

**GOVERNMENT POLYTECHNIC, PUNE**  
(An Autonomous Institute of Govt. of Maharashtra)

<b>Programme</b>	:	<b>Diploma in CE/EE/ET/ME/MT/CM/IT</b>
<b>Programme Code</b>	:	<b>01/02/03/04/05/06/07/15/16/17/18/19</b>
<b>Name of Course</b>	:	<b>Engineering Economics</b>
<b>Course Code</b>	:	<b>AU484</b>

**Teaching Scheme:**

	<b>Hours /Week</b>	<b>Total Hours</b>
<b>Theory</b>	<b>02</b>	<b>32</b>
<b>Practical</b>	--	--

**Evaluation Scheme:**

	<b>Progressive Assessment</b>	<b>Semester End Examination</b>			
		<b>Theory</b>	<b>Practical</b>	<b>Oral</b>	<b>Term work</b>
Duration	<b>Three class tests of 60 min Duration</b>	<b>3 Hrs</b>	--	--	--
Marks	<b>20</b>	<b>80</b>	--	--	--

**Course Rationale:**

Diploma Engineers working in middle level management are no longer confined to the role of professional technicians. They often have to take business decisions, for which they are required to apply economic concepts, logic, tools of analysis and economic theories as they advance in their carrier. It is for this reason that diploma students are required to possess some working knowledge of economic concepts, economic policy of our country, also the effects of globalization, GATT, WTO etc.

**Course Objectives:**

After studying this course, the student will be able to

- Various concepts, applications, contribution of Micro Economics and macro economics to engineering business decisions.
- Consumer demand, market demand, supply and production.
- Prices and cost - Break even analysis, price decisions.
- Concept of National income.
- Inflation, Deflation and unemployment.
- Money and Banking, New economic environment.

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**Course Content:**

Chapter No.	Name of Topic/Sub topic	Hrs	Marks
<b>1</b>	<b>Introduction to Economics</b>		
	1.1 Definitions of economics, Objectives, Importance, concept of engineering economics.	<b>04</b>	<b>10</b>
	1.2 General concepts on micro & macro economics- Market economy, Command economy, Mixed economy.		
<b>2</b>	<b>Demand Analysis</b>		
	2.1 Utility related demand- total and marginal utility, law of diminishing marginal utility, cardinal and ordinal utility.	<b>07</b>	<b>20</b>
	2.2 Law of demand, Determinants of demand, Elasticity of demand, Factors governing the elasticity of demand.		
	2.3 Techniques and methods for forecasting of demand.		
<b>3</b>	<b>Supply, Production and Cost analysis</b>		
	3.1 Law of supply, Determinants of supply, Elasticity of supply and factors governing elasticity.	<b>06</b>	<b>14</b>
	3.2 Theory of production, Laws of production.		
	3.3 Cost concepts, Elements of costs, Preparation of cost sheet, Segregation of costs into fixed and variable costs. Break-even analysis-Linear approach. (Simple numerical problems to be solved)		
<b>4</b>	<b>Time value of money</b>		
	4.1 Simple and compound interest.	<b>08</b>	<b>16</b>
	4.2 Principle of economic equivalence. Evaluation of engineering projects, Cost-benefit analysis in public projects.		
	4.3 Depreciation- Causes of depreciation, Methods of calculating depreciation- Straight line method and declining balance method.		
<b>5</b>	<b>National Income and Inflation</b>		
	5.1 Concepts and measurement of national income, Gross domestic and national production (GNP, GDP).	<b>03</b>	<b>08</b>
	5.2 Inflation and deflation, measures, kinds and effects.		
	5.3 Unemployment causes, kinds, effects and remedies.		
<b>6</b>	<b>Finance, Money and Banking and New Economic Environment</b>		
	6.1 Financial statements i.e. Profit & Loss (Income) Statement, Balance sheet, Book – Keeping, Financial reporting.	<b>04</b>	<b>12</b>
	6.2 Money- Kinds and functions, significance.		
	6.3 Banking- Meaning and functions of commercial banks and Reserve Bank of India.		
	6.4 Liberalization- merits and demerits, GATT and W.T.O.		
<b>Total</b>		<b>32</b>	<b>80</b>

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**Instructional Strategy:**

Sr. No.	Topic	Instructional Strategy
1	Introduction to Economics	Lecture method, discussion
2	Demand Analysis	Lecture method, Assignment, surveys, case study, discussion
3	Supply Production and cost analysis	Lecture method, Assignment, surveys, case study, discussion
4	Time value of money	Lecture method, Assignment, surveys, case study, discussion
5	National income and inflation	Lecture method, Literature survey, discussion.
6	Finance, money and banking and New economic environment	Lecture method, visits journals review, discussion.

**Text Books:**

Sr. No	Author	Title	Publication
1	D.N. Dwivedi and Abhishek Dwivedi	Engineering Economics	Vikas publishing House Pvt. Ltd., New Delhi,
2	Maheshwari	Managerial Economics (2nd ed)	Prentice Hall of India Pvt. Ltd. New Delhi

**Reference Books:**

Sr. No	Author	Title	Publication
1	Pannerselvam	Engineering Economics	Prentice Hall of India Pvt. Ltd. New Delhi
2	Sasmita Mishra	Engineering economics & Costing	Prentice Hall of India Pvt. Ltd. New Delhi
3	Newnan, Eschenbach, and Lavelle,	Engineering Economic Analysis, 9th Edition,	Oxford University Press, 2004.
4	Eschenbach, Ted G.	Engineering Economy - Applying Theory to Practice	Irwin, 1995
5	Newnan and Wheeler,	Study Guide for Engineering Economic Analysis, 9th Edition,	Oxford University Press, 2004.
6	Anthony J. Tarquin	Engineering Economy	McGraw-Hill, 1989




**Learning Resources:** Books, Journals, and Reports etc.

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**Specification Table:**

Sr. No.	Topic	Cognitive Levels			Total
		Knowledge	Comprehension	Application	
1	Introduction to Economics	04	06	--	10
2	Demand Analysis	06	08	06	20
3	Supply Production and cost analysis	06	04	04	14
4	Time value of money	06	06	04	16
5	National Income and Inflation	04	04	--	08
6	Finance, Money and Banking and New economic environment	06	04	02	12
<b>Total</b>		<b>32</b>	<b>32</b>	<b>16</b>	<b>80</b>

**Prepared By:**

 (S.S. Aaglave) Prepared By	 (S.V. Chaudhari) Secretary, PBOS	 (R.N. Shikari) Chairman, PBOS
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