

Devi Ahilya University, Indore, India Institute of Engineering & Technology			II Year B.E. (Mechanical Engg.) (Full Time)				
Subject Code & Name	Instructions Hours per Week			Credits			
SMR4S4 ENGINEERING ECONOMICS	L	T	P	L	T	P	Total
	2	0	0	2	0	0	2
<b>Duration of Theory Paper:</b> <b>3 Hours</b>							

**Learning Objectives:**

- To make fundamentally strong base for decision making skills by applying the concepts of economics.
- Educate the students on how to systematically evaluate the various cost elements of a typical manufactured product, an engineering project or service, with a view to determining the price offer.
- Prepare engineering students to analyze profit/revenue data and carry out make economic analysis in the decision making process to justify or reject alternatives/projects.

**COURSE CONTENTS**

**Unit-I**

**Introduction to Engineering Economics:** Definitions, Nature and Scope of Economics; Difference between Microeconomics and Macroeconomics; Concepts of Engineering Economics- Engineering Efficiency and Economic Efficiency.

**Consumer Demand Analysis:** Meaning, Features and Determinants of demand; Law of Demand and its Exceptions; Reasons for Law of Demand; Importance of Law of Demand; Elasticity of Demand.

**Unit-II**

**Supply Analysis:** Meaning, Supply Function, Law of Supply, Determinants of Supply, Fluctuation of supply; Elasticity of supply and its measurement.

**Unit-III**

**Theory of Production:** Production Function, Factors of Production; Law of Variable Proportions; Law of returns to scale

**Cost, Revenue and Profit Analysis:** Cost Classifications for Predicting Cost Behavior; Concept of Profit, Gross Profit and Net Profit; Break Even Point (BEP).

**Unit-IV**

**National Income:** Circular Flow of Income, Meaning and Concept of National Income: GNP/GNI, NNP/NNI, Personal Income and Disposable Income; Methods of Computing National Income -Production Method, Income Method, Expenditure Method.

**Unit-V**

**Economic Stabilization:** Monetary Policy- Meaning, Objectives, Tools; Fiscal Policy- Meaning, Objectives, Tools.

**Learning Outcomes:**

- Upon completing the course, students will be able to:
- Understand major principles of economic analysis for decision making among alternative courses of action in engineering.
- Apply economic principles to prices and quantities in competitive supply and demand for goods and for money.
- Solve economical problems involving comparison and selection of alternatives by using analytical techniques including benefit-cost ratio and breakeven analysis.

**Books Recommended:**

- [1] C S Park, Contemporary Engineering Economics, Pearson Education, 2002.
- [2] J S Chandan, Statistics for Business and Economics, Vikas Publishing.
- [3] H. L. Ahuja, Principles of Microeconomics, S. Chand (G/L) & Company Ltd, 2002.
- [4] D. N. Dwivedi, Macroeconomics Theory and Policy, Tata McGraw-Hill Publishing Company, 2010.
- [5] S Damodaran, Managerial Economics, Oxford University Press, 2010.

**List of Assignments (Theory):**

During the learning of course, students need to do assignment:

- Students are required to research and submit an outline of the past, present and future position of a company of their choice. The outline must include at least one properly labelled table and figure and at least two references.