COURSE OVERVIEW HE0564
Laboratory Safety Management and Health Protection Aspect of OSHA Standards

Course Title
Laboratory Safety Management and Health Protection Aspect of OSHA Standards

Course Date/Venue
Session 1: May 26-30, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE
Session 2: November 16-20, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Reference
HE0564

Course Duration/Credits
Five days/3.0 CEUs/30 PDHs

Course Description

This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

This course is designed to provide participants with a detailed and up-to-date overview of Laboratory Safety Management and Health Protection Aspect of OSHA Standards. It covers the OSHA standards, workplace hazards and chemical hygiene plans; the personal protective equipment (PPE) in laboratories, laboratory safety design and engineering controls; the laboratory incident management, hazardous chemicals management and emergency preparedness for chemical spills; the hazardous waste management, fire safety in laboratories and biological and infectious material safety; and the exposure monitoring and medical surveillance, laboratory safety training and hazard communication (HAZCOM) standards.

During this interactive course, participants will learn the risk assessment and hazard analysis, laboratory inspections and audits; the proper documentation, recordkeeping, leadership and safety culture; handling compressed gases and the radiation safety and electrical safety in laboratories; the ergonomics in laboratory settings, cryogenics and low-temperature safety and nanomaterial safety; the emergency action plans, first aid and medical response; the comprehensive laboratory safety program and OSHA compliance and enforcement; the continuous improvement in laboratory safety; and the safety performance evaluations.

Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Apply and gain a comprehensive knowledge on laboratory safety management and health protection aspect of OSHA standards
- Discuss OSHA standards for laboratories, workplace hazards and chemical hygiene plans
- Use personal protective equipment (PPE) in laboratories and apply laboratory safety design and engineering controls
- Carryout laboratory incident management, hazardous chemicals management and emergency preparedness for chemical spills
- Apply hazardous waste management, fire safety in laboratories and biological and infectious material safety
- Employ exposure monitoring and medical surveillance, laboratory safety training and hazard communication (HAZCOM) standards
- Implement risk assessment and hazard analysis including laboratory inspections and audits
- Prepare proper documentation and recordkeeping and apply leadership and safety culture
- Handle compressed gases and apply radiation safety and electrical safety in laboratories
- Implement ergonomics in laboratory settings, cryogenics and low-temperature safety and nanomaterial safety
- Apply emergency action plans, first aid and medical response
- Create a comprehensive laboratory safety program and apply OSHA compliance and enforcement
- Carryout continuous improvement in laboratory safety and conduct safety performance evaluations

Exclusive Smart Training Kit - H-STK®

*Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK®**). The **H-STK®** consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

Who Should Attend

This course provides a basic overview of all significant aspects and considerations of laboratory managers and supervisors for laboratory technicians and researchers, safety officers or EHS (environmental health and safety) personnel, facility managers, chemical hygiene officers (CHOs), industrial hygienists, training coordinators, new employees or interns, principal investigators (PIs), maintenance and custodial staff, students in academic laboratories, emergency response teams, quality assurance/quality control (QA/QC) personnel, procurement and supply chain staff, human resources (HR) personnel and other technical staff.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations: -

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

- The International Accreditors for Continuing Education and Training (IACET - USA)

  Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

  Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

  Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:

Dr. Rawda El-Sheikh, MD, MSc, BSc, is a **Certified OSHA Instructor** and a **Senior Health**, **Safety & Environment (HSE) Consultant** with over **20 years** of extensive experience. She is well-versed in the areas of **Occupational Health** and **Safety**, **OSHA**, **Food Safety Management**, **Food Hygiene**, **Industrial Hygiene**, **Oilfield Safety** Programs, **HAZCOM**, **HAZOP**, **HAZWOPER**, **Occupational Exposure Limits**, **Hazardous Waste Management**, **Emergency Response** Planning, **First Aid**, Associate Ergonomic Professional (**AEP**), **Ergonomic Interventions**, **Incident** & **Accident Investigation** & **Reporting**, Defensive Driving Program, **Confined Spaces** Program, **H2S Awareness**, Biological Monitoring, Air Sampling, **Risk Assessment**, **Job Safety Analysis** (**JSA**), **Scaffolding** Safety, Toxicology Surveillance, Hearing Conservation Program, **Fire Prevention** and **Control**, Nutrition Promotion, Assessment of Fitness of Workers for Work, Disability Compensation, Drug Abuse Cessation, Obesity Management, Pre-employment Medical, Periodic Medical Examination and **Quality Management**. Presently, she is the **Professor** in **Public Health** & **Industrial Medicine** of **Al-Azhar University** and a **Certified Consultant** and a **Registered Trainer** for **Food Safety** and **Occupational Health & Safety Trainer** of various International oilfield companies.

