

Health Safety & Environment



Welcome Letter

Welcome to TechnoTrain! We are proud to be recognized by The Daily Telegraph for our innovative approach to training and development. TechnoTrain is UniHouse's professional training brand, created specifically to build strong, skilled, and safe workforces within the oil and gas industry.

With over 25 years of experience, we have partnered with leading companies worldwide, including BP, Shell, Hyundai Engineering, JGC Japan, Shimizu Japan, Gazprom, PetroChina, Lukoil, SONANGOL, and UNDP. Our expertise in engineering, management, and oil and gas enables us to deliver comprehensive training solutions tailored to support the success and growth of companies across this critical industry.

TechnoTrain's programs cover all essential areas for a successful career, from technical skills to essential soft skills, addressing all major oil and gas competencies. Our team of trainers comprises seasoned professionals from various backgrounds and nationalities, enriching each course with a diverse wealth of knowledge.

We proudly partner with some of the world's top learning and research centers in the UK, the US, and Canada. Our training facilities are equipped with the latest technology, allowing participants to learn and practice on state-of-the-art industry equipment.

At UniHouse, we prioritize customer satisfaction, welcoming every client as part of our family. We are committed to offering customized programs, whether for a small group or hundreds of employees, no matter where in the world you are located. TechnoTrain provides individual courses or complete training programs to help clients achieve their goals.

What We Offer

TechnoTrain's globally accredited programs are trusted in over eighty countries and support career growth across numerous industries. Our services include:

- Curriculum Design & Development
- Training & Capacity Building
- Framework Design for Training and Quality Assurance
- Technical Knowledge Transfer
- Managing Technical Training Centers
- Vocational Training & Competency Building
- Engineering Standards Training
- On-the-Job Training

Our courses cover areas like Power, Upstream & Downstream, Mechanical, Supply Chain, Health & Safety, and Soft Skills, addressing the needs of technical staff and management alike. TechnoTrain is more than just training; it is a pathway to success for every level within the oil and gas sector.

Join us at TechnoTrain to take the next step toward a successful and sustainable future in the oil and gas industry.

Sincerely,

The UniHouse Team





These courses have been designed for participants at various competency levels:
Basic – Intermediate – Advanced.

The course descriptions and content will help training managers to determine which courses to select to set-up training plans for new staff to develop their knowledge and skills, and for veteran staff to build upon their competencies.

Section Courses

1. Environmental Management
2. Incident Management
3. Industrial Hygiene



Environmental Management

UHSEG001



This course aims to enable the participants in developing their knowledge and skills in environmental management. This covers management of hazardous materials, and hazardous waste, in industrial and industrial settings.

This course is designed for environment unit managers and HSE officers.

Course Objectives:

At the end of this course the participants will be able to:

- Understand a general overview for hazardous materials.
- Develop employee training for hazard communication and chemical hygiene plans.
- Explain radioactive materials, and how to minimize waste.
- Demonstrate knowledge of DOT hazardous material requirements, including all aspects.
- Correctly classify hazardous waste according to RCRA regulations.

Couse Content:

- OSHA regulations and standards
- EPA regulations and standards
- DOT regulations
- Radioactive materials

Related Courses:

- Incident Management
- Industrial Hygiene

Duration
6 Days

Level
Intermediate

Programme Schedule

Day 1

Introduction to Hazardous Material Regulations

1. Federal rule-making and the CFR
2. OSHA regulations
3. EPA regulations
4. DOT regulations
5. State/local regulations
6. NRC regulations

Day 2

OSHA Regulations and Standards

1. Toxic and hazardous substances
2. Hazard communication
3. HAZWOPER
4. Hazardous materials (29CFR 1910 Subpart H)
5. Process safety management

Day 3

EPA Regulations and Standards for Hazardous Wastes

1. RCRA requirements for generators
2. RCRA requirements for transporters
3. RCRA requirements for TSD facilities
4. NC DEHNR regulations

Day 4

DOT Regulations

1. Identification and regulations
2. Hazardous materials table (HMT)
3. Packaging and labelling
4. Carrier requirements
5. Accident reporting

Day 5

Radioactive Materials

1. Handling radioactive materials' packages
2. DOT CFR Title 49 requirements
3. DOL (Dept. of Labor) Title 29
4. Permissible exposures and elvels
5. Precautionary procedures
6. DOE Title 10 requirments
7. Waste disposal

Day 6

Topics in Environmental Management

1. Waste minimization
2. Bio-hazardous waste
3. Training plans

Incident Management

UHSEG002



This course aims to enable participants in developing their knowledge and skills in the management of hazardous materials and incidents. This includes an overview and application of different types of regulations and policies.

