

EXPERT

EXPERT & PROFESSIONAL EXCELLENCE FOR TRAINING & CONSULTATIONS

Hazards Types & Analysis

Course Outline:

Day 1: Introduction to Hazards and Risk Concepts

- Overview of Hazard and Risk Terminology
- Classification of Hazards: Natural, Technological, Human-induced
- Hazard vs. Risk vs. Vulnerability vs. Exposure
- Legal and Regulatory Frameworks (e.g., OSHA, ISO 45001)
- Case Study: Disasters due to Hazard Misidentification

Day 2: Types of Hazards (Part 1) - Physical, Chemical, and Biological

- Physical Hazards: Noise, vibration, radiation, temperature extremes
- Chemical Hazards: Gases, vapors, dusts, fumes, mists – toxicity and flammability
- Biological Hazards: Bacteria, viruses, fungi, biological agents in the workplace
- Hazardous Material Classifications (GHS, NFPA)
- Group Exercise: Identify Hazards in Workplace Scenarios

Day 3: Types of Hazards (Part 2) - Ergonomic, Psychosocial & Environmental

- Ergonomic Hazards: Manual handling, repetitive motion, poor workstation design
- Psychosocial Hazards: Stress, violence, harassment, fatigue
- Environmental Hazards: Weather-related, pollution, climate risks
- Impact of Combined and Cumulative Hazards
- Simulation: Ergonomic Risk Spotting and Mitigation Planning

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Day 4: Hazard Analysis Techniques

- Hazard Identification Methods (HAZID, FMEA, HAZOP)
- Job Hazard Analysis (JHA) and Task Risk Assessment (TRA)
- Root Cause Analysis & Bowtie Method
- Severity, Likelihood & Risk Matrix
- Workshop: Conducting a Simple HAZID for a Selected Facility

Day 5: Control Measures and Hazard Management Planning

- Hierarchy of Controls (Elimination to PPE)
- Integrating Hazard Analysis into Safety Management Systems
- Monitoring and Reviewing Hazards Over Time
- Emergency Preparedness and Hazard Communication (e.g., SDS)
- Final Group Project: Hazard Analysis & Risk Control Proposal
- Course Review & Assessment

Location	Cairo – Sofitel downtown Hotel
Start Date	17 Aug 2025
End Date	21 Aug 2025