ECONOMICS 202.001

PRINCIPLES OF ECONOMICS: MICROECONOMICS

UNIVERSITY OF MICHIGAN - DEARBORN

FALL 2001

CLASS MEETS: MWF 8:40 - 9:30, Room 1015 CB

INSTRUCTOR: B. Crowell
OFFICE: 2118 CASL Annex
PHONE: 436-9183 or messages at 593-5096
OFFICE HOURS: MWF 8:00 - 8:30, 11:40 - 12:00 and by appointment most days

FINAL EXAMINATION: Wednesday, December 19, 2001 - 3:30 - 6:30 p.m.
UM Coursetools: Announcements, syllabus, and selected course materials can be accessed at
http://coursetools.ummu.umich.edu. Students need a UM
unique name and password.

IMPORTANT DATES TO REMEMBER:

September 18:   Last day to add a course or drop course without record.
November 6:   Last day of regular drop period for all students

COURSE DESCRIPTION

EC 201, macroeconomics, and EC 202, microeconomics, serve as an introduction to the basic ideas and concepts of modern economic analysis, with applications to current economic issues and policies. The focus of this course, microeconomics, is on the behavior of consumers and firms, their interactions in specific markets, and the impact of government activity on their behavior.

COURSE OBJECTIVES AND GRADING CRITERIA

It is expected that over the course of the semester, the student will develop:

1. an understanding of the nature and scope of economics,
2. a knowledge of the methodology and terminology of microeconomic theory,
3. an understanding of the conceptual and theoretical bases for the economics analysis of important issues and problems in economics, and
4. the ability to analyze microeconomic issues and problems.

The University Announcement requires grades, the form and meaning of which are given on pp. 22-23 of the 1995-97 edition. Persons in the course determine their grades by demonstrating on written examinations 1) an understanding of the assigned readings, 2) a grasp of the material covered in class, and 3) an ability to question, analyze, and discuss current issues in microeconomics. Each student will have ample opportunity to display his/her progress in the course through performances on four (4) unit exams and a comprehensive final examination. Hour exams are each worth 100 points and are comprised of 25 multiple choice questions (75%) and 1 multi-part essay section (25%). In the determination of the final grade, each student's lowest 100-point grade will be dropped. There are four review quizzes in the coursepack. Students are encouraged to do them. The final exam (all multiple choice) will have the same point value as a unit exam but will be counted twice since it is comprehensive. Review questions are included in the coursepack. In determining the final grade for the course, the lowest 100 point score will be dropped. The final letter grade for the course will be based on the following scale:

450	(90%)	A
400-449	(80%)	B
350-399	(70%)	C
300-349	(60%)	D
299 & below		E

		[lowest score dropped]
Exam 1	100	95
Exam 2	100	75
Exam 3	100	80
Exam 4	100	93
Final Exam	100	86
(counted twice)	100	86
	500 maximum	440

The lowest 100 point score is dropped only after the final exam. However, students having a 90% or above average on the four hourlies will be excused from the final exam with a grade of "A". These figures are approximate; the instructor has been known to scale grades when to do otherwise would mean excessive chaos.

NONETHELESS:

1. In order to pass this course, students <u>must</u> attain an average of 50% or better.

2. The average grade given in this class is a C. To earn an A or B, a student must demonstrate consistently excellent or good work, respectively.

3. Students have the option of replacing one exam with a written analysis of a current article on microeconomics. This review should include a summary of the article, an in-depth discussion of the economic concepts and problems dealt with in the article, and an evaluation (by the student) of the points the article is making: *e.g.,* identifying the validity of the author's arguments or pointing out glaring omissions by the author of the article or a normative view precludes other arguments. The analysis should be no less than three typed, double-spaced pages in length, well written (grammar, punctuation, spelling, and word usage) and proofed. Students should have the article approved by the professor. A photocopy of the article should be attached to the analysis submitted to the instructor. This paper is due December 7, 2001.

