

Instructor: Jon Williams
Office: Gardner Hall, #200-G
Email: jonwms@unc.edu

UNC – Chapel Hill
Department of Economics

Spring Semester 2016
Office Hours: In my office
T/TR, 2:00pm-3:30pm

ECON 545: Advanced Topics in Industrial Organization

Course Description:

Econ 545 (Advanced Topics in Industrial Organization) applies the theoretical foundations developed in Econ 445 (Industrial Organization), and related courses like Econ 510 (Topics in Microeconomic Theory) and Econ 511 (Game Theory in Economics). The applications take the form of case studies, empirical exercises using real-world data, and development of computational models. The topics to be covered include: interaction between firms and consumers in markets that fall outside the benchmark competitive model, how firms acquire and exploit market power, game theory and information economics to analyze how firms interact strategically, price discrimination, collusion/cartels, anti-trust policy, merger analysis, and other regulatory issues.

Method of Evaluation:

Assignments/Paper (60% = 4 x 15%)
Midterm 1 (10%)
Midterm 2 (10%)
Final (20%)

At the instructor's discretion, grades will be curved to have a distribution similar to previous sections of 500-level courses in the economics department at UNC.

Examination Policies and Dates (subject to change for midterms):

Midterm 1 Examination: Thursday, February 18th, 2016 during class
Midterm 2 Examination: Thursday, March 31st, 2016 during class
Final Examination (usual classroom): Saturday, April 30th, 2016 at 8:00 am

Last Day of Late Registration:

Friday January 15th, 2016

Readings:

There will be no mandatory text for the course. The majority of our readings will come from published or working versions of academic papers, case studies, regulatory/government publications, and other sources. For reference to the theoretical concepts we apply in the course, I recommend *Industrial Organization: Contemporary Theory and Empirical Applications* by Pepall, Richards, and Norman (4th Edition) and *Game Theory for Applied Economists* by Gibbons (1st Edition).

Sakai:

I will use Sakai (or other agreed upon electronic means) to distribute notes, readings, homework assignments, etc. Please verify that you can log on to Sakai and access the information for this class. Attendance is still extremely important as materials will periodically be distributed in the classroom without prior notification.

All grades for the course will be stored and displayed on the Sakai course page. It is your responsibility to ensure that the grades on this course page are accurate.

Assignments/Paper:

These assignments are the core of this course, given the strong focus on applications. I will post a total of four assignments to Sakai two weeks before they are due. You are welcome to work with other students on the assignments (maximum of 4), but everyone must turn in his or her own version of the homework. Your assignment must clearly reflect your own work and cannot contain verbatim passages from your classmates' assignments. Late work will receive no credit. We will discuss answers to the assignments in class after they are turned in. Each assignment will be graded separately, but the assignments will be aggregated at the end of the course and serve as your paper for the course, as each will require extensive writing and analysis.

Exams:

There will be two midterm exams and a final exam. The goal of these exams is to test your understanding of the applications and readings, and each exam will draw heavily upon the homework assignments. The exams are open-note, open-book. This policy emphasizes that your main task is to develop strong intuition about economic incentives and activity rather than memorizing terms or formulas.

There will be no make-up exams. If you want to avoid a penalty for missing an exam, you must obtain a waiver for a university-excused reason. Valid excuses for missing an exam include: a documented personal illness or a serious illness or emergency within your immediate family. Excused absences will result in a re-weighting of your other grades. Unexcused absences will result in a grade of zero.

Re-grade policy: For simple scoring or adding-up mistakes, return the exam to me with a brief explanation. For more substantial cases where you think that you deserve credit for an answer, write a single paragraph explaining why you think your answer was correct. All requests must be given to me (along with your exam) within one week of when I return the graded exams. No re-grade requests will be accepted after this period.

Classroom etiquette:

My goal is to maintain a classroom environment that provides a good learning environment for everyone. To minimize distraction, you must turn off all cell phones, laptops, and other electronic devices during class, unless explicitly instructed otherwise, as there may be times during the course that an open laptop is appropriate and desirable. I expect you to arrive on time and prepared for the day's class.

