COURSE DESCRIPTION: This course examines how the allocation of resources is achieved through market mechanisms. It begins by asking, why an efficient allocation of resources is an economic goal, how societies attempt to achieve that goal and how it might best be achieved. The goals of this course are twofold: first, to train the student to use the analytical tools of economics, primarily model building, with optimization and equilibrium analysis as subtools; and second, to train the student to think like an economist and apply the analytical tools to a wide range of social issues. More specifically the course begins with the most basic tool, supply and demand analysis. This provides an overview of market allocation, but to fully understand models of markets, we must examine the behavioral assumptions of the economic agents, the incentives they face, the technology and information available to them, as well as the institutional structure in which they operate. Consumer theory underlies demand analysis and theory of the firm underlies supply analysis. Throughout the analyses, it is asked if a market is allocating resources efficiently, being careful to draw sharp distinctions between allocative and technical efficiency. Although microeconomics is primarily concerned with the goal of economic efficiency, the equity implications of varying allocations will be discussed. The main theoretical topics include: the nature of consumer demand, production and costs, monopoly, perfect competition, oligopoly, and monopolistic competition. Special topics will include: government regulation, taxes, externalities, public goods, game theory and uncertainty. The analytical skills required for successful completion of this course are quite substantial the course relies heavily on mathematics and graphics. The student should have a firm understanding of the material contained in the prerequisite courses, although strong intuition and verbal skills can be partial substitutes for more technical ability. Calculus is recommended, but not required. Students should have training in mathematics up to and including pre-calculus. This course is extremely analytical. Only students serious about economics are encouraged to enroll.

PREREQUISITE: Economics 130 and 131.


GRADE DETERMINATION: Course grades will be assigned on the UHM plus/minus grading system. [http://www.catalog.hawaii.edu/](http://www.catalog.hawaii.edu/). Grades will be based upon class attendance, problem sets, 2 midterm exams and a final exam weighted in the following fashion:

<table>
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<th>Component</th>
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<td>Problem Sets</td>
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<td>Attendance &amp; Class Participation</td>
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<td>Final Exam (12/17/2004)</td>
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Examinations will include short answer, problem solving, graphical analysis, and essay style questions. Some questions on the exams will be drawn from the problem sets.
TENTATIVE COURSE SCHEDULE
(Subject to Revision)

Reading:  Chapter 1  Lecture 1  [Monday, August 23, 2004]
Introduction:
Economic Methodology
Positive vs. Normative Economics
Microeconomics vs. Macroeconomics
Fundamental Principles of Scarcity and Choice
Mathematics and Graphics in Economics
Technical Efficiency vs. Allocative Efficiency
Efficient Resource Allocation
Partial Equilibrium Analysis vs. General Equilibrium Analysis
Model Building:
   Equilibrium Analysis
   Optimization Analysis

Lecture 2  [Wednesday, August 25, 2004]
Supply and Demand Analysis:
Determinants of Demand
   Prices
   Incomes
   Tastes
   Expectations
Determinants of Supply
   Output Prices
   Input Prices
   Technology
   Weather
   Expectations
Comparative Static Analysis
   Normal Goods
   Inferior Goods
   Complementary Goods
   Substitute Goods

Workout 1 due  Lecture 3  [Friday, August 27, 2004]
Supply and Demand Analysis:
   Market Equilibrium
   Price Ceilings and Price Floors
   Economic Surpluses and Economic Shortages

Readings:  Chapter 2  Lecture 4  [Monday, August 30, 2004]
Consumer Theory:
   Budget Sets
Readings: Chapter 3  
Readings: Chapter 4  
Workout 2 due  
Readings: Chapter 5  
Reading: Chapter 6  
Workout 3 due  
Readings: Chapter 7  
Workout 4 due  

Lecture 5  
[Wednesday, September 1, 2004]  
Consumer Theory (continued):  
Preferences and Tastes  
Utility Theory  
Cardinal Utility vs. Ordinal Utility  
Utility Functions  
Indifference Curves

Lecture 6  
[Friday, September 3, 2004]  
Consumer Theory (continued):  
Preferences and Tastes  
Utility Theory  
Cardinal Utility vs. Ordinal Utility  
Utility Functions  
Indifference Curves

Lecture 7  
[Wednesday, September 8, 2004]  
Consumer Theory (continued):  
Derivation of a Demand Curve  
Giffen Goods

Lecture 8  
[Friday, September 10, 2004]  
Consumer Theory (continued):  
Applications:  
Transfers in Cash vs. Transfers in Kind  
Income Taxes vs. Commodity Taxes

Lecture 9  
[Monday, September 13, 2004]  
Revealed Preference:  
Preferred Region  
Dominated Region  
Non-satiation (more is preferred to less)  
Weak Axiom of Revealed Preference (WARP)  
Strong Axiom of Revealed Preference (SARP)

