



Advanced Hazard Control and Safety Measures Course

11 – 15 January 2027
Singapore

Advanced Hazard Control and Safety Measures Course

Ref: 1389_202601 **Date:** 11 – 15 January 2027 **Location:** Singapore **Fees:** 5700 Euro

Overview

Advanced Hazard Control and Safety Measures Course is a one-week advanced course for safety managers, HSE professionals, supervisors, engineers, and operational leaders who leave with a Hazard Control and Assurance Pack. Participants convert hazard evidence into proportionate controls, define critical-control performance, test human-factor dependence, and verify whether safeguards work in the field. The approach connects the hierarchy of controls with barrier thinking, ownership, monitoring, maintenance, and change management. Agile Leaders Training Center presents advanced hazard control as a disciplined operational assurance practice.

Who Should Attend

- Functions responsible for workplace hazard identification and control selection
- Teams accountable for operational risk controls and field assurance
- Functions that design, maintain, or modify equipment and work processes
- Teams responsible for contractor interfaces and nonroutine work
- Leadership groups that approve resources and review control performance
- Functions that investigate control failures and improvement priorities

The course assumes participants already perform risk assessments, supervise operations, or manage safety controls and leaves out introductory hazard recognition and basic PPE instruction.

Departments and Industries

The course serves departments and industries that must select and sustain effective controls for changing operational hazards.

- Health, safety, environment, and operational risk functions
- Energy, chemical, manufacturing, and utilities operations
- Construction, engineering, and infrastructure delivery teams
- Transport, logistics, warehousing, and port operations
- Maintenance, reliability, and asset-integrity functions
- Healthcare, facilities, and public-service operations

Learning Objectives

By the end of this course, participants will be able to:



- Apply the hierarchy of controls to operational hazards
- Compare control options for effectiveness and feasibility
- Build critical-control performance standards and ownership
- Analyze degradation, dependencies, and newly introduced risks
- Evaluate field evidence and leading control indicators
- Prioritize improvements through a verified hazard control plan

Course Agenda

Day 1: Control Strategy Foundations

- Hazard-to-Control Decision Map
- Hierarchy of Controls Application Test
- Exposure Pathway and Control Point Analysis
- Inherent Safety and Prevention through Design
- Control Selection Evidence Register

Day 2: Critical Controls and Barriers

- Bow-Tie Barrier Mapping Method
- Critical Control Identification Test
- Control Performance Standard Template
- Ownership and Accountability Matrix
- Combined Control and Residual Risk Review

Day 3: Human and Operational Reliability

- Human-Factor Dependence Assessment
- Work-as-Planned and Work-as-Done Comparison
- Administrative Control Reliability Test
- Nonroutine Work and Emergency Safeguards
- Contractor and Interface Control Map

Day 4: Verification and Improvement

- Field Verification and Control Sampling Plan
- Leading Indicator and Trigger Design
- Inspection, Monitoring, and Maintenance Evidence
- Management of Change Control Review
- Control Degradation and Escalation Register



Day 5: Hazard Control Assurance Practice

- Exercise: Rank Controls for a Complex Hazard
- Exercise: Define a Critical Control Standard
- Exercise: Test Human and Technical Dependencies
- Exercise: Verify Control Performance in the Field
- Capstone Exercise: Hazard Control and Assurance Pack

Practical Exercises

The course uses energy, construction, logistics, healthcare, and manufacturing scenarios.

- Suggested activity: compare elimination, substitution, engineering, administrative, and PPE options against exposure pathways and feasibility constraints.
- Suggested activity: map preventive and mitigative barriers, identify critical controls, and assign measurable performance standards.
- Suggested activity: inspect field evidence for degradation, bypasses, maintenance gaps, human dependence, and newly introduced hazards.
- Suggested activity: integrate priorities, owners, actions, indicators, and verification evidence into a Hazard Control and Assurance Pack.

FAQs

Who suits advanced hazard control training, and what does it assume?

Advanced hazard control training suits professionals who already assess risk, supervise work, manage safeguards, or review operational performance and need deeper control-selection and assurance skills.

How does advanced hazard control differ from basic workplace safety training?

Advanced hazard control evaluates control strength, criticality, dependencies, degradation, and verification evidence rather than introducing general hazard awareness and routine safety rules.

How should the hierarchy of controls guide safety measures?

The hierarchy of controls guides safety measures by prioritizing elimination, substitution, and engineered protection before controls that depend heavily on procedures, behavior, or PPE.

What makes a workplace control critical?

A workplace control is critical when its failure or absence would materially increase the likelihood or consequence of a serious event and therefore requires explicit ownership, performance criteria, and verification.



How is hazard control effectiveness verified?

Hazard control effectiveness is verified through installation checks, operating evidence, inspections, testing, maintenance records, worker feedback, exposure monitoring, leading indicators, and field observation against defined performance standards.

Conclusion

The course integrates control selection, barrier mapping, human factors, critical-control standards, field verification, and improvement planning. Participants take back a Hazard Control and Assurance Pack that turns risk findings into owned and testable safeguards. The pack strengthens prioritization, operational discipline, evidence quality, and timely response to control degradation.