Devi Ahilya Vishwavidyalaya, Indore, India Institute of Engineering & Technology						II Year B. Tech. (Mechanical Engineering) (Full Time)
Course Code & Name	**Instructions Hours per Semester and Credits**					
4RMHS1 **ENGINEERING ECONOMICS**	**Classroom Instruction (CI)**		**Lab Instruction (LI)**	**Term Work (TW) and Self Learning (SL)**	**Total no. of Hours Per semester**	**Total Credits (Total Hours/30)**
	L	**T**	**P**	**TW+SL**		
	20	**0**	**0**	**40**	**60**	**2**

Course Learning Objective:

The course is designed

1. To make fundamentally strong base for decision making skills by applying the concepts of economics.
2. 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.
3. 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.

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.

Course Outcome:

Students earned credits will develop ability to

Course Out Come (CO)	After completion of the course, students will be able to:
CO1	Upon completing the course, students will be able to understand major principles of economics.
CO2	They have the ability to analyze the situations for decision making among alternative courses of action in engineering.
CO3	Apply economic principles to prices and quantities in competitive supply and demand for goods and for money.
CO4	Solve economic problems involving comparison and selection of alternatives by using analytical techniques including benefit-cost ratio and breakeven analysis.
CO5	Understand the monetary & fiscal policies their objectives & tools.

CO-PO- PSO Relationship

CO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PSO-1	PSO-2	PSO-3
CO 1	3	3	1	2	1	0	0	0	2	2	1	2	1	0
CO 2	3	2	3	3	3	2	0	0	0	0	2	2	2	0
CO 3	3	2	1	3	1	2	3	1	2	0	2	2	1	0

CO 4	3	2	3	3	1	1	2	1	1	0	1	2	1	0
CO 5	3	2	3	3	1	1	0	1	1	0	1	2	1	0

* CO (rows) mention nil/very small/insignificant contribution to the PO(column)

1→ relevant and small significance 2 → medium or moderate and 3 →strong