This course is designed for security and safety officers, and HSE officers.

Course Objectives:

At the end of this course the participants will be able to:

- Select and use appropriate personal protective equipment for hazardous material incidents.
- Apply basic hazard and risk assessment techniques.
- Understand basic hazardous material terms and labelling conventions.
- Formulate an emergency response plan.
- Identify unknown materials by using survey instruments.
- Implement an appropriate incident command system.
- Understand chemical, radiological, and toxicological terminology and behaviour.
- Implement decontamination procedures during hazardous waste operations.
- Respond to laboratory and other small chemical spills.

Course Content:

- OSHA regulations and standards
- EPA regulations and standards
- DOR regulations
- Radioactive materials

Related Courses:

- Environmental Management
- Industrial Hygiene

Duration
6 Days

Level
Intermediate

Programme Schedule

Day 1

Hazardous Waste Operation Regulations

1. Training requirements
2. HAZWOPER occupational safety and health programs
3. Medical surveillance programs
4. Site safety and health plans
5. Emergency response plans
6. Environmental requirements: illumination and sanitation
7. Hazard communication standards
8. Lockout/tag-out procedures
9. Construction and other applicable standards

Day 2

Health Hazards

1. Exposure to chemical, biological, and radiological hazards
2. Principles of toxicology
3. Fundamentals of chemical hazards
4. Fire and explosion hazards of chemicals
5. General safety hazards at hazardous waste sites

Day 3

Personal Protection

1. Selection and maintenance of personal protective equipment
2. Respirator programs
3. Protection levels (A, B, C)
4. Decontamination procedures
5. Donning and doffing procedures
6. Hazard coding systems

Day 4

Safety Procedures at Hazardous Waste Sites

1. Confined space entry procedures
2. Container sampling procedures and safety measures
3. Spill control
4. Use of material-handling equipment
5. Shipping and transport of hazardous waste

Day 5

Site Control

1. Site preparation
2. Site work zones
3. The buddy system
4. Communication

Day 6

Hazardous Material Incidents

1. Classification of hazardous materials
2. Placarding
3. Special hazards of chemical incidents
4. Shipping configurations
5. Incident command system
6. Control zones
7. Resources for emergency responders

Industrial Hygiene

UHSCEG003



This course aims to enable participants in developing their knowledge in industrial hygiene. This course emphasizes the recognition, evaluation, and control of occupational health hazards.

This course is designed for health officers and HSE officers.

Course Objectives:

At the end of this course the participants will be able to:

- Understand the basic principles of toxicology.
- Evaluate the potential of chemical agents to produce dermatitis.
- Understand the potential hazards of industrial dusts, mists, and fumes.
- Understand the principles of personal air sampling.
- Evaluate compliance with OSHA and ACGIH standards.
- Select appropriate ventilation systems and respiratory protection for a particular hazard.
- Implement an OSHA-mandated hearing conservation program.
- Assist in the performance of an indoor air quality investigation.

Course content:

- Toxicology basics
- Occupational skin diseases
- Respiratory hazards
- Confined space standards
- Occupational noise exposure
- Temperature stress
- Industrial hygiene evaluation
- Control of airborne hazards

Related Courses:

- Environment Management
- Industrial Hygiene

Duration

7 Days

Level

Intermediate

Programme Schedule

Day 1

Toxicology Basics

1. Classes
2. Measuring
3. Kinetics

Day 2

Respiratory Hazards and Protection

1. Respiratory system
2. Particle deposition mechanisms
3. Occupational asthma
4. Hazards of gases and vapours
5. Types of respirators
6. Selection and programs

Day 3

Industrial Hygiene Evaluation: Air Monitoring

1. Air contaminants
2. OSHA and ACGIH
3. Area vs. personal sampling
4. Analytical methods
5. Direct-reading

Day 4

Control of Airborne Hazards: Ventilation

1. Ventilation systems
2. Components
3. Types of hoods
4. Air cleaners, fans, and stacks

Day 5

Confined Space Standards

1. Definitions
2. Examples
3. Written program elements
4. Duties of defined individuals
5. Rescue

Day 6

Occupational Noise Exposure

1. Anatomy of the ear
2. Physics and measurement of sound
3. Standards and hearing conservation programs
4. Control of occupational noise hazards

Day 7

Temperature Stress

1. Illnesses and control of body temperature
2. Evaluating heat and cold stress
3. Exposure standards



The courses in this section lead participants to gain the international certificates of IOSH. They provide an overview of all aspects in each domain.

