

# HASAN KALYONCU UNIVERSITY Faculty of Engineering Course Description Form

<b>COURSE:</b> Engineering Economy					
<b>CODE:</b> CE231	SEMESTER: FALL				
LANGUAGE: ENGLISH	TYPE: COMPULSORY				
PRE-REQUISITES: -	THEORY	PRACTICAL	CREDIT	ECTS	
<b>CO-REQUISITES:</b> -					
WEEKLY HOURS: 2	2	0	2	3	

### **CONTENT OF THE COURSE:**

Introduction to Engineering Economics. Supply-demand relationship, supply elasticity, demand elasticity. Break-even analysis. Simple interest, compound interest. Money and time relations. Methods of selecting a profitable project. Renewal investments. Economic life analysis. Depreciation Accounts. A general overview of the course.

## **OBJECTIVE OF THE COURSE:**

To provide the ability of an engineer to apply economic analysis in an engineering branch that he is an expert, to teach the adequacy and limits of cash flow analysis in the evaluation of investments, to gain the ability to formulate cash flow models in applications.

WEEKLY SCHEDULE AND PRE-STUDY PAGES						
Week	Topics					
1	Introduction to Engineering Economics					
2	Supply-demand relationship, supply elasticity, demand elasticity					
3	Break-even analysis					
4	Simple interest, compound interest					
5	Money and time relations					
6	Money and time relations					
7	Methods of selecting a profitable project					
8	Midterm					
9	Methods of selecting a profitable project					
10	Methods of selecting a profitable project					
11	Methods of selecting a profitable project					
12	renovation investments					
13	Economic life analysis					
14	Depreciation Accounts					

**TEXTBOOK:** Lecture Notes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
LO1	3	3	0	0	0	3	0	0	0	0	0
LO2	3	3	0	0	0	3	0	0	0	0	0
LO3	3	3	0	0	0	3	0	0	0	0	0
LO4	3	3	0	0	0	3	0	0	0	0	0
LO5	3	3	0	0	0	3	0	0	0	0	0
	PO: Program Outcomes   LO: Learning Outcomes										
	Values: 0: None   1: Low   2: Medium   3: High										

INSTRUCTOR(S):	Asst.Prof.Dr.Muhammet ÇINAR
FORM PREPARATION DATE:	22.05.2019

### LEARNING OUTCOMES OF THE COURSE:

LO1: Moves single cash flows on the timeline using compound interest rate.

LO2: Moves annual cash flows on the timeline using compound interest rate.

LO3: Converts between nominal and effective interest rate

LO4: Converts cash flows into net present value, net future value, annual series, incremental series and rising series.

LO5: Compares alternatives using yield analysis.

# **CONTRIBUTION OF THE COURSE TOWARDS PROVIDING VOCATIONAL EDUCATION:** The student learns the necessary economic analysis techniques for construction projects with cost and return.