

## CH457: PROCESS EQUIPMENT DESIGN & DRAWING – II

**CREDITS = 6 (L = 2, T=4, P = 0)**

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| 1. | Estimation of selected physical properties.  | 2 Hours |
| 2. | Design of piping systems and specification of pump, compressor, blower and vacuum pump for incompressible and compressible single-phase flow and two phase flow. | 4 Hours |
| 3. | Design of decanters and cyclones.  | 2 Hours |
| 4. | Design of heat exchangers for sensible heat transfer, condensers and reboilers.  | 3 Hours |
| 5. | Design of sieve tray, bubble cap and packed column. Estimation of tray efficiency.   | 3 Hours |
| 6. | Design of filters.   | 3 Hours |
| 7. | Design of reactors.  | 3 Hours |

### REFERENCE BOOKS

Title: Applied Process Design for Chemical and Petrochemicals Plants Vol. - I to III  
Author: Ludwig  
Publisher: Gulf Publishing Co.

Title: Perry's Chemical Engineers Handbook  
Author: Perry and Gree  
Publisher: McGraw Hill

Title: Chemical Process Equipments, Selections and Design  
Author: Stanley. M Walas  
Publisher: Butterworth-Heinemann

### TUTORIAL

1. Total 20 to 25 tutorials for problem solving covering course contents.
2. Home Assignment