The course descriptions and content will help training managers to determine which courses to select to set-up training plans for staff members to build upon their knowledge and skills.

Section Courses

1. IOSH Managing Safely
2. IOSH Working Safely



Managing Safely

UHSEI001



This course aims to enable participants in developing their skills, to achieve managing in a safe manner at their job environments. This course offers a broad knowledge of safety issues, and will help them understand and manage risk effectively in their organizations.

This course is designed for health and safety workers, or those who wish to develop a career in safety management; including managers, supervisors, and operational staff from all types of organization.

Course Objectives:

At the end of this course the participants will be able to:

- Have a balanced perspective of safety and health issues in the workplace.
- Define hazards and risks.
- Identify and assess risks.
- Understand the reasons for, and the importance of, investigating accidents.
- Describe the workplace precaution hierarchies.
- Know the basics of investigating accidents.
- Know how to protect the environment.

Course Content:

- Managing safely modules
- Examination
- Workplace-based assignment

Related Courses:

- IOSH Working Safely

Duration
6 Days

Level
Basic

Programme Schedule

The Eight Managing Safely Modules

1. (M1): Introducing managing safely
2. (M2): Assessing risks
3. (M3): Controlling risks
4. (M4): Understanding your responsibilities
5. (M5): Identifying hazards
6. (M6): Investigating incidents and accidents
7. (M7): Measuring performance
8. (M8): Protecting the environment

Examination

Participants are required to complete 30 multiple choice exam questions, with a minimum passing level of 20 correct marks.

Workplace-Based Assignment

Once the exam has been completed, participants will complete the workplace-based assignment, which consists of producing a basic risk assessment.

Working Safely

UHSEI002



This course aims to enable participants in developing their knowledge to work in a safe manner at their job environments, and ensure that they and others are kept safe. This course sets the bar for those wanting to progress further in health and safety as a career.

This course is designed for health and safety workers, or those who wish to develop a career in safety management.

Course Objectives:

At the end of this course the participants will be able to:

- Have basic knowledge of health and safety.
- Understand why they must work safely.
- Explain why health and safety is important.
- Understand the differences between hazards and risks.

Course Content:

- Working safely modules
- Examination
- Hazard spotting assignment

Related Courses:

- IOSH Managing Safely

Duration
2 Days

Level
Basic

Programme Schedule

The Five Working Safely Modules

1. (M1): Introducing working safely
2. (M2): Defining hazard and risk
3. (M3): Identify common hazards
4. (M4): Protecting our environment
5. (M5): Improving safety performance

Examination

Participants are required to complete 33 multiple-choice questions, with a minimum passing level of 20 correct marks (60%).

Hazard Spotting Assignment

Once the exam has been completed, participants have four scenarios in which they must provide responses to three questions within each scenario. They must score a minimum of 10 of 12 marks available (83%) to pass.

Marks to Gain this Qualification

Students must pass the minimum level of correct marks in both the examination and hazard spotting assignment to achieve this qualification.



The courses in this section lead participants to gain NEBOSH international certificates. They provide an overview of all aspects in each domain.

The course overview will help training managers to determine the appropriate courses to set-up training plans for staff to build upon existing knowledge and skills.

Section Courses

1. International Certificate in Construction Safety & Health
2. International Certificate in Fire Safety and Risk Management
3. International Technical Certificate in Oil and Gas Occupational Safety
4. International Certificate in Occupational Safety and Health Management



International Certificate in Construction Safety & Health

UHSEN001



This course aims to develop the knowledge of participants in the health and safety field within a construction environment. This course provides the tools necessary to improve the essential skills in this field. These highly sought-after skills will become a great asset to the participants and their employers.

This course is designed for supervisors, managers, and engineers.

Course Objectives:

At the end of this course the participants will be able to:

- Identify the international standards for health and safety at work.
- Understand the implementation of health and safety management systems.
- Identify workplace hazards.
- Know the methods of risk control within the construction industry.
- Complete a practical application of knowledge and understanding.

