

ENVIRONMENTAL HEALTH AND SAFETY PRACTICES

ISCED UNIT CODE: 0521 451 06A

TVETCDACC UNIT CODE: ENV/CU/ENT/CC/02/5/MA

UNIT DURATION: 100 HOURS

Relationship to Occupational Standards

This unit addresses the Unit of Competency: **Perform Environmental health and safety practices**

Unit Description

This unit covers the competencies required to perform Environmental health and safety practices it involves performing hazard identification, assessing environmental health and safety risks, managing environmental health and safety risks and creating environmental health and safety awareness

Summary of Learning Outcomes

By the end of this unit, the learner should be able to:

S/No	Learning Outcomes	Duration (Hours)
1.	Perform hazard identification	30
2.	Assess environmental health and safety risks	30
3.	Manage environmental health and safety risks	30
4.	Create environmental health and Safety Awareness	30
Total		120

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcomes	Content	Suggested Assessment Methods
1.Perform hazard identification	<p>Theory</p> <p>1.1 Environmental Health and Safety</p> <p>1.1.1 Definition of terms</p> <p>1.1.1.1 Introduction to Environmental Health and Safety</p> <p>1.1.2 Types of Environmental Hazards</p> <p>1.1.2.1 Physical hazards</p> <p>1.1.2.2 Chemical hazards</p> <p>1.1.2.3 Biological hazards</p> <p>1.1.2.4 Ergonomic hazards</p> <p>1.2 hazard identification techniques</p> <p>1.3 hazard categorization</p> <p>1.4 Hazard control and prevention</p> <p>1.5 Environmental health and safety management systems</p> <p>1.6 Environmental Health and Safety Monitoring and Evaluation</p> <p>Practice</p> <p>1.7 Conduct hazard identification and categorization</p>	<ul style="list-style-type: none"> • Practical • Written tests • Individual/group assignment • Projects • Interviews/ Oral questions • Third party • Case Studies
2. assess environmental health and safety risks	<p>Theory</p> <p>2.1 Environmental Health and Safety Risks</p> <p>2.1.1 Potential environmental health and safety risks</p> <p>2.1.2 Types of Health and Safety Risks</p> <p>2.2 Risks identification techniques</p>	<ul style="list-style-type: none"> • Practical • Written tests • Individual/group assignment • Projects • Interviews/ Oral questions

	<p>2.3 Prioritization Environmental Health and Safety Risks</p> <p>2.3.1 Prioritization Criteria</p> <p>2.4 Risk assessment</p> <p>2.4.1 Methods of conducting risk assessment</p> <p>2.4.2 Tools of conducting risk assessment</p> <p>2.4.3 Risk assessment procedure</p> <p>2.5 Environmental health and safety risks Mitigation and Monitoring</p> <p>2.5.1 Risk Mitigation Plans</p> <p>2.5.2 Monitoring</p> <p>Practice</p> <p>2.1 Conduct risk assessments</p> <p>2.2 Perform hazard identification exercise</p>	<ul style="list-style-type: none"> • Third party • Case Studies
3.Manage environmental health and safety risks	<p>Theory</p> <p>3.1 Hierarchy of Controls for Environmental Hazards</p> <p>3.1.1 Hierarchy of control</p> <p>3.2 Environmental Protection Measures</p> <p>3.3 Environmental and health policies</p> <p>3.4 Environmental Health and Safety Risk Emergency Response Measures</p> <p>3.4.1 Emergency Response Planning</p> <p>3.4.2 Response procedures</p> <p>Practice</p> <p>3.5 Practice the application of the hierarchy of controls</p> <p>3.6 Conduct mock emergency response exercises</p>	<ul style="list-style-type: none"> • Practical • Written tests • Individual/group assignment • Projects • Interviews/ Oral questions • Third party • Case Studies

<p>4. Create environmental health and Safety Awareness</p>	<p style="text-align: center;">Theory</p> <p>4.1 Environmental and safety committee</p> <p>4.1.1 Illegal framework for environmental health and safety (EHS) committees in Kenya.</p> <p>4.1.2 Roles and responsibilities of EHS committees</p> <p>4.1.3 Procedures for constituting an EHS committee in organizations.</p> <p>4.2 Environmental hazards and risks exposure</p> <p>4.2.1 Work Procedures for Managing Environmental Hazards</p> <p>4.3 Environmental health and safety awareness</p> <p>4.3.1 EHS Awareness Programs</p> <p>4.3.1.1 Importance of raising awareness on workplace environmental hazards.</p> <p>4.3.1.2 Components of a successful EHS awareness program</p> <p>4.3.2 Training on Environmental Health and Safety</p> <p>4.3.3 Communication and Reporting in EHS</p> <p style="text-align: center;">Practice</p> <p>4.4 Design and present an EHS awareness campaign tailored to a specific industry or workplace.</p>	<ul style="list-style-type: none"> • Practical • Written tests • Individual/group assignment • Projects • Interviews/ Oral questions • Third party • Case Studies
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Suggested Methods of Instruction

- Demonstration

- Role playing
- Group discussion
- Direct instruction

Recommended Resources for 25 trainees

S/No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A	Learning Materials			
1.)	Waste Storage		10 pcs	1:3
2.)	Khaki bags		25 pcs	1:1
3.)	Plastic bags		25 pcs	1:1
B	Learning Facilities & infrastructure			
1.)	Lecture/theory room		1	1:25
2.)	Laboratory		1	1:25
C	Tools and Equipment			
1.)	Centrifuges		25 pcs	1:1
2.)	Refrigeration		5 pcs	1:5
3.)	Microscopes		5 pcs	1:5
4.)	Heating Equipment		25 pcs	1:1
5.)	Analytical Instruments		5 pcs	1:5
6.)	Safety Equipment		25 pcs	1:1
7.)	pH Meters and Conductivity Meters		25 pcs	1:1