

Course No. 1968

Advanced HSE Management & Operational Excellence Training Course

HEALTH, SAFETY & ENVIRONMENT MANAGEMENT
HEALTH, SAFETY, ENVIRONMENT & SUSTAINABILITY

DURATION

5 Days

DELIVERY

Classroom



Course Overview

The Advanced HSE Management & Operational Excellence Training Course provides an advanced framework for integrating health, safety, and environmental management with operational excellence, business performance, and sustainable improvement. The program moves beyond basic compliance by focusing on how HSE systems, risk controls, operational processes, leadership, performance management, and continuous improvement can work together to achieve safer, more reliable, and more efficient operations.

Participants will examine advanced approaches to HSE management system effectiveness, operational risk management, process optimization, critical control management, human factors, contractor performance, assurance, and organizational learning. The course emphasizes the ability to identify systemic weaknesses, eliminate operational inefficiencies, strengthen control reliability, and embed HSE considerations into core business processes.

A central focus of the program is the integration of HSE performance with operational excellence. Participants will explore performance measurement, leading indicators, risk-based assurance, process improvement, incident learning, root cause analysis, operational discipline, and management systems. Particular attention is given to transforming HSE data and operational information into actionable intelligence for management decision-making.

Through advanced case studies, practical assessments, performance analysis, risk scenarios, improvement exercises, and an integrated final workshop, participants will develop the capability to design and improve HSE management frameworks, identify opportunities for operational excellence, strengthen organizational resilience, and establish sustainable improvement programs aligned with strategic and operational objectives.

Objectives

- By the end of the course, participants will be able to:
- Evaluate the effectiveness and maturity of advanced HSE management systems.
- Integrate HSE management principles with operational excellence strategies.
- Analyze systemic and operational risks affecting organizational performance.
- Evaluate the reliability and effectiveness of critical operational controls.

- Identify process inefficiencies, operational weaknesses, and sources of HSE-related losses.
- Apply risk-based approaches to operational assurance and performance improvement.
- Develop meaningful HSE and operational performance indicators.
- Analyze performance data to identify trends, weaknesses, and emerging risks.
- Apply advanced root cause analysis to systemic operational and HSE problems.
- Strengthen operational discipline and control implementation.
- Integrate human factors into HSE and operational risk management.
- Improve contractor and third-party HSE performance.
- Develop integrated improvement initiatives based on risk and performance information.
- Strengthen management review, governance, and accountability.
- Establish mechanisms for organizational learning and knowledge transfer.
- Develop sustainable HSE and operational excellence strategies.

Who Should Attend

This course is designed for HSE managers, senior HSE professionals, operational excellence leaders, safety and environmental managers, operational assurance professionals, risk managers, and specialists responsible for improving organizational HSE and operational performance.

It is also suitable for operations managers, plant and facility managers, project managers, engineering and maintenance managers, quality and continuous improvement professionals, process owners, internal auditors, contractor management teams, and senior leaders responsible for operational reliability, performance, risk, and organizational improvement.

The program is particularly relevant to organizations operating in oil and gas, petrochemicals, energy, utilities, manufacturing, engineering, construction, mining, transportation, logistics, infrastructure, and other complex or high-risk operational environments.

Learning Outcomes

- Upon completion of the course, participants will be able to:
- Assess HSE management system maturity and identify opportunities for advancement.
- Evaluate the relationship between HSE performance, operational reliability, productivity, and business results.
- Develop integrated HSE and operational excellence frameworks.
- Identify systemic causes of operational losses, incidents, inefficiencies, and performance deterioration.
- Evaluate critical controls and determine whether they are capable of preventing or mitigating major risks.
- Apply risk-based assurance principles to operational activities and processes.
- Establish performance indicators that provide meaningful insight into operational and HSE effectiveness.
- Interpret HSE and operational data to support proactive management decisions.
- Conduct advanced investigations and root cause analysis of complex events.
- Identify opportunities to eliminate waste, variation, recurring failures, and unnecessary operational exposure.
- Strengthen operational discipline and management of critical activities.
- Integrate human and organizational factors into operational risk assessments.
- Improve HSE governance and performance management across contractors and third parties.
- Develop improvement portfolios based on risk, performance, and business priorities.
- Establish organizational learning mechanisms that convert operational experience into improved controls.
- Develop a practical roadmap for sustainable HSE management and operational excellence.

