

Training
Course

Hazard Types & Analysis

Course Plan

Introduction

In industrial operations, understanding hazards is critical to maintaining safety, compliance, and operational efficiency. This course provides a comprehensive overview of different types of hazards, methods for identifying them, and systematic approaches for analyzing their potential impact. Participants will learn practical tools and industry best practices for hazard recognition and risk assessment, enabling them to proactively mitigate risks and enhance workplace safety culture.

Course Objectives:

- ✓ Define and classify different types of hazards.
- ✓ Identify workplace hazards through systematic observation and analysis.
- ✓ Apply various hazard analysis methods such as HAZOP, FMEA, and What-If Analysis.
- ✓ Understand regulatory requirements and industry standards for hazard management.
- ✓ Develop proactive strategies for hazard mitigation and control.
- ✓ Integrate hazard analysis into daily operational and safety practices.

Who Should Attend?

- ✓ Safety officers and HSE professionals.
- ✓ Operations and maintenance supervisors.
- ✓ Process engineers and technical staff.
- ✓ Risk management professionals.
- ✓ Anyone involved in workplace safety and hazard control

Training Methods:

- ✓ Online Video material.
- ✓ Presentation.
- ✓ Live Interactive sessions.
- ✓ Course presenter will make extensive use of all tools that will be needed for the virtual environment.
- ✓ Questions & Answers

Course Outline:

Day One

- Introduction to Workplace Hazards – Definitions & key concepts.
- Hazard Categories – Physical, chemical, biological, ergonomic, and psychosocial hazards.
- Physical Hazards – Noise, vibration, temperature extremes, radiation, etc.
- Chemical Hazards – Toxic substances, flammable materials, corrosives.
- Biological Hazards – Viruses, bacteria, fungi, and biological agents.

Day Two

- Ergonomic Hazards – Poor workstation design, repetitive strain.
- Psychosocial Hazards – Stress, harassment, fatigue, and workplace violence.
- Environmental Hazards – Pollution, waste handling, environmental contamination.
- Process-Related Hazards – Pressure systems, high-energy equipment, moving machinery.
- Human Factors in Hazard Occurrence – Behavior, skills, and decision-making.

Day Three

- Hazard Identification Methods – Inspections, checklists, safety audits.
- Job Safety Analysis (JSA) – Step-by-step hazard identification in tasks.
- Preliminary Hazard Analysis (PHA) – Early-stage hazard recognition.
- HAZOP (Hazard and Operability Study) – Structured, team-based analysis.
- FMEA (Failure Modes and Effects Analysis) – Systematic risk evaluation.

Day Four

- What-If Analysis – Scenario-based hazard anticipation.
- Fault Tree Analysis (FTA) – Root cause mapping.
- Event Tree Analysis (ETA) – Predicting consequence pathways.
- Risk Assessment Matrix – Likelihood vs. severity evaluation.
- Hierarchy of Controls – Elimination, substitution, engineering, administrative, PPE.

Day Five

- Legal & Regulatory Frameworks – OSHA, ISO 45001, and other standards.
- Incident Investigation & Root Cause Analysis – Learning from accidents.
- Developing Hazard Mitigation Plans – From identification to implementation.
- Safety Culture & Leadership in Hazard Management – Encouraging proactive safety.
- Case Studies & Practical Exercises – Applying hazard analysis tools in real-life scenarios.

Training Details

Course Duration	5 Days
Pre-Schedule	7 – 11 Sept 2025
Venue	UAE – Dubai – The H Hotel
Training Fees Per Person	KWD 1600 (One Thousand Six Hundred Only)
Course Fees Include	<ul style="list-style-type: none"> ✓ Tuition documentation ✓ Curriculum and Training Handout ✓ Five star Lunch ✓ Completion Certificates ✓ Lunch Included