



Jordan University of Science and Technology
Faculty of Engineering
Industrial Engineering Department

IE351 Economics & Engineering Management

Summer Semester 2022-2023

Course Catalog

3 Credit Hours. This course introduces the concepts of time value of money, interest formulas, judging attractiveness of proposed investments using different methods, depreciation, inflation, increment cost and sunk cost. also includes introduction to engineering management.

Text Book

Title	Engineering Economy
Author(s)	W. G. Sullivan, E. M. Wicks, and C. Patrick Koelling
Edition	16th Edition
Short Name	Text book
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref #1	Engineering Economy	L. T. Blank and A. Tarquin	5th Edition	
Ref #2	Project Management for Business and Engineering: Principles and Practice	John M. Nicholas	2nd Edition	

Instructor

Name	Mrs. Maysa Alshraideh
Office Location	M6L0
Office Hours	
Email	mashraideh@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Sun, Mon, Tue, Wed : 08:30 - 10:00 Room: LAB

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Introduction	From Text book
Weeks 2, 3, 4, 5	Time Value of Money (Interest Formulas)	From Text book
Weeks 6, 7	Evaluating a single project	From Text book
Weeks 8, 9	Comparison and Selection among alternatives	From Text book
Weeks 10, 11	Cost Concepts	From Text book
Week 12	Depreciation and Income Taxes	From Text book
Week 13	Introduction to engineering management.	From Ref #2

Mapping of Course Outcomes to Program Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Develop cash flow diagrams for investments and evaluate their worth [1SLO1]	30%	
Determine the economic feasibility of engineering projects and investments [1SLO1]	15%	
Apply principles of accounting and evaluate the depreciation charges using different methods [1SLO1]	12%	
Apply break-even analysis to make decisions in production operations [1SLO1]	16%	
Demonstrate knowledge of the concepts and principles of project management, and use project management skills [1SLO1]	12%	
Making decisions by comparing between Mutually Exclusive Alternatives and then identify the best alternative. [1SLO1]	15%	

Relationship to Program Student Outcomes (Out of 100%)						
SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	SLO7
100						

Evaluation	
Assessment Tool	Weight
First exam	30%

Second exam	30%
Final exam	40%

Policy	
Attendance	Attendance will be checked at the beginning of each class. University regulations will be strictly followed for students exceeding the maximum number of absences. No make-up test will be given without an official university-approved excuse.
Student Conduct	It is the responsibility of each student to adhere to the principles of academic integrity. Academic integrity means that a student is honest with him/herself, fellow students, instructors, and the University in matters concerning his or her educational endeavors. Cheating will not be tolerated in this course. University regulations will be pursued and enforced on any cheating student.

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