

TOROS ÜNİVERSİTESİ

Faculty Of Engineering
Industrial Engineering (English)

Course Information

FACILITIES PLANNING					
Code	Semester	Theoretical	Practice	National Credit	ECTS Credit
		Hour / Week			
INE332	Spring	3	0	3	3

Prerequisites and co-requisites	NONE
Language of instruction	English
Type	Required
Level of Course	Bachelor's
Lecturer	Assit. Prof. Dr. Fikri EGE
Mode of Delivery	Face to Face
Suggested Subject	NONE
Professional practise (internship)	None
Objectives of the Course	The course aim is to teach the students the knowledge about all the processes of product or service producing businesses , starting from the selection of facility location, facility layout and facility design.
Contents of the Course	General definitions and basic concepts, Systematic Layout Planning (SLP) and the Production Flow Analysis (PFA), intensity of flow measurement, and diagrams to determine the relationships of the field and drawing, material handling systems and tools, layout planning models and design algorithms, computer-aided facility design, factory and office layout, Plant Location Selection models and techniques, the assembly line balancing

Learning Outcomes of Course

#	Learning Outcomes
1	Student shall be able to determine the best location for a facility.
2	Student shall gain the ability of making the decisions for using all the activities and resources in the most appropriate way to the production type's necessities.
3	Student shall gain the view of industrial engineering for designing facilities.
4	

Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Manufacturing and Production Systems Design, Workshop and Assembly Plant layout, Manufacturing and Assembly Facility	Lecturing
2	Classification of layouts, new-generation factory layouts	Lecturing
3	Systematic Facility Layout (SLP), Production Flow Analysis (PFA), SLP Integration with the PFA	Lecturing
4	Flow, Area and Activity Relationship Diagrams	Lecturing
5	Material Handling Systems and Tools, Machinery, Labour and Land Needs Calculation	Lecturing
6	Layout Planning Models and Design Algorithms	Lecturing
7	Midterm	Exam
8	Layout Planning Models and Design Algorithms	Lecturing

9	Computer-Aided Design	Lecturing
10	Factory and Office Layout, Evaluation and Selection of Alternative Layouts	Lecturing
11	Plant Location Selection Model and Techniques (Single Location, Resource Allocation)	Lecturing
12	Plant Location Selection Model and Techniques (Single Location, Resource Allocation)	Lecturing
13	Assembly Line Balancing Model and Techniques	Lecturing
14	Assembly Line Balancing Model and Techniques	Lecturing
15	Review	Lecturing
16	Final Exam	Exam

Course Syllabus

#	Material / Resources	Information About Resources	Reference / Recommended Resources
1	J.A. Tompkins, Facilities Planning, John Wiley & Sons		

Method of Assessment

#	Weight	Work Type	Work Title
1	40%	Mid-Term Exam	Mid-Term Exam
2	60%	Final Exam	Final Exam

Relationship between Learning Outcomes of Course and Program Outcomes

#	Learning Outcomes	Program Outcomes	Method of Assessment
1	Student shall be able to determine the best location for a facility.	1	1,2
2	Student shall gain the ability of making the decisions for using all the activities and resources in the most appropriate way to the production type's necessities.	2	1,2
3	Student shall gain the view of industrial engineering for designing facilities.	9	1,2
4			

PS. The numbers, which are shown in the column Method of Assessment, presents the methods shown in the previous table, titled as Method of Assessment.

Work Load Details

#	Type of Work	Quantity	Time (Hour)	Work Load
1	Course Duration	14	3	42
2	Course Duration Except Class (Preliminary Study, Enhancement)	0	0	0
3	Presentation and Seminar Preparation	0	0	0
4	Web Research, Library and Archival Work	0	0	0
5	Document/Information Listing	0	0	0
6	Workshop	0	0	0
7	Preparation for Midterm Exam	1	6	6
8	Midterm Exam	1	3	3
9	Quiz	0	0	0
10	Homework	3	6	18
11	Midterm Project	0	0	0
12	Midterm Exercise	0	0	0
13	Final Project	0	0	0
14	Final Exercise	0	0	0

15	Preparation for Final Exam	1	18	18
16	Final Exam	1	3	3
				90