

ECON 690: Topics in Industrial Organization (An Incomplete Syllabus)

Spring 2017

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Office Hours: TBA
and by appointment

Class Location: Somewhere
Class Time(s): Sometime

1 Overview

This course examines topics in **empirical** industrial organization, which aims to use data to draw conclusions about how market and firm structure, firm conduct, and market performance interact in imperfectly competitive markets. We will cover theory only to the extent that it provides intuition or testable conclusions. The course is divided into two (not necessarily equal) parts. The first part will cover **mergers, market power, and entry**. The second part will deal with the **estimation of dynamic games**. For both parts, the focus will be on learning important methods and putting them into practice. My goals are that, by the end of the course, you will achieve the following:

- You will know about several important empirical methods, and you will understand why we use them.
- You will have applied some of those methods to real data, generating your own usable code for implementing them.
- You will be able to highlight the advantages and shortcomings of any given method by pointing to scholarly work that applies that method to real industry data.
- For at least one of these methods, you will have the kind of in-depth knowledge that makes you an expert (and resource) among your peers.
- You will have practiced your presentation skills.
- You will have thought creatively about the challenges facing the forefront of empirical I.O.

1.1 Academic Integrity

I do not tolerate academic dishonesty, and neither does Purdue University:

“Purdue prohibits ‘dishonesty in connection with any University activity. Cheating, plagiarism, or knowingly furnishing false information to the University are examples of dishonesty’ (Section B.2.a, Code of Student Conduct). Furthermore, the University Senate has stipulated that ‘the commitment of acts of cheating, lying, and deceit in any of their diverse forms (such as the use of substitutes for taking examinations, the use of illegal cribs, plagiarism, and copying during examinations) is dishonest and must not be tolerated. Moreover, knowingly to aid and abet, directly or indirectly, other parties in committing dishonest acts is in itself dishonest’ (University Senate Document 72-18, December 15, 1972)”

The paragraph above is an excerpt from Purdue’s student guide to academic integrity, entitled *Academic Integrity: A Guide for Students*. The full guide provides other examples of dishonesty, offers tips on how to avoid it, and explains its consequences. Please review it here:

https://www.purdue.edu/odos/osrr/resources/documents/academic_integrity.html

Academic dishonesty of the kind described in that guide will be reported to the Dean of Students, and is grounds for **failing the course**. If you find yourself contemplating cheating, plagiarism, or any other form of academic dishonesty, either for your benefit or for the benefit of someone else, please come to me first. Concern over your (or anyone else’s) performance in the class, forgetting an assignment, or trying to improve your exam grade are not valid reasons for cheating. Do your own work, and do your best.

1.2 Harassment

I do not tolerate harassment of any kind, and neither does Purdue University:

“Purdue University is committed to maintaining an environment that recognizes the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding and mutual respect; and encourages its members to strive to reach their potential. ... Harassment in the workplace or the educational environment is unacceptable conduct and will not be tolerated. Purdue University is committed to maintaining an educational and work climate for faculty, staff and students that is positive and free from all forms of Harassment. This policy addresses Harassment in all forms, including Harassment toward individuals with legally protected status for reasons of race, gender, religion, color, age, national origin or ancestry, genetic information or disability and Harassment toward individuals for other reasons such as sexual orientation, gender identity, gender expression, marital status or parental status.”

The paragraph above is an excerpt from Purdue’s Anti-Harassment Policy. The full policy provides examples of harassment and outlines its associated procedures and consequences. Please review it here:

<http://www.purdue.edu/policies/ethics/iiia5.html>

Conduct of the kind outlined in that policy, including but not limited to “conduct towards another person or identifiable group of persons that has the purpose or effect of creating an intimidating or hostile educational environment,” will be immediately reported and is subject to disciplinary or remedial action, including **expulsion from the University**.

Your first assignment as part of this course is to read the guide to academic integrity, the anti-harassment policy, and the first five pages of this syllabus in their entirety. When you have done so, sign and date pages 3 and 5, and return this page to me.

By signing this document, I certify that I have read Purdue University's *Academic Integrity: A Guide for Students* and Purdue University's Anti-Harassment Policy at the aforementioned links. I further certify that I have read the first five pages of this syllabus, including the contents of this page. I understand that any act of academic dishonesty is grounds for failing this course. I further understand that any act of harassment is subject to disciplinary or remedial action, which may include expulsion from the University. Finally, I promise to conduct myself with the utmost integrity and respect for others during this course, and to immediately report to the instructor any act of dishonesty or harassment that I witness, in this class or any other at Purdue, for the remainder of this semester.

Name

Date

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This page serves as a reminder of your commitment to integrity and respect during my course. Please sign and date this page.

