ENGINEERING ECONOMY

1	Course Title:	ENGINEERING ECONOMY
2	Course Code:	INS4009
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	4
6	Semester:	7
7	ECTS Credits Allocated:	2.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. TURAN ARSLAN
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	arsltur@uludag.edu.tr 0 224 294 2639
17	Website:	http://insaat.uludag.edu.tr/
18	Objective of the Course:	To introduce the general principles of engineering economics and the application of economic analysis techniques for analyzing the economics of alternatives considering costs and benefits of civil engineering projects
19	Contribution of the Course to Professional Development:	Students can compare real world engineering projects by using economic analysis techniques
20	Learning Outcomes:	

	1	Be able to understand the basic principles of economy
	2	Be able to understand the basic concepts of engineering economics
	3	Be able to define and present projects' costs and benefits on a cash flow diagram
	4	Be able to compare projects using economic analysis techniques
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21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	Importance of Engineering Economy and Basic Concepts	
2	Costs-Benefits Concepts	
3	Time Value of Money	
4	Cash Flow Diagram	

5	Interest Factors	
6	Interest Factors	
7	Depreciation Factor	
8	Cost-Benefit Analysis	
9	Net Present Value and Future Value Analysis	
10	Equivalent Annual Cost Methods	
11	Profitability Index, Rate of Return and Payback Period Methods	
12	Comparing Alternatives	
13	Comparing Alternatives	
14	Depreciation Analysis	

22	Textbooks, References and/or Other Materials:	-Mühendislik Ekonomisi, Alim Işık, Birsen Yayınevi -Engineering Economy, McGraw-Hill, Leland Blank and Anthony Tarquin
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	40.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	60.00
Success Grade		100.00
Total		100.00

24 ECTS / WORK LOAD TABLE

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	2.00	28.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	2.00	2.00
Others	0	0.00	0.00
Final Exams	1	2.00	2.00
Total Work Load			60.00
Total work load/ 30 hr			2.00
ECTS Credit of the Course			2.00

25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS

	PQ1	**PQ2**	**PQ3**	**PQ4**	**PQ5**	**PQ6**	**PQ7**	**PQ8**	**PQ9**	**PQ10**	**PQ11**	**PQ12**	**PQ13**	**PQ14**	**PQ15**	**PQ16**
ÖK1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	1 very low	2 low	3 Medium	4 High	5 Very High