Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
IND461	Plant Layout And Materials Handling	8	3	0	0	3	5

Prerequisites	
Admission Requirements	

Language of Instruction	Turkish
Course Type	Compulsory
Course Level	Bachelor Degree
Objective	The aim is to give basic knowledge, concepts, and systematic analysis techniques of facilities planning. The students learn how to locate and design plant layout with the help of quantitative models and computer-aided techniques. The course will include • The evaluation of the most suitable plant layout and the systematic facilities planning techniques • The decision on how equipment, machinery, and people will be arranged to make the production process as efficient as possible. • The understanding of the factors affecting facility layout
Content	This course inludes different quantitaives techniques for the location of a new plant and for the design of the plant layout
References	Tompkins, White, Bozer, , “Facilities planning”, 4th edition, John Wiley & Sons, Inc, 2010 Meyers,F., “Plant Layout and Material Handling”, Prentice Hall,1993 Meyers,F.,Stephens, M., “Manufacturing Facilities Design and Material Handling”, 2th Edition, Prentice Hall,1993

Theory Topics

Week	Weekly Contents
1	Introduction to new facility location
2	Location with Minisum methods
3	Location with Maximin methods
4	Location with Minimax methods
5	Plant location under variable demand
6	Dynamic programming for multiple plant location
7	Grouping method for multiple plant location
8	Multiple periods location models
9	Midterm
10	Introduction to plant layout
11	Graph based construction method
12	Mag measuring system
13	Warehouse layout models
14	Computer aided layouts