

Microeconomics

Course Description

Microeconomics is our entry-level graduate course intended to start you on your way to “thinking like an economist” and analyzing economic phenomena on your own. In substance, this course is about the effect of incentives on human behavior and whether these incentives lead to efficient outcomes.

Topics include:

- Consumer Choice and Demand;
- Production and Cost;
- Firm Behavior and Supply;
- Market Structures;
- Game Theory and Strategic Behavior;
- Markets for Factors of Production;
- General Equilibrium Analysis;
- Market Failure, Externalities and Public Goods.

The course emphasizes economic efficiency and application of theory to decisions and policy problems. The course is taught at the intermediate level, which is equivalent to the core microeconomic theory course for economics majors, and makes substantial use of differential calculus. This course has the same content and class contact time as the regular SAIS Microeconomics course. Together with Macroeconomics, it constitutes the foundation for all other economics courses at SAIS.

Course Requirements

Each student’s grade for the course will be determined based on problem sets (20%), two midterm exams (25% each), and a final exam (30%).

The problem sets will be discussed and solved in small study groups, ideally made up of 3 students, which will be organized on the first day of class. Each group will prepare and submit a single group submission of answers to the group problem sets. All members of the group receive the same grade for the submission. Minority reports are allowed if you cannot agree on the answer to a problem.

Please note that microeconomic theory is built up cumulatively. Do not skip classes or textbook readings. Each lecture is the foundation for the next lecture. Class participation is welcome any time, but, given the amount of material to be covered in a short period of time, questions

(however interesting they may be) that fundamentally diverge from the flow of the course material will be postponed for discussion until after class, or office hours.

Prerequisite

High school algebra and a general facility with graphs are a must. Previous exposure to differential calculus (first part of a Calculus I course) would be helpful, but is not required. The course materials include two DVDs prepared by Dean John Harrington, one which reviews pre-calculus mathematics, and a second which presents the tools of calculus necessary for this course, with illustrative applications to economics. The instructors of this course **STRONGLY** advise that any student who has not previously encountered calculus should work through the material on these two DVDs *BEFORE* the course begins. Students taking this course in previous “pre-terms” have remarked that the DVDs were extremely helpful and contributed significantly to their understanding of the material.

The pre-calculus and calculus DVDs will be distributed to all students before preterm begins.

They are:

- John M. Harrington, *Interactive Pre-Calculus Course*, SAIS (Johns Hopkins University);
- John M. Harrington, *Interactive Basic Calculus for Economists Course*, SAIS (Johns Hopkins University)

(Link: http://www.sais-jhu.edu/academic_affairs/dvd/index.html)

Contact

Class meets daily. Please try to arrive on time, since the first ten minutes of the class are usually the most important ones!

Professors will hold regular office hours during the week, and several teaching assistants will hold daily tutorials, office hours and be available for questions.

Readings

The course text is **Robert Pindyck & Daniel Rubinfeld, *Microeconomics*, 7th edition**, Prentice Hall, 2008 (which is recommended for purchase but will be on print reserve as well).

A math text, *The SAIS Math Companion*, and all other readings will be available on the ERes webpage of the SAIS library (Password: *TBA in class*).

(Link: <http://eres.sais-jhu.edu/eres/>)

Daily Topic Schedule

WEEK 1

<u>Date</u>	<u>Lecture</u>	<u>Topic</u>
	0	<ul style="list-style-type: none"> • Pre-Calculus DVD • <i>SAIS Math Companion</i>, Chapter 1: Functions and Graphs.
Mon, July 27	1	Supply and Demand <ul style="list-style-type: none"> • P & R, Chapters 1 and 2; • <i>SAIS Math Companion</i>, Chapter 3: Linear Equations.
Tues, July 28	2	Consumer Choice and the Utility Function <ul style="list-style-type: none"> • P & R, Chapter 3; • <i>SAIS Math Companion</i>, Chapter 4: Differentiation; • Basic Calculus DVD, Modules 1-8, 14.
Wed, July 29	3	Individual Demand and the Utility Function <ul style="list-style-type: none"> • P & R, Chapter 4.1, 4.2; • <i>SAIS Math Companion</i>, Chapter 5: Maximums and Minimums; • Basic Calculus DVD, Modules 9, 10 and 11. <p><i>Group Problem Set I: Supply and Demand (due in class Thursday, July 30)</i></p>
Thu, July 30	4	Market Demand and Elasticity <ul style="list-style-type: none"> • P & R, Chapter 4.2 (continued), 4.3; • <i>SAIS Math Companion</i>, Chapter 2: Exponential and Log Functions; • Basic Calculus DVD, Modules 12, 13, 15-18, 22-25.
Fri, July 31	5	Price Changes and Consumer Welfare <ul style="list-style-type: none"> • P & R, Chapter 4.4, 4.5, and Appendix. • Michael L. Katz, Harvey S. Rosen, <i>Microeconomics</i>, Chapter 4. Available on <i>ERes</i>.
Sa, Su, Aug 1, 2		<p><i>Group Problem Set II: Consumer Theory (due in class on Monday, Aug 3)</i></p>

