

# ECO105 Industrial Organization

UC San Diego, Fall 2007

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**324 Economics**

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## **The Course**

Industrial Organization uses non-cooperative game theory to analyze the strategic behavior and interaction of firms in imperfectly competitive markets. Topics include pricing strategies, collusive behavior, entry decisions, entry deterrence, advertising, research and development, firm structure and merger activity. Special attention will be given to teaching the skills of economic modeling. Students will learn how to develop models and solve them for the profit-maximizing strategies of firms under a variety of market situations and the social-welfare-maximizing outcomes promoted by government.

## **Required Textbook**

Pepall, L., G. Norman and D. Richards. Industrial Organization: Contemporary Theory and Practice, 3<sup>rd</sup> edition. Cincinnati, OH: Southwest College Publishing, 2004. ("PNR").

## **Grading**

There will be one term test (40%) and a final exam (50%). Approximately four exercise sets will be distributed during the term and graded (10%). Questions for the term test and exam will draw on these exercises.

## **Topics**

### **I. Introduction**

- Industry Structures and Welfare Analysis
- Structure-Conduct-Performance and the New I/O

**PNR Chapter 1, Sections 1.1-1.3, 1.A, Chapter 2, Sections 2.1-2.3**

### **II. Single Product Monopoly**

- Uniform Pricing, Two Part Tariffs, and Price Discrimination
- Multiplant Monopolist
- Durable Goods and Leasing

- Quality Choice

**PNR Chapter 5, Sections 5.1-5.5, Chapter 6, Sections 6.1-6.3**

### **III. Multi-product Monopoly**

- Pricing
- Spatial Models
- Tie-Ins and Bundling

**PNR Chapter 7, Sections 7.1-7.5, 7.A, 7.B, Chapter 8, Sections 8.1-8.4, 8.A**

### **IV. Oligopoly**

- Intro to Game Theory and Nash Equilibrium
- Static Models of Oligopoly and Spatial Models
- Measures of Industry Concentration

**PNR Chapter 3, Sections 3.1-3.2**

**PNR Chapter 9, Sections 9.1-9.6**

**PNR Chapter 10, Sections 10.1-10.4**

**PNR Chapter 11, Sections 11.1-11.4**

### **V. Collusion and Cartels**

- Repeated Games, Threats, and Subgame Perfect Nash Equilibrium
- Cartels, Undercutting, and Price Wars

**PNR Chapter 14, Sections 14.1-14.3**

**PNR Chapter 15, Sections 15.1-15.3**

### **VI. Entry and Strategic Investment**

- Contestable Markets
- Capacity Expansion and Other Strategic Investments
- Brand Proliferation and Predatory Pricing

**PNR Chapter 12, Sections 12.1-12.4**

**PNR Chapter 13, Sections 13.1-13.4**

### **VII. Information (Time Permitting)**

- Moral Hazard and Adverse Selection
- Competition, Entry and Strategy under Uncertainty

### **VIII. Mergers (Time Permitting)**

**Chapter 16**