COURSE AND CONTACT INFORMATION

Course: PPPA 6013 Econometrics for Policy Research I
Semester: Fall 2018
Time: Wednesday 6:10-8:00pm
Location: MON 351

INSTRUCTOR

Name: Dylan Conger
Campus Address: MPA Bldg, Suite 601G
Phone: 994-1456
e-mail: dconger@gwu.edu
Office Hours: 2:00-4:00 on Wednesdays and by appointment

LAB INFORMATION

Teaching Assistant: Maggie Smith
e-mail: margaret_smith@gwmail.gwu.edu
Time: Wednesday 8:10-10pm
Location: GOV 103

COURSE DESCRIPTION AND LEARNING OUTCOMES

This is a course in applied econometrics, a very powerful set of statistical techniques for conducting policy research. Much of the course concerns the use of multiple regression in testing the impact of public policies and programs. The course covers the following topics in particular:

- review of basic statistical concepts;
- overview of the linear regression model;
- issues of specification and functional form;
- assumptions that are required in order for the model to produce valid estimates, including the implications of violating these assumptions; and
- some methods for addressing these "threats to validity" with a focus on techniques for establishing causal relationships between public policies and outcomes

As a result of the course, students will know:

- how to evaluate the methodological integrity of public policy research; and
- basic commands in Stata, a popular statistical software package.

COURSE REQUIREMENTS

Prerequisites: The course is accessible to students who do not have an extensive mathematical background (e.g. calculus and matrix algebra are not required). Nonetheless, there will be use of algebra throughout the course. The prerequisite for the course is the completion of one graduate course in statistics, such as PPPA 6002 or an equivalent course that covers basic descriptive and inferential statistics.

Required text: Studenmund (Stu), A.H. *Using Econometrics: A Practical Guide, 7th edition*.

Avg. Minimum amount of in class and out of class learning expected: Over 15 weeks, students will spend up to 1 hour and 50 minutes per week in class (110 minutes). Readings, problem sets, exam and presentation preparation are expected to take up to 6 hours (360 minutes) per week, on average. Over the course of the semester, students will spend 27.5 hours in instructional time and around 85 hours preparing for class (including time spent in LAB), for a total of 112.5 hours.

GRADING

- Midterm exam (40%)
- Evaluation of article (20%)
- Final exam (40%)

Exams: You are allowed to bring two pages of notes (or one page double-sided), scrap paper, a calculator, and copies of distribution tables (e.g., Z,t,F). Final exam is cumulative.

Evaluation of article: One goal of this course is for you to become a literate consumer of policy research. Toward that goal, masters students will work in groups of 3 to 4 to prepare a presentation to the class consisting of a critique of an article that uses econometric techniques. I will select the articles and form the groups. More explanation will be provided in class. Doctoral students will work individually and prepare written responses to articles (not presentations). More detail for the doctoral student assignment is provided in the GuidelinesforWritingManuscriptReviews.pdf, which can be found on Blackboard. The doctoral student paper is due on 11.7.

STATA AND LABS

You are not required to turn in problem sets, but I strongly encourage you to complete them. The answers are all posted online.

Datasets for problem sets are accessible from Blackboard and on the GW cloud for use at home or on the computers in the LAB. Problem sets will include the Stata code that you need to complete the assignment. Depending upon your learning style, you may become more proficient in Stata if you attempt the Stata work without the instructions. The TA will be available during LAB to answer questions. You may complete the problem sets on your own time if you prefer, either through the GW Cloud or by leasing (or purchasing) Stata for your home computer.

This is a course on econometrics, not Stata. As a result of taking this course, you will know how to execute basic commands in Stata, which will be a solid foundation for learning more. There are lots of on-line Stata tutorials. Feel free to read them and explore Stata on your own.

