MUTAH UNIVERSITY
Faculty of Engineering
Department of Civil and Environment Engineering

Course Syllabus

Course Code	Course Name	Credits	Contact Hours
0403302	Engineering Economy	3	3T

INSTRUCTOR/COORDINATOR	
Name	**Dr. Suha Tawfiq Aldmour**
Email/Office	Suha3112@mutah.edu.jo
Office Hours	(11:00-12:00) Monday and Wednesday, (10:00-11:00) Tuesday
Classroom/Time	(2:00-3:30) and (4:00-5:30) Monday and Wednesday

TEXTBOOK	
Title	Engineering Economy
Author/Year/Edition	Leland Blank and Anthony Tarquin, 7th Edition, 2012
Other Supplemental Materials	
Title	
Author/Year/Edition	

SPECIFIC COURSE INFORMATION
A. Brief Description of the Content of the Course (Catalog Description)
This course aims to introduce the student of the various economic information and theories that are required by the engineer in the field and includes topics in project study and evaluation, return equations, project comparison methods, equipment replacement policies, benefit/cost analysis, break-even and less-cost analysis, uncertainty analysis.
B. Pre-requisites (P) or Co-requisites (C)
Ordinary Differential Equations (1) (0301203) **(P)**
C. Course Type (Required or Elective)
Required

SPECIFIC GOALS
A. Course Learning Objectives (CLOs)
By the end of this course, the student should be able to: **CLO1:** The student should be able to understand and work problems that account for the time value of money, cash flows occurring at different times with different amounts, and equivalence at different interest rates [1]. **CLO2:** The student should be able to evaluate most engineering project proposals using a well-accepted economic analyses technique, such as present worth, future worth, capitalized cost, life cycle costing, annual worth, rate of return, or benefit/cost analysis [4].
B. Student Learning Outcomes (SOs) Addressed by the Course

1	2	3	4	5	6	7
√			√			

BRIEF LIST OF TOPICS TO BE COVERED		
List of Topics	**No. of Weeks**	**Contact Hours**
Introduction	1	3
CH1: Foundations of Engineering Economy	1	3
CH2: Factors: How Time and Interest Affect Money	2	6
CH3: Combining Factors	1	3
CH4: Nominal and Effective Interest Rates	1	3
CH5: Present Worth Analysis	2	6
CH6: Annual Worth Analysis	1	3
CH7: Rate of Return Analysis: One Project	2	6
CH8: Rate of Return Analysis: Multiple Alternatives	2	6
CH9: Benefit/Cost Analysis and Public Sector Economics	1	3
Final Exam	--	--
Total	*14*	*42*

EVALUATION		
Assessment Tool	**Due Date**	**Weight (%)**
Mid Exam	According to the university calendar	30
Course Work (Homeworks, Quizzes, Projects, …etc.)	One week after being assigned	20

Final Exam	According to the university calendar	50

ABET's Students Learning Outcomes (Criterion # 3)

	Relationship to program outcomes	
ABET 1-7		**… Engineering Student Outcomes**
1.	√	an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2.		an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic
3.		ability to communicate effectively with a range of audiences
4.	√	an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5.		an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6.		an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7.		an ability to acquire and apply new knowledge as needed, using appropriate learning strategies