College: Engineering Department: civil Engineering

Course Title:
Engineering Economics

Course No:
CE 372

Credit Hours:
2 h

Semester: 2021/2020

About The Course

Course Title: Engineering Economics Class:
Course No:
Credit Hours: 2 h Lecture Room: 408

Obligatory/ Optional:
Text Book: **Essentials of Engineering Economic Analysis**, *by Donald G. Newnan and Jerome P. Lavelle,* First Edition 1998 Engineering Press – Austin, Texas

The Instructor

Name: Eng. Dua M. Al-Afeef Title: full time lecturer

Office Tel:

Office No: 201 Office Hours: sun. tues 11-12 am
Mon. wed. 8-11 am

E-mail: de-8888@yahoo.com

Course Description

Concepts of time value of money. Simple and compound interest. Interest formulas. Decision making among alternatives and evaluation of public projects. Inflation, depletion and depreciation calculations. Cost of owning and operating equipment. Breakeven, Minimum Cost life, and replacement analysis. Taxes in Jordan.

Course Objectives

To teach the basic principles involved in analyzing economic investment alternatives for engineering students, for application in the decision making process.

Learning Outcome

1. Learn and appreciate how money is used and invested.
2. Learn about rational decision making.
3. Calculate the interest, and interest rates and the equivalence of money.
4. Learn to apply various interest formulas.
5. Solve problems using economic analysis based on economic criteria.
6. Learn how to apply other analysis techniques in cases of multiple alternatives.
7. Learn the basic aspects of depreciation.

Course Outline and Time schedule

Week	Course Outline
First week	Introduction
2nd week	The Decision Making Process
3rd week	Interest and Equivalence
4th week	Interest and Equivalence
	More Interest Formulas
5th week	More Interest Formulas
6th week	Present Worth Analysis
7th week	Present Worth Analysis
8th week	Annual Cash Flow Analysis
9th week	Annual Cash Flow Analysis
10th week	Rate of Return Analysis
11th week	Rate of Return Analysis
12th week	Incremental Analysis
13th week	Incremental Analysis
14th week	Other Analysis Techniques
15thweek	Depreciation
	Final exam

Presentation methods and techniques

Methods of teaching varied according to the type of text, student and situation. The following techniques are usually used:

1- Lecturing with active participations.

2- Problem solving.

3- Cooperative learning.

4- Discussion.

5- Learning by activities.

Sources of information and Instructional Aids

- Power point …etc.
- Library sources

Assessment Strategy and its tools

The assigned syllabus is assessed and evaluated
Through: feed back and the skills that are acquired by the students

The tools:

1- Digonistic tests to identify the students level and areas of weakness
2- Formal (stage) evaluation
   a) Class Participation
   b) Ist Exam
   c) 2nd Exam
   d) Activity file

Tool & Evaluation

Tests are permanent tools & assessment, in addition to the activity file which contains curricular and the co-cussiculor activities, research, report papers and the active participation of the student in the lecture.

The following table clarifies the organization of the assessment schedule:

Test	Date	Grade
First Exam		20
2nd Exam		20

Attendance and quizzes		20
Final Exam		40

Activities and Instructional Assignment

1- Practical assignments to achieve the syllabus objectives.

Regulations to maintain the teaching-Learning Process in the Lecture:

1- Regular attendance.

2- Respect of commencement and ending of the lecture time.

3- Positive relationship between student and teacher.

4- Commitment to present assignments on time.

5- High commitment during the lecture to avoid any kind of disturbance and distortion.

6- High seuse of trust and sincerity when referring to any piece of information and to mention the source.

7- The student who absents himself should submit an accepted excuse.

8- University relevant regulations should be applied in case the studen,s behavior is not accepted.

9- Allowed Absence percentages is (%).

Internet websites

References:

1 Engineering Economy, by *Leland T. Blank and Anthony J. Tarquin*, WCB/McGraw-Hill, Fifth Edition, 2002

Syllabus Classification

Objectives	***Learning outcome***	***Assessment tools***
1-		
2-		
3-		
4-		
5-		