Course Code	Course Name Semester Theory Practice Lab Credit ECTS
IND461	Plant Layout And Materials Handling 8 3 0 0 3 5
Prerequisites	
Admission Requirer	nents
Language of Instruc	tion 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

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
- Warehouse layout models
- 14 Computer aided layouts