

ENGINEERING MANAGEMENT AND ECONOMICS (ME-323)

Pre-requisite: None

Credit Hours: 02

Contact Hours: 32

RECOMMENDED BOOK(S)

Foundations Of Engineering Economy, Leland Blank, Anthony Tarquin, McGraw Hill. Engineering Management: Meeting the Global Challenges, Second Edition 2nd Edition by [C. M. Chang](#) Startup Engineering Management, 2nd Edition – 2014 by [Piaw Na](#) , [Harper Reed](#).

COURSE OBJECTIVES

Apply the appropriate engineering economics analysis method(s) for problem solving: present worth, annual cost, rate-of-return, payback, break-even, benefit-cost ratio. Evaluate the cost effectiveness of individual engineering projects using the methods learned and draw inferences for the investment decisions. Compare the life cycle cost of multiple projects using the methods learned, and make a quantitative decision between alternate facilities and/or systems Compute the depreciation of an asset using standard depreciation techniques to assess its impact on present or future value. Develop and demonstrate teamwork, project management, and professional management skills.

S. No.	CLO/PLOS MAPPING	DOMAIN	PLO
1	Define the appropriate engineering economics analysis method(s) for problem solving: present worth, annual cost, rate-of-return, payback, break-even, benefit-cost ratio.	C1	01
2	Identify the cost effectiveness of individual engineering projects using the methods learned and draw inferences for the investment decisions.	C1	02
3	Compare the life cycle cost of multiple projects using the methods learned, and make a quantitative decision between alternate facilities and/or systems.	C4	04

COURSE CONTENTS

Introduction to engineering economy and management, the economics environment, cost concepts and analysis, fixed cost, sunk cost, opportunity cost, present, future value of money, break even analysis, time value of money, depreciation. Depletion, comparing alternatives, capital financing and budgeting, industrial relations and management techniques.