

# ECO105 Industrial Organization

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## The Course

Industrial Organization draws heavily on 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, uncertainty, internal firm structure and merger activity.

## 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%). Problem sets will also be distributed on a roughly bi-weekly basis and graded (10%). Questions for the term test and exam will draw heavily on these problem sets.

## 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**

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

## **VIII. Mergers**

**IX. Vertical Relationships**

**Chapter 17, Chapter 18, Chapter 19**

**X. Intellectual Property and Patents**

**Chapter 22, Chapter 23**

**Additional Topics TBA as Time Permits**