Teaching assistants:

We will have a teaching assistant for the class. He or she will assist me in grading your work and hold occasional office hours. These office hours generally will be held during the weeks of your exams. A TA has not yet been assigned to this class, but once this occurs I will post her or his contact information to Sakai.

Academic integrity:

You are encouraged to work together with other students on the homework. However, each student must write up her or his own version of the homework assignment. Exams are taken individually, without any help from other students or unapproved resources. Each student is expected to maintain academic integrity and follow the UNC Honor System.

Tentative Course Outline (order/content subject to change at instructor's discretion):***Merger Analysis:***

- Review of current horizontal merger guidelines
- Case study of approved/failed/proposed telecom mergers - AT&T/DirecTV, Comcast/TWC, Charter/TWC
- Case study of mergers and forced divestiture of assets – United/Continental, American/US-Air
- Related academic papers: Pesendorfer (RJE, 2003), Pesendorfer (RJE, 2005), Jacquemin and Slade (HIO), Nocke and Whinston (JPE, 2010), DOJ (1997), Carlton (WP, 2009), Whinston (HIO, 2007), Houde (AER, 2012), Allen/Clark/Houde (AER, 2014).
- Computational modeling and simulation (HW#1): Build a computational model to simulate effects of recent mergers. Compare the model's predictions to actual outcomes, and discuss potential limitations and extensions of the model.

Collusion/Cartels and Antitrust:

- Discussion of US statutes on anti-competitive behavior
- Review of relevant models of oligopoly
- Case study on collusive practices in banking – manipulation of LIBOR
- Related Academic papers: Shepard (JPE), Athey (ReStud), Bernheim and Whinston (RJE), Froeb (IJIO), Porter (RJE), Ciliberto and Williams (RJE), Froeb (IJIO), Snider and Youle (WP, 2015), Youle (WP, 2015), Houde (AEJ, 2013), Clark and Houde (JIE, 2014), Carlton (WP, 2003), Kaplow and Shapiro (WP, 2007), Segal and Whinston (2007).
- Empirical Application (HW #2): Test for collusion among airlines using current data to investigate DOJ's recent inquiry into collusive pricing following consolidation in the industry.

Acquisition and Exploitation of Market Power:

- Review of relevant oligopoly models
- Case Study on predatory pricing – DOJ v. American Airlines
- Case study on patent settlements – FTC v. Activis Inc
- Related Academic papers: Ordover and Saloner (HIO), Schmalensee (BELL, 1978), Goolsbee and Syverson (QJE, 2008), Ellison and Ellison (AEJ, 20010), Kreps and Wilson (JET, 1982), Milgrom and Roberts (JET, 1982 and EMA 1982), Bolton and Scharfstein (AER, 1990), Jacobo-Rubio/Turner/Williams (WP, 2015), Snider (2012), Snider and Williams (2015), Lederman (RJE, 2007), Lederman (JEMS, 2008)

- Empirical application (HW #3)– measure impact of operational/marketing barriers on pricing and entry in the airline industry, and evaluation of regulatory/statutory steps taken to abate market power and barriers to competition.

Price Dispersion and Discrimination:

- Review of relevant oligopoly models
- Case study on telecom pricing practices – Usage-Based Pricing
- Case study on patent settlements – FTC v. Activis Inc
- Related Academic papers: Shepard (JPE, 1991), McManus (RJE, 2007), Chevalier/Kashyap/Rossi (AER, 2003), Mortimer (QJE, 2007), Borenstein (RJE, 1991), Borenstein and Rose (JPE, 1994), Gerardi and Shapiro (JPE, 2009), Goldberg (JPE, 2009), Leslie (RJE, 2004), Nevo/Wolfram (RJE, 2002), Ayers/Siegelman (AER, 1995), Holmes (AER, 1989), Blackstone (JIE, 1975), Nevo/Turner/Williams (EMA, 2016)
- Empirical application (HW #4) – measuring effectiveness of discriminatory pricing practices for residential broadband services (national ISP data) and international air travel (SIAT data).

Other Regulatory Topics In the News:

- Net-neutrality
- Open to suggestions?