Course Content:

- Management of health and safety
- Management of construction health and safety
- Health and safety practical application

Related Courses:

- NEBOSH HSE Oil & Gas

Duration
10 Days

Level
Basic

Programme Schedule

Management of Health and Safety (IGC1)

1. Foundations of health and safety
2. Plan
3. Do
4. Check
5. Act

Management of Health and Safety (IGC1)

1. Construction management
2. Hazards and control of:
 - Construction activities
 - Movement of people and vehicles
 - Manual and mechanical handling
 - Work equipment
 - Electrical
 - Fire
 - Chemical and biological health
 - Physical and psychological health
 - Working at height
 - Excavation work and confined spaces
 - Demolition

Health and Safety Practical Application (ICC2)

1. Students will learn to conduct a fire safety inspection of a workplace (unaided) and identify the hazards, control systems, and suggest appropriate cost-effective fire safety control measures where necessary.
2. Students will prepare a persuasive report that urges management to employ appropriate action and explain why these actions are needed. The report must demonstrate a candidates' mindfulness of reasonable and practical control measures, which should be implemented.

International Certificate in Fire Safety and Risk Management

UHSEN002



This course aims to develop the knowledge of participants in fire safety and managing risks, to enable them in discharging more effectively their organisational duties or functions with respect to workplace safety.

This course is designed for supervisors, managers and engineers.

Course Objectives:

At the end of this course the participants will be able to:

- Know the legal requirements for health and safety at work.
- Implement health and safety management systems and fire management safety.
- Identify workplace fire hazards.
- Know the methods of fire hazard control.
- Complete a practical application of knowledge and understanding via a fire risk assessment.

Course Content:

- Management of health and safety
- Management of fire
- Practical fire risk assessment

Related Courses:

- NEBOSH HSE

Duration
10 Days

Level
Basic

Programme Schedule

Management of Health and Safety (IGC1)

1. Foundations in health and safety
2. Plan
3. Do
4. Check
5. Act

Management of Fire (IFC1)

1. Managing fire safety
2. Principles of fire and explosion
3. Causes and prevention of fire and explosions
4. Fire protection in buildings
5. Safety of people in the event of a fire
6. Fire safety risk assessment

Practical Fire Risk Assessment (FC2)

1. Students will learn to complete a fire safety inspection of a workplace (unaided) and identify the hazards, control systems, and suggest appropriate cost-effective fire safety control measures where necessary.
2. Students will prepare a persuasive report that urges management to employ appropriate action, and explain why these actions are needed. The report must demonstrate a candidate's mindfulness of reasonable and practicable control measures which should be implemented.

International Technical Certificate in Oil and Gas Occupational Safety

UHSEN003



This course focuses on international standards and management systems, and enables participants to effectively discharge workplace safety responsibilities both onshore and offshore. This highlights the importance of process safety management in the oil & gas industry.

This course is designed for supervisors, managers, and petroleum engineers.

Course Objectives:

At the end of this course the participants will be able to:

- Know the importance of process safety management in the oil & gas industry.
- Identify hydrocarbon process safety.
- Explain fire protection types and emergency responses.
- Understand logistics and transport operations.

Course Content:

- Hydrocarbon process safety
- Fire protection and emergency response
- Logistics and transport operations

Related Courses:

- NEBOSH HSE Fire Safety and Risk Management

Duration
6 Days

Level
Basic

Programme Schedule

Health, Safety and Environment Management in Context

1. Learning from incidents
2. Hazards inherent in oil & gas
3. Risk management techniques used in the oil & gas industry
4. Safety cases and safety reports

Hydrocarbon Process Safety – Part (1)

1. Contractor management
2. Process Safety Management (PSM)
3. Role and purpose of a permit-to-work system
4. Key principles of shift handover
5. Plant operations and maintenance

Hydrocarbon Process Safety – Part (2)

1. Failure modes
2. Safety-critical equipment controls
3. Safe storage of hydrocarbons
4. Furnace and boiler operations

Fire Protection and Emergency Response

1. Fire and explosion risks in the oil & gas industry
2. Emergency response

Logistics and Transport Operations

1. Marine transport
2. Land transport

International Certificate in Occupational Safety and Health Management

UHSEN004



This course aims to enable participants in developing their skills in occupational safety and health management. This offers a broad knowledge of health and safety issues and will help them understand and manage risk effectively in their organizations.

This course is designed for health and safety workers or those who wish to develop a career in safety management; including managers, supervisors, and operational staff from all types of organizations.

Course Objectives:

At the end of this course the participants will be able to:

- Identify hazards in a range of workplace environments and recommend suitable corrective and preventative measurements.
- Understand the role of the International Labour Organization (ILO) and legal duties of both employers and employees.
- Assist in the planning, implementation, and regular review of a health and safety policy.
- Influence behaviour to create a positive health and safety culture and the compliance of health and safety policies.
- Undertake risk assessments and make recommendations based on their findings.
- Investigate accidents and prepare reports recommending suitable corrective and preventative action.
- Undertake a health and safety audit.

