Industrial Accident Investigation Techniques Training Course

Professional Development Training Course Outline

Category	General Training	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Industrial workplaces today face increasing risks due to complex machinery, human factors, chemical exposure, and evolving operational environments. Effective industrial accident investigation techniques are critical for identifying root causes, preventing recurrence, and ensuring compliance with global occupational health and safety (OHS) standards. Industrial Accident Investigation Techniques Training Course is designed to equip professionals with advanced skills in root cause analysis (RCA), incident reconstruction, forensic investigation, and safety management systems (SMS) aligned with modern industry best practices.

With rising global emphasis on workplace safety culture, regulatory compliance (OSHA/ISO 45001), and risk mitigation strategies, organizations must adopt structured investigation frameworks to reduce incidents and improve operational resilience. This course integrates real-world case studies, data-driven analysis, and practical investigation methodologies to empower safety officers, engineers, and supervisors to conduct thorough and legally defensible accident investigations.

Programme Curriculum

Industrial Accident Investigation Techniques Training Course

Introduction

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Course Duration

5 days

Course Objectives

1. Master industrial accident investigation frameworks
2. Apply advanced root cause analysis (RCA) techniques
3. Conduct effective incident scene preservation and documentation
4. Identify human error vs system failure factors
5. Use fault tree analysis (FTA) and fishbone diagrams
6. Understand OSHA and ISO 45001 compliance requirements
7. Perform evidence collection and forensic documentation
8. Develop corrective and preventive action plans (CAPA)
9. Improve risk assessment and hazard identification skills
10. Strengthen safety culture and behavioral safety insights
11. Analyze equipment failure and mechanical breakdowns
12. Prepare professional investigation reports for legal use
13. Implement continuous improvement in safety systems

Target Audience

- Safety Officers and HSE Managers
- Industrial Engineers and Maintenance Engineers
- Plant Supervisors and Operations Managers
- Risk Management Professionals
- Compliance and Regulatory Officers
- Occupational Health Specialists
- Fire and Emergency Response Teams
- Quality Assurance and Safety Consultants

Course Modules

Module 1: Fundamentals of Industrial Accident Investigation

- Principles of workplace accident investigation
- Types of industrial incidents and classifications
- Legal and regulatory frameworks
- Initial response procedures at accident scenes
- Case Study: Chemical plant leakage incident analysis

Module 2: Incident Scene Management & Evidence Collection

- Securing and isolating accident scenes
- Physical and digital evidence collection techniques
- Photography and sketching for documentation

- Witness identification and statement recording
- Case Study: Construction site fall accident investigation

Module 3: Root Cause Analysis (RCA) Techniques

- 5 Whys technique and Fishbone (Ishikawa) diagram
- Failure mode and effects analysis (FMEA)
- Barrier analysis and causal factor charting
- Differentiating root causes from symptoms
- Case Study: Conveyor belt machinery entanglement accident

Module 4: Human Factors & Behavioral Safety Analysis

- Human error classification models
- Fatigue, stress, and cognitive bias analysis
- Unsafe acts vs unsafe conditions
- Safety behavior observation techniques
- Case Study: Forklift collision due to operator error

Module 5: Mechanical & Equipment Failure Investigation

- Equipment lifecycle and failure modes
- Wear, fatigue, and design failure analysis
- Maintenance records and predictive failure indicators
- Engineering controls and system safeguards
- Case Study: Boiler explosion due to pressure system failure

Module 6: Advanced Analytical Tools in Investigation

- Fault Tree Analysis (FTA)
- Event Tree Analysis (ETA)
- Accident reconstruction modeling
- Data-driven safety analytics
- Case Study: Electrical fire in manufacturing facility

Module 7: Reporting, Documentation & Legal Compliance

- Structuring professional investigation reports
- Legal admissibility of evidence
- Regulatory reporting requirements
- Corrective and preventive action (CAPA) systems
- Case Study: Workplace injury litigation documentation review

Module 8: Prevention Strategies & Safety Improvement Systems

- Building proactive safety cultures
- Incident prevention programs
- Safety performance indicators (KPIs)
- Continuous improvement methodologies
- Case Study: Successful zero-incident refinery implementation

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

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