Dr. El-Sheikh is a **Certified Lead Auditor** for **ISO 22000:2005**, **OHSAS 18001:2007**, **ISO 14001:2004** from the International Registered of Certified Auditors (**IRCA**, **UK**), **Certified Safety Manager/Trainer**, **HAZWOPER Training Specialist** (**HTS**) and **Safety Planning Specialist** from the National Association of Safety Professional (**NASP**, **USA**) as well as a **NEBOSH Certified** in **International General Certificate in Occupational Safety and Health**, a **Registered Food Safety Trainer** from the National Environmental Health Association (**NEHA**, **USA**) and **Authorized OSHA Trainer** for **Construction** and for **General Safety** from the **OSHA Training Institute**, **USA**. She is also an **International Member** and an **Authorized & Approved Trainer** of **OSHA**, **NEBOSH**, **CIEH**, **ICOH**, **IASP**, **IEMA**, **IOSH** and **APHA**. Further, her vast professional experience includes facilitating **occupational**, **health**, **safety** and the **environment** aspects and continuous delivery of numerous training courses in coordination between World Health Organization (**WHO**) and Ministry of Health & Population. She has been the **Lecturer** in Public Health & Industrial Medicine and **Demonstrator** of Occupational Health & Industrial Medicine for various Universities as well as the **Public Health Trainer** for International Non-Governmental Organizations (**NGOs**), the **Consulting Editor** at **the Journal of Psychology** (**USA**) and **Field & Central Supervisor** for the Ministry of Health.

Dr. El-Sheikh has a **Doctor of Medicine** (**MD**) in **Occupational Health & Industrial Medicine**, has a **Master** degree in **Occupational Medicine** (**MSc**), a **Bachelor** degree in **Medicine & Surgery** (**MBBCh**) and a **Diploma Certificate** in **Total Quality Management** from the **American University**. Further, she is a **Certified Instructor/Trainer**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management** (**ILM**), an **Approved Food Safety Person in Charge (Level 1-4)** by **Dubai Municipality** (**DM**) and has participated in various international conferences and **published numerous papers** and **journals** globally.

Course Fee

US$ 5,500 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

30% Lectures
20% Practical Workshops & Work Presentations
30% Hands-on Practical Exercises & Case Studies
20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	*PRE-TEST*
0830 – 0930	***Introduction to OSHA Standards for Laboratories*** *Overview of OSHA's Mission & Objectives • Key OSHA Standards Applicable to Laboratories (29 CFR 1910 Subpart Z) • Importance of Compliance with OSHA in Laboratory Environments • The Role of Laboratory Management in Ensuring Safety*
0930 – 0945	*Break*
0945 – 1040	***Recognizing Workplace Hazards*** *Hazard Communication & Labeling Requirements (HazCom) • Identifying Physical, Chemical, & Biological Hazards • Understanding Hazard Classes & Categories • Role of Safety Data Sheets (SDS) in Hazard Identification*
1040 – 1135	***Chemical Hygiene Plans (CHP)*** *Purpose of a Chemical Hygiene Plan • Key Components of an Effective CHP • Responsibilities of the Chemical Hygiene Officer (CHO) • Best Practices for Implementing a CHP*
1135 - 1230	***Personal Protective Equipment (PPE) in Laboratories*** *Types of PPE & Selection Criteria • Proper Use & Maintenance of PPE • Assessing PPE Effectiveness for Various Lab Operations • OSHA Requirements for PPE Use & Training*

1230 - 1245	*Break*
1245 – 1335	***Laboratory Safety Design & Engineering Controls*** *Importance of Ventilation Systems (e.g., Fume Hoods) • Emergency Equipment & Exit Routes • Ergonomic Considerations in Lab Design • Maintenance of Safety Equipment*
1335 - 1420	***Laboratory Incident Management*** *Common Laboratory Accidents & Their Causes • Steps for Immediate Response to Incidents • Incident Reporting & Documentation • Role of Root Cause Analysis in Prevention*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day One*

Day 2

0730 – 0830	***Hazardous Chemicals Management*** *OSHA Standards for Handling Hazardous Chemicals • Chemical Storage Best Practices • Segregation & Labeling of Chemicals • Chemical Compatibility & Risk Assessment*
0830 - 0930	***Emergency Preparedness for Chemical Spills*** *Steps for Spill Prevention & Control • Spill Response Kits & Their Components • Procedures for Handling Small versus Large Spills • Role of Emergency Response Teams*
0930 – 0945	*Break*
0945 – 1040	***Hazardous Waste Management*** *OSHA & EPA Regulations on Hazardous Waste • Waste Characterization & Segregation • Proper Disposal Methods for Laboratory Waste • Documentation & Recordkeeping for Waste Management*
1040 – 1135	***Fire Safety in Laboratories*** *Fire Hazards Specific to Laboratories • Proper Storage & Handling of Flammable Materials • Fire Suppression Systems & Fire Extinguishers • Laboratory-Specific Fire Evacuation Plans*
1135 - 1230	***Biological & Infectious Material Safety*** *OSHA's Bloodborne Pathogens Standard • Handling & Disposal of Biological Materials • Biosafety Levels & Containment Practices • Vaccination & Exposure Control for Lab Workers*
1230 - 1245	*Break*
1245 - 1420	***Exposure Monitoring & Medical Surveillance*** *Importance of Exposure Monitoring for Hazardous Substances • Techniques for Air Sampling & Personal Monitoring • OSHA Requirements for Medical Surveillance Programs • Procedures for Follow-Up After Exposure Incidents*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Two*

