Econ 488: Senior Capstone in Economics

Vipul Bhatt

SP 2019

Office: 442 Zane Showker Hall
Class Room: Showker 0102
Class Hours: TuTh 5:00-6:15PM

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Office Hours:
Tue- 10:15-10:50AM, 12:35-1:45PM, and 3:30-4:50PM
Thur-10:15-10:50AM and 3:30-4:50PM

Course Description

This course is a writing-intensive seminar offering a student the opportunity to integrate many of his/her undergraduate studies in economics. Its substantive content will emphasize applying the methods of theoretical and empirical analyses employed by all economists. The seminar will be structured so as to contain embedded assessment measures of the learning objectives specified by the department of economics, including those related to command of basic economic theory and of quantitative methods used in quantifying empirical relationships and testing hypothesis.

Course Objectives

An important aspect of economic analysis is establishing causal link between variables of interest. In this course one of my main objectives is to organize what you have already learned in your core economic courses into one or more of the following three approaches used in causal economic analysis:

1. Experiments or Randomized trials
2. Natural experiments
3. Structural

I will draw examples from both microeconomics and macroeconomics to explain the difference between each of these approaches. Please do not think of this class as a review of material you have already learned. I have no interest in taking that route. I will be covering new material but at the same time make connections with what you already know or should know given your current status in the economics program.

In this course I would like you to learn three things that most researchers have to grapple with in field. First, coming up with a well-defined researh question that is precise and interesting. This is harder than it soundes. The easier part is to find something interesting. The harder part is to make it precise. For example, suppose your question is how taxes affect the economy. That is a very broad question and as a result it is very hard to answer this question. A more precise question would be how changes in a particular tax law, such as earned income tax credit, affects labor supply decisions of low income families with children. The greater the precision in your question the more precise will be your answer.

Second, I want you to learn to assess the feasibility of implementing your research question. Is the data publically available? Which software you will use? Can you implement it successfully given the time frame (in your case Spring Semester)? All these are important constraints that need to be accounted for before you commit to a research project.

Finally, what is the best approach to answer your research question? You can use either use one of the three approaches we will be covering in class or choose to combine them in your project.

Course Material

There are no required textbooks for this course. Most of the lectures will be based on my notes which are from varied sources. At the end of this document I have provided a list of published articles that consititute required readings for this course. I will add more to this list as the semester progresses. You can download these articles using JSTOR. As long as you are connected to JMU wifi, you have access to JSTOR. Off campus, you would need to use VPN to access library resources.

Important Deadlines

	Date	Time	Location
Review Problem Sets	Jan 31,st 2019	Submit in-class	Showker 0102
Presentation 1: Part 1	February 12,th 2019	5:00-6:15PM	Showker 0102
Presentation 1: Part 2	February 14,th 2019	5:00-6:15PM	Showker 0102
Presentation 2: Part 1	March 12,th 2019	5:00-6:15PM	Showker 0102
Presentation 2: Part 2	March 14,th 2019	5:00-6:15PM	Showker 0102
Research Project: Final Version	April 16,th 2019	8:00PM	Canvas (Online)
Referee Report:	April 23,rd 2019	8:00PM	Canvas (Online)
Final	April 30,th 2019	3:30 - 5:30PM	Showker 0102

Course Policy

This is a seminar level course and hence assessment will be different from a regular class in the economics department. There will be a strong emphasis on writing, communication, and analytical skills. As a result you will find that the assessment includes several non-standard items.

Grading Structure

- **Assessment Exam (10%):** This multiple-choice exam will be on JMU Assessment Day (Tuesday, February 5th). The timing and the location is determined by the Univsersity. Below is a weblink that gives details on this exam:

  https://www.jmu.edu/assessment/Students/aboutAday.shtml

- **Class participation (5%):** Each student is expected to attend class, keep up with assigned readings, and participate actively in class discussion. You will be graded on the frequency, content, and clarity of your contributions to class discussion.

- **Review Problem Sets (15%):** There will be three review problem sets covering microeconomics, macroeconomics, and Econometrics. These are take-home exams and each will be worth 5% of your grade. You will get these on Jan 14th in class.

- **Research Projects and Presentations (50%):** During the semester you will be working on a semester long research project. You will also make two presentations on this project during the semester. Details for this assignment are provided on Canvas.

