Fall 2009
DUKE UNIVERSITY
Department of Economics

Economics 205: MICROECONOMIC THEORY

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Office Hours:	Tuesday and Thursday 2:00 – 3:00
	and by appointment
Class:	Monday and Wednesday 2:50-4:05
	Social Science 136
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1. **Course description**. This course provides an overview of microeconomic theory at the beginning graduate level, though it also may be accessible to advanced undergraduates. The class focuses on the theory of consumer choice, demand, uncertainty, competitive and imperfectly competitive firms, factor markets, producer theory, and on general equilibrium.

2. **Prerequisites**. Econ 55 or equivalent. Working knowledge of multivariate calculus is necessary; some matrix algebra and a cursory overview of the first chapters of a differential equations text will be needed as well. You are responsible for covering Nicholson Ch. 2 and Varian Ch. 26-27 on your own.

3. **Texts.** There is one required and one optional text. Class notes will be posted on Blackboard. These are intended to be supplemental, and are neither a perfect substitute for class or for the readings. Virtually all lectures and homework assignments will come from Varian or a similar text (along with questions we make up ourselves). However, parallel reading in a more intuitive, less technical text such as Nicholson will add to your understanding of the material.

    ➢ Hal R. Varian. 1992. *Microeconomic Analysis.* (Ed.3) New York: WW Norton. (required)
    ➢ Walter Nicholson and Christopher Snyder. 2008. *Microeconomic Theory.* (Ed. 10) South-Western. (Optional). http://ecatalog.cengage.com/155/ You can spend $165 on a new copy of the latest version, or get a used copy of an older version (just as useful) for as little as $4.
    ➢

4. **Honor code and course policies.** Failure to acknowledge assistance on an assignment, or to cite a source of information used in an assignment, or to represent the work of others as your own, are violations of the University's honor code. Any violations may result in failure of the assignment or the course, or expulsion from the University.

    Any exam missed for a non-legitimate reason will be accorded the grade of 0. Any exam missed for a legitimate reason will be made up with an oral exam as soon as it can be scheduled by EcoTeach.

    Late work will be penalized by 1/3 grade point per day late (excluding Sundays).

    Homework must be submitted to the instructor or, in his absence, to the teaching assistants. Group assignments, if so organized, must be posted on Blackboard and emailed to the instructor.

Files attached with viruses will be deleted and regarded as not submitted; if for some reason the virus gets through and infects one of my computers, you will receive a grade of 0 for the assignment.

5.   **Grading and assignments**. The grades will be determined as weighted averages of exam and homework performances:

Homework	10%
In-class quizzes	15%
Midterm examination	30%
Final examination	45%

The class will be divided into teams of three to four students. An important part of graduate study is solving problems, and this course will differ from others by emphasizing problem solving and in-class presentations. Each team will be expected to submit specifically-assigned problem sets as a group, and should be prepared to present one assigned problem per week (after the first day) to the class, with a written solution key distributed to all members via Blackboard. Any member of the team can be called on to present.

All assignments and class announcements will be disseminated via Blackboard. It is your responsibility for maintaining computer access, or for informing the instructor and teaching assistant in advance if your access is interrupted.

The **final examination** will be comprehensive, but will emphasize the second half of the course. The **midterm** will be comprehensive on the material covered up to that point.

6.   **Course content and outline.**   Please regard the following as an optimistic first pass: it covers a great deal of material, and we probably will have to cut back at some point. Nicholson readings are based on the 9th edition – I don't have the 10th edition yet.

