

# ECON 590: Industrial Organization

University of Illinois at Urbana-Champaign  
College of Liberal Arts & Sciences  
Department of Economics

Professor Guillermo Marshall

Spring 2019  
MW 12:30-1:50PM (DKH 123)

## Communication:

**Office:** 208 David Kinley Hall  
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**E-mail hours:** Monday-Friday, 9AM-5PM.  
**Office Hours:** Monday 11AM-Noon.

## Catalog Description:

(4 Hours)

## Course Description:

Industrial organization is the branch of microeconomics that studies the functioning of product and service markets with few competitors. The presence of a small number of market participants generates situations of strategic interdependence and possibly market power. Economists have studied market power for many years because of how it may affect market efficiency.

The course has three objectives. First, use microeconomics and game theory to study firm behavior and its welfare consequences in oligopoly markets. Second, use the models of oligopoly markets to analyze policy issues related to competition (e.g., mergers) and innovation (e.g., patents). Third, use econometric techniques to introduce an empirical framework for competition analysis, which illustrates how to put the theory of industrial organization at work.

## Learning Resources:

Class slides.

The course does not have a required textbook. The following textbooks are suggested to supplement class material:

- Jeffrey R. Church and Roger Ware, Industrial Organization: A Strategic Approach  
Free download available: [http://works.bepress.com/jeffrey\\_church/23/](http://works.bepress.com/jeffrey_church/23/)
- Massimo Motta, Competition Policy: Theory and Practice, Cambridge University Press.
- Jean Tirole, The Theory of Industrial Organization, MIT Press.

We will make use of R throughout the course. No prior knowledge of R is required although it is recommended. Download a free copy at <https://www.r-project.org/>. Bringing your computer to lectures is also recommended, as we will be working in R during lectures.

## Student Assessment:

### Scoring

- Assignments- 150 Total Points
- Exam 1- 250 Total Points
- Exam 2- 250 Total Points
- Final Exam- 350 Total Points

The final grade for the class will be scored out of 1,000 points. Round to the nearest integer then compare that number to the Plus/Minus Grade Cutoffs below.

### Plus/Minus Grade Cutoffs

A+ ≥ 970	B+ ≥ 870	C+ ≥ 770	D+ ≥ 670	600 > F
970 > A ≥ 940	870 > B ≥ 840	770 > C ≥ 740	670 > D ≥ 640	
940 > A- ≥ 900	840 > B- ≥ 800	740 > C- ≥ 700	640 > D- ≥ 600	

### **Assessment Policies**

#### *Assignment Policy:*

All assignments are to be turned in at the beginning of the class in which they are due. Late assignments receive no credit. Assignments can be turned in early at your instructor's office. The assignment portion of your grade will be the average of all your assignment scores with the lowest assignment grade dropped.

#### *Exam Policy:*

In the event that a student misses one of the first two exams, the points from the missed exam will be placed on the final. There are no make-up exams. The final will then be scored out of 600 rather than 350. In the event that a student misses a second in-term exam, the instructor reserves the right to give the student a zero on that exam.

The following materials are allowed for use during the exam: graphing calculator, accounting calculator or four-function calculator. There are to be no books, papers other than the exam itself, cell-phones or other items that connect to the internet. Students found to be using unapproved items are in violation of the Academic Integrity policy of the University and will be subject to disciplinary action.

### **Important Dates:**

Exam 1: Feb 25, 2019\*.

Exam 2: April 1, 2019\*.

