ISE 220- Engineering Economics
COURSE INTRODUCTION AND APPLICATION INFORMATION

Lesson (hour/week)		3
IUE Credit/ ECTS Credit		3/5
Prerequisite		-
Course Level		Undergraduate / Required
Course Lecturer		Halil POSACI **Web site:** homes.ieu.edu.tr/hposaci **e-mail:** hposaci@quiztechnology.com **Office hours:** On Request – 532 2877127
Course Assistant		
Course Objective		To introduce the fundamental concepts of economic analysis for engineering and managerial decision making, to explain how these will affect the functioning of a company and contribute to decision making in engineering operations.
Course Learning Outcomes		The students who succeeded in this course; ● Will be able to describe time value of money and economic equivalence ● Will be able to analyze engineering and managerial decision making problems ● Will be able to to make informed financial decisions as a project evaluation team member or project manager ● Will be able to consider the effect of inflation on economic analysis ● Will be able to build critical decision making tools for making appropriate personal, private or public economic and financial decisions
Course Content		Economic analysis for engineering and managerial decision making. Techniques for evaluating the worth of prospective projects, investment opportunities and design choices. Interest and time value of money, methods for evaluation of alternatives: present worth, annual equivalent worth, rate of return, and payback method. Inflation, after tax economic analysis. Sensitivity and risk analysis.

TENTATIVE COURSE SCHEDULE

Week	Subjects	Quiz	Related Preparation
1	Engineering Economic Decisions		Textbook Chapter 1
2	Time Value of Money	CW or HW 1	Textbook Chapter 2
3	Time Value of Money	CW or HW 2	Textbook Chapter 2
4	Time Value of Money	CW or HW 3	Textbook Chapter 2
5	Understanding Money Management	CW or HW 4	Textbook Chapter 3
6	Equivalence Calculations Under Inflation		Textbook Chapter 4
7	**Midterm Exam**		
8	Present Worth Analysis		Textbook Chapter 5
9	Annual Equivalence Analysis	CW or HW 5	Textbook Chapter 6
10	Rate of Return Analysis		Textbook Chapter 7
11	Benefit-Cost Analysis	CW or HW 6	Textbook Chapter 8
12	Accounting for Depreciation and Income Taxes	CW or HW 7	Textbook Chapter 9
13	Project Cash Flow Analysis	CW or HW 8	Textbook Chapter 10
14	Review		

Text Book	**:**	Fundamentals of Engineering Economics, 3rd ed., Chan S. Park, Prentice Hall. Lecture Power Point slides and Excel sheets used in lectures will be posted online.
Exams	**:**	First exam will cover the topics in first 6 weeks and the final will cover all topics given emphasis on the later topics.
Quizzes	**:**	Quizzes will be held at the last hour of the class and popup home works will be given. The best 6 of these will be included in your grade.

EVALUATION SYSTEM

	NUMBER	PERCENTAGE OF GRADE
Quizzes + Home works	7	35
Midterm	1	30
Final	1	35
TOTAL		**100**