Monday August 24	**Introductory Lecture: The art of modeling. Necessary and sufficient conditions: an introduction to basic logic; envelope theorem.**
	Readings: Varian, Ch. 26-27
	Nicholson, Ch. 2

Part 1: Consumer theory

Monday August 24	**Preferences and utility**
Wednesday August 26	Readings: Varian, Ch. 7
	Nicholson, Ch. 3
Monday August 31	**Utility maximization, choice, and duality**
Wednesday September 2	Readings: Varian, Ch. 8
	Nicholson, Ch. 4
	GS Becker, TJ Philipson, and RR Soares, "The quantity and quality of life and the evolution of world inequality," *American Economic Review* **95**(1) March 2005.
Monday September 7	**Comparative statics**
	Readings: Varian, Ch. 8, 26
	Nicholson, Ch. 5
Wednesday September 9	**Market demands and elasticities**
Monday September 14	Reading: Varian, Ch. 9
	Nicholson, Ch. 6-7
	Robert Jensen & Nolan Miller, 2007, "Giffen behavior: theory and evidence," Cambridge, MA: NBER working paper no. 13243.

Wednesday September 16	**Aggregation**
	Reading: Varian, Ch. 9
	Production, technology, and profit maximization
	Readings: Varian, Ch. 1, 2
	Nicholson, Ch. 11

Part 2: Producer theory and general equilibrium

Monday September 21	**Production, technology, and profit maximization**
	Readings: Varian, Ch. 1, 2
	Nicholson, Ch. 11
	Agnar Sandmo. 1971. "On the Theory of the Competitive Firm under Price Uncertainty." *American Economic Review* **61** (March), 65-73.
Wednesday September 23	**Profit function**
	Reading: Varian, Ch. 3
Monday September 28	**Cost minimization and cost functions**
Wednesday September 30	Readings: Varian, Ch. 4, 5, 6
	Nicholson, Ch. 12, 13
	Joseph E. Stiglitz and Andrew Weiss. 1981. "Credit Rationing in Markets with Imperfect Information." *American Economic Review* 71 (June), 393-410.
Monday October 5	fall break
Wednesday October 7	**Exchange and production**
	Readings: Varian, Ch. 17, 18
Monday October 12	**Equilibrium analysis**
	Readings: Varian, Ch. 21
	Nicholson, Ch. 16, 17.
Wednesday October 14	**Midterm exam**

Part 3: Competition, Monopoly, Oligopoly

Monday October 19	**Competitive Markets**
	Readings: Varian, Ch. 13
Wednesday October 21	**Monopoly Pricing**
Monday October 26	Readings: Varian, Ch. 14
	Nicholson, Ch. 18
	A. Michael Spence, 1975. "Monopoly, quality, and regulation;" *Bell Journal of Economics* **6**(2): 417-29.
Wednesday October 28	**Game Theory**
Monday November 2	Readings: Varian, Ch. 15
	Nicholson, Ch. 10
	A. Michael Spence. 1973. "Job Market Signaling." *Quarterly*

Journal of Economics **87** (August), 355-74

Part 4: Uncertainty and Information

Wednesday November 4	**Oligopoly**	
Monday November 9	Readings:	Varian, Ch. 16
		Nicholson, Ch. 12, 13; 18-20
		George A. Akerlof. 1970. "The Market for Lemons," *Quarterly Journal of Economics* **84** (August), 488-500.

Wednesday November 11	**Uncertainty, Expected Utility, and Insurance**	
Monday November 16	Readings:	Varian, Ch. 11
		John W. Pratt. 1964. "Risk Aversion in the Small and in the Large." *Econometrica* **32** (January-April), 122-36.
		Daniel Kahneman and Amos Tversky. 1979. "Prospect Theory: An Analysis of Decision under Risk." *Econometrica* **47** (March), 263-91.

Wednesday November 18	**Asymmetric Information**	
Monday November 23	Readings:	Varian, Ch. 25

Wednesday November 25	Thanksgiving break

Monday November 30	**Dynamic optimization: The control problem**	
	Reading:	Michael Intriligator. 1971. *Mathematical Optimization & Economic Theory.* Prentice-Hall, Chs. 11-13.

Wednesday December 2	**The maximum principle**	
	Reading:	Intriligator, Ch. 14.

Thursday December 10	**Final Exam**	2:00 – 5:00 PM