MERCURY

Advanced Health and Safety Masterclass Training

25 January – 5 February 2027
Cape Town (South Africa)



Dubai - UAE: +971 4 450 5697
Istanbul - Türkiye: +90 539 599 1206
Amman - Jordan: +962 79 712 3347

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Ref: 15075_1061574 **Date:** 25 January – 5 February 2027 **Location:** Cape Town (South Africa) **Fees:** 9500 Euro

Introduction:

Certainly, a near miss is better than an accident, but it only means luck intervened. Health and safety require a robust management system, competent leaders, methods for hazard identification, and risk reduction through inherently safer work designs.

All organizations invest considerable amounts in training and guiding their Team Leaders, Managers, Engineers, and Supervisors on new, leaner, and more efficient production methods. However, incidents continue, resulting in human harm and financial loss.

This advanced health and safety course aims to rectify the loss cycle by attaining superior competencies in Health and Safety. It provides a valuable understanding of why health and safety are important. It is a serious step towards developing competencies that will enable further progress in these fields.

The increased competencies of the delegates will result in cost savings and increased efficiencies within the company. This advanced health and safety training course covers Safety Management, Hazard Control, and Process Safety Management.

Why Health and Safety Is Important:

Understanding why health and safety are important in this advanced health and safety course allows for a deeper appreciation of the training's practical applications.

It is paramount to recognize the direct correlation between effective health and safety protocols, employees' well-being, and company operations' overarching success.

Targeted Groups:

- Process Managers.
- Process Engineers.
- Team Leaders/Supervisors.
- Maintenance Engineers.
- Health and Safety personnel.

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Course Objectives:

At the end of this health and safety training course, participants will be able to:

- Understand Safety Management.
- Explain the Risk Assessment process.
- Analyze workplace hazards.
- Identify methods of Hazard Control.
- Explain the foundations of process safety.
- Describe the systems to prevent loss of containment.
- Analyze common risks and controls in the process safety industry.
- Understand Furnace operations.
- Appreciate Start-Up and Shutdown Hazards.
- Summarize safe entry procedures in confined spaces.
- Create Emergency response strategies.

Targeted Competencies:

At the end of this health and safety masterclass training, target competencies will:

- Management Systems and the role of risk management.
- Occupational Health and the importance of safety management.
- Process safety and legislation that applies to the industry.
- Systems to prevent loss of containment.
- Hazards and controls are available for the oil and gas industry.
- Emergency Preparedness.

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Course Content:

Unit 1: Safety Management Foundations:

- The nature of workplace health and safety.
- Responsibilities of Employers and Employees.
- Safety Management Systems Plan, Do, Check, Act.
- OHSAS 18001, ISO 45001, OSHA Guidelines for Safety Management.
- Improving health and safety performance.
- A Safety Policy.
- Inspections and Audits.

Unit 2: Risk Assessment and Control:

- Setting Targets - Key Performance Indicators.
- Health and safety risk assessment.
- General principles for control.
- Hierarchy of risk reduction.
- Safe systems of work.
- Human Error.
- Case Study.

Unit 3: Hazards and Controls:

- Physical Hazards Noise, Vibration.
- Electricity Hazards.
- Work Equipment Hazards.
- Manual Handling Hazards.
- Workplace hazards Temperature, Violence and Bullying, Slips and Trips, Work at Height.
- Transport Hazards.

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Unit 4: Incident Investigation, Fire, and Emergency Procedures:

- Incident Investigation.
- Why investigate Incidents?
- When to investigate Incidents?
- Fire safety.
- Need for Emergency Plans.
- First Aid Provisions.

Unit 5: Occupational Health HazCom and Safety Culture:

- Chemical Hazards.
- Occupational exposure limits.
- Stress.
- Safety Culture.

Unit 6: The Foundations of Process Safety:

- Learning from Accidents.
- Good Practice Standards for the process industry EU and USA.
- Permit-to-work system.
- Case Study.
- Shift handover of the key principles.

Unit 7: Risk Management and Management of Change:

- Risk Management.
- The Swiss Cheese Model.
- HAZOP Studies.
- Inherent Safer Design.
- Management of Change.
- Case Study.

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Unit 8: Combustion and Confined Space Entry:

- Furnace operations.
- Firing conditions.
- Confined Space Entry.
- Cleaning, Isolating, and Atmospheric Testing.
- Training.
- Case Study.

Unit 9: Start-Up, Shutdown, Hydrocarbon Storage, and Types of Fire and Explosions

- Start-Up and Shutdown.
- Storage Depots - Bund Areas.
- Safety Instrumented Systems.
- Types of Fire and Explosions - VCE, UVCE, BLEVE, Boil Over.
- Case Study.

Unit 10: Fire and Emergency Response:

- Passive and Active Fire Protection.
- Case Study.
- Emergency Response.
- Review.

Conclusion:

Upon completing this advanced health and safety course, participants will receive a health and safety certificate, demonstrating their enhanced understanding and capabilities as health and safety specialists. This credential signifies their dedication to upholding a high standard of advanced safety and health practices within their organization.