

ENGINEERING ECONOMICS-I
ILOE (T.Y.B.Tech.)

Teaching Scheme

Lectures: 2hrs/week

Examination Scheme

Total Marks: 100

Continuous Evaluation

Field Work/Assignment: 40

End Semester Exam: 60

Course Education Objectives (CEO)

1. To introduce the essentials of economics
2. To increase economic knowledge and how the markets work
3. To understand competition market and the basis
4. To understand how International Markets work and their principles
5. To understand how start-ups work

Course Outcomes (CO)

- a) Students would understand the nature of markets and competition
- b) Students would learn about Basic Concepts of Economics, Micro and Macro
- c) Students would understand the importance of how industries behave
- d) Students would understand the basis in our day to day life to gain personal financial control
- e) Students would learn about start-up culture and economics
- f) Students would get to know finance generation and funding rounds

Unit I: Basic Concepts of Economics

(6 hrs)

Definitions, Overview of Micro and Macro Economics, Explanation of theories of demand, supply and market equilibrium and Economics Basics – Cost, efficiency and scarcity, Opportunity Cost

Unit II: Micro Economics

(8 hrs)

Differences and Comparison, Theories of Utility and Consumers Choice, Competition and Market Structures, Markets and Prices, Market Failures, Income Distribution and Role of Government

Unit III: Macro Economics

(6 hrs)

Aggregate Demand and Supply, Economic Growth and Business Cycles, The role of the Nation in economic activity, New Economic Policy in India, Fiscal Policy, GDP and Inflation, Consumption, savings and investments, Commercial and Central banking

Unit IV: Industrial Economics**(8 hrs)**

Behaviour of firms: Strategies with regard to entry, pricing, advertising, and R & D and innovation. The development of Firms and Market and Industrial Structure: Stochastic models of firm growth, and market structure, inter-industry differences in growth rate variance, economies of scale, technical change, mergers and market concentration. Development of Competitive capabilities: Role of Technology and Skills, FDI and Technology Transfer, Technological Spillovers, Globalization and Technology Intermediation.

Text Books:

1. Baumol, William J., Economic Theory and Operations Analysis, [Prentice Hall India Ltd.] Fourth Edition, 1985.
2. Sloman, John H., Economics [Prentice Hall India Ltd.] Second Edition, 1994.
3. Varian, Hal, ` Intermediate Microeconomics: A Modern Approach, Fifth Edition [Norton, 1999].
4. P.A. Samuelson & W.D. Nordhaus, Economics, McGraw Hill, New York, 1995.
5. Koutsoyiannis, Modern Microeconomics, Macmillan, 1975.
6. R. Pindyck and D.L. Rubinfeld, Microeconomics, Macmillan Publishing Company, New York, 1989.

Reference:

1. R.J. Gordon, Macroeconomics 4th Edition, Little Brown & Co., Boston, 1987.
2. William F. Shughart II, The Organization of Industry, Richard D. Irwin, Illinois, 1990. (Chapter 3).

ENGINEERING ECONOMICS-II

ILOE (T.Y.B.Tech.)

Teaching Scheme

Lectures: 2hrs/week

Examination Scheme

Total Marks: 100

Continuous Evaluation

Field Work/Assignment: 40

End Semester Exam: 60

Course Education Objectives (CEO)

1. To introduce the essentials of managerial economics
2. To increase international economic knowledge and how international markets work
3. To understand personal finance and investments
4. To understand how exchange rates and currency markets work
5. To understand how start-ups finances are generated

Course Outcomes (CO)

- a) Students would understand how managerial decisions are based on economics
- b) Students would learn about capital budgeting and planning
- c) Students would understand the importance balance trade, monetary policies and exchange rates
- d) Students would understand the importance of day to day budgeting and personal finances at early stage
- e) Students would learn about start-up culture and economics
- f) Students would get to know funding rounds which would help them to run their own start-ups

Unit I: Managerial Economics

(10 hrs)

Nature and scope of Managerial Decisions, Objectives of firms, Techniques of analyses with special reference to econometric method, Analysis of demand pattern, demand forecasting, Production function and production planning, cost and product relationships, cost function, Break-even-point analysis, Pricing and price related policies, Labour

productivities and wages, Optimization problems, Introductory aspects of capital budgeting, Selected case studies under Indian conditions.

Unit II: International Economics (7 hrs)

Balance of Trade and Balance of Payments, Barriers to Trade, Benefits of Trade/Comparative Advantage, Foreign Currency Markets/Exchange Rates, Monetary, Fiscal and Exchange rate policies, Economic Development

Unit III: Personal Economics (5 hrs)

Compound Interest and Credit, Financial Markets, Human Capital and Insurance, Money Management/Budgeting, Risk and Return, Saving and Investing

Unit IV: Start – up Economics (6 hrs)

Introduction to Start-up Finance, Introduction to Financial Terms, Financial Ratios, Capital Funding, VC's , Funding Rounds, Series A, B..

Text Books:

1. Carlton, D. and J.Perloff. Modern Industrial Organization (Reading, Massachusetts: Addison-Wesley), 1999.
2. Hay, Donald A. and Derek J. Morris. Industrial Economics and Organization: Theory and Evidence, 2nd Edition (Oxford: Oxford University Press), 1991.
3. Lall, Sanjaya. Competitiveness, Technology and Skills (Cheltenham: Edward Elgar), 2001.
4. Scherer, F. M. and D. Ross. Industrial Market Structure and Economic Performance, 3rd Edition (Houghton: Mifflin), 1990.

Reference:

1. Schmalensee, R., Inter-industry studies of Structure and Performance, in Schmalensee, R. and R. D. Willig (eds.): Handbook of Industrial Organization [Amsterdam: North-Holland] Vols. 2 Chapter 16, pp. 951-1009, 1989.
2. Siddharthan, N. S. and Y.S. Rajan. Global Business, Technology and Knowledge Sharing: Lessons for Developing Country Enterprises (New Delhi: Macmillan), 2002.