Safety Management Systems in Construction (Advanced) Training Course

Professional Development Training Course Outline

Category	Civil Engineering and Infrastructure Management	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The construction industry inherently involves significant hazards, making robust Safety Management Systems (SMS) not merely a regulatory requirement but a critical imperative for protecting lives, preventing injuries, and ensuring project viability. Safety Management Systems in Construction (Advanced) Training Course equips professionals with in-depth knowledge and practical skills to design, implement, and audit comprehensive safety management systems for complex construction projects. While fundamental safety practices are essential, an advanced SMS moves beyond basic compliance to foster a proactive, systematic, and continuous improvement approach to risk management. It involves establishing clear policies, roles, responsibilities, hazard identification and risk assessment processes, operational controls, emergency preparedness, incident investigation, and performance monitoring. A mature SMS drives a positive safety culture, reduces accidents, enhances productivity by minimizing disruptions, and protects an organization's reputation and financial health. Without an advanced and well-implemented SMS, construction projects face heightened risks of severe accidents, legal liabilities, project delays, and financial penalties. This course is meticulously designed to equip senior project managers, safety officers, construction managers, civil engineers, site superintendents, quality managers, and regulatory compliance professionals with the expert knowledge and practical methodologies to design, implement, audit, and continuously improve advanced Safety Management Systems tailored for complex construction environments. The program focuses on SMS frameworks (e.g., ISO 45001), hazard identification and risk assessment, incident investigation and analysis, emergency preparedness, safety culture development, auditing and review processes, and legal/regulatory compliance (including Kenyan context), blending rigorous analytical frameworks with practical, hands-on application, global case studies, and interactive SMS design and audit simulations. Participants will gain the strategic foresight and technical expertise to confidently lead safety initiatives, fostering unparalleled workplace safety, risk mitigation, and operational excellence, thereby securing their position as indispensable leaders in building a culture of zero harm in construction.

Programme Curriculum

Safety Management Systems in Construction (Advanced) Training Course

Introduction

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Course Objectives

Upon completion of this course, participants will be able to:

1. **Analyze core concepts and strategic responsibilities** of **advanced Safety Management Systems (SMS)** in construction.
2. **Master sophisticated techniques** for **designing and customizing SMS frameworks** aligned with international standards (e.g., ISO 45001).
3. **Develop robust methodologies** for **conducting advanced hazard identification, risk assessment (qualitative and quantitative), and control.**
4. **Implement effective strategies** for **planning and executing comprehensive incident investigations** to determine root causes and prevent recurrence.
5. **Manage complex considerations** for **developing and testing robust emergency preparedness and response plans** for construction sites.
6. **Apply robust strategies** for **fostering and maturing a proactive safety culture** throughout the construction organization.

7. **Understand the deep integration of legal and regulatory compliance** with SMS, specifically relevant to the Kenyan context.
8. **Leverage knowledge of global best practices and lessons learned** in construction safety management from diverse, complex projects.
9. **Optimize strategies for conducting internal and external SMS audits** and management reviews for continuous improvement.
10. **Formulate specialized recommendations** for **integrating human factors, organizational psychology, and behavioral safety** into SMS.
11. **Conduct comprehensive assessments** of existing safety performance using leading and lagging indicators.
12. **Navigate challenging situations** such as **managing safety across subcontractors, language barriers, and resistance to safety initiatives.**
13. **Develop a holistic, systematic, and continuously improving approach** to **Safety Management Systems in Construction (Advanced),** ensuring a safer and more productive work environment.

Target Audience

This course is designed for professionals interested in Safety Management Systems in Construction (Advanced):

1. **Senior Project Managers & Construction Managers:** Overseeing overall project safety.
2. **Health, Safety, and Environment (HSE) Officers/Managers:** Responsible for developing and implementing safety programs.
3. **Civil Engineers & Site Superintendents:** Directly managing site operations and worker safety.
4. **Quality Managers:** Integrating safety and quality management systems.
5. **Risk Management Professionals:** Assessing and mitigating project risks, including safety.
6. **Procurement & Contract Managers:** Ensuring safety requirements are embedded in contracts.
7. **Regulatory Compliance Officers:** Ensuring adherence to national and international safety standards.
8. **Consultants:** Providing specialized advice on construction safety management.

Course Duration: 5 Days

Course Modules

- **Module 1: Foundations of Advanced Safety Management Systems (SMS)**
  - **Beyond Basic Compliance**: The shift from reactive to proactive safety management.
  - **Core Elements of an SMS**: Policy, planning, implementation, evaluation, management review.
  - **International SMS Standards**: Detailed review of ISO 45001 and its application in construction.
  - **Benefits of a Mature SMS**: Accident reduction, improved productivity, legal protection, reputation.
  - **Integrating SMS with Other Management Systems**: Quality (ISO 9001) and Environmental (ISO 14001).
- **Module 2: Advanced Hazard Identification and Risk Assessment**
  - **Systematic Hazard Identification Techniques**: Job Safety Analysis (JSA), Hazard and Operability Study (HAZOP), Failure Mode and Effects Analysis (FMEA).
  - **Quantitative Risk Assessment (QRA)**: Methodologies for evaluating probability and severity.
  - **Risk Control Hierarchy**: Elimination, Substitution, Engineering Controls, Administrative Controls, PPE.
  - **Developing Risk Registers and Matrices**: Tools for managing identified risks.

