Course Introduction

ECON 5783 — University of Arkansas

Prof. Kyle Butts

Fall 2024

Welcome to Applied Microeconometrics (Econ 5783)

My name is Kyle Butts, Ph.D.

- Please call me Kyle
- Graduated from University of Colorado Boulder

Research:

- Econometrics and Causal Inference
  - $\rightarrow$ Panel data methods, spillover effects
- Urban economics
  - $\rightarrow$ Zoning laws, landlords, place-based policies

Norms and Background

All **questions are appreciated**.

- I *always* have time to answer them.

Norms and Background

All **questions are appreciated**.

- I *always* have time to answer them.

This course will assume you have experience in basic graduate level econometrics courses

- E.g. you have experience with linear regression, hypothesis testing, etc.

Course Materials

Coding Software

You will need to download *two* programs:

1. Install R from https://cloud.r-project.org/.
2. Install Positron (or RStudio) from
   https://github.com/posit-dev/positron/releases.

If you do not have experience in R, then I encourage you to spend a few hours learning basics of loading and working with data

- If you have Stata experience, you can use https://stata2r.github.io/ to help transition

Course Materials

Textbooks

Our primary text for the course is Causal Inference: The Mixtape by Scott Cunningham.

- For free online

Will use review articles for overviews of methodologies and academic articles for examples of empirical usage

- In the 'Literature/' folder in the GitHub repository

Responsible Researchers

I have tried to incorporate practical advice on doing applied research throughout this class.

In particular, I try to teach you about how to properly talk about research, how to clearly lay out assumptions and how to assess their plausibility, and how to avoid saying incorrect things

- E.g. you can never 'validate' or 'prove' an assumption. Do not write this

Assignments

Problem Sets

Problems sets will be assigned for each topic we cover in the course

- Will require you to analyze datasets, run monte carl simulations, and answer interpretative questions
- Solutions in R, but you can use whatever language you want

Students are encouraged to work in groups to discuss how the approach the problem sets, but each student must hand in his or her own set of answers.

Assignments

Two exams on October 7th and November 13th, but subject to change +/- a class

Assignments

Final Project

You will have a final project that serves as your 'final'.

- Answer a research question in the form of "the impact of X on Y"

You will be graded on your ability to discuss these issues and not whether or not you have a flawless research design

- Non-PhD Students may work in a group of two and (ii) are recommended but not required to include a brief literature review
- PhD Students should submit a single-authored paper and include a brief literature review