

ECONOMICS

An Introduction to Economics and the Economics of Climate Change

- I. FUNDAMENTAL ECONOMIC CONCEPTS 10%
 - A. Basic Assumptions of Economics
 - 1. Scarcity
 - 2. Trade-offs
 - 3. Opportunity Cost
 - 4. Rationality
 - 5. Gains from Trade
 - B. Models and Economic Theory
 - C. Positive and Normative Economics
 - D. Efficiency as a Goal
 - E. Microeconomics and Macroeconomics

- II. MICROECONOMICS 40%
 - A. Perfectly Competitive Markets
 - 1. Markets
 - 2. Demand
 - 3. Shifts in the Demand Curve
 - a. Income
 - b. The Prices of Related Goods
 - c. Tastes
 - d. Expectations
 - e. Number of Buyers
 - 4. Supply
 - 5. Shifts in the Supply Curve
 - a. Input Prices
 - b. Technology
 - c. Expectations
 - d. Number of Sellers
 - 6. Equilibrium
 - 7. The Characteristics of Competitive Market Equilibrium
 - B. Applications of the Competitive Market Model
 - 1. Changes in Market Equilibrium
 - 2. Elasticity
 - 3. Using Elasticity
 - C. Evaluating Government Policy: The Impact of Price Controls and Taxes
 - 1. Price Controls
 - 2. Taxes
 - D. International Trade
 - 1. An Isolated Economy
 - 2. Adding the Opportunity to Trade

- 3. Comparative Advantage and the Gains from Trade
- 4. The Political Economy of Trade
- E. The Profit Motive and the Behavior of Firms
 - 1. Economic Profits and Accounting Profits
 - 2. Finding the Firm's Supply Curve
 - 3. Entry, Exit, and the Market Supply Curve
- F. Imperfect Competition
 - 1. Monopoly
 - 2. Monopoly Supply
 - 3. Welfare Consequences of Monopoly
 - 4. Dealing with Monopolies
 - 5. Price Discrimination
 - 6. Oligopoly
 - 7. Monopolistic Competition
- G. Creative Destruction: The Profit Motive and the Sources of Economic Change
- H. Market Failures
 - 1. Externalities
 - 2. The Effect of Externalities on Resource Allocation
 - 3. Private Responses to Externalities
 - 4. Government Regulation of Externalities
 - 5. Property Rights
 - 6. The Effects of Private Ownership
 - 7. Public and Private Goods
 - a. Private Goods
 - b. Common Resources
 - c. Collective Goods
 - d. Public Goods
- I. Institutions, Organizations, and Government
 - 1. Pork Barrel Politics
 - 2. Rent-Seeking
 - 3. What Is the Proper Role for Government?

III. MACROECONOMICS

30%

- A. Macroeconomic Issues
 - 1. Economic Growth and Living Standards
 - 2. Recessions and Expansions
 - 3. Unemployment
 - 4. Inflation
 - 5. International Trade
- B. Macroeconomic Measurement
 - 1. Measuring Total Output: Gross Domestic Product
 - a. Market Value
 - b. Final Goods and Services
 - c. Within a Country
 - d. During a Specified Period