WEEK 2

<u>Date</u>	<u>Lecture</u>	<u>Topic</u>
Mon, Aug 3	6	Applications of Demand Theory & Midterm Review Robert H. Frank, <i>Microeconomics and Behavior</i> , fifth edition -Food stamps, pp. 82-85; -Gasoline tax & rebate policy, pp. 147-148 and 152-154; -School vouchers, pp. 154-156; -Welfare and change in housing prices, pp. 161-163
Tue, Aug 4		<i>MIDTERM EXAMINATION I (Lectures 1-6)</i>
Wed, Aug 5	7	Production <ul style="list-style-type: none"> • P & R, Chapter 6; • Basic Calculus DVD, Modules 29-31; • Homogeneous Functions and Euler's Theorem (<i>Instructor's Notes</i>).
Thu, Aug 6	8	Cost <ul style="list-style-type: none"> • P & R, Chapter 7 (including the appendix); • <i>SAIS Math Companion</i>, Chapter 6: Lagrange Multipliers; • Basic Calculus CD, Modules 20, 21, 32-34. <p><i>Group Problem Set III on Production and Cost (due in class Friday, Aug. 7)</i></p>
Fri, Aug 7	9	Perfect Competition & Competitive Market Analysis I <ul style="list-style-type: none"> • P & R, Chapter 8; • P & R, Chapter 9.
Sa, Su, Aug 8, 9		<p><i>Group Problem Set IV: Perfect Competition (due in class on Monday, Aug 10)</i></p>

WEEK 3

<u>Date</u>	<u>Lecture</u>	<u>Topic</u>
Mon, Aug 10	10	Competitive Market Analysis II & Monopoly <ul style="list-style-type: none"> • P & R, Chapter 9 (continued) • P & R, Chapter 10.1-10.2
Tue, Aug 11	11	Monopoly & Monopsony <ul style="list-style-type: none"> • P & R, Chapter 10.3-10.7 <p><i>Group Problem Set V: Monopoly and Monopsony (due in class Wed. Aug. 12)</i></p>
Wed, Aug 12	12	Market Power & Midterm Review <ul style="list-style-type: none"> • P & R, Chapter 11.1-11.2.
Thu, Aug 13		<p><i>MIDTERM EXAMINATION II (Lectures 7-12)</i></p>
Fri, Aug 14	13	Monopolistic Competition & Oligopoly <ul style="list-style-type: none"> • P & R, Chapter 12.1-12.3.
Sa, Su, Aug 15, 16		<p><i>Group Problem Set VI: Oligopoly and Games (due in class on Tuesday, Aug. 18)</i></p>

WEEK 4

<u>Date</u>	<u>Lecture</u>	<u>Topic</u>
Mon, Aug 17	14	Games and Strategy <ul style="list-style-type: none"> • P & R, Chapter 12.4-12.5; • P & R, Chapter 13.
Tue, Aug 18	15	Markets for Factor Inputs <ul style="list-style-type: none"> • P & R, Chapter 14.
Wed, Aug 19	16	General Equilibrium I <ul style="list-style-type: none"> • P & R, Chapter 16.1-16.3.
Thu, Aug 20	17	General Equilibrium II and Asymmetric Information <ul style="list-style-type: none"> • P & R, Chapter 16.4-16.7; • P & R, Chapter 17.1-17.3 and 17.6. <p><i>Group Problem Set VIII: Factor Markets and General Equilibrium (due in class Friday, Aug. 21)</i></p>
Fri, Aug 21	18	Externalities and Public Goods <ul style="list-style-type: none"> • P & R, Chapter 18.
Sa, Su, Aug 22, 23		<i>Reading for Final Examination</i>

WEEK 5

Mon, Aug 24		<i>FINAL EXAMINATION</i>
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