<u>IMPORTANT NOTES</u>

1. There will be <u>no makeup</u> of missed exams except in highly unusual and extenuating circumstances (as determined by this instructor). The exam that is missed will be the one that is dropped.

2. Attendance is not required in this course. Any student that can pass this course by merely taking the exams may do so. However, before jumping from the top of the Ren Cen in glee, it must be pointed out that statistics overwhelmingly have indicated a high correlation between the number of absences and low grades (and the instructor routinely takes attendance frequently in order to update these statistics). Experience has demonstrated that class attendance and participation are beneficial to one's understanding of the course. Exams are comprehensive, covering both class notes and reading assignments; the two are not always synonymous but instead complement each other.

<u>**NOTE WELL:**</u> Moreover, although a student's grade will not be lowered deliberately for excessive unexcused absences, there are certain things that he/she must know. This instructor will give such students:

   1. no extra help,
   2. no consideration concerning early exams or makeups,
   3. no letters of recommendation, and
   4. <u>NO BENEFIT OF THE DOUBT IN MARGINAL CASES</u>.

3. At least one week's notice will be given prior to each exam. The date for the final exam is set by the University and cannot be changed. Review quizzes are in the coursepack. Some sample questions are attached at the end of this syllabus.

4.   The instructor keeps all exams. They are handed back to the student in class for explanation, clarification, and discussion only. The exams must be returned to the instructor at the end of class or the grade will not be counted. Student may use their exams for study purposes during office hours. Questions on the final are similar in nature to those on the hour exams but are not taken from the hourlies.

5.   The Final Exam for this course will take place during the official Examination Period following the end of classes. The date and time can be found on page 10 in the official Schedule of Classes. If, with so much advance notice, you cannot manage to schedule your vacations, weddings and other auspicious occasions so as to accommodate the Final Exam, you would be well advised to drop the course forthwith.

6.   Grades are not posted. Students wishing to know their final exam grade and final grade may submit a stamped, self-addressed envelope/card.

7.   Any student with special needs requiring extra assistance should report these needs to the instructor the first day of class.

8.   This instructor takes a dim view of cheating, plagiarism, and any other violation of the Code of Academic Conduct (pp. 58-59, UM-D 1995-97 Announcement). The opportunity cost of violating the Code is high; the penalty is failure in the course.

9.   An incomplete is given only in highly unusual cases in which the extenuating circumstances (in the judgement of the instructor) merit an extension and only if a majority of the class work has been completed. It is university policy that an incomplete is never given for unsatisfactory work. If an "I" is given, it usually must be made up within 4 weeks of the end of the term.

10.   If the office hours don't fit your schedule, just make an appointment or stop by the office to see if I'm in. A limited number of office hours are posted because in general (except for family illness, meetings and such) I am in the office a good part of each day and am usually willing to see students.

SPECIAL NEEDS

Any student with special needs requiring extra assistance should report these needs to the instructor the first day of class. The University will make reasonable accommodations for persons with documented disabilities. Students should register with the Disability Resource Services Office located in Counseling and Support Services, 1060 Umall. Eligible students who are not registered with the DRSO should do so within the first few days of the term.

REQUIRED TEXTS

1.   Case & Fair, PRINCIPLES OF MICROECONOMICS, 5th edition.

2.   Crowell. COURSEPACK.

        PLUS

1.   Occasionally, an outside reading from the contemporary economic scene (e.g., articles from THE WALL STREET JOURNAL and/or TIME, NEWSWEEK, U.S. NEWS) may be assigned.

2.   Students should make it a habit to read at least one QUALITY newspaper or one of the good weekly publications in order to keep up with the economics news. This instructor considers economic news to be fair game on exams.

3.   The coursepack is loaded with extra notes and study materials. All of these are fair game.

OPTIONAL TEXTS

1.   Case & Fair, STUDY GUIDE, 2nd edition.

2.   Other principles texts. Check with the instructor.

IMPORTANT NOTE ABOUT READINGS

        Students are responsible for all assigned readings in the text AND all lecture material in the coursepack. The coursepack includes not only the basic outline and graphs but also some selected written lecture notes. This material represents either 1) a review of material students should already know from EC201, macro, or 2) material that is fairly routine and of a descriptive nature. This material will not be discussed per se in class. The instructor assumes students will have read and studied this material before coming to class.