Final Exam: TBA

\*Dates subject to change

### **Final Exam Conflict Policy:**

From the University's final exam policy:

- Any student having more than two consecutive final examinations is entitled to rescheduling as follows if he or she takes the following action no later than the last day of classes:
  - The student must investigate whether a conflict examination is being held at another time for any of the examinations involved.
  - If a conflict examination has been scheduled for any of the courses, the student must take one or more of these conflict examinations. If conflict examinations are offered for

- more than one course, the student must take the conflict for the course that has the largest number of students.
- If no conflict examinations have been scheduled, the student must contact the instructor of the course having the largest number of students. The contact must be made no later than the last day of classes, and that instructor must provide a makeup examination.
  - Normally in a semester several combined-sections, conflict, and noncombined examinations are given at the same time. As a guide to resolving conflicts, an order of priority has been established within each examination period, and a student should resolve a conflict using the published examination schedules and the following priority guidelines.
    - National and state professional examinations (e.g., CPA, actuarial science, Architecture Registration Examination) take priority over campus final examinations. An instructor must offer a conflict examination to a student scheduled to take a national or state professional examination and a campus final examination at the same time.
    - A noncombined course examination has precedence over any combined-sections or conflict examination.
    - A department offering a combined-sections final examination must provide a conflict examination if required to accommodate student conflicts.

The University's final exam policy is available at:  
[http://studentcode.illinois.edu/article3\\_part2\\_3-201.html](http://studentcode.illinois.edu/article3_part2_3-201.html)

**Emergency Response Recommendations:**

The university maintains guidelines for emergency responses. A list of recommendations when to evacuate and when to find shelter are available at:  
[http://illinois.edu/cms/2251/general\\_emergency\\_response\\_recommendations\\_8\\_16\\_13\\_final.docx](http://illinois.edu/cms/2251/general_emergency_response_recommendations_8_16_13_final.docx)  
Floor plans for specific buildings are available at:  
<http://police.illinois.edu/emergencyplanning/floorplans/>

**Statement on Accommodations:**

To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor and the Disability Resources Educational Services (DRES) as soon as possible. To contact DRES you may visit 1207 S. Oak Street, Champaign, call 333-4603 (V/TTY), or email a message to [disability@uiuc.edu](mailto:disability@uiuc.edu).

**Academic Integrity:**

"The University has the responsibility for maintaining academic integrity so as to protect the quality of education and research on our campus and to protect those who depend upon our integrity.

*Expectations of Students.* It is the responsibility of each student to refrain from infractions of academic integrity, from conduct that may lead to suspicion of such infractions, and from conduct that aids others in such infractions. Students have been given notice of this Part by virtue of its publication. Regardless of whether a student has actually read this Part, a student is charged with knowledge of it. Ignorance is not a defense."

The University's full academic integrity policy is available at:

[http://studentcode.illinois.edu/article1\\_part4\\_1-401.html](http://studentcode.illinois.edu/article1_part4_1-401.html)

**Tentative Semester Schedule:**

Note: Suggested sections from Church and Ware's (CW) and Massimo Motta's (MM) textbooks are in parentheses.

*I. Market structure and performance*

Week 1. Introduction: Demand, cost functions and firm behavior. Demand estimation for homogeneous goods. (CW: 2.1-2.4.1)

Week 2. Industry models without strategic interaction: Perfect competition and Monopoly.

Week 3. Price discrimination (CW: 5-5.4.3; MM 7.4)

Week 4. Oligopoly in markets for homogeneous products (CW: 8-8.2.1, Exercise 8.2, 8.3.1; MM: 8)

Week 5. Oligopoly in markets for differentiated products. (CW: 11.1, 11.4.2, 11.4.6, 11.6; MM: 8)

Week 6. Midterm I

*II. Competition Policy*

Week 7. Mergers: Horizontal and vertical\_ (CW: 12.1, 23.1-23.2, 22.1; MM 3, 5-6)

Week 8. Demand estimation for differentiated products (logit model). Empirical framework for merger evaluation.

Week 9. Entry barriers: strategic and non-strategic. (CW: 8.2.3)

Week 10. Market foreclosure (CW: 16.4; MM 7.5)

Week 11. Midterm II

*III. Innovation Policy*

Week 12. Innovation and Intellectual Property Protection

Week 13. Market structure and innovation (CW: 18.2 until 18.2.1; MM 2.4)

Week 14. Patent policy (CW: 9.8, 18.3)