ADVANCED INTERNATIONAL

CERTIFICATE IN

CONSTRUCTION SAFETY

MANAGEMENT AND ENGINEERING

SPECIALIZED PROFESSIONAL DEVELOPMENT

Construction Safety • Risk Management • Engineering Controls • Compliance • Project Performance

COURSE BROCHURE

Course Overview

The Advanced International Certificate in Construction Safety Management and Engineering is a specialized professional development program designed to equip participants with advanced knowledge and practical skills in construction safety, risk management, and engineering controls. The program focuses on the integration of safety management principles with engineering solutions to prevent accidents, protect workers, ensure regulatory compliance, and enhance project performance throughout the construction lifecycle.

Participants will gain a comprehensive understanding of construction hazards, safety engineering techniques, risk assessment methodologies, occupational health practices, emergency preparedness, and safety leadership. The course incorporates international best practices, industry standards, and real-world case studies applicable to building, infrastructure, industrial, and civil engineering projects.

Course Objectives

- Understand advanced principles of construction safety management and safety engineering.
- Identify, assess, and control hazards associated with construction activities and project environments.
- Develop and implement effective construction safety management systems.
- Apply engineering controls to eliminate or reduce workplace risks.
- Conduct comprehensive risk assessments and job hazard analyses.
- Manage safety requirements for high-risk construction activities.
- Develop emergency response and crisis management plans for construction projects.
- Investigate accidents and incidents using advanced root cause analysis techniques.
- Implement occupational health and worker welfare programs.
- Lead safety initiatives and foster a strong safety culture within construction organizations.
- Ensure compliance with national regulations and international safety standards.
- Utilize modern technologies and digital tools for construction safety monitoring and management.

Target Group

- Construction Project Managers
- Site Managers and Construction Supervisors
- Civil, Structural, and Construction Engineers
- Health, Safety, and Environment (HSE) Managers and Officers
- Safety Engineers and Safety Inspectors
- Contractors and Subcontractors
- Project Engineers and Project Coordinators
- Quantity Surveyors and Construction Consultants
- Government and Regulatory Inspectors
- Infrastructure and Industrial Project Personnel
- Facility and Asset Management Professionals
- Individuals seeking advanced expertise in construction safety management and engineering

Certification Award

Participants who successfully complete the program requirements will be awarded the ABIOSH UK Advanced International Certificate in Construction Safety Management and Engineering.

ADVANCED COMPETENCE

The award recognizes advanced competence in managing construction safety systems, applying safety engineering principles, and leading health, safety, and risk management initiatives in construction and engineering projects worldwide.

COURSE MODULES

MODULE 1: BEFORE THE WORK COMMENCES

1	Introduction to Construction Safety
2	Incident Causation
3	Worker Injury Costs in Construction
4	Insurance and Risk Management Programs

COURSE MODULES

MODULE 2: SAFETY PROCESS KEY COMPONENTS

1	Construction Safety and Health Through Design
2	Substance-Abuse Programs for Construction Sites

3	Safety Incentives
4	Pre-job and Pre-task Planning
5	Incident Investigation
6	Safety Training

MODULE 3A: LEGAL ASPECTS

1	Multiemployer Work-Site Issues
2	Managing Subcontractor Liability
3	Regulatory Requirements

COURSE MODULES

MODULE 3B: TECHNICAL ISSUES IN CONSTRUCTION

1	Fall Protection: Compliance and Solutions

2 Steel Erection

3 Scaffolding Safety

4 Ladders

5 Crane Safety

6 Electrical Safety

7 Excavation, Trenching, and Shoring

8 Power-Line Safety

9 Management of Environmental Impacts

10 Demolition

11 Concrete

12 Confined Spaces

13 Industrial Hygiene Issues in Construction

MODULE 4: OTHER CONSIDERATIONS

1. Ergonomics in Construction
2. Work-Zone Safety/Traffic Control
3. Construction Safety in Healthcare Facilities
4. MSHA Considerations for Contractors
5. Managing and Communicating in a Crisis
6. Construction Safety and Health Certifications
7. Partnerships and Alliances
8. Safety and Health Issues in Construction—Not for Women Only
9. Safety and Your Spanish-Speaking Workforce
10. Safety Issues in the Future