COURSE OUTLINE

Single numbers refer to chapters; pp., to pages. C refers to lecture material in coursepack.

Chapters and/or page numbers refer to the text. Asterisks refer to material that will not be discussed in class.

I.   THE NATURE OF ECONOMICS AND SOME BASIC METHODOLOGY

   A.   Scope
         1.   Economics, scarcity, resource allocation,   1-2, C
               opportunity cost, economic systems
         2.   Basic economic questions
         3.   Micro v. macro

   B.   Methodology
         1.   Positive v. normative economics
         2.   Theories and models
         3.   Graphs
         4.   Caveats

II.   THE PRICE SYSTEM

   A.   Overview of the economy   3, C
         1.   Decision-makers
         2.   Operation of the system
         3.   Role of the government
         4.   Comparative systems

   B.   Demand, supply and price   4
         1.   Basic demand theory
         2.   Basic supply theory
               Determination of price and quantity: market equilibrium

   C.   Simple Applications   4-5, C

   D.   Elasticity   5

   E.   Application of supply & demand & elasticity   5, 16, 17, 18
         1.   Tax incidence
         2.   Agriculture
         3.   International trade
         4.   Discrimination

III. THEORY OF CONSUMER BEHAVIOR   6

       A.   Classical approach-utility analysis
       B.   Indifference curve analysis

IV.   THEORY OF THE FIRM   C, 7-9

       A.   Nature of the firm*
       B.   Production and cost functions, supply curves
   C.   Optimal output decisions

V.   MARKET STRUCTURES (9-11)

       A.   Perfect competition   8, C
       B.   Monopoly   13, C
       C.   Monopolistic competition & oligopoly   14, C
       D.   Overview   15

VI.   THE DISTRIBUTION OF INCOME OR FACTOR MARKETS

       A.   Basic theory   10
       B.   Income distribution   17

ECON 202

/ = FIRST AND LAST DAY OF CLASS 9/5, 12/10

0 = EXAMS: 10/5, 10/31, 11/16, 12/7
     12/17 -FINAL EXAM

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SAMPLE EXAM QUESTIONS

1.   When we say that a price in a competitive market is too high for equilibrium we mean that:
        a.   consumers want to buy too much at that price.
        b.   producers are leaving the industry.
        c.   quantity supplied exceeds quantity demanded at that price.
        d.   quantity demanded exceeds quantity demanded at that price.
        e.   no producer can cover his costs of production at that price.

2.   A shift to the right of the demand curve for product A can be most reasonably explained by saying that:
        a.   the supply of A has increased because production costs have declined.
        b.   the price of A has declined and, as a result, consumers want to purchase more of it.
        c.   consumer preferences have changed in favor of A so that they now want to buy more of it at each possible price.
        d.   the price of A has increased and, as a result, consumers want to purchase less of it.
        e.   consumer incomes have declined and now they want to buy less of A at each possible price.

3.   Given the successive lowering of price in the relevant range increases total revenue in each instance, the supplier faces a demand curve, which is:
        a.   elastic.   c.   unit elastic.   e.   none of the above.
        b.   infinitely elastic. d.   inelastic.

4.   On a per unit basis economic profit can be determined as the difference between:
        a.   AFC and product price.   d.   product price and ATC.
        b.   MR and MC.   e.   product price and AVC.
        c.   MR and product price.

5.   In the situation of perfect competition, the relationship between market price and marginal revenue of each supplying firm is that:
        a.   price is less than marginal revenue at all or most output levels.
        b.   price is greater than marginal revenue at all or most output levels.
        c.   price is the same as marginal revenue at all output levels.
        d.   price is either greater than marginal revenue or less than marginal revenue.
        e.   none of the above since price is not related to marginal revenue.

