CH456: PLANT DESIGN AND ECONOMICS

CREDITS = 4 (L = 4, T=0, P = 0)

1.	**CONCEPTS OF PROJECT**: Feasibility study; site selection; profitability analysis; economic design; criteria of capital cost estimation and control.	6 Hours
2.	**BASIC ENGINEERING**: Process description and flow diagram; P & I diagram; plant layout; selection and equipment specification; utilities.	6 Hours
3.	**DETAIL ENGINEERING**: Specifications; drawing; code and standards; checking and incorporating vendor's information.	8 Hours
4.	**PROJECT MANAGEMENT**: Planning and scheduling; PERT and CPM procurement of equipment and materials; plant commissioning and start-up.	8 Hours
5.	**DETAIL 5**: Environment and safety consideration; EIA and SIA.	6 Hours
6.	**DETAIL 6**: Commercial and legal aspects- sources of funding statutory and regulatory authorities.	6 Hours

REFERENCE BOOKS

Title: K.D. Timmerhaus Plant Design and Economics for Chemical engineers
Author: Max. S. Peters
Publisher: McGraw-Hill, Inc.

Title: Chemical Engineering Plant Design
Author: Vilbrandt F.C. and Dryden C.F.
Publisher: McGraw-Hill