REFERENCE

Construction Safety Management and Engineering, Second Edition — Darryl C. Hill, Ph.D., CSP

MODULE 5: SAFETY IN CONSTRUCTION

1	Introduction
2	Changes in the industry
3	Industry trends and challenges; involvement in safety
4	Risks of using contracted services
5	Compliance expectations
6	Who pays
7	Establishing a safety program
8	Planning
9	Cost of a safety program
10	Cost of not having a safety program
11	Legal requirements

MODULE 6: SAFETY PROGRAMS

1. Introduction
2. Due diligence
3. Documenting the safety program
4. Responsibility and accountability
5. Reinforcement (discipline)
6. Inspections
7. Training
8. Accident reporting and investigations
9. Housekeeping
10. Substance abuse program
11. Emergency procedures

MODULE 7: SAFETY IN THE CONSTRUCTION PROCESS

1. Introduction
2. Engineering and design phase (Step I)
3. Procurement/contracting phase (Step II)
4. Work/construction phase (Step III)

COURSE MODULES

MODULE 8A: ROLES AND RESPONSIBILITIES

1. Introduction
2. How is a safe job established?
3. Safety management
4. The client
5. Architects and design engineers

6	Project and field engineers
7	Construction manager
8	General contractor
9	Subcontractors
10	Craftsmen

MODULE 8B: PLAN AND DESIGN FOR CONSTRUCTABILITY AND SAFE OPERATIONS

1	Introduction
2	Project safety planning
3	Project design considerations
4	Constructability reviews
5	Contractor work evaluation

MODULE 9: INSURANCE — DEMYSTIFIED

1. Introduction
2. What is insurance?
3. Comprehensive general liability
4. Independent contractor's protective liability
5. Workers' compensation
6. Wrap-up insurance programs

COURSE MODULES

MODULE 10: SAFETY IN CONSTRUCTION CONTRACTS

1. Introduction
2. The contract

3	Safety clauses
4	Objectivity and specificity

MODULE 11: CONTRACTOR SELECTION

1	Introduction
2	Contractor screening
3	Safety as a technical selection criterion
4	Request for proposal and the pre-bid meeting
5	Evaluation criteria for contractor selection

COURSE MODULES

MODULE 12: PREPARING FOR CONTRACTOR MOBILIZATION

1	Introduction

2	Safety program documentation
3	Job site manager’s preparation for mobilization

MODULE 13: ROLE OF THE FIELD ENGINEER

1	Introduction
2	Role of the field engineer
3	Work release meeting
4	Equipment inspections
5	Tool inspections
6	Job site monitoring
7	Inspections
8	Enforcement
9	Accident investigation and reporting

10	Progress meetings
11	Work safety file

MODULE 14: PROCEDURES AND PERMITS

1	Introduction
2	Procedures
3	Permits
4	Types of permits

COURSE MODULES

MODULE 15: EVALUATION OF SAFETY PROGRAM EFFECTIVENESS

1	Introduction

2 Evaluating safety program effectiveness

3 Frequency of evaluations and audits

4 What should be done with evaluation results?

MODULE 16: SAFETY STATISTICS AND REPORTS

1 Introduction

2 What should be reported?

3 Collecting safety information

4 Safety report

COURSE MODULES

MODULE 17: EMERGENCY AND CRISIS MANAGEMENT

1 Introduction

2	What is emergency management?
3	Developing an emergency management plan
4	Emergency management plan documentation
5	Managing an emergency
6	Controlling the message
7	Communicating with the media

MODULE 18: CONTRACT CLOSEOUT

1	Contract closeout documentation and transfer of responsibility

REFERENCE

Construction Site Safety: A Guide for Managing Contractors — Richard D. Hislop

Advanced Construction Safety Capability

The programme develops integrated competence in construction safety management, engineering controls, legal and technical requirements, contractor management, safety programmes, planning, permits, statistics, emergency management, and contract closeout.

CORE LEARNING THEMES

Safety engineering • Hazard control • Contractor management • Legal compliance • Construction processes • Emergency management • Safety leadership

Qualification

ADVANCED INTERNATIONAL CERTIFICATE IN CONSTRUCTION SAFETY MANAGEMENT AND ENGINEERING

Awarded to participants who successfully complete the programme requirements.

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