    - **Contextual Risk Assessment**: Tailoring risk assessments to specific project phases and environments (e.g., working at height, excavations).
- **Module 3: Incident Investigation and Root Cause Analysis**
    - **Purpose of Incident Investigation**: Beyond blame to learning and prevention.
    - **Advanced Investigation Methodologies**: Bow-tie analysis, Swiss Cheese Model, Tripod Beta.
    - **Root Cause Analysis (RCA) Techniques**: 5 Whys, Fishbone (Ishikawa) Diagram, Fault Tree Analysis.
    - **Reporting and Corrective Actions**: Developing effective recommendations and follow-up.
    - **Near Miss Reporting and Analysis**: Leveraging precursors to prevent major incidents.
- **Module 4: Emergency Preparedness and Response**
    - **Developing Comprehensive Emergency Response Plans (ERPs)**: Structure and content.
    - **Identifying Potential Emergencies on Construction Sites**: Fire, structural collapse, medical emergencies, hazardous material spills.
    - **Emergency Drills and Exercises**: Planning, conducting, and evaluating effectiveness.
    - **Roles and Responsibilities in Emergencies**: Incident command system on site.
    - **Crisis Communication Strategies**: Internal and external communication during emergencies.
- **Module 5: Fostering a Proactive Safety Culture**
    - **Defining Safety Culture**: Generative, Calculative, Reactive, Pathological.
    - **Leadership Commitment and Engagement**: Driving safety from the top.
    - **Employee Involvement and Empowerment**: Promoting active participation in safety.
    - **Behavioral Safety Principles**: Understanding human factors and influencing safe behavior.
    - **Safety Communication and Training**: Effective methods for knowledge transfer and awareness.
- **Module 6: SMS Auditing, Performance Measurement, and Continuous Improvement**
    - **Types of SMS Audits**: Internal, external, compliance, performance.
    - **Audit Planning and Execution**: Checklists, interviewing, documentation review.
    - **Non-Conformity Management**: Corrective and preventive actions.
    - **Leading vs. Lagging Indicators**: Proactive vs. reactive safety metrics.
    - **Management Review**: Periodically assessing SMS suitability, adequacy, and effectiveness for continuous improvement.
- **Module 7: Legal, Regulatory, and Contractual Aspects of Safety**
    - **Overview of Occupational Safety and Health (OSH) Legislation**: National and international frameworks (e.g., Kenya's OSHA Act).
    - **Employer and Employee Responsibilities**: Legal obligations.
    - **Contractual Safety Requirements**: Integrating safety clauses into subcontracts and client agreements.
    - **Compliance Monitoring and Enforcement**: Regulatory inspections and penalties.
    - **Legal Liability and Due Diligence**: Understanding implications of safety failures.
- **Module 8: Advanced Integration and Future Trends in Construction SMS**
    - **Digital Transformation in Safety**: Wearable technology, drones, IoT for monitoring.
    - **Building Information Modeling (BIM) for Safety**: Design for safety, clash detection.
    - **Managing Safety Across Complex Supply Chains and Subcontractors**: Communication and oversight.
    - **Psychological Safety and Well-being**: Addressing mental health and stress on site.
    - **Developing a Comprehensive SMS Improvement Plan**: Participants apply learned principles to develop a detailed plan for enhancing the SMS on a complex construction project (e.g., a high-rise building or major road network in Kenya), considering its specific risks and context.

Training Methodology

- **Interactive Workshops:** Facilitated discussions, group exercises, and problem-solving activities.
- **Case Studies:** Real-world examples to illustrate successful community-based surveillance practices.
- **Role-Playing and Simulations:** Practice engaging communities in surveillance activities.
- **Expert Presentations:** Insights from experienced public health professionals and community leaders.
- **Group Projects:** Collaborative development of community surveillance plans.
- **Action Planning:** Development of personalized action plans for implementing community-based surveillance.
- **Digital Tools and Resources:** Utilization of online platforms for collaboration and learning.
- **Peer-to-Peer Learning:** Sharing experiences and insights on community engagement.
- **Post-Training Support:** Access to online forums, mentorship, and continued learning resources.

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

- Participants must be conversant in English.
- Upon completion of training, participants will receive an Authorized Training Certificate.
- The course duration is flexible and can be modified to fit any number of days.
- Course fee includes facilitation, training materials, 2 coffee breaks, buffet lunch, and a Certificate upon successful completion.
- One-year post-training support, consultation, and coaching provided after the course.
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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

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