MERCURY

Hazard Identification & Risk Assessment (HIRA)

15 – 19 August 2027
Online



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Hazard Identification & Risk Assessment (HIRA)

Ref: 16296_1084787 **Date:** 15 – 19 August 2027 **Location:** Online **Fees:** 1900 Euro

Introduction:

The Hazard Identification and Risk Assessment HIRA course enhances workplace safety and compliance across various industries. It offers participants an understanding of hazard recognition, evaluation techniques, and proactive safety management strategies. It equips professionals with practical skills to assess and control potential workplace risks before they escalate into incidents.

This Hazard Identification and Risk Assessment HIRA program emphasizes regulatory compliance, industry best practices, and international safety standards to meet organizational and legal obligations. Participants will learn how to conduct structured risk assessments, prioritize control measures, and implement sustainable safety improvements.

The scope of this Hazard Identification and Risk Assessment HIRA training course encompasses all sectors where workplace hazards exist, including construction and manufacturing, as well as oil, gas, energy, and services. By mastering HIRA, participants will enhance their organization's safety culture and contribute to operational excellence.

Targeted Groups:

This Hazard Identification and Risk Assessment HIRA course targets professionals seeking specialized knowledge and skills:

- Safety officers aim to enhance their ability to recognize hazards.
- HSE managers are responsible for developing and implementing risk assessment strategies.
- Supervisors managing workplace safety and compliance.
- Engineers working in high-risk industries.
- Project managers oversee construction and industrial operations.
- Human resources staff are involved in safety programs.
- Quality control professionals integrating safety with operations.
- Compliance officers ensure regulatory safety adherence.
- Consultants specializing in occupational health and safety.
- Employees transitioning to safety leadership roles.

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Course Objectives:

Participants will achieve the following objectives by completing the Hazard Identification and Risk Assessment HIRA course:

- Understand fundamental principles of hazard identification and risk assessment.
- Recognize workplace hazards using systematic evaluation methods.
- Analyze potential impacts of hazards on people, property, and the environment.
- Apply structured frameworks to prioritize and control identified risks.
- Develop practical strategies for implementing safety control measures.
- Enhance decision-making through data-driven risk assessment tools.
- Evaluate compliance requirements under international safety standards.
- Improve organizational safety culture by proactive risk management.
- Design preventive action plans to reduce incidents.
- Assess the effectiveness of safety programs and recommend improvements.
- Document and communicate risk assessment findings effectively.
- Integrate hazard identification into daily operational planning and management.
- Lead and support safety audits with evidence-based risk evaluations.

Targeted Competencies:

Participants will gain the following competencies during the Hazard Identification and Risk Assessment HIRA program:

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- Ability to identify and categorize workplace hazards effectively.
- Proficiency in conducting structured risk assessments.
- Skills to analyze and prioritize risks using the control hierarchy.
- Competence in implementing risk mitigation strategies.
- Knowledge of regulatory and legal safety requirements.
- Capacity to document and report safety findings professionally.
- Decision-making based on safety data and assessments.
- Communication skills for engaging teams in safety practices.
- Leadership in promoting workplace safety culture.
- Integration of safety risk management with business operations.

Studying Scenarios:

In this Hazard Identification and Risk Assessment HIRA training, participants will develop their skills through the analysis of the following scenarios:

- Identifying hazards in a construction site environment.
- Assessing risks in a chemical manufacturing plant.
- Evaluating ergonomic risks in office and administrative settings.
- Conducting hazard analysis during machinery maintenance.
- Reviewing safety risks in warehouse and logistics operations.
- Analyzing potential fire hazards and emergency response gaps.
- Assessing environmental hazards impacting surrounding communities.
- Identifying human factors contributing to unsafe acts.
- Reviewing compliance failures leading to regulatory penalties.
- Evaluating a real-world accident case and root cause analysis.

Course Content:

Unit 1: Fundamentals of Hazard Identification & Risk Assessment:

- Definition and purpose of hazard identification and risk assessment.
- Importance of HIRA in modern occupational safety management.
- Types of workplace hazards physical, chemical, biological, ergonomic, psychosocial.
- Relationship between hazard identification and accident prevention.
- Key principles and international HIRA frameworks.
- Understanding the risk assessment process.
- Risk perception and behavioral safety factors.
- Legal and regulatory safety requirements globally and regionally.
- Case examples of hazard identification successes and failures.

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Unit 2: Hazard Identification Techniques:

- Methods for detecting hazards in different work environments.
- Job Safety Analysis JSA and Job Hazard Analysis JHA approaches.
- Walkthrough inspections and safety observation tools.
- Use of checklists and structured safety audits.
- Hazard reporting systems and employee engagement.
- Identifying emerging hazards in evolving industries.
- Incident and near-miss data analysis for hazard recognition.
- Using technology and software for hazard identification.
- Integrating hazard detection into daily operations.

Unit 3: Risk Assessment Methodologies:

- Core principles of risk evaluation and ranking.
- Qualitative vs. quantitative risk assessment methods.
- Likelihood and severity analysis in risk prioritization.
- Risk matrices and decision-making models.
- Failure Mode and Effects Analysis FMEA application.
- Assessing cumulative and complex risks.
- Determining acceptable and tolerable risk levels.
- Applying risk assessment findings to safety planning.
- Documenting risk assessments for compliance audits.

Unit 4: Risk Control and Mitigation Strategies:

- Hierarchy of controls: elimination, substitution, engineering, administrative, PPE.
- Designing effective safety control measures.
- Integrating risk controls into operational workflows.
- Monitoring and reviewing control measures to ensure their effectiveness.
- Leading safety training and awareness initiatives.
- Developing emergency preparedness and response plans.
- Linking risk control with business continuity management.
- Managing contractor and third-party risks.
- Continuous improvement in hazard and risk programs.

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Unit 5: Implementing and Sustaining HIRA Programs:

- Building organizational safety culture and leadership support.
- Roles and responsibilities for HIRA across departments.
- Key performance indicators for monitoring safety performance.
- Conducting internal and external safety audits.
- Reporting and communicating risk findings to stakeholders.
- Integrating HIRA with ISO 45001 and other standards.
- Managing resistance to safety change and promoting engagement.
- Leveraging digital tools for continuous hazard assessment.
- Case studies of successful long-term HIRA programs.

Final Insights & Key Takeaways:

Hazard Identification & Risk Assessment HIRA is essential for any organization aiming to achieve excellence in safety management. This training enables participants to identify, assess, and manage hazards effectively, ensuring compliance with relevant standards and regulations. By mastering HIRA, professionals can contribute to safer workplaces, improved productivity, and more effective, sustainable risk management strategies. Participants will gain actionable insights and tools to mitigate risks and prevent incidents proactively.