ECONOMICS 412:
APPLIED MICROECONOMICS

The field of applied microeconomics (“applied micro”) is a fundamentally outward-looking branch of economics. Applied microeconomists take economic theories and methodologies out into the world in order to apply them to interesting questions of individual behavior and societal outcomes. This upper-level seminar will start with an overview of the field and its methodologies, followed by foundational material in economic theory and econometric identification. We will then address substantive areas such as environmental effects on health, the fetal origins hypothesis, and the economics of crime, gender, and race. Most of the course will be devoted to close reading of research papers, including discussion of the relative merits of particular theoretical and empirical methodologies.

Prerequisites
Economics 300 or 301: Microeconomic Theory
Economics 360 or 361: Econometrics (can be taken concurrently with faculty permission)

Class
Class meets Wednesdays from 2:00 to 4:30 in Converse 309.
You must attend every class, and you must arrive on time and be prepared to discuss the material.
You must bring paper copies of the reading. No technology use is permitted in class.

Approach
Most of the course will be devoted to close reading of research papers, including discussion of the relative merits of particular theoretical and empirical methodologies. Students will participate actively in class discussion, engage with cutting-edge research, make oral presentations, evaluate empirical data, and write an analytical paper.

Class Participation
This seminar provides you an opportunity to grow as an economic thinker. You can make the most of that opportunity by reading actively and coming to class prepared. To read actively, make sure you ask yourself questions as you go along – what is the author doing, why, what do you think of it? Make notes, jot down questions, mark up your copy of the article, and bring thoughts and questions to class. When in class, we will work to develop our discussion skills so that we foster close engagement with the literature of applied microeconomics.
Readings
Most of our reading will be journal articles from the economics literature. These readings are available online as e-reserves on the course website and on reserve in Frost Library. In order to be able to read actively and to participate fully in class discussion, you must bring hard copies to class, so I encourage you to put together a paper coursepack in a binder. (Past experience shows that we are able to achieve much richer engagement with the work when we all have hard copies in front of us.)

There is one required book for this course:

There are three recommended books for this course:
(I suggest the Revised 3rd edition, but the 3rd, 4th, or 5th editions should be fine also.)

The above books are available to borrow from Frost Library Reserves. There are also copies to consult in the Economics Computer Lab. (Do not remove these books from the lab.)

Grading
Grades for the course will be based on a variety of assignments, as follows:

- Reading and class participation (20%)
- Engagement papers (20%)
- Class discussion facilitation (5%)
- Empirical assignments (20%)
- Term paper plan, conference, components, and draft (15%)
- Term paper (20%)

Engagement Papers
These short papers will provide you an opportunity to engage with some aspect of one of the articles we are reading for class that week. You may choose the topic freely, but I may provide some guidance in the week prior as well, pointing you towards particular issues. You should do one of these every week. Post your paper on Moodle by 9 am the morning before class and bring a paper copy to class. Your submission should be no more than 300 words. The first line of your submission should include a title as follows: last name of the first author followed by your main point (e.g. “Duggan: How to Measure Gun Ownership”). While you should do one every week, I’ll only count the grades from 8 of these.

Class Discussion Facilitation
For a specific class, you will each be asked to bring a well-formed topic for discussion. This will be a particular empirical or theoretical issue you find impressive, interesting, troubling, or simply puzzling in one of the papers for discussion that day. Bring your question, raise it, and foster discussion. I will distribute a schedule for these discussions. Email me your question by 9 am the morning before class.
Empirical Assignments
There will be a number of empirical assignments during the semester. In the first few, you will develop your STATA skills. In the others, you will complete small data analyses related to the papers we are discussing. These assignments will be distributed at least a week before they are due. Turn in a PDF copy on Moodle by 9: am the morning before class, and bring a paper copy to class.

Term Paper
There are several articles on the syllabus for which the datasets are publicly available. You will choose one of these articles to engage with closely during the semester. This engagement will involve a number of elements:

- Summary: create a one-page summary of the paper.
- Possible questions: identify several key issues or questions. This will serve as the jumping-off point for the conference.
- Replication: replicate the paper’s main results.
- Conference: meet with me to discuss the empirical or theoretical issues you find interesting in the paper, and vet them as possible topics for your term paper.
- Plan: make a plan to use the paper’s data to answer a question that is related to the paper’s main question but is not directly covered in the paper itself, or that is answerable using the paper’s data even if only tangentially related to the paper itself.
- Methods section: write up the methods section, including your econometric specification and planned tables.
- Stata code: turn in the code you will use to implement your plan.
- Draft: turn in a draft. We will discuss it and I will provide feedback to aid your revision process.
- Paper: implement and discuss your analysis, turning in a 10-15 page paper.

Academic Honesty
Students must abide by the Amherst College Honor Code.

Your work must be your own. If you consult any sources (including online sources), you must cite them clearly and completely; failure to do so constitutes plagiarism. If you work with others, you must make a note of that on your own assignment.

So that you have a clear understanding of your ethical obligations, I ask that you carefully reread the Statement of Intellectual Responsibility. The following link may be helpful:
https://www.amherst.edu/offices/student-affairs/community-standards/college-standards/honor-code

Remember that discussion of articles with peers and collaboration on empirical assignments are both valuable ways to learn. However, we all know the line between our own work and someone else’s work. Do not cross that line.
COURSE OUTLINE AND READINGS

January 25th

• Introduction
  o Pick an interesting article or two from the NBER working paper series and read it…

February 1st

• The Economic Model
  o Any microeconomics textbook: review the classical economic model of individual behavior.

• Understanding Evidence
  o Angrist & Pischke. Mastering Metrics. Chapter 1: Randomized Trials
  o Angrist & Pischke. Mastering Metrics. Chapter 2: Regression
  o Revisit one of the NBER working papers you identified above and read it again…
February 8th

- Deepening the Economic Model of Behavior

- Doing Econometrics
  - Alan C. Acock. *A Gentle Introduction to Stata, 3rd ed.* Chapters 1, 4, 5. College Station, TX: Stata Press.

February 15th

- Methodology Case Study: Differences in Differences
  - Angrist & Pischke. *Mastering Metrics*. Chapter 5: Differences in Differences

February 22nd

- Early Life Influences and the Fetal Origins Literature
March 1st

- **Environment and Health**

- **Applied Econometrics**

March 8th

- **Race, Policing, and Criminal Justice**
  - Various articles (to be chosen) about Roland Fryer’s work on racial bias in policing.

March 22nd

- **Crime**

March 29th

- **Racial Discrimination**
    doi: 10.1257/0002828042002561
April 5th

- Gender in the Labor Market

April 12th

- Gender and Crime

April 19th

- Presenting Results
  - Discuss final papers

April 26th

- Wrap-up, discuss final papers