

OCCUPATIONAL SAFETY AND HEALTH COURSE OUTLINE

MODULES COVERED

1. Introduction to Safety and Health at Work
2. Management of prevention
3. Hazards identification
4. Accidents Prevention and Reporting
5. Motivating Workers Leadership and Supervision
6. Work Permits
7. Personal Protective Equipment
8. Safety and Health signalization
9. Ergonomics
10. Confined spaces
11. Internal Emergency Plan
12. Hazardous Substances
13. Fire and Explosion
14. Radiation
15. Asbestos
16. Tools, Machines and Appliances
17. Hoist, lift and Bear
18. Trips, Slips and Falls
19. Work at Height
20. Special Safety
21. Drug and Alcohol Awareness
22. Harassment and Violence at work
23. Equipment Safety
24. Noise and Vibration
25. Electricity Safety

1. INTRODUCTION TO SAFETY AND HEALTH AT WORK

TOPICS COVERED IN THE MODULE

- Introduction to the main topics of health and safety at work
- Risk assessment
- Common hazards at work
- Hierarchy of risk controls.
- Key attitudes to safety.
- Leadership and formal processes

OBJECTIVES OF THE MODULE

- Introducing the learners to the main concepts of occupational health and safety.
- Introducing the learners to the consequences of an inappropriate occupational safety and health at work.
- Being aware of the main risks and more common hazards that can be present at work
- Knowing what is a risk assessment and the steps to be taken to avoid risks at work.
- Knowing how to deal with a risk at work in the different workplaces.
- Knowing the importance of a proactive attitude in occupational safety and health.

2. ACCIDENTS PREVENTION & REPORTING

TOPICS COVERED IN THE MODULE

- Concept of accident
- Causes of accidents
- Accidents statistics

- Human failure
- Preventing accidents
- Accident preventing policy
- Accidents procedures
- Registration and investigation

OBJECTIVES OF THE MODULE

- Distinguishing between accident and near miss
- Knowing the causes of accidents
- Being aware on the importance of minor accidents
- Knowing how important is the human behavior in preventing accidents at work
- Knowing what factors should be taken into account to prevent accidents
- Knowing how has to be an adequate prevention policy
- Knowing how to act, record and investigate in case an accident occurs

3. ASBESTOS

TOPICS COVERED IN THE MODULE

- Concept of asbestos, type of asbestos, common uses of asbestos
- Main risks of asbestos
- Prohibitions related to the use of asbestos
- Conditions of use

OBJECTIVES OF THE MODULE

- Knowing what is asbestos and its types
- Knowing in which places or activities asbestos can be found

- Knowing the risks of the use of asbestos
- Knowing that the use of asbestos is prohibited and the conditions of use in works involving removing or collecting asbestos
- Knowing what to do in case of suspicious material

4. CONFINED SPACES

TOPICS COVERED IN THE MODULE

- Concept and risks of confined spaces
- Preventive measures to be taken in confined spaces
- Additional preventive measures to be taken in case of special works in confined spaces

OBJECTIVES OF THE MODULE

- Knowing what is a confined space
- Making awareness on the risks of working in a confined space
- Knowing why there is risk of fire, explosion, suffocation, poisoning, electrocution, tripping and falling in a confined space
- Knowing the preventive measures to be taken before entering a confined space
- Knowing the preventive measures to be taken when working in a confined space
- Knowing the additional preventive measures to be taken in case of mobbing parts in the confined space, oxygen, other gas bottles or flammable substances existing in the confined space and in case of welding works in the confined space.

5. DRUGS AND ALCOHOL

TOPICS COVERED IN THE MODULE

- Alcohol
- Pharmaceuticals & Herbal
- Illicit drugs
- Workplace policy

OBJECTIVES OF THE MODULE

- Knowing the negative effects of taking alcohol, drugs, over-the-counter medicines and herbal preparations for human beings.
- Knowing the risks of the use of these substances at work.
- Knowing how it should be a correct workplace policy against drugs & alcohol consumption at work.

6. ELECTRICITY

TOPICS COVERED IN THE MODULE

- Common causes and consequences of accidents involving electricity
- General concepts related to electricity
- Static electricity
- Preventive measures

OBJECTIVES OF THE MODULE

- Knowing what is electricity and general concepts related to electricity
- Knowing the direct and indirect effects that electricity can have
- Knowing the concept and causes of static electricity
- Knowing how to prevent the existence of static electricity at work

- Knowing the preventive measures to be taken in order to avoid or reduce the risk of electrical accidents at work

7. EMERGENCY RESPONSES

TOPICS COVERED IN THE MODULE

- Common injuries and incidents at work.
- Steps to be taken in case of these injuries and incidents occur.
- First aid to be provided in case of these injuries and incidents.

