

**Economics 445: Industrial Organization**  
**Queen's University, Fall 2008**  
**Syllabus**

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Class times: Wednesdays 10:00am, Fridays 8:30am  
Location: Dunning 14  
Midterm: Wednesday, October 22, 2008, in class  
Final Exam: TBA  
Website: <http://www.econ.queensu.ca/students/phds/byrne/445>

#### COURSE OVERVIEW

This is an advanced course in industrial organization, the study of the firm and market structure. Our approach will be theoretical, with emphasis on theories of market structure. Specific topics include classic models of monopoly and oligopoly, price discrimination, entry, entry deterrence, horizontal mergers, product differentiation, vertical relations, networks and innovation. Those considering graduate programs in economics, corporate and/or competition law, and the private sector should find this course particularly useful.

#### PREREQUISITES

ECON 255 and ECON 310. Specifically, I will assume students are comfortable with calculus (differentiation and integration), optimization (constrained and unconstrained), linear algebra, and have a basic understanding of game theory (Nash Equilibrium, Sub-Game Perfection).

## EVALUATION

Assignments (4)	20%
Midterm	30%
Final	50

Assignments will reflect material covered in class, and will be collected at the first of class on the due date. If they are not handed in at the first of the class, they receive a 15% deduction. Late assignments will receive a grade of 0 unless a medical note can be provided. There will be no make-up test for the midterm - a missed midterm will receive a 0 grade. The final exam is cumulative, with your course grade being computed as:

$$\text{AS Grade} + \max\{0.3 * \text{MT Grade} + 0.5 * \text{FL Grade}, 0.8 * \text{FL Grade}\}$$

## REFERENCES

The primary reference are the class notes. Material will be drawn from the following text:

1. Church, J., and R. Ware “Industrial Organization: A Strategic Approach,” McGraw Hill, 2000. 1st Ed. available freely: <http://homepages.ucalgary.ca/~jrchurch/page4/page5/files/>

## TENTATIVE COURSE OUTLINE

Topic	Date	Topic	Date
Introduction		Differentiated Products	
Monopoly: The Basics		Differentiated Products	
Monopoly: Price Discrimination		Differentiated Products	
Monopoly: Price Discrimination		Vertical Control	
Monopoly: Durable Goods		Vertical Control	
<b>AS1 Due</b>	Oct. 1	<b>AS3 Due</b>	Nov. 5
Game Theory Review		Vertical Control	
Oligopoly: The Basics		Network Effects	
Oligopoly: Entry		Network Effects	
Oligopoly: Entry Deterrence		Network Effects	
Oligopoly: Entry Deterrence		Innovation	
<b>AS2 Due</b>	Oct. 15	<b>AS4 Due</b>	Nov. 26
Oligopoly: Horizontal Mergers		Innovation	
Oligopoly: Horizontal Mergers		Innovation	
<b>Midterm</b>	Oct. 22	<b>Final</b>	TBA