



## COURSE SYLLABUS

### **COURSE NAME: CERTIFICATE COURSE IN PIPING ENGINEERING (CCPE)**

- Piping engineering - the design cycle: How it is actually carried out in the industry
- About Piping components
- International Codes and Standards - application
- Mechanical design fundamentals - applications in piping
- Valves
- Fluid properties to keep in mind - Pressure, density, Sp. weight, Sp. gravity, Viscosity
- Pressure measurement - a recap
- Understanding fluids in flow and the Bernoulli's equation
- Real systems - the General Energy equation and the power required by pumps
- Application of Reynold's number, energy losses due to friction and minor losses
- Pipe sizing - how to go about it
- Series and parallel piping systems
- Pump selection - how to do it
- Flow of gases and about blowers & compressors
- Air flow inside ducts
- Plot plan and Equipment layout
- Piping drawings - the basics
- Flow analysis and pump sizing in software environment
- Stress analysis - an introduction
- Piping material specifications - how to develop them
- Introduction to welding and fabrication aspects
- Introduction to piping estimation - inch-meter and inch-dia
- Piping systems in ships
- Piping systems in Mobile Offshore Drilling Units (MODUs)
- International Classification societies and rules

### **FOR MORE DETAILS**



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