

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

Programme: B. Tech

Course Title: Economics for Engineers

Course Category: IC

Course Code: HSIC 102

Credits: 3 (L-2, T-1)

Semester: 1st/2nd

Course Objectives

Internal: 50 Marks

Theory: 50 Marks

Total: 100 Marks

Time: 3 hrs

- To enable students to understand the economics principles applicable to engineering.
- To learn the techniques of economic decision making.
- To familiarize the students with basic fundamentals of Indian financial economy.

Unit I: Introduction and Demand Analysis

Principles of economics, how markets work: market forces of supply and demand, Elasticity and its application, Consumer equilibrium.

Unit II: Theory of Production, Cost and Firms

Firms' production, cost and revenue behavior; resources optimization; Firms' behavior under- competitive markets, monopoly, monopolistic competition and oligopoly.

Unit III: Engineering Economy

Time value of money: Single-Payment and Uniform Series, Nominal and Effective Interest Rates, Evaluation Methods: Present Worth Analysis, Annual Worth Analysis, Rate of Return Analysis

Unit IV: Indian Economy

Nature and size of Indian Economy, Problems- Poverty, Unemployment, Inflation, measures for controlling these problems, Monetary policy- meaning, objectives, tools, fiscal policy-meaning, objectives, tools.

Course Outcomes

- The Students will be able to understand the concepts of economics and will also learn to use the principles of economics in the engineering discipline.
- The course would develop the insight of students in understanding the consumer and production behavior and functioning of market economy.
- They would also learn the implications of monetary and fiscal policies in Indian economy.

Suggested Readings

- N. Gregory Mankiw. Principles of Microeconomics,
- Krugman, Paul, and Robin Wells. Microeconomics. New York, NY
- WG Sulliman, EM Wicks and CP Koelling, Engineering Economy, Pearson
- Chan S Park, Fundamentals of Engineering Economics, Always Learning
- Anindya Sen, Microeconomics, OUP India
- Leland T. Blank & Anthony J. Tarquin, Engineering Economy, McGraw-Hill
- Hal R. Varian Intermediate Microeconomics, W. W. Norton and Company
- Ruder Dutt and Sundaram, Indian Economy, S. Chand