Course Content:

- Management of health and safety
- Controlling workplace hazards
- Health and safety practical application

Related Courses:

- NEBOSH HSE Oil and Gas

Duration
10 Days

Level
Basic

Programme Schedule

Management of Health and Safety (IGC1)

1. Foundations of health and safety
2. Plan
3. Do
4. Check
5. Act

Controlling Workplace Hazards (GC2)

1. Workplace hazards and risk control
2. Transport hazards and risk control
3. Musculoskeletal hazards and risks
4. Work equipment hazards and risk control
5. Electrical safety
6. Fire safety
7. Chemical and biological health hazards and risk control
8. Physical and psychological health hazards and risk control

Health and Safety Practical Application (GC3)

1. Demonstrate the ability to apply knowledge of the unit IGC1 and GC2 syllabi, by successful completion of a health and safety inspection of a workplace.
2. Complete a report to management regarding the inspection with recommendations.



The courses in this section are designed for participants at an intermediate level. They also provide an overview of the basics in each domain.

The course overview will help training managers to determine the appropriate courses to select to set-up training plans for staff members to build upon existing knowledge and skills.

Section Courses

1. Atmosphères EXplosibles (ATEX)
2. CompEX
3. Hydrogen Sulfide (H₂S)
4. HSE for Supervisors in Oil & Gas Exploration and Production
5. HSE Management in Petroleum and Offshore Engineering
6. Oil Spill Response and Control
7. Process Safety Management





Atmosphères EXplosibles (ATEX)

UHSEO001



This course aims to enable participants in gaining ATEX certification for the fields of oil, gas, and vapours.

This course is designed for personnel responsible for process safety in the workplace; engineering managers, maintenance managers, production managers, HSE personnel, safety officers, and personnel who work in an explosive environment.

Course Objectives:

At the end of this course the participants will be able to:

- Identify the dangers of dust, gas vapour and mist in the air.
- Identify the protection methods used.
- Apply ATEX and DSEAR directives.
- Understand the requirements of the directive and the Explosive Atmospheres Regulations.
- Identify hazardous areas.
- Mitigate explosion hazards.
- Use of mechanical apparatus in potentially explosive atmospheres.

Course Content:

- ATEX directives
- Types of protection
- Equipment selection
- Evolution of dust standards
- Application examples
- American standards

Related Courses:

- CompEX

Duration

4 Days

Level

Basic

Programme Schedule

Day 1

Introduction to ATEX

1. What is ATEX?
2. ATEX directives

ATEX Directives: Equipment

1. Production classification
2. Conformity procedures
3. Marking
4. Reference standards for electrical equipment for oil, gas, and dust

Types of Protection

1. Flameproof enclosures
2. Protection by dust-proof enclosures
3. Pressurized apparatus
4. Protection by increased safety
5. Protection ExN
6. Restricted breathing enclosures
7. Non-sparking equipment
8. Encapsulation
9. Intrinsic safety

Day 2

ATEX Directives: Workplace

1. Areas with the presence of gas and dust classification
2. LEL and UEL
3. ES and degree of emission
4. Ventilation
5. Gas classification criteria
6. Hazardous zone of gas and dust
7. Suitable electrical equipment
8. Dust classification criteria
9. Suitable electrical equipment

Equipment Selection

1. Ignition temperature
2. Equipment for gas and dust
3. Ambient temperature

Day 3

Evolution of Dust Standards Application Examples

1. Chemical/petrochemical/pharmaceutical industries
2. Gas heating plants
3. Fuel filling stations
4. Paint booths (liquids and powders)
5. Woodworking and furniture industries

Day 4

American Standards

1. Explanation of American standards
2. Differences between European and American practices



Competency in Ex Atmospheres

UHSEO002



This course aims to enable participants in gaining CompEX certification for the fields of oil, gas, and vapours.

This course is designed for competent mechanical craftspersons who are working in explosive atmospheres and use certified equipment in hazardous areas.

Course Objectives:

At the end of this course the participants will be able to:

- Deliver competence-based training and assessment in the selection and use of electrical, instrumentation, and mechanical apparatuses in potentially explosive atmospheres.
- Assist organizations comply with the ATEX directives and Dangerous Substance in Explosive Atmosphere Regulations (DSEAR), which places duties on employers to remove or control risks associated with explosive atmospheres in the workplace.