Course Outline

DAY 01

Advanced HSE Management and Operational Excellence Foundations

- Evolution from traditional HSE management to operational excellence.
- Principles and dimensions of operational excellence.
- HSE management systems and organizational performance.
- HSE maturity models and organizational capability.
- Integration of HSE, operational reliability, quality, risk, and performance.
- Business impact of incidents, operational failures, and weak controls.
- Process ownership and operational accountability.
- Management systems effectiveness and performance assurance.
- Operational discipline and execution standards.
- Identifying systemic barriers to HSE and operational excellence.

PRACTICAL APPLICATION

Conduct an HSE and operational excellence maturity assessment for a selected organization and identify priority improvement areas.

DAY 02

Advanced Risk Management and Critical Control Effectiveness

- Advanced operational risk management principles.
- Identification of major HSE and process risks.
- Risk interdependencies and cumulative exposure.
- Critical risk and critical control concepts.
- Designing effective preventive and mitigative controls.
- Critical control verification and performance monitoring.
- Control degradation and failure mechanisms.
- Management of operational changes.
- Human and organizational factors affecting risk.

DAY 02 — CONTINUED

- Risk-based decision-making and resource allocation.
- Integrating risk intelligence into operational planning.

PRACTICAL APPLICATION

Develop a critical control framework for a high-risk process and assess control effectiveness against major operational risks.

DAY 03

Performance Management, Assurance and Operational Improvement

- Advanced HSE performance management.
- Leading and lagging performance indicators.
- Developing integrated HSE and operational performance measures.
- Performance dashboards and management information.
- Trend analysis and early warning indicators.
- Risk-based audits, inspections, and assurance.
- Evaluating process performance and operational effectiveness.
- Identifying process variation, waste, and recurring losses.
- Root cause analysis of systemic performance problems.
- Corrective action effectiveness and sustainability.
- Management review and performance governance.

PRACTICAL APPLICATION

Analyze an operational performance dataset, identify systemic weaknesses, and develop a risk-based performance improvement plan.

DAY 04

Operational Excellence, Reliability and Organizational Learning

- Linking HSE performance with operational reliability.
- Operational discipline and reliability of critical activities.

DAY 04 — CONTINUED

- Continuous improvement principles and improvement methodologies.
- Eliminating recurring failures and operational losses.
- Integrating human factors into operational excellence.
- Workforce engagement and frontline improvement.
- Contractor and third-party operational performance.
- Learning from incidents, near misses, audits, and operational events.
- Organizational learning and knowledge management.
- Building resilient operational processes.
- Sustaining improvement through leadership and accountability.

PRACTICAL APPLICATION

Develop an integrated improvement initiative addressing a recurring operational or HSE performance problem, including causes, controls, responsibilities, measures, and sustainability mechanisms.

DAY 05

HSE Governance, Integrated Excellence and Sustainable Improvement

- Integrating HSE management with operational excellence strategy.
- HSE governance and executive oversight.
- Aligning operational excellence with organizational strategy.
- Establishing integrated accountability and performance frameworks.
- Prioritizing improvement initiatives according to risk and value.
- Developing HSE and operational excellence portfolios.
- Executive reporting and performance communication.
- Measuring improvement effectiveness and realized benefits.
- Embedding continuous improvement into management systems.
- Building organizational resilience and sustainable performance.
- Developing long-term HSE and operational excellence capability.
- Creating implementation roadmaps and governance mechanisms.

DAY 05 — CONTINUED

FINAL WORKSHOP

Develop an integrated Advanced HSE Management & Operational Excellence framework for a complex organization, covering HSE maturity, critical risks and controls, performance indicators, assurance activities, operational improvement priorities, governance, organizational learning, accountability, and a multi-stage implementation roadmap.

Register or Request More Information

Course page: <https://quest-training.com/courses/advanced-hse-management-operational-excellence-training-course>

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