Day 3

0730 – 0830	***Laboratory Safety Training*** *OSHA Requirements for Employee Safety Training • Developing Training Programs for Lab Personnel • Periodic Refresher Training & Evaluations • Training Documentation & Recordkeeping*
0830 – 0930	***Hazard Communication (HAZCOM) Standards*** *OSHA's Right-to-Know Law • Developing a Written HAZCOM Program • Labeling Systems for Secondary Containers • Employee Rights & Responsibilities Under HAZCOM*
0930 – 0945	*Break*
0945 – 1040	***Risk Assessment & Hazard Analysis*** *Conducting Job Hazard Analysis (JHA) • Developing Standard Operating Procedures (SOPs) • Risk Matrix & Prioritization • Ongoing Hazard Reviews & Audits*
1040 – 1135	***Laboratory Inspections & Audits*** *Scheduling & Conducting Regular Lab Inspections • Checklist Development for Audits • Corrective Actions for Identified Issues • OSHA Inspection Protocols & Rights*
1135 - 1230	***Documentation & Recordkeeping*** *OSHA's Requirements for Maintaining Records • Incident Logs & Injury Reports • Chemical Inventory Management Systems • Confidentiality & Accessibility of Safety Records*
1230 - 1245	*Break*
1245 - 1420	***Leadership & Safety Culture*** *Building a Culture of Safety in the Workplace • Encouraging Employee Participation in Safety Programs • Role of Leadership in Safety Management • Continuous Improvement & Feedback Mechanisms*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Three*

Day 4

0730 – 0830	***Handling Compressed Gases*** *Safe Handling & Storage of Gas Cylinders • Common Hazards of Compressed Gases • Cylinder Labeling & Securing Methods • Leak Detection & Emergency Procedures*
0830 - 0930	***Radiation Safety*** *OSHA's Ionizing & Non-Ionizing Radiation Standards • Safe Handling of Radioactive Materials • Radiation Shielding & Monitoring Techniques • Regulatory Compliance for Radiation Use*
0930 – 0945	*Break*
0945 – 1040	***Electrical Safety in Laboratories*** *Identifying Electrical Hazards • Lockout/Tagout (LOTO) Procedures for Equipment • Safe Use of Electrical Equipment & Extension Cords • Conducting Electrical Safety Training*
1040 – 1135	***Ergonomics in Laboratory Settings*** *Identifying Ergonomic Risks in Laboratories • Adjusting Workstation Setups for Comfort & Safety • Tools & Equipment to Reduce Ergonomic Strain • Preventing Repetitive Motion Injuries*

1135 - 1230	***Cryogenics & Low-Temperature Safety*** *Handling & Storing Cryogenic Liquids • Hazards of Extremely Low Temperatures • PPE Requirements for Cryogenic Work • Emergency Response to Cryogenic Burns or Spills*
1230 - 1245	*Break*
1245 - 1420	***Nanomaterial Safety*** *Understanding Unique Risks of Nanomaterials • Proper Handling & Containment Practices • Health Monitoring for Exposure to Nanomaterials • Regulatory Considerations for Nanotechnology Use*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Four*

Day 5

0730 – 0830	***Emergency Action Plans (EAPs)*** *Key Components of a Laboratory-Specific EAP • Emergency Drills & Training Exercises • Communicating EAPs to Employees & Visitors • Continuous Review & Updates to EAPs*
0830 - 0930	***First Aid & Medical Response*** *OSHA's First Aid Requirements for Laboratories • Training Employees in Basic First Aid • Proper Response to Chemical Burns, Exposure, or Injuries • Role of First Responders & Communication with Emergency Services*
0930 – 0945	*Break*
0945 – 1100	***Creating a Comprehensive Laboratory Safety Program*** *Integrating OSHA Standards into Laboratory Operations • Developing Policies & Procedures for Safety • Employee Involvement in Safety Initiatives • Measuring Program Success Through Metrics & KPIs*
1100 – 1245	***OSHA Compliance & Enforcement*** *Preparing for OSHA Inspections • Understanding Penalties & Citations • Steps for Resolving Non-Compliance Issues • Benefits of Proactive Compliance Efforts*
1245 – 1300	*Break*
1300 – 1345	***Continuous Improvement in Laboratory Safety*** *Conducting Safety Performance Evaluations • Implementing Feedback Mechanisms for Employees • Adopting Industry Best Practices • Staying Updated on OSHA Standard Revisions*
1345 – 1400	***Course Conclusion*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course*
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-

Course Coordinator

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