By signing this document, I certify that I have read Purdue University's *Academic Integrity: A Guide for Students* and Purdue University's Anti-Harassment Policy at the aforementioned links. I further certify that I have read the first five pages of this syllabus, including the contents of this page. I understand that any act of academic dishonesty is grounds for failing this course. I further understand that any act of harassment is subject to disciplinary or remedial action, which may include expulsion from the University. Finally, I promise to conduct myself with the utmost integrity and respect for others during this course, and to immediately report to the instructor any act of dishonesty or harassment that I witness, in this class or any other at Purdue, for the remainder of this semester.

Name

Date

1.3 Prerequisites

- Required Courses:
 - Ph.D. Microeconomics
 - Ph.D. Econometrics
 - First two modules in the I.O. sequence, as taught by Professors Martin and Siebert.
- Additional Info:
 - Exceptions to the above will only be granted under special circumstances.
 - Students will also find econometrics courses dealing with panel data, or microeconometrics more generally, to be very helpful.

1.4 Course Website

There is a website for the course on Blackboard Learn. I will post electronic copies of the syllabus, lecture slides, and other resources there. I may also use the website for quizzes or surveys on occasion. You can access the course website by logging in here:

<https://mycourses.purdue.edu/>

1.5 Course Textbooks

There are no textbooks required for this course. We will read scholarly journal articles, and occasionally content from the popular press (e.g. *NY Times*, *Wall Street Journal*, etc.). Any such readings will be available for free through the Purdue University Library or some other site, and I will provide links in advance via Blackboard. I may also point students to resources (e.g. other articles, textbooks, etc.) to further their understanding on a case-by-case basis. If you don't feel like you have too much to read already, you're probably not doing grad school correctly.

1.6 Etiquette

I value your presence in my class, and I want your classmates to feel the same way. You are welcome to eat/drink during class as long as food/drink is permitted in the classroom and you do not disrupt or distract others by doing so. Please refrain from smoking during or immediately before my class. Smoking is prohibited on the West Lafayette campus, except in designated smoking areas.¹ Please silence your cell phones, pagers, or other electronic devices during class. You are, of course, welcome to take notes on your laptop, tablet, etc.

¹Map available here: <http://www.purdue.edu/physicalfacilities/smokefree/map.htm>

2 Assessment

2.1 Homework Assignments (60%)

The majority of your grade will be based on your performance on homework assignments. I do not expect you to ace every assignment. Therefore, much of this grade will be based on demonstrated effort. That said, students who produce better answers will be rewarded accordingly. Often, but not always, I will permit group work. For each assignment, I will be explicit about whether group work is allowed. Unless you are told otherwise, assume the assignment is individual. Examples of homework include, but are not limited to, the following:

- Referee report on an article we've read.
- Research proposal for an extension of an article we've read.
- Application of an empirical method we learn in class.
- Replication of a result we study.
- Comparison of multiple methods we learn.

2.2 Research Presentation (20%)

You will be assigned an article to present briefly to the class. The goal of this assignment is to give you practice diving into a scholarly article and conveying the value of the research to an audience that, most likely, has not read the article as deeply as you. Assessment will therefore be based on how well you understand the material; how well you assess the article's contribution to the literature, including its advantages and shortcomings; and how clearly you present the article's essential components.

2.3 Class Participation (20%)

I will try not to overwhelm you with readings. In return, I will expect you to read what I've assigned. You should come to class prepared to answer high-level questions and ask deeper ones.

2.4 Grading

I grade exams on a scale of 0-100%. At the end of the course, I compute a final percentage grade based on the weights given above and then translate those grades into letter grades according to the following scale (where “g” indicates your final percentage grade):

| | | |
|---------|---------|----|
| 95% ≤ g | | A+ |
| 90% ≤ g | < 95% | A |
| 85% ≤ g | < 90% | A- |
| 80% ≤ g | < 85% | B+ |
| 75% ≤ g | < 80% | B |
| 70% ≤ g | < 75% | B- |
| 60% ≤ g | < 70% | C |
| 50% ≤ g | < 60% | D |
| | g < 50% | F |

3 Content (*full detail and reading list forthcoming*)

Part 1: Mergers, Market Power, and Entry

See Ralph’s syllabus. We will cover some material from his sections on “Identification of Market Power and Semi-Structural Approaches,” “Strategic Alliances/Mergers/RJVs/Innovation,” and “(Static) Entry Models and Sunk Costs,” plus Ying Fan’s AER paper on endogenous product characteristics, my co-authored paper with Andrew Sweeting, Jimmy Roberts, and Sophia Ying Li on selective entry, and more.

Part 2: Estimating Dynamic Games

See Ralph’s syllabus. We will cover some material from his sections on “Multi Agent Dynamic Models” and “Adoption of New Technologies,” plus other papers related to investment decisions, including my paper on airlines and bankruptcy.