COURSE SCHEDULE

Date	Class	Topic	Chapters to Read
8.29	1	Review of Intro Stats	
		LAB- PS 1	
9.5	2	Basic Regression Model	1, 3
		LAB – PS 2	
9.12	3	Ordinary Least Squares	2,4
		LAB – PS 3	
9.19	4	Hypothesis Testing and Inference	5
		LAB – PS 4	
9.26	5	Logarithmic Equations	7
		LAB – PS 5	
10.3	6	Midterm Exam	
		NO LAB	
10.10	7	Polynomials and Interactions	7
		LAB – PS 6	
10.17	8	Omitted Variable Bias and Fixed Effects	6, 16
		LAB - PS 7	
10.24	9	Difference in Difference	16
		LAB - PS 8	
10.31	10	Standard Errors	8, 9, 10
		LAB - PS 9	
11.7	11	Presentations	
		NO LAB	
11.14	12	Presentations	
		NO LAB	
11.28	13	Miscellaneous Topics	13
		LAB – PS 10	
12.5	14	Review for Final Exam	
		LAB-TA answer questions for the final	
12.12		Final exam, 5:20pm -7:00pm	

Policies and Procedures for this Course

Safety and Security: In case of an emergency, if at all possible, the class should shelter in place. If the building that the class is in is affected, follow the evacuation procedures for the building. After evacuation, seek shelter at a predetermined rendezvous location.

The Syllabus: This syllabus is your guide to the course. If any questions arise, please check the syllabus before contacting me or the TA. Sound educational practice requires flexibility and I may revise content and requirements during the semester.

Late or Missed Class: If you are late or absent from class, it is your responsibility to obtain all announcements, assignments, and handouts from Blackboard or from your classmates.

Submission of Written Work Products Outside of the Classroom: It is your responsibility to ensure that I receive your assignment on time (in hard copy submitted in class). It is not permissible to submit assignments on the digital dropbox of Blackboard unless I tell you so.

Submission of Written Work Products after Due Date: All work must be submitted by the assigned due date in order to receive full credit. Only extreme circumstances warrant exceptions. Late assignments will be marked down for each day that they are late.

Academic Integrity Code: All examinations and other graded work products are to be completed in conformance with the George Washington University Code of Academic Integrity (see studentconduct.gwu.edu/code-academic-integrity). Any case of dishonesty will be referred to the Academic Integrity Council following the processes provided online.

Incompletes: You must consult with me to obtain an incomplete no later than the last day of classes in the semester. At that time, we will both sign the CCAS contract for incompletes and submit a copy to the School Director. Please consult the TSPPPA Student Handbook or visit http://www.gwu.edu/~ccas/faculty/files/Incomplete_poli0.pdf for the complete CCAS policy on incompletes.

Changing Grades After Completion of Course: No changes can be made in grades after the conclusion of the semester, other than in cases of clerical error.

Religious Holidays: Religious holidays are observed for this class as per university policy: https://provost.gwu.edu/sites/provost.gwu.edu/files/downloads/holiday_document.pdf.

Disability Support Services: If you need extra time on exams or assignments due to a disability, let me know in the first week of class. In order to receive accommodations on the basis of disability, provide proper documentation to the Disability Support Services Office (202-994-8250) in the Rome Hall, Suite 102. For additional information, see: disabilitysupport.gwu.edu/

Mental Health Services: The University Counseling Center, 202-994-5300, offers assistance and referral to address students' personal, social, career, and study skills problems. Services for students include: crisis and emergency mental health consultations; confidential assessment, counseling services (individual and small group), and referrals. For more information, see: counselingcenter.gwu.edu/

Student Information Sheet

Fall 2018

Name (Nickname):_____

Program (circle one):

MPP

MPA

PhD Policy/PA

Elliot School

If Elliot School, list program _____

Other_____

Year (circle one): 1st 2nd 3rd or later

Courseload (circle one): Full-time Part-time

Undergraduate Major:

Prior statistics courses:

Specific Areas of interest in Public Policy (if any):