Course goals

This course has three goals. Our main objective is to improve your ability to do research in applied microeconomics, broadly defined. To satisfy this objective, we will review the parts of the empirical industrial organization (IO) literature that are most likely to be beneficial for research outside of IO. With respect to this objective, two considerations guide the selection of course material. First, what techniques from IO are most useful for doing research in empirical microeconomics? Second, what results from IO are most useful for microeconomists who conduct research outside of IO?

A secondary objective is to provide an empirical follow-up to UNC’s IO theory course. This is useful for students who will write a dissertation in empirical IO, and also for students continuing on UNC’s theory track. In both cases, it is valuable to see how researchers have empirically evaluated various theories of inter- and intra-firm behavior.

The final objective is to show you some very successful dissertation papers in empirical IO. Successful dissertations across applied microeconomics will have much in common in terms of question selection, data construction, and methodology.

Our approach

We will read a selection of papers from the empirical IO literature. The emphasis will be on recent papers so that you can see the latest methods applied.

For each paper we read, you will need to evaluate:

- How is the empirical exercise motivated by theory or policy relevance?
- What is the relationship between the relevant theory and the empirical exercise?
- What about the data and modeling assumptions do you believe and/or not believe?
- Do the empirical results achieve author’s objective?
- How could this paper be extended to provide additional useful results? If the present data and model are insufficient, what is needed?

We will develop your ability to answer these questions through a series of in-class activities, homework assignments, and a final paper.
Graded work

Your grade will come from four distinct activities.

1. Class participation (25%). Our class meetings will involve balanced discussion among all of us. You need to contribute constructively and frequently to classroom discussion for your own grade and to help move the class along.

2. Paper presentations (25%). Each student will do two in-class presentations of research articles during the semester. Each presentation will last about 30 minutes and provide a discussion of some central points in an article. Once the presentation schedule and articles are set, I will assign the portions of each paper that a student will discuss. For example, a student may be asked to present the data and econometric model of a particular paper, but not the paper's introduction, theory section, or results.

3. Homework assignments (25%). There will be about 4 data-oriented homework assignments. You will need Stata for some of the assignments, and an advanced programming language such as Matlab or Fortan for others.

4. Final paper (25%). On Monday May 6 you will turn in a brief paper (~8 pages) that motivates and describes a novel empirical research idea that is part of industrial organization, broadly defined. Think of this paper as a condensed version of the material found in the first half of a traditional research article. You do not need to collect the data necessary to “complete” the article, but you must show that the data could be collected or created in a reasonable amount of time or with limited financial resources. During the last week of class you will give a brief presentation on your paper topic and progress.

Sakai

I will use Sakai to distribute notes, readings, homework assignments, etc. Please verify that you can log on to Sakai and access the information for this class. All grades for the course will be stored and displayed on the Sakai course page. It is your responsibility to insure that the grades on this course page are accurate.

Homework assignments

I will post assignments to Sakai about one week before they are due. You may complete your assignments in groups of 2 or 3 students, turning in one assignment per group. (You may work alone if you prefer) You are welcome to discuss the assignments and potential solutions freely with any students in the class, but each group must turn in its own version of the homework. I will provide brief answers to the assignments one week after they are due.

Classroom etiquette

My goal is to maintain a classroom environment that provides a good learning environment for everyone. To minimize distractions, you must turn off all cell phones, laptops, and other electronic devices during class. I expect you to arrive on time and prepared for the day’s class.
Readings and outline

There are several high-quality background sources that you should be ready to consult. They are:

• J. Wooldridge, Econometric Analysis of Cross-Section and Panel Data, MIT, 2002
• P. Reiss and F. Wolak “Structural Econometric Modeling: Rationales and Examples from Industrial Organization,” in Heckman and Leamer (Eds), Handbook of Econometrics, Vol. 6, Ch. 64, pp. 4277-4415.

The books are available for purchase or at the library. The handbook chapters are available at the course Sakai page.

The specific readings for this course are listed below and separated by topic. I have provided estimates of how much time each topic will take us to cover. These estimates are likely to be wrong, and we will adjust our topic coverage as needed throughout the semester.

Each listed topic identifies some papers we will cover in class, plus some extra material for students interested in any particular topic. You are required to read all of the papers under each “In class” heading before we discuss them in class. I will give you advance notice on what papers we will cover in upcoming classes. Count on reading about one paper per class meeting.

About a month into the semester, we will begin having student presentations of papers. These are likely to be drawn from the collection of papers we will cover in class. Presentation topics and timing will be assigned at least two weeks before the presentations begin.

Static demand
Homogeneous goods (0.5 week)
In class:

Supplemental papers:

Differentiated products (1.5 weeks)
In class:
Supplemental papers:


Welfare applications (1 week)
In class:


Supplemental papers:

- A. Goolsbee and A. Petrin, “Consumer Gains from Direct Broadcast Satellites and the Competition with Cable TV,” ECTA 72(2), March 2004, pp. 351-381.

Pricing (1 week)
In class:


Supplemental papers:

- M. Grennan, “Price Discrimination and Bargaining: Empirical Evidence from Medical Devices,” University of Toronto WP.
Dynamic demand (1 week)
In class:
Supplemental papers:

Information in markets (1.5 weeks)
In class:
Supplemental papers:

Production and technology (1 week)
In class:
Supplemental papers:
Inter-firm relationships (1 week)
In class:


Supplemental papers:


Static discrete games (1.5 weeks)
In class:


Supplemental papers:


Industry dynamics and dynamic games (1.5 weeks)
In class:


Supplemental papers:


Abbreviations for journal names:
- AER – American Economic Review
- BJE – Bell Journal of Economics
- ECTA – Econometrica
- EL - Economics Letters
- IER – International Economic Review
- JIE – Journal of Industrial Economics
- JPE - Journal of Political Economy
- RJE – RAND Journal of Economics
- RESJ – Review of Economic Studies
- QJE - Quarterly Journal of Economics
- QME – Quantitative Marketing and Economics