

- Each chapter concludes with a Summary
- Part I Basic Concepts and Tools
- Chapter 1 Making Economic Decisions
 - 1.1 What Is Engineering Economy?
 - 1.2 Principles for Decision Making
 - 1.3 The Decision-Making Process
 - 1.4 The Environment for Decisions
 - 1.5 The Role of Engineering Economy
 - 1.6 Operational Economics
- Chapter 2 The Time Value of Money
 - 2.1 What is Interest?
 - 2.2 Simple vs. Compound Interest
 - 2.3 Cash Flow Diagrams
 - 2.4 Equivalence for 4 loans
 - 2.5 Limits on Equivalence
 - 2.6 Compounding Periods Shorter than a Year
- Chapter 3 Equivalence-A Factor Approach
 - 3.1 Definitions and Assumptions
 - 3.2 Tables of Engineering Economy Factors
 - 3.3 Single-Payment Factors (P and F)
 - 3.4 Uniform Flows
 - 3.5 Combining Factors
 - 3.6 Arithmetic Gradients
 - 3.7 Geometric Gradients
- Appendix 3A Continuous Flow and Continuous Compounding
- Chapter 4 Spreadsheets and Economic Analysis
 - 4.1 Using Spreadsheets for Economic Analysis
 - 4.2 Spreadsheet Modeling
 - 4.3 Financial Functions in Spreadsheets
 - 4.4 Examples Show Spreadsheet Models Can Be More Realistic
 - 4.5 Using Spreadsheets to Get a Project Funded
- Part 2 Analyzing a Project
- Chapter 5 Present Worth
 - 5.1 The PW Measure
 - 5.2 Examples of When to Use PW
 - 5.3 Rolling Back Irregular Cash Flows for PW Calculations
 - 5.4 Salvage Values
 - 5.5 Capitalized Cost and Perpetual Life
 - 5.6 Staged Projects
 - 5.7 Cost of Underutilized Capacity
 - 5.8 Spreadsheets and Shorter Periods
 - 5.9 Spreadsheets and More Exact Models
- Chapter 6 Equivalent Annual Worth
 - 6.1 The Equivalent Annual Worth Measure

- 6.2 Assumptions and Sign Conventions
- 6.3 Examples of Annual Evaluations
- 6.4 Finding the EAC of "Irregular" Cash Flows
- 6.5 EAC Formulas for Salvage Values and Working Capital
- 6.6 Perpetual Life
- 6.7 Repeated Renewals
- 6.8 Spreadsheets and Analyzing Loan Repayments
- Chapter 7 Internal Rate of Return
- 7.1 The Internal Rate of Return
- 7.2 Assumptions
- 7.3 Finding the IRR
- 7.4 Loans and Leases
- 7.5 Spreadsheets and the IRR
- 7.6 Multiple Sign Changes
- 7.7 Project Balances over Time
- 7.8 Modified Internal Rate of Return (MIRR)
- Chapter 8 Benefit/Cost Ratios and Other Measures
- 8.1 Measures of Economic Attractiveness
- 8.2 Benefit/Cost Ratio
- 8.3 Present Worth Indexes
- 8.4 Future Worth
- 8.5 Payback Period
- 8.6 Discounted Payback
- 8.7 Breakeven Volume
- Part 3 Comparing Alternatives and Projects
- Chapter 9 Mutually Exclusive Alternatives
- 9.1 Applying Engineering Economy to Engineering Design
- 9.2 Key Assumption Is the Interest Rate or Minimum Attractive Rate of Return
- 9.3 Comparing Alternatives with Lives of the Same Length
- 9.4 PWs and Explicitly Comparing Different-Length Lives
- 9.5 EAWs and EACs and Implicitly Comparing Different-Length Lives
- 9.6 Using EAC for Different-Length Lives Is a Robust Approach
- 9.7 B/C and IRR Comparisons of Mutually Exclusive Alternatives Require Incremental Analysis
- 9.8 Defender/Challenger Analysis
- 9.9 PW, EAW, and IRR Have the Same Reinvestment Assumption
- 9.10 Using Spreadsheet GOAL SEEK Tool to Calculate Incremental IRRs
- Chapter 10 Replacement Analysis
- 10.1 Why Is Equipment Replaced, Retired, or Augmented?
- 10.2 Old and New Are Mutually Exclusive
- 10.3 Sunk Costs, Risks, and Cost Savings vs
- 10.4 Optimal Challengers
- 10.5 Optimal Defenders
- 10.6 Optimal Capacity Problems

- 10.7 Estimating Future Challengers
- 10.8 Replacement and Repair Models
- Chapter 11 Constrained Project Selection
- 11.1 The Constrained Project Selection Problem
- 11.2 Ranking Projects
- 11.3 Determining the Minimum Attractive Rate of Return Using the Opportunity Cost of Capital
- 11.4 A Theoretically Optimal Approach for Determining the Capital Budget
- 11.5 Capital Limits in the Real World
- 11.6 Matching Assumptions to the Real World
- 11.7 Present Worth Indexes and Benefit/Cost Ratios
- 11.8 Using the SORT Spreadsheet Tool
- Appendix 11A Mathematical Programming and Spreadsheets
- Part 4 Enhancements for the Real World
- Chapter 12 Depreciation
- 12.1 Introduction
- 12.2 Basic Depreciation Methods
- 12.3 Accelerated Cost Recovery
- 12.4 Gains and Losses on Sales and Recaptured Depreciation
- 12.5 Optimal Depre