OSTİM TECHNICAL UNIVERSITY
ENGINEERING FACULTY

IENG 305 – SYSTEM ANALYSIS AND DESIGN
COURSE CURRICULUM FORM
2022-2023

IENG 305 – System Analysis and Design							
Course Name	**Course Code**	**Period**	**Hour**	**Application Time**	**Lab Time**	**Credit**	**ECTS**
System Analysis and Design	IENG 305	5	3	0	0	3	4

Precondition	No
Language of the Course	English
Type of the Course	Compulsory
Course Level	Bachelor Degree
Method of Teaching	Face to face, Online
Course Learning and Teaching Techniques	Lecture, Question and Answer, Application

The Aim of Course

To prepare Industrial Engineer candidates for "System Analyst" by giving systems thinking and systems approach models and procedures.

Course Content

By gaining the ability to analyze and redesign systems, it is to be able to apply this work, which requires creativity in a theoretical structure with a lot of expectations, in real life conditions where money, time and human pressure are present.

Weekly Topics and Related Preparation Studies		
Week	**Topics**	**Preliminary**
1	Systems thinking and system concept, general systems theory.	
2	System definition, basic structure of the system, classification of systems.	
3	System Approach and its stages.	
4	Fundamentals of system analysis study.	
5	System analysis techniques and system analysis.	
6	System design and preparation	
7	System design and preparation	
8	**Midterm Exam**	
9	Data flow diagram	
10	System flow diagram	
11	Data dictionary and Hierarchy, input-process-output diagram.	
12	Decision trees and decision tables.	

13	System structure, system models	
14	Dynamic system model and combined systems	
15	System Approach in Production Management.	
16	**Final Exam**	

Resources (Textbook and Supplementary Books)
1. Haluk Erkut, “Analiz, Tasarım ve Uygulamalı Sistem yönetimi”,İrfan Yayımcılık, İstanbul, 1995 2. Esen Öner, “İşletme Yönetimine Sistem Yaklaşımı”, Alfa Basım Yayım Dağıtım, İstanbul, 1998

Evaluation System		
Studies	**Number**	**Contribution Margin**
Continue		
Laboratory		
Application		
Field Study		
Course Specific Internship (if applicable)		
Quizzes/Studio/Critical		
Homework		
Presentation		
Projects		
Report		
Seminar		
Midterm Exams/Midterm Jury	1	% 40
General Exam/Final Jury	1	% 60
	Total	**% 100**
Contribution to the Success Grade of Mid-Semester Studies		% 40
Contribution of End of Semester Studies to Success Grade		% 60
	Total	**% 100**

Course Category	
Basic Vocational Courses	X
Specialization/Field Courses	
Support Lessons	
Communication and Management Skills Lessons	
Transferable Skills Lessons	

Relation of Course Learning Outcomes and Program Qualification							
No	**Program Qualifications / Outcomes**	**Contribution Level**					
		1	**2**	**3**	**4**	**5**
1	Ability to design, conduct experiments, collect data, evaluate and interpret results for the analysis and solution of Industrial Engineering problems.					x
2	To be able to use course information in solving industrial engineering problems.					x
3	Acquisition of analytical thinking skills				x	
4	Ability to use information technologies required for Industrial Engineering applications.			x		
5	Having an up-to-date and sufficient background in engineering, mathematics, science and social sciences related to industrial engineering; To be able to use the theoretical and applied knowledge in these fields together in solving industrial engineering problems.					x

ECTS/Workload Table			
Activities	**Number**	**Duration (Hours)**	**Total Workload**
Lesson hours (Including the exam week: 16 x total lesson hours)	16	3	46
Laboratory			
Application			
Course Specific Internship			
Field Study			
Out of Class Study Time	16	3	48
Presentation/Seminar Preparation			
Projects			
Reports			
Homeworks			
Quizzes/Studio Critic			
Preparation Time for Midterm Exams/Midterm Jury	1	16	16
Preparation Time for the General Exam/General Jury	1	16	16
Total Workload	**(128/30 = 4)**		**128**