

7. Brief list of topics to be covered

- General design procedure and methodology
- Process design and mechanical design integration
- Factor of safety and material selection
- Economic considerations in design
- Design of mechanical components
- Process design aspects of pressure vessels
- Design of storage tanks
- Atmospheric containers and containers for volatile/non-volatile liquids
- Gas storage and losses in storage containers
- Different types of roofs for storage tanks
- Types of heat exchangers
- Codes and standards for heat exchangers
- Heat exchanger design (U-tube, fixed tube, shell, head, tubes)
- Fouling in heat exchangers and types of fouling
- Safety measures in equipment design
- Excessive protective devices (blowdown, pressure relief valves, bursting disc, steam trap)
- Risk analysis in equipment design.