2. Understanding What GDP Measures
 3. Other Ways to Measure GDP: Expenditures Equal Production
 4. Yet Another Way to Measure GDP: Income Equals Production Equals Expenditures
 5. Real GDP
 6. Measuring Inflation
 7. Unemployment
 - a. Frictional Unemployment
 - b. Structural Unemployment
 - c. Cyclical Unemployment
 - C. Economic Growth, Productivity, and Living Standards
 1. The Circular Flow Model of the Economy
 2. What Determines How Much an Economy Produces?
 - D. Savings, Investment, and the Financial System
 1. Financial Markets
 - a. The Bond Market
 - b. The Stock Market
 2. Financial Intermediaries
 - a. Banks
 - b. Mutual Funds
 3. Saving and Investment in Aggregate
 4. International Capital Flows in an Open Economy
 5. How Financial Markets Coordinate Saving and Investment Decisions
 - E. Money and Prices in the Long Run
 1. What Is Money?
 2. Measuring Money
 3. The Federal Reserve System, Banks, and the Supply of Money
 4. Bank Runs
 5. Money and Inflation in the Long Run
 6. Why Worry about Inflation?
 - F. Short-Run Economic Fluctuations
 1. Characteristics of Short-Run Fluctuations
 2. Potential Output, the Output Gap, and the Natural Rate of Unemployment
 3. Explaining Short-Run Fluctuations in Output
 4. The Aggregate Demand Curve
 - a. Wealth Effects
 - b. Interest Rate Effects
 - c. Foreign Exchange Effects
 5. The Aggregate Supply Curve
 6. The Keynesian Model of Short-Run Fluctuations
 7. Inflation in the Keynesian Model
 8. Using Fiscal and Monetary Policy to Stabilize the Economy
- IV. CLIMATE CHANGE: ECONOMICS MEETS ECOLOGY 20%
- A. Introduction and Overview
 1. The Current Crisis—Recent Developments

2. Economics and Ecology: A Need for Synthesis
3. Overview of Topics
 - a. Concepts and Climate
 - b. Economic Issues and Climate
 - c. Policy Responses and Climate Change
 - d. Summing Up: Viable Courses of Action
- B. Economic Concepts and Climate: Theory and Practice
 1. Externalities: Doing Unto Others
 - a. Positive and Negative Externalities
 - b. One-way and Reciprocal Externalities
 - c. Control and Time
 - d. Resolution: Economic and Legal Means
 2. Public Goods and Public Spaces
 - a. Definitions: Rivalry and Excludability
 - b. Public Goods and Public Bads: Social Benefits and Costs
 - c. Economic House: Obligations and Free Riding
 - d. Space and Jurisdiction
 - e. Norms, Institutions, and Expectations
 3. Common Property and Collective Action
 - a. The Tragedy of the Commons
 - b. Collective Action and Its Critics
 - c. Space and Jurisdiction: From Village Commons to Global Village
 - d. Managing the Commons: Who Shall Guard the Guardians?
 4. Discounting: The Shadow of the Future
 - a. How Much Is Something Today Worth Tomorrow?
 - b. Looking Forward and Looking Backward
 - c. Whose Child Is This? Obligations to Future Generations
 - d. Spending Now or Saving for Later?
 - e. Time and Sustainability
- C. Economics Issues and Climate
 1. Damages Due to Climate Change
 - a. Economic Damages Due to Increasing Temperatures
 - b. The Social Cost of Carbon
 - c. The Uncertainty of Damage Estimates
 2. Burdens Facing Poorer Regions
 - a. The Unequal Impacts of Climate Change
 - b. Latitude, Location, and Household Income
 - c. Cities, States, and Nations
 - d. Bargaining across Jurisdictions and the Global Commons
 3. Rapid Reductions in Renewables' Costs
 - a. The End of the Hydrocarbon Epoch: How Soon?
 - b. The Renewables Surprise
 - c. The Cost Race
 - d. Playing Favorites and Betting which Road Is Right
- D. Policy Responses to Climate Change
 1. Do Nothing and Hope for the Best

- a. The Case for Waiting and Seeing
- b. The Risks of Delay: The Logic of “No Regrets”
- 2. Unilateral Intervention: Geo-engineering
 - a. Free-driving: I’m in Charge Here
 - b. Volcanic Disruption
 - c. Each against All
- 3. Negotiating over Climate Targets
 - a. The False Promise of Overcommitment
 - b. The Problem of Enforcement
 - c. The Fuzzy Locus of Decision and Responsibility
 - d. The Absence of Alternatives
- 4. Multilateralism: A Global Environment Organization (GEO)
 - a. Economic Interdependence and Ecological Interdependence
 - b. The Commercial Commons and the Climate Commons: Friends or Foes?
 - c. Voluntary Commitment with Strings Attached
 - d. Managing the Climate Commons
- E. Summing Up
 - 1. Tragic Choices: What Is “Least Worse”?
 - 2. Collective Responsibility and the Obligations of Those Better Off
 - 3. Russian Dolls: A Nested Negotiating Strategy