Course Content:

- Theoretical CompEX topics
- Practical CompEX training

Related Courses:

- CompEX

Duration
3 Days

Level
Basic

Programme Schedule

Theoretical CompEX Topics:

1. Area classification and zoning
2. Gas groups
3. Temperature classification
4. Ignition sources of gas and dust
5. IP ratings and impact protection
6. Marking and identification
7. Earthing and bonding
8. Protection methods in detail
9. Wiring systems and glanding
10. Permit-to-work and other documentation
11. Electrical isolations
12. Installation, maintenance, inspection and testing
13. Mechanical directives
14. Non-electrical standards
15. Mechanical inspection
16. Metal composition
17. Directives and regulations
18. Hazardous areas
19. DSEAR
20. Signage
21. Categories and EPLs
22. Equipment for use in hazardous areas
23. Types of protection: electrical and nonelectrical
24. Ingress protection (IP rating)
25. Portable equipment
26. Miscellaneous

Practical CompEX Training

1. Required: Overalls, safety boots/shoes and safety glasses

Hydrogen Sulfide (H2S)

UHSEO003



This course is designed for workers at a higher risk of exposure to hydrogen sulfide, including oil and natural gas workers who extract and/or refine crude oil and natural gas. This includes wastewater and sanitation workers who clean or maintain sewers and septic tanks, and farm workers who clean manure storage tanks or work in manure pits.

Course Objectives:

At the end of this course the participants will be able to:

- Work safely with hydrogen sulfide (H2S) – What to do and what not to do.
- Know hydrogen sulfide forms and some important properties, such as: flammability, toxicity, odour thresholds, and vapour density.
- Protect against H2S using equipment such as respirators, rescue packs and gas monitors.
- Understand rescue and first aid as it applies to H2S exposure.
- Understand how to revive victims that have inhaled H2S using artificial respiration and CPR.

Course Content:

- All aspects related to H2S (properties, hazards, signs, etc...)

Related Courses:

- CompEX

Duration
3 Days

Level
Basic

Programme Schedule

Theoretical CompEX Topics:

1. Properties and characteristics of H2S
2. Industries and locations affected by H2S
3. Sources of H2S
4. Chemical by-products of H2S
5. Chemical incompatibilities of H2S
6. Signs of H2S exposure
7. Routes of H2S exposure
8. Symptoms of H2S exposure
9. Treatment of H2S exposure
10. Toxicity of H2S
11. H2S standards and regulations
12. Quantities and exposure levels
13. H2S hazards
14. Detecting H2S
15. Monitoring devices
16. Personal protective equipment
17. Respiratory protection
18. Controlling site hazards
19. Emergency rescue
20. First aid and CPR
21. H2S incident response



HSE for Supervisors in Oil and Gas Exploration and Production

UHSEO004



This course teaches the fundamentals of supervising the health, safety, security, and environmental aspects of field work in the oil & gas exploration and production industry.

This course is designed for line supervisors, line managers, and supervisors in the service sector.

Course Objectives:

At the end of this course the participants will be able to:

- Know an overview of health, safety and environmental issues in the oil & gas industry.
- Understand the methods for resolving key issues in oil & gas exploration and production.
- Identify and assess hazards in any stage of operation.
- Quantify and manage risks and hazards.

Course Content:

- The safety culture
- Risk analysis
- Hazard prevention and control
- Protections and emergency
- HSE management systems and processes for supervisors

Related Courses:

- HSE in Oil and Gas Exploration and Production

Duration

5 Days

Level

Intermediate

Programme Schedule

Day 1

Introduction to Health, Safety and Environment

1. What is HSE?
2. Why do we need HSE management?
3. The importance of HSE management in the oil & gas industry
4. The roles and responsibilities of supervisors in HSE

Day 2

The Safety Culture

1. What is safety culture?
2. Real safety commitment
3. Accountability for safety
4. OSHA requirements
5. The PDSA cycle

Day 3

Hazard Prevention and Control

1. Controlling exposure
2. Elimination and substitution
3. Engineering controls
4. Administrative controls
5. Personal protective equipment
6. Well site inspections
7. Analyse past accident investigations
8. Control of hazardous energy
9. Confined space entry

Day 4

Risk Analysis

1. Analyse fall hazards
2. Analyse for excavation hazards
3. Analyse for hazardous chemicals
4. Analyse electrical hazards
5. Using a 5x5 matrix for risk analysis

Day 5

Supervisors' Roles in O&G E&P

1. Environmental risks and the supervisors' roles
2. Occupational health risks and the supervisors' roles
3. Occupational safety risks and the supervisors' roles
4. The role of the supervisor in observation, intervention, and workshops
5. The role of the supervisor in investigations

HSE Management Systems and Processes for Supervisors

1. SMART
2. OGP
3. SLPC
4. DISC



HSE in Oil & Gas Exploration & Production

UHSEO005



This course aims to enable participants in developing their knowledge of the methodologies, processes, procedures, and tools of HSE in the oil & gas industry, which is necessary to ensure a safe working environment.

