ECONOMICS 2900: INDUSTRIAL ORGANIZATION
(Fall Semester: Monday’s 10:00 to 12:00 pm BL 728)

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Office Hours: By Appointment

Evaluation: There will be a one-hour quiz (G1) on Monday, October 18. There will be an exam (G2) at the end of the first semester. The final grade will be determined according to max \{.1 \cdot G1 + .9 \cdot G2, G2\}. Some problem sets will be distributed during the semester. While these will not be graded, answers will be discussed in class.

Other courses: ECO 2901 (Winter Semester IO) is offered by Professor Victor Aguirregabiria.
ECO 2404 (Empirical Applications of Economic Theory) is offered by Professor Carlos Serrano

Course Content: The field of industrial organization (IO) is applied microeconomics/price theory concerned with the function of markets and the behavior of firms in these markets. In this course the focus is on two primary questions: (i) How do we explain observed behavior, prices or contractual practices by firms operating in markets that are not perfectly competitive? (ii) What is the role of government intervention in affecting market structure, the behavior of firms, and the efficient operation of markets? Recent developments in IO are both theoretical and empirical. The IO course stresses a basic understanding of the theory, including extensions and modern developments and applications of the theory; selected empirical applications will be presented in ECO 2404 and ECO 2901.

Text: The Theory of Industrial Organization, by Jean Tirole, MIT Press, 1988 (Tirole) is the required text for the course. Additional readings are suggested.
Supplementary Texts:

Cabral, Luis (ed), Readings in Industrial Organization, Blackwell Publishers, 2000 (LCR)
Church, J. and R. Ware, Industrial Organization: a Strategic Approach, Richard D. Irwin, 1998 (CW).
Motta, Massimo, Competition Policy: Theory and Practice, Cambridge University Press, 2004 (MM)
Stigler, G. The Organization of Industry, U. Chicago Press 1968 (S)

Journal Abbreviations:

AER:PP - American Economic Review; Papers and Proceedings
ALJ - Antitrust Law Journal
BJE - Bell Journal of Economics
CJE - Canadian Journal of Economics
CLR - Columbia Law Review
Ec - Economica
EER - European Economic Review
EI - Economic Inquiry
EJ - Economic Journal
EM - Econometrica
IJIO - International Journal of Industrial Organization
JB - Journal of Business
JEP - Journal of Economic Perspectives
JET - Journal of Economic Theory
JIE - Journal of Industrial Economics
JLaE - Journal of Labor Economics
JLE - Journal of Law and Economics
JLEO - Journal of Law, Economics and Organization
JPE - Journal of Political Economy
J Pub E - Journal of Public Economics
NBER - National Bureau of Economic Research
QJE - Quarterly Journal of Economics
RES - Review of Economic Studies
RIO - Review of Industrial Organization
RJE - Rand Journal of Economics.
I. INTRODUCTION TO INDUSTRIAL ORGANIZATION: THE QUESTIONS


SR: Chapter 1.

II THEORY OF THE FIRM

Tirole: 15-60.


A.1 Theories of Vertical Integration


Stigler, G. “The Division of Labor is Limited by the Extent of the Market,” in *S*.


A.2 Other Applications


III. THE THEORY OF MONOPOLY
**A. Durable Goods Monopoly**

**Tirole:** Ch. 1: 72 – 73, 79 – 87.


**B. Production Selection, Quality and Advertising**

**Tirole:** Ch. 2


C. **Price Discrimination**

**Tirole:** Ch. 3: 133 -165.

**SR:** Ch. 12, 13


Stole, L “Price Discrimination and Competition,” Ch. 34 in the Handbook 3.

**D. Vertical Integration and Foreclosure**

**Tirole:** Ch. 4.

**SR:** Ch. 1


E. **Exclusive Dealing Contracts and Foreclosure**


Church, J. and N. Gandel “Equilibrium Foreclosure and Complementary Products,” University of Calgary Discussion Paper, 93-03.


F. **Other Vertical Contracts**

(I) **Resale Price Maintenance and Exclusive Territories**


(II) Tying and Bundling


(III) Refusals to Supply


(IV) Other


IV. THEORIES OF OLIGOPOLISTIC MARKETS

A.1 Theory

Tirole: Review Ch. 11 (game theory). Also, pp. 205-208 and Ch. 5,6

Shapiro, C. “Theories in Oligopoly Behavior,” Ch. 6 in the Handbook 1-2.


A.2  **Collusion**

**Tirole:** Ch. 6


Thomas, C and R. Willig “The risk of Contagion from Multimarket Contact,” IIOQ, 2006, 24(6): 1157 – 1184,
Farrell, J. and P. Klemperer “Corridination and Lock-in: Competition with Switching costs and Network Effects,” Ch. 31 in the *Handbook*.


**A.3 Empirical Studies of Collusive Behavior**


**B. Product Differentiation**

**B.1 Theory**

*Tirole*: Chs. 2,7.


B.2 **Product Differentiation and Advertising**

Bain Barriers to New Competition (excerpts), Comanor and Wilson Advertising and Market Power (excerpts), Sutton Sunk Costs and Market Structure (excerpts)


Shapiro, C. “Advertising as a Barrier to Entry?” FTC working paper, 1982.


B.3 **Empirical models of product differentiation**


C. Entry and Market Structure

C.1 Theory


Carlton, Dennis, “Why Barriers to Entry are Barriers to Understanding,” AER 94(2), 2004: 466 – 470.

Schmalensee, R. “Sunk Costs and Antitrust Barriers to Entry,” AER 94(2): 467 – 471.

Stigler, G. “Barriers to Entry, Economies of Scale, and Firm Size” Reprinted in (S).


C.2 Static Models: Equilibrium Market Structure (“free entry”)


C.3 Multiperiod Models: Strategic Entry Deterrence and Predatory Pricing

Tirole: Ch. 8,9

Gilbert, R. “Mobility Barriers and the Value of Incumbency,” Ch. 8 in the Handbook 1-2.


Wilson, R. “Strategic Models of Entry Deterrence”, in the Handbook of Game Theory with Economic Applications, Volume 1, ch.10.


Judd, K. “Credible Spatial Pre-emption”, RJE, 1985


V. **R&D and the Adoption of New Technologies**

Tirole, Ch. 10

John Sutton Technology and Market Structure, MIT Press, 1999


VI. **GOVERNMENT POLICY**

A. **Antitrust and merger policy**


B. Regulation


Baron, D. and R. Myerson “Regulating a Monopolist with Unknown Costs,” Em, 1982.


