

**Course Overview:**

This course provides understanding of the quantitative and qualitative analysis methods of safety technology & risk management. The course also provides guidance in planning, implementing and managing an overall safety engineering program. It includes coverage of such applicable science and technology principles as risk, human reliability, fault logic, failure modes, incident cost and prediction.

The course is presented in an applied format where several different types of industries are discussed such as Oil, gas, Chemical, Petrochemical, Power and manufacturing industries.

**Course Objective:**

Demonstrate an understanding and proper application of the appropriate science and engineering principles and Quality applicable aspects of risk, human reliability, fault logic, failure modes, incident cost and incident prediction.

**Course Outline:**

- Hazard and operability study (HAZOP)
- Fault tree analysis (FTA)
- Risk assessment and analysis
- Energy trace and barrier analysis
- Human error
- Planning and management principles of a system safety
- Improve safety conditions in the workplace
- Dangerous conditions for risk management.
- Hazardous chemicals and their safe management.
- Work in confined spaces, excavations and elevated areas.
- The safety aspects of gases and pressure vessels.
- Emergency procedures.
- Discuss technical reports and accident investigations to reduce future risks.
- Management of risk process
- Potential risks & risk assessment.

**Who Should Attend:**

- Safety Managers, Engineers, Officers and Staff
- Technical Department Managers, Engineers, Officers and Staff
- HSE and Loss Prevention Personnel
- Plant management and employees
- Superintendent, Supervisors and Foremen

**Training Language:**

EN / AR

**Training Methodology:**

- Presentation & Slides
- Audio Visual Aids
- Interactive Discussion
- Participatory Exercise
- Action Learning
- Class Activities
- Case Studies
- Workshops
- Simulation