6.   Define 3 and give an example.
        a.   capital   c.   monopolistic competition   e.   economic efficiency
        b.   income effect   d.   externality

7.   Describe verbally and graphically the equilibrium (LR) positions of a perfectly competitive firm, a monopolistically competitive firm and a monopolist. Compare and contrast briefly these positions.

8.   Describe verbally and demonstrate graphically the indifference curve approach to the theory of consumer behavior.

9.   Explain and demonstrate graphically development of a black market.

(The coursepack has additional study questions.)

I.   Nature and Scope of Economics

   1.   Define and explain the fundamental problem of economics.
   2.   Define and give an example of opportunity cost.
   3.   Define and give an example of each of the major factors of prod.
   4.   What is an economic system? What is its function? Identify e major types of economic systems and
             explain how they work.
   5.   Distinguish between positive and normative statements. Give an ex. of each.
   6.   Develop a production possibilities boundary. Identify the assumptions you must make. Graph it. Use it
             to demonstrate the concepts of : a. scarcity, b. choice, c. opportunity cost, d. economic growth, and
             e. unemployment.
   7.   Identify the major economic questions that every society must answer.
   8.   Distinguish between micro- and macro-economics.

II.   The Price System

   9.   Explain how the market or price system works. Include in your explanation the circular flow model.
   10.   Explain how the price system answers the four basic economic ?'s.
   11.   Define demand. Identify the major factors or variables that influence demand for a product.
   12.   Develop a demand schedule and construct the demand curve from that schedule. Identify all of the
             assumptions you must make.
   13.   Carefully explain the nature of the relationship between each of the variables that affect demand. Do the
             same for supply.
   14.   What is meant by the term "law of demand"? "Law of supply"?
   15.   Distinguish between a change in demand and a change in quantity demanded. A change in supply and a
             change in quantity supplied.
   16.   Demonstrate graphically and explain verbally how supply and demand interact in the market to
             determine an equilibrium price & quantity exchanged.
   17.   What is meant by the term equilibrium?
   18.   What is meant by the term ceteris paribus?
   19.   What can cause a change in quantity demanded? Quantity supplied?
   20.   What can cause a change/shift in demand? Supply?
   21.   If demand increases and supply stays the same, what will happen to equilibrium price and quantity.
   22.   If demand increases and supply decreases, equilibrium price will fall. True or false. Explain.
   23.   A non question but a hint: review the rules of thumb.
   24.   Demonstrate graphically and explain verbally the impact of a price ceiling.
   25.   Demonstrate graphically and explain verbally the impact of a price floor.
   26.   What is an illegal market?
   27.   Demonstrate graphically the supply and demand curves for cocaine.
   28.   Define what is meant by elasticity of demand and elasticity of supply.
   29.   Identify and explain the five cases of demand elasticity. Supply elasticity.
   30.   How is the coefficient of demand elasticity calculated? Supply elasticity?
   31.   What is the crowding hypothesis? Demonstrate it graphically. Give an example.

32. Explain verbally and demonstrate why externalities may lead to either an overproduction (allocation) or underproduction (alloc.) of a product.
33. If total revenue goes up following a price increase, can you draw any conclusions about the elasticity of demand for this product?
34. How is the elasticity of demand coefficient interpreted?
35. Explain verbally and demonstrate graphically the impact of an imposition of a sales tax on a producer.
36. Explain what is meant by the term tax incidence. Briefly distinguish between the two types discussed in class.
37. Explain what is meant by the term tax shifting. Identify the basic ways a tax can be shifted.
38. When we say the incidence of a tax is shared, what do we mean? How can this sharing come about?
39. In what circumstances does the producer have no opportunity to shift any part of the tax?
40. In what circumstances does the producer have the ability to shift all of the tax onto the consumer?
41. Explain the two major causes of the "farm problem". Also explain what is meant by the term "farm problem." Use diagrams please.
42. Compare and contrast the maintenance of price supports program & the guaranteed resale program. Graphs are necessary.
43. Do the same with the maintenance of price supports and crop restriction. Again, graphs are essential.
44. What is the PIK program? Why didn't it work?
45. Which costs the government more--the P support or the guar. resale? A graph is required.

