



HASAN KALYONCU UNIVERSITY
Faculty of Engineering
Course Description Form

COURSE: Engineering Economy					
CODE: CE231		SEMESTER: FALL			
LANGUAGE: ENGLISH		TYPE: COMPULSORY			
PRE-REQUISITES: - CO-REQUISITES: -		THEORY	PRACTICAL	CREDIT	ECTS
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

EVALUATION SYSTEM:		
IN-TERM STUDIES	QUANTITY	PERCENTAGE (%)
Midterm Exam	1	40
Homework		
Laboratory works		
Quiz		
Final Exam	1	60
TOTAL	2	100
CONTRIBUTION OF INTERM STUDIES TO OVERALL GRADE	1	40
CONTRIBUTION OF FINAL EXAMINATION TO OVERALL GRADE	1	60
TOTAL	2	100

COURSE CATEGORY:	PERCENTAGE (%)
Mathematics and Basic Sciences	40
Engineering	60
Engineering Design	
Social Sciences	

TABLE OF ECTS / WORKLOAD:			
Activities	QUANTITY	Duration (Hour)	Total Workload
Course Duration	13	2	26
Hours for off-the-classroom study (Pre-study, practice)	14	4	56
Laboratory works	0	0	0
Mid-term	1	2	2
Final examination	1	2	2
Homework	0	0	0
Quiz	0	0	0
Total Work Load			86
Total Work Load / 30			2,8
ECTS Credit of the Course			3

	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:	PROGRAM OUTCOMES:
<p>LO1: Moves single cash flows on the timeline using compound interest rate.</p> <p>LO2: Moves annual cash flows on the timeline using compound interest rate.</p> <p>LO3: Converts between nominal and effective interest rate</p> <p>LO4: Converts cash flows into net present value, net future value, annual series, incremental series and rising series.</p> <p>LO5: Compares alternatives using yield analysis.</p>	<p>PO1: Adequate knowledge in mathematics, science and engineering subjects pertaining to the relevant discipline; ability to use theoretical and applied knowledge in these areas in complex engineering problems.</p> <p>PO2: Ability to identify, formulate, and solve complex engineering problems; ability to select and apply proper analysis and modeling methods for this purpose.</p> <p>PO3: Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose.</p> <p>PO4: Ability to devise, select, and use modern techniques and tools needed for analyzing and solving complex problems encountered in engineering practice; ability to employ information technologies effectively.</p> <p>PO5: Ability to design and conduct experiments, gather data, analyze and interpret results for investigating complex engineering problems or discipline specific research questions.</p> <p>PO6: Ability to work efficiently in intra-disciplinary and multi-disciplinary teams; ability to work individually.</p> <p>PO7: Ability to communicate effectively in Turkish, both orally and in writing; knowledge of a minimum of one foreign language; ability to write effective reports and comprehend written reports, prepare design and production reports, make effective presentations, and give and receive clear and intelligible instructions.</p> <p>PO8: Recognition of the need for lifelong learning; ability to access information, to follow developments in science and technology, and to continue to educate him/herself.</p> <p>PO9: Consciousness to behave according to ethical principles and professional and ethical responsibility; knowledge on standards used in engineering practice.</p> <p>PO10: Knowledge about business life practices such as project management, risk management, and change management; awareness in entrepreneurship, innovation; knowledge about sustainable development.</p> <p>PO11: Knowledge about the global and social effects of engineering practices on health, environment, and safety, and contemporary issues of the century reflected into the field of engineering; awareness of the legal consequences of engineering solutions.</p>