APPLIED MICROECONOMIC THEORY

Econ 6070

Charles de Bartolome
Office hours: M 4-4:45pm, Tu 10-11
F 11:30-12:30 pm
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Recitation leader: 
Recitation time
Recitation place:
Office hours:
Office:


Course description: Microeconomics is about what goods get produced and bought, and at what prices. The course teaches the mathematical structure of microeconomic theory. It is designed for first-year MA students. The formulation of the consumer's and the firm's problems is rigorously analyzed. Price determination is considered in the context of a monopoly, an oligopoly and a competitive market structure. Game theory is introduced and the characteristics which determine industrial structure are explored. Competitive equilibrium is seen as the successful entry of many firms into a market. Welfare implications are discussed.

Problem sets: Weekly problem sets are posted on the course WebCT webpage located at: http://webct.colorado.edu

The problem sets are discussed in the recitation session. The problem sets are an integral part of the course. They are designed to help you use the material, and a significant part of the exam will be based on them.

Grading: there are two experiments, one midterm and a final exam. The grade of the student will be determined as: 10% experiments, 45% Midterm, 45% Final.

Exams: because this is a MA level class, the exams will not just repeat material covered in class. Some questions will repeat material covered in class, but some will ask you to apply the material in a different environment.

The midterm exam will be given in the evening as:
MIDTERM EXAM: Monday, 21 October, 7-9:30 pm in ECON 13.

The final exam is scheduled as:
FINAL EXAM: Tuesday, 17 December 7:30 - 10:00 am in ECON 16.

Please let me know if one of these dates falls on a religious holiday you intend to observe and I
will arrange for you to take a make-up.

You should bring a blue-book to each exam.

Students with special needs: If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services (DS) early in the semester so that your needs may be addressed. DS determines accommodations based on documented disabilities (303-492-8671, Willard 322, www.colorado.edu/sacs/disabilityservices).

Course outline:

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<td>INTRODUCTION</td>
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<td>Use of models</td>
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<td>Positive and normative.</td>
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<td>The circular flow</td>
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<td>30 Aug</td>
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<td>4, 6 Sept</td>
<td>Sets.</td>
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<td>Utility</td>
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<td>Indifference curves</td>
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<td>Marginal rate of substitution (marginal benefit)</td>
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<td>&quot;At least as good as&quot; set is convex.</td>
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<td>Diminishing marginal utility.</td>
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<td>9, 11, 13 Sept</td>
<td>CONSUMER CHOICE</td>
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<td>Objective.</td>
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<td>Feasible (budget) set.</td>
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<td>&quot;Marginal rate of substitution = price ratio&quot; rule.</td>
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<td>Indirect utility.</td>
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<td>Expenditure Function.</td>
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<td>16, 18, 20, 23 Sept</td>
<td>INDIVIDUAL DEMAND</td>
<td>5 (pp. 115-127)</td>
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<td>Homogeneity - normalizing prices</td>
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<td>Income changes - normality.</td>
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<td>Price changes.</td>
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<td>Marshallian demand curve.</td>
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25, 27, 30 Sept  WELFARE EVALUATION  
2 Oct  Hicksian demand curve.  
Income and substitution effects: Slutsky Equation  
Evaluating changes  
- consumer surplus.  
- equivalent variation.  
- compensating variation.  
4 Oct  COMPARATIVE STATICS  
Cross-price effects. (omit pp. 153, 161-165)  
MARKET DEMAND  
Summing individual demand curves.  
Elasticity - inelastic and elastic.  
7 Oct  Labor supply.  
9, 14 Oct  Savings.  
16, 18 Oct  PRODUCTION  
Production functions (omit pp. 278, 279, 287-289)  
- diminishing marginal product.  
Isoquants.  
"At least as much" set is convex.  
Marginal rate of technical substitution.  
Returns to scale.  
Short-run and long-run production relationships.  
21 Oct  MIDTERM (7-9:30 pm)  
23, 25, 28 Oct  COSTS  
Isocost curves. (omit pp. 304-305 )  
Cost minimization  
- "marginal rate of technical substitution = price ratio" rule.  
Duality: output maximization.  
Long-run: average and marginal costs.  
Input substitution  
Short-run: average and marginal costs.  
Envelope result  
- long-run as envelope of short-run costs.
30 Oct  
FIRM CHOICE
Marginal revenue.
Profit-maximization
- "marginal revenue = marginal cost" rule.

1 Nov  
MONOPOLY
Marginal revenue curve lies below demand curve.
Monopolist pricing.
Social loss: excess burden (deadweight loss)

4, 6 Nov  
GAME THEORY AND OLIGOPOLY
Extensive form.
Strategy.
Normal form.
Nash equilibrium.

8, 11, 13 Nov  
OLIGOPOLY
Cournot Duopoly.
Perfect competition
as sequence of successful entries.

15 Nov  
COMPETITIVE SUPPLY
Firm supply.
Producer surplus as area "above" supply curve.

18, 20 Nov  
PARTIAL EQUILIBRIUM
Short-run market equilibrium
- "price = marginal cost" rule.
Profits induce entry.
Long-run market equilibrium
- "price = min. average cost" rule.

22, 25 Nov  
GENERAL COMPETITIVE EQUILIBRIUM
Input Markets
Interdependences

27 Dec  
Walras law
MARKET EFFICIENCY

- Pareto-efficiency.
- Exchange efficiency
  - "equal marginal rates of substitution" rule.
- Production efficiency
  - "equal marginal rate of technical substitution" rule.
  - production possibility frontier.
- Product-mix efficiency
  - "marginal rate of transformation = marginal rate of substitution" rule.

Fundamental Theorems of Welfare Economics.

17 Dec  FINAL EXAM (7:30-10:00 am)

If time permits:

- Uncertainty

8 (omit pp. 207-210, 221-224)