



**Kadi Sarva Vishwavidyalaya's
LDRP Institute of Technology & Research
Gandhinagar-382 015**



**M.E.(Civil) Infrastructure Engineering Semester: III
Subject Name: Economic Evaluation of Transport Project (MECV-301)**

A. Course objective :

- To give basic idea of economic analysis and related terms.
- To make the students aware of using different methods for economic evaluation
- To make the students conversant with economic and financial analysis of transportation projects.

B. Teaching /Examination Scheme

Teaching scheme				Total Credit	Evaluation Scheme					Total
L	T	P	Total		Theory		Mid Sem Exam	CIA	Pract/ Tut.	
Hrs	Hrs	Hrs	Hrs		Hrs	Marks	Marks	Marks	Marks	
04	02	00	06	05	03	70	30	20	30	150

C. Detailed Syllabus:

UNIT

DETAILED SYLLABUS

- 1 Introduction**
Principles and stages involved in economic analysis
- 2 Demands and Utility**
Laws of Demand, Utility analysis, Ordinal analysis ,income effect, Price effect, Demand curves, Elasticity of supply
- 3 Income**
National Income ,GNP, GDP, Methods of Estimating National Income
- 4 Project Appraisal**
Total cost, Principles of analysis, Road users cost-Factors ,Benefits
- 5 Economic Evaluation**



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Different Methods, Sensitivity analysis, Economic analysis of transportation projects ownership and financing of transport, economic function of transportation road user and transportation costs, highway finance and taxation, case studies of analysis and evaluation of transportation projects

6 Maintenance Cost

Factors, Methods

7 Financing Mechanism

Taxes, Tolls, Private Financing.

8 Transport Cost

Types, Factors, Cost analysis for Mass Transit System

9 Pricing

Marginal cost Pricing, National Policy, Fares, Subsidy

D. Lesson Planning

Sr. No.	Title of the Unit	Minimum Hours	Weight age (%)
1	Introduction	3	5
2	Demands and Utility	7	10
3	Income	7	10
4	Project Appraisal	8	10
5	Economic Evaluation	15	25
6	Maintenance Cost	5	10
7	Financing Mechanism	5	10
8	Transport Cost	5	10
9	Pricing	5	10
	Total:	60	100



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E. List of Tutorial

1	Problem based on demand and supply, elasticity analysis
2	Problems based on estimation of National Income
3	Problems based on different methods of economic analysis, like B/C ratio, NPV ,IRR etc
4	Problems based on deriving transport cost
5	Cost analysis for mass transit system
6	Problems based on toll fixation
7	Computer application for the above problems

F. Instructional method and pedagogy (Continuous Internal Assessment Scheme) (CIA)

- At the start of course, the course delivery pattern, prerequisite of the subject will be Discussed.
- Lecture may be conducted with the aid of multi-media projector, black board, OHP etc.
- Attendance is compulsory in lectures and practical which carries marks.
- At regular intervals assignments will be given. Students should submit all assignments during given period.
- Classroom participation and involvement in solving the problems in Tutorial rooms Carries Marks
- Internal exam of 30 marks will be conducted as a part of Mid semester evaluation.
- Experiments shall be performed in the field related to course contents.
- The course includes a practical, where students have an opportunity to build an appreciation for the concept being taught in lectures.

G. Students Learning Outcomes:

- The students will gain an experience in the implementation any new transportation project with checking of different methods of economic evaluation and finally they decide the project is justified or not
- The students will get information about the inflation and financial system of Indian economy.
- The students will learn different project like BOT,BOOT,



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H. Recommended Study Materials:

➤ **Text Books:**

- IRC-30, Manual on Economic Evaluation of Highway In India
- R. Winfrey, Economic Analysis for Highway International Textbook Co. Pennsylvania, USA-1969
- D.M. Mihtani, Economic Analysis
- Fair and Williams, Economics of Transportation ,Harper and Brothers, publisher, New York, 1959