

School of Engineering and Natural Sciences / Industrial Engineering (English)

2023 - 2024 Academic Year

COST ANALYSIS

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
COST ANALYSIS	IND2133960	Fall Semester	3+0	3	6
Prerequisites Courses	MATEMATİK I				
Recommended Elective Courses					
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Required				
Course Coordinator	Assoc.Prof. Melis Almula KARADAYI				
Name of Lecturer(s)	Lect. Özgür EROL				
Assistant(s)					
Aim	Industrial engineering studies define and apply a number of analyzes and methods based on the most effective evaluation of inputs and the most effective management of constraints. The cost of inputs is one of the most important constraints in these studies. In this course, the concept of cost is introduced in depth, and the financial and cost accounting activities carried out in organizations to make cost calculations are also introduced. In this way, the knowledge, skills and equipment to make cost analysis in feasibility studies, which is one of the main activities of industrial engineering, are provided.				
Course Content	This course contains; The importance of cost and cost analysis for industrial engineering tools and techniques,Introduction to cost and cost related concepts, different types of costs,Managing cost, cost and financial accounting activities in organizations,Fundamentals of cost analysis methods,Understanding the concepts of cost, volume and profit and their relationship,Cost-profit-volume analysis,Cost estimation and feasibility analysis,Process and job costing,Activity-based-costing, customer profit analysis,Cost management and organizational strategy,Cost management and budgeting,Contemporary approaches to cost management: use of technology, database management and business analytics,Case Study Review,Case Study Review 2.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
1. Defines cost and related concepts.			10, 13, 14, 16, 4, 9	A, E, G	
2. Learns the concepts of cost-volume-profitability and understands the relationship between them.			10, 12, 13, 14, 16, 6, 9	A, E, G	
3. Defines the basic principles and methods of cost analysis.			10, 14, 16, 9	A, E, G	
4. Defines cost estimation techniques and evaluates their importance in feasibility studies.			12, 13, 16, 19, 2, 6, 9	A, E, G	
5. Understands the methods of product, service, process, and job costing.			10, 13, 14, 16, 4, 6, 9	A, E, G	
6. Evaluates cost management, planning and budgeting methods in general terms.			10, 13, 14, 16, 4, 9	A, G	
Teaching Methods	10: Discussion Method, 12: Problem Solving Method, 13: Case Study Method, 14: Self Study Method, 16: Question - Answer Technique, 19: Brainstorming Technique, 2: Project Based Learning Model, 4: Inquiry-Based Learning, 6: Experiential Learning, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam, E: Homework, G: Quiz				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	The importance of cost and cost analysis for industrial engineering tools and techniques	Lecture Notes			
2	Introduction to cost and cost related concepts, different types of costs	Lecture Notes			
3	Managing cost, cost and financial accounting activities in organizations	Lecture Notes			
4	Fundamentals of cost analysis methods	Lecture Notes			
5	Understanding the concepts of cost, volume and profit and their relationship	Lecture Notes			
6	Cost-profit-volume analysis	Lecture Notes			
7	Cost estimation and feasibility analysis	Lecture Notes			
8	Process and job costing	Lecture Notes			
9	Activity-based-costing, customer profit analysis	Lecture Notes			
10	Cost management and organizational strategy	Lecture Notes			
11	Cost management and budgeting	Lecture Notes			
12	Contemporary approaches to cost management: use of technology, database management and business analytics	Lecture Notes			
13	Case Study Review	Lecture Notes			
14	Case Study Review 2	Lecture Notes			
Evaluation Methods		Weight(%)			
Midterm Exam		30			
General Exam		70			

Resources	
Cost Management: A Strategic Emphasis, Blocher, 8th edition,; Fundamentals of Cost Accounting, Lanen, 6th edition, lecture notes, power point slides, case studies, sample question solutions	