

Syllabus

Course Description

The goal of this course, combined with Econ 220A and 220C, is to give you the basic tools needed to understand the latest work in IO and carry out original research. I think the IO sequence at Berkeley this year will consist of only empirical IO (and no IO theory). While much of IO is empirical these days, IO is a field with strong links to theory, so even if you plan on doing empirical work, it is advisable to be acquainted with the theoretical aspects of IO as well. Taking the theory sequence may be a good way to do so. Many of the most successful IO researchers do both empirical and theory.

In this class, we will cover dynamic single decision models, dynamic games, production functions and auctions. Although these topics are somewhat diverse, we will have a unifying theme that connects all of these topics, which is the notion of formal identification. It is important to note what I won't be covering. I won't be doing demand, entry, models of asymmetric info etc. - Ben Handel teaches these topics (as well as many other topics).

I will upload slides on bCourses before class. I won't be printing them out. I will also post problem sets on bCourses. Please check the website at least once a week.

In terms of grading, your grade will be based on problem sets and a final project. Last year, there were 3 problem sets, two of which were replication exercises. I will talk about what I would like for your project in class. We will spend either the last week or the last two weeks of classes for presentation of your projects.

There are two weeks (week of September 13 and week of September 27) that I am scheduled to be out of town. I would like to make up for these classes either by having an in-person make up class or a zoom lecture. Since it is a small class, I'm hoping that we would be able to work out a plan that everybody can agree on.

Below is a rough outline of the topics I intend to go over in class. I will try to include a list of related reading material in the slides every week.

Tentative Outline and Calendar

Week Of	
(Class 1)	Introduction
(Class 2)	Basics of Identification 1 Demand & Supply, Binary Threshold Crossing
(Class 3)	Basics of Identification 2 Discrete Choice, Hotz-Miller (1993, ReStud)
(Class 4)	Examples: da Silveira (2017, ECMA), D'Haultfoeuille-Fevrier (2020, QE)
(Class 5)	Identification of single agent dynamics: Magnac-Thesmar (2002, ECMA) Example, Rust (1987, ECMA)
(Class 6)	Identification of multi-agent dynamics: Bajari Benkard Levin (2002, ECMA), Pakes Ostrovsky Berry (2007, Rand)
(Class 7)	Olley and Pakes (1996, ECMA) , Akerberg, Caves Fraser (2015, ECMA)
(Class 8)	Examples: Ryan (2012, ECMA), Collard-Wexler(2013, ECMA), Kalouptsi(2014, AER)

(Class 9)	Auctions, Guerre Perrigne Vuong (2000, ECMA)
(Class 10)	Collusion, Porter and Zona (1993, JPE)
(Class 11)	Partially identified models and moment inequalities, Pakes Porter Ho Ishii (2015, ECMA)
(Class 12)	Examples: Krasnokutsukaya(2011, ReStud) , Krasnokutsukaya and Seim(2009, AER) , McAdams and Hortacsu(2010, JPE)
(Class 13)	Applications: Ho (AER, 2009) , Haile Tamer (JPE, 2003)