III. Theory of Consumer Demand

46. Explain what is meant by the concept of "utility" in economics.
47. Distinguish between total utility and marginal utility. Include a definition of each. How is marginal utility calculated?
48. What is the law of diminishing marginal utility?
49. In marginal utility analysis, the rule for maximizing satisfaction is _____.
50. What is meant by the concept of the "paradox of value"?
51. What is meant by the concept of "cardinal measurement"?
52. Why was indifference curve analysis developed?
53. What is meant by the terms "indifference" and "ordinal utility?
54. What is an indifference curve? A commodity space? A budget line?
55. How does a consumer maximize satisfaction under ord. util. analysis? Demonstrate graphically.
56. What are some other terms for the budget line?
57. Using indifference curve analysis, derive a demand curve.
58. What is meant by the term "substitution effect" and "income effect"?
59. Compare and contrast marginal utility and indifference curve analysis. Include a brief description of each. Another way of asking this question is: compare and contrast the two theories of D.

IV. The Theory of the Firm

60. Define profits. Define total revenues. Define total revenues. Define total costs.
61. Distinguish between the two types of efficiency discussed in class.
62. Distinguish between social and private costs.
63. Distinguish between explicit and implicit costs. Define each. Give an example of each.
64. What is meant by the term "normal profits"? "Economic profits"?

65.   How do accounting profits differ from an economist's definition of profits?
66.   What are revenue, cost, and production functions?
67.   What is meant by the "short run"? The "long run"?
68.   Explain the law of diminishing marginal productivity.
69.   Distinguish between total product, marginal product, and average product. Show how the latter two are calculated.
70.   Explain and demonstrate graphically the three SR prod. fns.
71.   Explain the relationship between the marg. unit and the average unit.
72.   What is the "equamarinal principle"? Why is it important?
73.   Explain and demonstrate graphically the three total cost fns.
74.   Explain and demonstrate graphically the four unit cost fns.
75.   What do you need before you can derive any cost function?
76.   What two questions must a firm answer in attempting to max. profits?
77.   What are the rules for answering these questions and what are the conditions for prof. max? Demonstrate graphically.
78.   Demonstrate on a unit cost diagram the concepts of econ. prof., breadeven, shut down, total revenue, total cost, cost minimize.

IV.   Market Structures

79.   What is meant by the term "mkt structure"? What two char. do we look for?
80.   Explain the four basic mkt types.
81.   Identify the assumptions that must hold under perf. comp.
82.   What are the implications of these assumptions for a perf. com. firm?
83.   What is meant by the term "price taker"?
84.   Explain and demonstrate graphically the optimum output and prof. max. level for a firm in perf. comp.
85.   Identify the short and long run equi. positions viable for a p.c. firm. Explain why each is viable.
86.   Why is the LR. equi. position for a p.c. firm considered the norm?
87.   Demonstrate the marginal and average revenue fns. for a p.c. firm.
88.   Compare and contrast the marg. and ave. rev. fns. for a p.c. firm and a monopolist. Show graphically.
89.   Distinguish between the terms "P taker" and "P searcher/seeker".
90.   Demonstrate graphically and explain verbally the opt. output/prof. max. level for a monopolist. Compare it with that of a p.c. firm.
91.   Why can econ. prof. persist in the LR for a monopolist.
92.   What is meant by the term "monopolistic competition"? "Imperf. comp."?
93.   What does the term "prod. differentiation" mean? What are its features? What are its implications?
94.   Demonstrate graphically and explain verb. the opt. output/prof. max. level for a monop. comp. firm. Compare it with that of a p.c. firm.
95.   What are selling costs? Why are they important?
96.   Distinguish between pure and differentiated oligopolies. What does the term oligopoly mean?
97.   Explain and demonstrate graphically what is meant by the term the "kinked demand curve".
98.   Why is price stability often found in oligopolies?
99.   What assumption must be made for the kinked D curve theory to be valid?

