COURSE BROCHURE

Working at Height and Safe Lifting Operations

A practical course on two of the highest-risk activities on construction and maintenance sites, covering access equipment, fall protection, lift planning and rigging load calculations.

Code	HT-HSE-114
Category	Health, Safety & Environment
Duration	1 week
Level	Intermediate
City	Dubai

Introduction

Falls from height and dropped loads are leading causes of fatalities on construction and maintenance sites, and the two hazards often meet in a single task. The same causes recur: the wrong means of access, a weak anchor point, or a lift carried out with no plan.

Objectives

- Apply the work at height hierarchy: avoid, prevent the fall, then mitigate its effect
- Select suitable access equipment for a task and check it before use
- Specify a personal fall protection system and calculate fall clearance
- Prepare a lift plan covering load weight, center of gravity, radius and crane capacity
- Select and inspect rigging and calculate sling tension for the sling angle

Who should attend

- Construction and maintenance supervisors
- Lifting supervisors and scaffold inspectors
- Health and safety engineers and officers
- Site engineers and permit issuers

Skills you will develop

- Work at height risk assessment
- Fall protection equipment inspection
- Lift planning
- Rigging load calculation

Learning Outcomes

- Justify the choice between a scaffold, an elevating platform and a ladder for a given task
- Calculate the clearance required below a worker using an energy-absorbing lanyard
- Read a mobile crane load chart at a given radius and boom length
- Determine the working load limit required for a four-leg sling at a known angle

Course Outline

Day 1: Work at Height Hazards and Controls

- The hierarchy of controls, and collective protection before personal protection

- Edge protection, openings and fragile roofs, and task risk assessment
- Preventing dropped objects: tool lanyards, debris netting and exclusion zones below the work

Day 2: Means of Access

- Scaffolds: components, the tagging system and what the user checks before climbing
- Portable ladders: limits of use, positioning and securing
- Mobile elevating work platforms (MEWPs), scissor and boom types, and overturning and entrapment risks

Day 3: Personal Fall Protection Systems

- Fall restraint versus fall arrest and when each applies
- Full body harness, energy-absorbing lanyards, self-retracting lifelines, anchor points and horizontal lifelines
- Fall clearance calculation, swing fall, suspension trauma and the rescue plan for a suspended worker

Day 4: Planning Lifting Operations

- Routine, non-routine and critical lifts and the content of a lift plan
- Load weight, center of gravity, reading the load chart, radius and ground bearing under outriggers
- The roles of lifting supervisor, crane operator, rigger and signaller

Day 5: Rigging and Carrying Out the Lift

- Wire rope, chain and synthetic slings and shackles, pre-use inspection and color coding
- How sling angle affects tension, and calculating the working load limit needed per leg
- Applied workshop in which each team prepares a lift plan for replacing a heat exchanger bundle, with a work at height plan and suspended-worker rescue plan

Training methodology

Calculation exercises on fall clearance and sling leg tension
Reading mobile crane load charts and selecting a crane for a given case
Hands-on inspection of sound and damaged harnesses, slings and shackles
Analysis of site photographs and video clips to spot unsafe conditions

Certification

Participants receive a Harbor Training Center certificate of attendance on completing the course.

Upcoming dates

City	Dates	Language	Fee
Dubai	18 – 22 January 2027	EN	EUR 4,800
Dubai	19 – 23 July 2027	AR	EUR 4,800

Fees are per participant.

Contact us

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To register and for details, scan the code or visit:

https://harbor4training.com/en/courses/working-at-height-lifting