OBJECTIVES OF THE MODULE

- Introducing the learners to the more common injuries and incidents at work.
- Being aware of the more common injuries and incidents that can occur at work.
- Knowing the steps to be taken in case of these injuries and incidents occur.
- Knowing the first aid cares to be provided in case of these injuries and incidents.

8. ERGONOMICS

TOPICS COVERED IN THE MODULE

- Concept of ergonomics
- Environmental factors present at the work place (lighting, noise, vibrations, climatic conditions)
- Types of physical strain, their effects and preventive measures
- Concept of mental strain, types, effects and preventive measures

OBJECTIVES OF THE MODULE

- Distinguishing ergonomics from others subjects of health and safety at work
- Knowing the different environmental factors present at work
- Raising awareness on the importance of an adequate lighting at work and the preventive measures to be taken to get it
- Knowing the possible consequences of the professional exposure to noise and vibrations
- Knowing preventive measures to be taken to get adequate climatic conditions at work
- Knowing the causes, effects and preventive measures to be taken in case of static strain
- Knowing the causes, effects and preventive measures to be taken in case of dynamic strain
- Knowing the effects and preventive measures to be taken in case of heavy work
- Knowing the effects and preventive measures to be taken in case of lifting loads
- Knowing the effects and preventive measures to be taken in case of sitting and standing jobs
- Making awareness on the importance and possible effects of mental strain
- Knowing the preventive measures to be taken in case of mental strain

9. FIRE AND EXPLOSIONS

TOPICS COVERED IN THE MODULE

- Characteristics of fire
- Components of fire
- Types of combustion
- Influencing factors
- Classification of fires

- Extinguishing agents
- Fire extinguishers
- Procedures to follow in case of fire

OBJECTIVES OF THE MODULE

- Knowing the three 3 fire components
- Being aware on the influencing factors of a fire
- Knowing the different classes of fires and the appropriate fire extinguisher for each class of fire
- Knowing how to use a fire extinguisher
- Knowing what to do in case of fire

10. HARASSMENT AND VIOLENCE AT WORK

TOPICS COVERED IN THE MODULE

- Concept of harassment and violence at work.
- Causes and impact of violence at work.
- Recognizing harassment.
- Workplace behavior.
- Outcomes of harassment.
- Preventing harassment.
- Steps to steps to take if harassment does occur.
- Dealing with complaints.
- Resolution procedures.

OBJECTIVES OF THE MODULE

- Introducing the learners to the concept of harassment and violence at work.
- Knowing the causes and impact of violence at work.

- Knowing when workplace behavior is unacceptable. Distinguishing between acceptable and unacceptable behavior at work.
- Knowing the outcomes of harassment at work.
- Knowing the appropriate steps to take if harassment does occur.
- Knowing how to avoid harassment at work.
- Knowing how a harassment complaint should be resolved appropriately.

11. DANGEROUS SUBSTANCES

TOPICS COVERED IN THE MODULE

- Concept of dangerous substance
- Classification of dangerous substances
- The absorption of dangerous substances by the human body
- Possible effects of dangerous substances
- Avoiding and limiting exposure
- Risk management
- Labeling and product information

OBJECTIVES OF THE MODULE

- Knowing what is a dangerous substance and in which forms a dangerous substance can be found
- Knowing the different classes of dangerous substances
- Describing the different ways of absorption of dangerous substances in human body
- Raising awareness on the possible effects of the exposure to a dangerous substance
- Knowing the possible procedures to follow in order to avoid or limit the exposure to a dangerous substance
- Knowing the permissible limit values of dangerous substances
- Learning how to recognize a dangerous substance

12. HAZARDS IDENTIFICATION

TOPICS COVERED IN THE MODULE

- Risks sources
- Different measures to take for handling the risks
- Preventive measures to take before, during and after work
- Risk assessment
- Communication measures
- Training in OSH

OBJECTIVES OF THE MODULE

- Distinguishing between risk and hazard
- Knowing most common sources of risks and how to prevent them
- Being familiarized with the hierarchy of measures to be taken to prevent an accident
- Knowing the obligations of the employer related to health and safety at work
- Knowing what is a risk assessment and when it is necessary to review it
- Raising awareness on the importance of communicating the preventive measures to workers.
- Knowing different communication instruments

13. HOIST, LIFT AND BEAR

TOPICS COVERED IN THE MODULE

- General concepts
- Lifting equipment: risks and preventive measures
- Tackles: concept, risks and preventive measures
- Hoisting tools: concept, types, risks and preventive measures
- Pallet trucks: concept, risks and preventive measures
- Forklift truck: concept, risks and preventive measures
- Manual handling: risks and preventive measures