This course is designed for all employees in the oil & gas industry.

Course Objectives:

At the end of this course the participants will be able to:

- Know an overview of health safety, and environmental issues in the oil & gas industry.
- Understand how to identify and reduce risks.
- Prevent the occurrence of events or incidents that impact personnel, facilities, and the environment.
- Protect and deal with H₂S and fires.
- Understand how to manage drilling risks.

Course Content:

- Risk analysis
- Hazard prevention and control
- Protections and emergencies
- HSE in drilling activities

Related Courses:

- HSE Management in Petroleum and Offshore Engineering

Duration

5 Days

Level

Intermediate

Programme Schedule

Day 1

Introduction to Health, Safety and Environment

1. What is HSE?
2. Why do we need HSE management?
3. The importance of HSE management in the oil & gas industry
4. The roles and responsibilities of supervisors in HSE

Day 2

Risk Analysis

1. Analyse fall hazards
2. Analyse for excavation hazards
3. Analyse for hazardous chemicals
4. Analyse electrical hazards

Day 3

Hazard Prevention and Control

1. Identification of hazards
2. Types of hazards
3. Elimination and substitution
4. Control of hazardous energy and materials

Day 4

Protections and Emergencies

1. Safety at work
2. H₂S protection
3. Fire protection
4. Emergency preparedness
5. Accident management

Day 5

HSE in Drilling Activities

1. Overview of drilling activities
2. Types of drilling risks
3. Drilling risk management
4. Well control



HSE Management in Petroleum and Offshore Engineering

UHSEO006



This course teaches the fundamentals of managing health, safety and environmental aspects in petroleum and offshore industry field work.

This course is designed for offshore engineers, petroleum companies' HSE supervisors, supervisors in the service sector, and entry-level engineers.

Course Objectives:

At the end of this course the participants will be able to:

- Know an overview of health, safety and environmental issues in the petroleum and offshore industries.
- Understand the methods for resolving key issues in petroleum production and processing.
- Identify and assess hazards in any stage of operation.
- Quantify and manage risks and hazards.

Course Content:

- Safety management
- Hazard classification and assessment
- Hazard prevention and control
- Environmental management
- Types of modelling
- Risk management

Related Courses:

- HSE for Supervisors in Oil & Gas Exploration and Production

Duration

7 Days

Level

Intermediate

Programme Schedule

Day 1

Introduction to Health, Safety and Environment

1. What is HSE?
2. Importance
3. Supervisors in HSE

Day 2

Safety Management

1. Safety assurance and assessment
2. Safety in design and operation
3. Organizing for safety

Day 3

Hazard Classification and Assessment

1. What is a hazard?
2. Types of hazards
3. Hazard assessment systems

Day 4

Hazard Prevention and Control

1. Controlling exposure
2. Elimination and substitution
3. Engineering and administrative controls
4. Personal protective equipment
5. Well site inspections
6. Analyse past accident investigations
7. Control of hazardous energy
8. Confined space entry

Day 5

Environmental Management

1. Environmental issues and factors
2. Atmospheric and water pollution
3. Environmental monitoring
4. Environmental impact and decommissioning

Day 6

Types of Modelling

1. Accidents
2. Fire and explosion
3. Toxic release and dispersion
4. Accident investigation and reporting
5. HAZOP and PHA

Day 7

Risk Management

1. Risk assessment and acceptance criteria
2. Types
3. Risk picture – definition and characteristics

Oil Spill Response and Control

UHSEO007



This course aims to enable participants in developing their knowledge and skills in responding and controlling oil spills. This programme teaches a system of pre-spill readiness, spill response drills, the Incident Command System (ICS), and post-spill reaction planning strategy and tactics.

This course is designed for oil workers who extract and/or refine crude oil, members of the oil spill emergency response teams, and oil field staff.

Course Objectives:

At the end of this course the participants will be able to:

- Give an explanation of oil spills.
- Describe the characteristics of a spill response.
- Describe how to identify and control hazards during the response.
- Know the technical aspects of oil spill response equipment.
- Understand the behaviour of oil in a marine environment.
- Know spill trajectory and tracking modelling.
- Identify oil-spill crisis communication considerations.