100. Explain and demonstrate graphically the opt. output and prof. max. levels for an oligopolist. Compare with p.c. (verbally only). **NOTE:** with all the other market structures, you need this comparison on the diagram.
101. Show graphically (and explain) why the kinked demand curve theory leads to price stability.
102. What is meant by the term "collusion"? "P leadership"? "Cartel"?
103. Compare and contrast the market impacts of a p.c. firm, a monopoly, a monop. comp. firm, and an oligopolist. Do as much as you can graphically as well as verbally.
104. What is meant by the term "excess capacity"?
105. What is meant by the term "barriers to entry"?

V.   Resource or Factor Mkts/Theory of Distribution

106. What is meant by the term "derived D"?
107. The demand for a factor is based on what?
108. Derive the demand for a factor in the S.R. Graphs are essential.
109. In a barter economy, the demand for a factor is the _____.
110. What is meant by the term "marginal revenue product"? Why is it important.
111. In a perf. comp. sit., how does the firm determine the optimal employment level? Show graphically. Explain the rule.
112. What is meant by the concept of the "marg. prod. theo. of Y dist"? "Functional distribution of income"? Why are these concepts imp?
113. What is meant by the term the "personal dist. of Y"? Why is it imp.?
114. Distinguish between relative and absolute poverty.
115. What is a Lorenz Curve: What is a Gini Coefficient? Why are they important?

Questions omitted from list:

116. Define economic effect. Why is it important? What are some other terms for it? What is merit good?
117. What is capitalism? What is socialism? What is democratic soc?
118. What are some characteristics of advanced economic societies?
119. Justify the existence of a public economic sector.
120. What is the Exclusion Principle? Why is it important?
121. Distinguish between a public and a private good.
122. What is the implication of a good that defies the Exclusion Principle?
123. To what does the term "capacity" refer?
124. Explain and demonstrate graphically the LR shape of the AC curve.
125. Explain and demonstrate graph. capacity and excess capacity.
126. To what does the term "P discrimination" refer?
127. Explain & demonstrate graphically two misconceptions about a monopolist's behavior.
128. Demonstrate graph. & explain verbally the profit maximizing decisions of a discriminating monopolist.
129. What is meant by the term "natural monopoly"?

130. What is meant by the term "returns to scale"? Why is this concept important?

LIST OF ABBREVIATIONS AND SYMBOLS

*Not all-inclusive. Other abbreviations will be identified and used in class.

AC, AFC, ATC, AVC	average cost, average fixed cost, average total cost, average variable cost
AP, APP	average product, average physical product
B.L.	budget line
C, CR, Cr	cost or consumption; consumer **
d, D	demand
e	elasticity
E, N	employment
E, EQ	equilibrium
f, F	factor, input, resource
I	interest
I	input, factor, resource or investment or indifference curve **
K	capital
L	labor
LR	long run
m, M	monopoly or imports
MC	marginal cost
MP, MPP	marginal product, marginal physical product
MR	marginal revenue
MRP	marginal revenue product
MU	marginal utility
P, P_p, P_{og}, P_f	price, price of product, price of other goods, price of factor
PPB, PPC, PPF, PTC, PTB	production possibility boundary, curve or frontier, production transformation curve or boundary
p	profit
r	rent
Q_d, Q_s	quantity demanded, quantity supplied
s, S	supply
SR	short run
t, T	tax
TC, TFC, TVC	total cost, total fixed cost, total variable cost
TE	total expenditures or total revenue
TP, TPP	total product, total physical product
tr	transfers, transfer payments
TR	total revenue or total expenditures
U	utility or union
TU	total utility
unE, unN	unemployment
VMP	value of the marginal product
w, W	wage
x, X	export
Y, Y_r, Y_m	income, real income, money income
?	change
↑,↓	increasing, decreasing
→	leads to

** Depending on context