OBJECTIVES OF THE MODULE

- Raising awareness on the risks related to the use of lifting equipment at work
- Knowing the preventive measures to be taken in working with lifting equipment
- Knowing the concept and risks of tackles and preventive measures to be taken
- Knowing the different types of hoisting tools
- Knowing the risks and preventive measures to be taken in working with hoisting tools
- Knowing and risks of pallet trucks and the preventive measures to be taken
- Knowing risks of forklift trucks and the preventive measures to be taken
- Raising awareness on the risks of manual handling at work
- Giving some tips for safe manual handling at work
- Knowing the obligations of the employer and the preventive measures to be taken related to manual handling

14. INTERNAL EMERGENCY PLAN

TOPICS COVERED IN THE MODULE

- General concepts of an internal emergency plan
- Elements of an internal emergency plan
- Phases of an emergency
- Sources of aid available in an emergency
- Training and drills

OBJECTIVES OF THE MODULE

- Knowing what is an internal emergency plan, its goals and the requirements that it must meet.
- Knowing the different elements that an internal emergency plan should have and the contents of each element
- Knowing the different phases that should take place in case of an emergency
- Raising awareness on the importance of performing training sessions and drills
- Giving some tips to perform adequate drills
- Knowing some different instruments to be used to promote safety and health at work
- Knowing how to prepare properly a tool-box meeting

15. MANAGEMENT OF PREVENTION

TOPICS COVERED IN THE MODULE

- The importance of occupational safety and health for enterprises
- Occupational safety and health prevention policy
- Types of strategies to approach health and safety in a company
- The role of management and their specific tasks
- A dynamic risk management system: principles and elements

OBJECTIVES OF THE MODULE

- Raising awareness on the importance of occupational safety and health for enterprises
- Putting stress on the compatibility of occupational safety and health and other company objectives
- Knowing the founding principles of a good occupational safety and health prevention policy
- Raising awareness on the importance of the role of management in implementing safety and health in a company
- Knowing the specific tasks on safety and health at work for management
- Knowing the principles and elements of a good dynamic risk management system

16. MOTIVATING WORKERS

TOPICS COVERED IN THE MODULE

- The motivation of workers in safety and health at work
- Possible strategies to follow
- Manager's role in safety and health at work
- Instruments to promote safety and health at work
- Certification

OBJECTIVES OF THE MODULE

- Putting stress on the importance of a good motivation of workers in safety and health at work
- Knowing the different strategies that employers and managers can follow to stimulate safe behaviors at work

- Making awareness on the importance of the manager's role in promoting safe working
- Giving some tips to managers to improve his/her role in promoting safe working
- Knowing some different instruments to be used to promote safety and health at work
- Knowing how to prepare properly a tool-box meeting
- Knowing certification types and procedures

17. NOISE AND VIBRATIONS

TOPICS COVERED IN THE MODULE

- Concept of noise, general concepts related to sound, methods of measuring
- Effects of noise in humans
- Hazardous sound level, action level and limits of exposure
- Preventive measures
- Concept and types of vibrations
- Preventive measures

OBJECTIVES OF THE MODULE

- Knowing what is noise, its components and how to measure the noise
- Knowing the harmful effects of noise in humans and at which level of noise those effects can occur
- Knowing the general accepted limits of exposure related to noise
- Knowing how to reduce the noise at work, how to shield the source and to dump the noise
- Knowing the types of vibrations
- Knowing the harmful effects of vibrations in humans

- Knowing the preventive measures to be taken in order to avoid or reduce the professional exposure to vibrations

18. PERSONAL PROTECTIVE EQUIPMENT

TOPICS COVERED IN THE MODULE

- Concept of PPE, conditions of use, employers' and employees' obligations, operating and quality requirements and types of PPEs
- Types of eye and face protection, characteristics of each type, conditions of use and maintenance
- Types of hearing protection, characteristics of each type, conditions of use and maintenance and attenuation of each type
- Types of respiratory protection, characteristics of each type, conditions of use and maintenance
- Types of head protection, conditions of use and maintenance
- Types of hand protection, conditions of use and maintenance
- Types of foot protection, conditions of use and maintenance
- Types of fall protection, characteristics of each type, conditions of use and maintenance

OBJECTIVES OF THE MODULE

- Knowing what is a PPE and when is necessary to use a PPE
- Knowing the obligations of employer's, employee's and manufacturers' obligations related to PPEs
- Knowing the main existing PPEs
- Distinguishing between the main existing eye and face protectors, the activities in which eye and face protection is required and which type suits better for every activity
- Knowing how to use and maintain eye and face protectors and when it is necessary to replace them

