

**Oregon State University
Department of Economics**

AREc/Econ 513: Microeconomic Theory II

Spring 2007

Instructor: Professor V. Tremblay
Time & Class Location: Tue & Thur 10-11:50 am, Bexl 320
Office & Office Hours: Ballard Hall 319A; Tue & Thur 12:30-1:30 pm and Friday 2-3 pm
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Teaching Assistant: Yasushi Kudo, KudoY@onid.orst.edu

Prerequisites: calculus, Econ 312, and Econ 512.

Required Textbooks:

[N] W. Nicholson, *Microeconomic Theory*, South-Western, 2005.
[G] R. Gibbons, *Game Theory for Applied Economists*, Princeton University Press, 1992.

Reference Books:

[S&B] C. Simon and L. Blume, *Mathematical Economics*, Norton, 1994.
[V] Hal R. Varian, *Microeconomic Analysis*, Norton, 1992.
[D&S] A. Dixit and S. Skeath, *Games of Strategy*, Norton, 2004.
[T] V. Tremblay, "Comparative Statics: Classical and Modern Approaches, Department of Economics, OSU, April, 2007.

Course Objectives and Student Learning Outcomes: Students will develop deductive reasoning skills and demonstrate mastery of the models of monopoly and imperfectly competitive markets using game theoretic techniques. Students will demonstrate knowledge of general equilibrium theory, welfare economics, and the theory of input markets.

Grading: Your course grade will depend upon your performance on homework assignments, a midterm exam, and a comprehensive final exam. The weights are as follows:

Homework	10%	You are encouraged to work together on homework assignments, but please understand how to answer each question.
Midterm Exam	40%	(in week 5-6)
Final Exam	50%	(Check <i>OSU Schedule of Classes</i> for date and time)

University Guidelines: The university requires that I inform you of the following. **(1) Academic Dishonesty:** Plagiarism, fabrication, cheating, and facilitating academic dishonesty of others are serious offenses and may be punished by failure on the exam or project, failure in the course, and/or expulsion from the university. For further information refer to the *Schedule of Classes* and <http://osu.orst.edu/admin/stucon/plag.htm>. **(2) Disruptive Behavior:** Behaviors that are disruptive to teaching or learning will not be tolerated and will be referred to the Student Conduct Program for disciplinary action. Behaviors that create a hostile, offensive or intimidating environment based on gender, race, ethnicity, color, religion, age, disability, marital status or sexual orientation will be referred to the Affirmative Action Office. **(3) Disabilities:** If you have a documented disability which requires special arrangements, please inform me the first week of classes. To obtain university documentation for your disability, contact Services for Students with Disabilities at 541-737-4098 or Tracy.Bentley@orst.edu.

Readings and Course Outline: (*Optional and Review Readings)

1. Review and Supplemental Material
 - A. Profit Maximization and Perfect Competition
 - *[N] Chs. 9-11
 - B. Modeling in Economics
 - *H. Varian, "How to Build an Economic Model in Your Spare Time," *AE*, Fall 1997.
 - *E. Leamer, "Questions, Theory, and Data," in Steven G. Medema and Warren J. Samuels, editors, *Foundations of Research in Economics: How Do Economists Do Economics?*, Cheltenham, United Kingdom: Edward Edgar Publishers, 1996.
 - *W. Thomas, "The Young Person's Guide to Writing Economic Theory," *JEL*, March 1999.
2. Monopoly and Cartels
 - [N] Ch. 13 and pp. 417-418
3. Modern Comparative Static Analysis
 - [S&B] pp. 851-858; [T] Sections 1-3
4. Game Theory and Imperfect Competition
 - A. Introduction: Dominant and Dominated Strategies; Nash Equilibrium
 - [G] Section 1.1; [N] pp. 440-448
 - *R. Gibbons, "An Introduction to Applicable Game Theory," *JEP*, Winter 1997.
 - B. Cournot, Bertrand, and other Static Oligopoly Models
 - [N] Ch. 14 (especially pp. 418-419, 421-423), 454; [G] Section 1.2
 - C. Mixed Strategies
 - 1) Choice Under Uncertainty, Expected Utility, Risk Aversion, and Bayes Rule
 - [S&B] Pages 894-897; *[N] Ch. 18
 - 2) Mixed Strategies
 - [G] Section 1.3
 - D. Dynamic Games of Complete and Perfect Information; Backwards Induction
 - [G] Section 2.1
 - E. Two-Stage Games of Complete but Imperfect Information; Subgame Perfect Equilibrium
 - [G] Section 2.2; [N] p. 451
 - F. Stackelberg Duopoly, Wage Bargaining, and the Durable Goods Monopoly; Dynamic Games of Complete but Imperfect Information; Repeated Games and Cooperation
 - [G] Section 2.3 and 2.4; [N] pp. 423-424
 - *R. Amir and I. Grilo, "Stackelberg versus Cournot Equilibrium," *Games and Economic Behavior*, January 1999, pp. 1-21.
 - G. Evolutionary Games
 - *[D&S] Ch. 13
5. Monotone Comparative Statics and Supermodular Games
 - [N] pp. 472-473; [T] Sections 3 and 4
 - *Bulow, Geanakoplos, and Klemperer, "Multimarket Oligopoly: Strategic Substitutes and Complements," *Journal of Political Economy*, June 1985.
6. General Equilibrium Theory
 - [N] pp. 335-357
7. Welfare Economics
 - A. Efficiency and Social Welfare
 - [N] pp. 357-373 and Ch. 21
 - B. Externalities and Public Goods
 - [N] Ch.20
 - C. The Economics of Information
 - [N] Ch. 19
8. The Theory of Input Markets
 - [N] Chs.16-17