
3/7	Chapter 6: Regression with multiple regressors: binary variables	Regression: working with scalars and regress command (Stata Practice 04)	Project proposal (Due 11:59 PM)
3/14	<b>One-to-one consultation on your choice of term project</b>	<b>Midterm Exam</b>	
3/21	<b>Spring break</b>		

3/28	Chapter 7: Regression with multiple regressors: hypothesis testing	Multiple regression: interpretation and model selection (Stata Practice 05)	HW3 (Paper 1)
4/4	Chapter 8: Nonlinear functions: quadratic and logarithmic	Working on HW3- paper1	
4/11	Chapter 8: Nonlinear functions: interaction and binary	Functional forms (Stata Practice 06)	HW4 (Paper 2)
4/18	Chapter 9: Assessing studies based on regressions	Working on HW4-Paper 2	
4/25	Chapter 11: Regression with a binary dependent variable	Binary dependent variable (Stata Practice 07)	HW5 (Paper 3)
5/2	Chapter 11: Regression with a binary dependent variable	Working on HW5-Paper 3	
5/9	<b>Final Exam</b>		

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