Lecture 10  
[Wednesday, September 15, 2004]  
Revealed Preference (continued):  
Application:  
Simultaneous Income and Relative Price Changes with Possible  
Consumer Responses Delineated via Revealed
Preference

Workout 5 due Lecture 11 [Friday, September 17, 2004]
Workout Review Session

Readings: Chapter 8 Lecture 12 [Monday, September 20, 2004]
Slutsky's Equation:
- Price Effect
- Income Effect
- Substitution Effect
- Giffen Goods Revisited
- Slutsky Compensation vs. Hicksian Compensation

Lecture 13 [Wednesday, September 22, 2004]
Slutsky's Equation (continued):

Readings: Chapter 14 Lecture 14 [Friday, September 24, 2004]
Workout 6 due Consumers' Surplus and Producers' Surplus
The Demand Curve: A Measure of Marginal Social Benefit
The Supply Curve: A Measure of Marginal Social Cost

Readings: Chapter 15 Lecture 15 [Monday, September 27, 2004]
Workouts 7&8 due Elasticities:
- Elasticity (sensitivity, responsiveness)
- Price Elasticity of Demand
- Relationship to Total Revenue
- Substitutability: The Key to Elasticity Measurement
- Arc Elasticity vs. Point Elasticity
- Income Elasticity of Demand
- Cross-Price Elasticity of Demand
- Price Elasticity of Supply

Readings: Chapter 16 Lecture 16 [Wednesday, September 29, 2004]
Workouts 14&15 due Elasticities (continued)
Application: Excise Tax Incidence

Workout 16 due Lecture 17 [Friday, October 1, 2004]
FIRST MIDTERM EXAM
Friday, October 1, 2004
Readings: Chapters 18  Lecture 18  
Theory of the Firm: Production Technology  
Production Sets  
Production Functions  
Total Product  
Average Product  
Marginal Product  

[Monday, October 4, 2004]

Readings: Chapters 19  Lecture 19  
Theory of the Firm: Production (continued)  

[Wednesday, October 6, 2004]

Workouts 18&19 due  Lecture 20  
Workout Review Session  

[Friday, October 8, 2004]

Readings: Chapter 20  Lecture 21  
Production (continued):  
Isoquants  
Isocost Lines  
Technical Efficiency  
Cost Minimization  
Efficient Expansion Path (EEP)  

[Monday, October 11, 2004]

Readings: Chapter 21  Lecture 22  
Theory of the Firm: Duality - The Relation Between Product Curves and Cost Curves  
Variable Costs  
Fixed Costs  
Sunk Costs  
Opportunity Cost  
Total Cost (TC)  
Total Fixed Cost (TFC)  
Total Variable Cost (TVC)  
Marginal Cost (MC)  
Average Total Cost (ATC)  
Average Variable Costs (AVC)  
Short Run Cost Curves  
Long Run Cost Curves  
Economies of Scale (EOS)  

[Wednesday, October 13, 2004]
<table>
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Workout 24 due

Lecture 29
Monopoly (continued):
  Price Discrimination
  Arbitrage
  1st Degree Price Discrimination (Perfect)
  2nd Degree Price Discrimination
  3rd Degree Price Discrimination
  Equity and Welfare Implications

[Friday, October 29, 2004]

Readings: Chapter 25

Lecture 30
Monopoly (continued):
  Regulation of Natural Monopolies
Theory of the Firm: Monopolistic Competition
  Many Firms
  Price Taking Behavior
  Differentiated Products
  Free Entry and Exit
  Advertising

[Monday, November 1, 2004]

Workout 25 due

Lecture 31
Monopolistic Competition (continued):

Lecture 32
Workout Review Session

Lecture 33
Workout Review Session

Lecture 34
SECOND MIDTERM EXAM
Wednesday, November 10, 2004
12:30-1:20 PM

Lecture 35
Theory of the Firm: Oligopoly
  Few Firms
  Price Making Behavior
  Homogeneous or Differentiated Products
  Barriers to Entry
  Kinked Demand Curve Model
  Dominant Firm Model
  Cournot Model
  Stackelberg Model

[Friday, November 12, 2004]
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Social Welfare Functions

Workout 32 due Lecture 43 [Friday, December 3, 2004]
General Equilibrium Analysis: Welfare (continued)
Arrow’s Impossibility Theorem
Social Welfare Functions

Readings: Chapter 33 Lecture 44 [Monday, December 6, 2004]
Workout 33 due Externalities

Readings: Chapter 35 Lecture 45 [Wednesday, December 8, 2004]
Workout 35 due Public Goods

FINAL EXAM
Friday, December 17, 2004
12:00-2:00 PM
POST 126