Princeton University – Department of Economics
Fall Term 2003
ECO 305 -- MICROECONOMIC THEORY: A MATHEMATICAL APPROACH

Lectures: Tuesdays and Thursdays 10.00–10.50 a.m., Computer Science Building, Room 104

Precepts: Tuesdays 12.30-1.20, 1.30-2.20, and 3.30-4.20
Wednesdays 1.30-2.20 and 2.30-3.20.   All in B-01 Fisher Hall.

Problem set "study hall" : Wednesdays 7.30–9 p.m. , B-01 Fisher Hall

Professor: Avinash Dixit, 212 Fisher Hall, 8-4013, dixitak@princeton.edu
Office hours Wednesdays 1.00-3.00 p.m.

Preceptors: Arnaud Costinot, B-09 Fisher Hall, 8-2911, costinot@princeton.edu
Office hours Wednesdays 11.30 a.m. – 12.30 p.m.
Brishti Guha, 003E Bendheim Finance Center, 8-0210, bguha@princeton.edu
Office hours Wednesdays 10.30-11.30 a.m.

Important: To leave messages, please use e-mail, **not** voice mail.

Course web page (check this frequently): link from http://blackboard.princeton.edu/

COURSE DESCRIPTION

This is a course in intermediate microeconomics, emphasizing the applications of calculus and linear algebra to the problems of decision-making by consumers and firms, and market interactions.

READINGS

The textbook for the course (available at the U-Store) is
Brian R. Binger and Elizabeth Hoffman, *Microeconomics with Calculus*,
Addison-Wesley, second edition, 1998.
This will be supplemented by handouts, copies of lecture overhead transparencies etc.

GRADING

There will be 8 problem sets; the schedule is given below. The problem sets will be posted on the course web page in PDF format, and some hardcopies will be available in the Economics Department office. Each problem set will be due in class on the day specified. We will not accept late problem sets; instead, we will count the grades on the best 6 problem sets you hand in. Thus you can miss up to 2 without any penalty; this is intended to cover all reasons including sickness, religious observances, and other work. You are encouraged to form study groups; 3-4 is the ideal size. Group work on problem sets is permitted and even encouraged. See the separate memo of detailed instructions concerning problem sets and exams.

The mid-term exam will be 90 minutes, on Tuesday Oct. 21, 7.30-9 p.m. ; the final exam will be 3 hours in the exam period. Both exams are closed-book, under the honor code.

The problem sets (best 6 of 8) will get 30% weight, the midterm 20%, and the final 50%, in the calculation of scores on which the course grades will be based.

All grading will be on a 0-100 scale, not 60-100. Therefore do not be frightened if your numerical score seems low. In the answer key handed out with the graded problem sets and exams, we will tell you the distribution of scores for that component.

SCHEDULE OF PROBLEM SETS

Number	Available	Due
1	Sep. 18	Sep. 25
2	Sep. 25	Oct. 2
3	Oct. 2	Oct. 9
4	Oct. 9	Oct. 16
5	Nov. 6	Nov. 13
6	Nov. 13	Nov. 20
7	Nov. 27	Dec. 4
8	Dec. 4	Dec. 11

SCHEDULE (APPROXIMATE) OF LECTURES, with chapter references from the textbook

1. Methods of optimization (Sep. 11, 16, 18) chapters 1-4.
2. Consumer choice (Sep. 23, 25, 30, Oct. 2) chapters 5-8
3. Production, cost, and profit (Oct.7, 9) chapters 10-12
4. Partial equilibrium (Oct. 14, 16) chapters 13-14.
5. General equilibrium -- exchange (Oct. 23) chapter 9

6. General equilibrium -- production (Nov. 4) chapter 14
7. Monopoly (Nov. 6) chapter 15
8. Oligopoly and game theory (Nov. 11, 13) chapter 16 + handout
9. Uncertainty (Nov. 18) chapter 19
10. Financial markets (Nov. 20, 25) handout
11. Asymmetric information (Dec. 2, 4) chapter 20
12. Externalities and public goods (Dec. 9, 11) chapter 21