- **Referee Report (10%)** You will be randomly assigned to critically review the research project of your classmate. Details for this assignment are provided on Canvas.
- **Final Exam (20%):** There will be a closed book final worth 20% of your grade.

Makeup policy

- There is no makeup for any of the grading items, except the Final. Also no late submissions will be accepted.
- For the Final exam, a make-up will be given if an acceptable official document such as a medical statement from a doctor is supplied as soon as possible. I will not accept any document after one week has passed from the date of the exam except under extreme circumstances. If a student misses the exam and does not furnish an acceptable official document, or if the student's excuse is not valid according to me regardless of the documentation, the student will receive a grade of 0 for the final exam and hence will fail this class.

Use of Canvas

Materials pertaining to the course such as important announcements, lecture slides etc will be posted on Canvas. It is your responsibility to keep a track of such announcements and postings on Canvas at:

https://canvas.jmu.edu/

You should check Canvas at least twice per week to stay abreast of the course.

Preferred method for contacting me

The best way to reach me is via email. I will do my best to respond to e-mail within 24 hours on a weekday, 48 hours on a weekend, according to the following policy:

- I will not reply to e-mails that request information that can be found on the syllabus and/or Canvas.
- Make your queries brief. I will only respond to questions that can be answered in a sentence or two. For detailed questions, please see me during office hours.

Inclement Weather Policy

Classes will be held unless canceled by the JMU administration for reasons of bad weather, bomb threats, or fire alarms.

JMU Honor Code Policy

All students are expected to be aware of and adhere to the JMU Honor Code. Students will be expected to be academically honest and properly credit all source materials used. For the official documentation on the honor code policy see:

http://www.jmu.edu/syllabus//#Honesty

Other University policies

To read about JMU's policy egarding Adding/Dropping Courses Disability Accommodations, and Religious Observation Accommodations, please see

http://www.jmu.edu/syllabus

Tentative Course Outline

I will try my best to follow the schedule outlined below. However, in all likelihood this schedule will change depending on how the class reacts to each topic.

Week	Content and Readings
Week 1-3	Topic 1: Introduction • Causality in Economics • Three main approaches to casual economic analysis • Microeconomics vs Macroeconomics • Readings: – Lecture Notes
Week 4-8	Topic 2: Experimental and quasi-experimental approaches • Randomized control trials: theory and practice • Quasi-experimental settings: Difference in difference, IV estimation, and Regression discountinuity design • Readings: – Lecture notes – Lee and Lemieux [2010] – Angrist and Krueger [2001]
Week 9-12	Topic 3: Structural approach • Structural approach in microeconomics • Structural approach in macroeconomics • Readings: – Lecture notes – Nevo and Whinston [2010] – Christiano et al. [2018]
Week 13-14	Topic 4: Reflections • Leamer [1983], Leamer [2010] • Sims [2010], Keane [2010] • Nakamura and Steinsson [2018]

List of Readings

Joshua D. Angrist and Alan B. Krueger. Instrumental variables and the search for identification: From supply and demand to natural experiments. *Journal of Economic Perspectives*, 15(4):69–85, 2001.

Lawrence J. Christiano, Martin S. Eichenbaum, and Mathias Trabandt. On dsge models. *Journal of Economic Perspectives*, 32(3):113–40, 2018.

Michael P. Keane. A structural perspective on the experimentalist school. *Journal of Economic Perspectives*, 24(2):47–58, 2010.

Edward Leamer. Let's take the con out of econometrics. *The American Economic Review*, 73(1):31–43, 1983.

Edward Leamer. Tantalus on the road to asymptopia. *The Journal of Economic Perspectives*, 24(2):31–46, 2010.

David S. Lee and Thomas Lemieux. Regression discontinuity designs in economics. *Journal of Economic Literature*, 48(2):281–355, 2010.

Emi Nakamura and Jón Steinsson. Identification in macroeconomics. *The Journal of Economic Perspectives*, 32(3):59–86, 2018.

Aviv Nevo and Michael D. Whinston. Taking the dogma out of econometrics: Structural modeling and credible inference. *Journal of Economic Perspectives*, 24(2):69–82, 2010.

Christopher A. Sims. But economics is not an experimental science. *Journal of Economic Perspectives*, 24(2):59–68, 2010.