Course Content:

- Oil spill overview
- Oil spill response operations
- Oil spill control operations

Related Courses:

- HSE for Supervisors in Oil & Gas Exploration and Production

Duration
5 Days

Level
Intermediate

Programme Schedule

Day 1

Introduction to Oil Spills

1. The four types of oil
2. What is crude oil?
3. Health hazards and exposure
4. Identification of an oil spill

Day 2 and 3

Oil Spill Response Operations

1. Spill tracking and modelling
2. Common operational pictorial/situational mapping
3. Resource tracking and ordering
4. Field air monitoring
5. Spill prevention and planning
6. The five major aspects of spill response
7. ICS training – tactical response planning

Day 4 and 5

Oil Spill Control and Operations

1. U.S. applicable laws and regulations
2. Consideration of habitat and sensitive areas
3. Usage of control equipment
4. Clean-up and assessment techniques
5. When to start? When to stop?
6. Transport and disposal



Process Safety Management (PSM)

UHSEO008



This course aims to enable the participants in developing their knowledge in the principles of process safety management across the entire organization. They will understand the safety, health and environmental hazards associated with their working environment.

This course is designed for managers, engineers, PSM team members, auditors, and environment managers.

Course Objectives:

At the end of this course the participants will be able to:

- Know the importance and key principles of process safety management.
- Identify and assess hazards associated with hazardous substances and process plants.
- Determine the elements of PSM.
- Explain how to develop PSM.

Course Content:

- PSM overview
- PSM elements
- PSM development

Related Courses:

- Oil Spill Response and Control

Duration

5 Days

Level

Intermediate

Programme Schedule

Day 1

Introductions to Process Safety Management

1. What is PSM?
2. PSM origins
3. PSM goals
4. Overview of PSM standards and regulations worldwide

Day 2 and 3

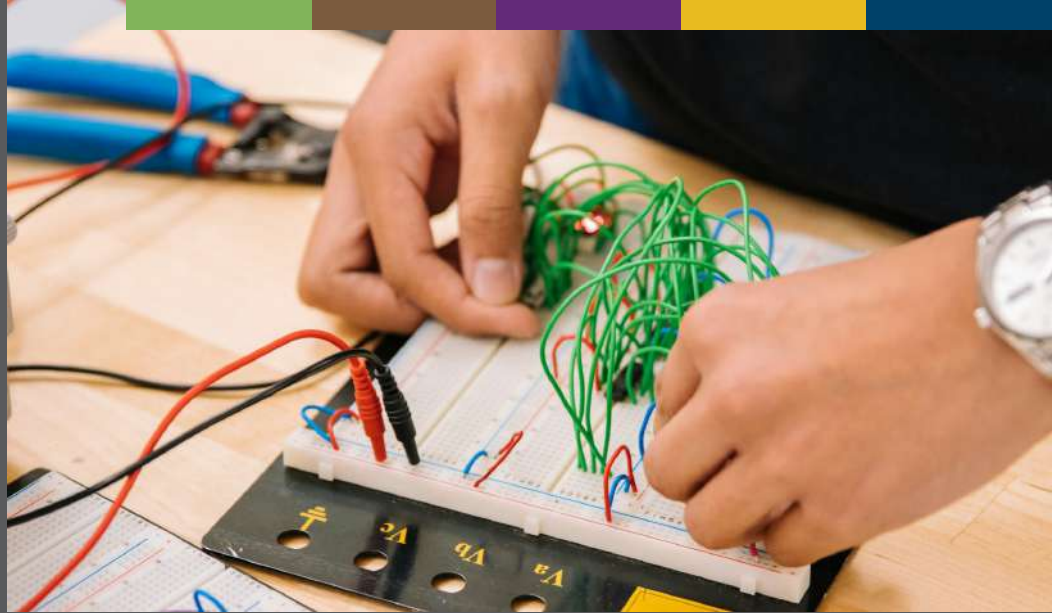
PSM Elements

1. Human error basics
2. Elements missing from most PSM systems; including specific human factor aspects, management commitment and accountability, and project risk management
3. Employee participation
4. Trade secrets
5. Process safety information
6. Operating procedures
7. Hot work permit/safe work
8. Training
9. Contractors
10. Process hazard analysis
11. Management of change
12. Mechanical integrity
13. Pre start-up safety review
14. Emergency planning and response
15. Incident investigation
16. Compliance auditing

Day 4 and 5

PSM Development

1. Key performance indicators, leading indicators, and tracking
2. Summary of roles and responsibilities
3. Developing PSM programs, implementation planning



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