- Distinguishing between the main existing hearing protectors and at which level of sounds hearing protection is required
- Knowing how to use and maintain hearing protectors and when it is necessary to replace them

- Distinguishing between the main existing respiratory protectors, the activities in which respiratory protection is required and which type suits better for each one
- Knowing how to use and maintain respiratory protectors and when it is necessary to replace the filters
- Knowing examples of head protectors, how to use and maintain the and when it is necessary to replace them
- Knowing examples of hand protectors, how to use and maintain the and when it is necessary to replace them
- Knowing examples of feet protectors, how to use and maintain the and when it is necessary to replace them
- Distinguishing between the main existing fall protectors, the activities in which fall protection is required and which type suits better for each one
- Knowing how to use and maintain fall protectors

19. RADIATION

TOPICS COVERED IN THE MODULE

- Concept of radiation
- Concept of ionizing-radiation, functions of ionizing radiation, sources of ionizing radiations
- Risks, conditions of use and professional exposure to ionizing radiations
- Concept of non-ionizing, types and conditions of use

OBJECTIVES OF THE MODULE

- Knowing what is radiation and its types
- Knowing in which places or activities ionizing and non-ionizing radiation can be found
- Knowing the risks of the use of radiation
- Knowing the conditions of the use of ionizing and non-ionizing radiation

20. SAFETY AND HEALTH SIGNS

TOPICS COVERED IN THE MODULE

- Concept, characteristics and conditions of use of safety and health signs
- Types of safety and health signs
- Concept, color codes and labeling of gas cylinders

OBJECTIVES OF THE MODULE

- Knowing what are safety and health signs, their features and how to use them
- Distinguishing between safety and health signs and other systems of signalization
- Knowing how are prohibition signs, mandatory signs, warning signs, safety provisions signs, safety equipment signs and fire fighting equipment signs
- Knowing what is a gas cylinder and its dangers
- Knowing how to identify the gas contained in a cylinder by its color code and its label

21. SPECIAL WORKS

TOPICS COVERED IN THE MODULE

- Types of welding and their characteristics
- Risks of welding works
- Preventive measures
- Concept, types and causes of explosion-prone environments
- Risks and preventive measures of excavation works
- Risks and preventive measures of demolition works

OBJECTIVES OF THE MODULE

- Knowing welding system and the types of welding
- Knowing the risks and the preventive measures to be taken in electrical welding
- Knowing the risks and the preventive measures to be taken in autogenous welding
- Knowing the concept, types and causes of explosion-prone environments
- Knowing the preventive measures to be taken in order to avoid or reduce the risk of accident in an explosion-prone environment
- Knowing risks and the preventive measures to be taken in order to avoid or reduce the risk of accident in an excavation work
- Knowing risks and the preventive measures to be taken in order to avoid or reduce the risk of accident in a demolition work

22. WORK EQUIPMENT, MACHINERY AND TOOLS

TOPICS COVERED IN THE MODULE

- Powered tools and machinery
- Simple hand tools
- Blind flanges
- Fixed machines
- Powered hand tools
- Electrical hand tools
- Pneumatic hand tools
- Drills, grinders, circular saws and portable grinders

OBJECTIVES OF THE MODULE

- Distinguishing between different types of machinery
- Being aware on the risks on the different types of machinery
- Knowing how to use safely the work equipment, machinery and tools

23. TRIP, SLIP AND FALL

TOPICS COVERED IN THE MODULE

- Common causes of trip, slip and fall
- Preventive measures to be taken
- Special attention to stairs

OBJECTIVES OF THE MODULE

- Raising awareness on the common causes of trip, slip, and fall and their consequences.
- Knowing how to eliminate the risks
- Knowing the collective measures to be taken (barriers, signals)

- Paying special attention on the most common causes of trip, slip and fall in stairs and the preventive measures required to avoid these accidents

24. WORK AT HEIGHT

TOPICS COVERED IN THE MODULE

- Risks of falls in works at height and general preventive measures
- Specific works at height and their risks
- Equipment used in work at height, risks and preventive measures

OBJECTIVES OF THE MODULE

- Raising awareness on the risks of falls in works at height and how to prevent them
- Knowing the different types of works at height and their risks
- Knowing the concept and risks of ladders and preventive measures to be taken
- Knowing the different types of scaffolds
- Knowing the risks and preventive measures to be taken in the different types of scaffolds

25. WORK PERMITS

TOPICS COVERED IN THE MODULE

- General and specific safety rules.
- Concept, contents and persons involved in a work permit.

OBJECTIVES OF THE MODULE

- Knowing what is a safety rule

- Distinguishing between general and specific rules and the characteristics and requirements of each one
- Knowing what is a work permit and the persons involved in the procedure to grant a work permit
- Identifying when it is required to have a work permit