APPLY GEOGRAPHIC INFORMATION SYSTEMS

ISCED UNIT CODE: 0532 551 16A

TVET CDACC UNIT CODE: HO/CU/HP/CC/01/5/MA

Unit duration: 60 Hours

Relationship to Occupational Standards

This unit addresses the Unit of Competency: **Apply geographic Information Systems**

Unit Description

This unit covers the competencies required to apply information systems It involves Applying GIS and remote sensing techniques, performing geo-graphic communication and producing geo-maps.

Summary of Learning Outcomes

SNO	Learning Outcome	Duration (Hours)
1.	Apply GIS and remote sensing techniques	20
2.	Perform geo-graphic communication	20
3.	Generate geo-maps	20
	TOTAL	**60**

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcomes	Content	Suggested Assessment Methods

1. Apply GIS and remote sensing techniques	**Theory**
	 1.1 Geographic information systems
	     1.1.1 Definition of terms
	         1.1.1.1 Geographic information systems
	         1.1.1.2 Ecosystems
		• Written tests
		 • Case Studies
		 • Projects
		 • Interviews/ Oral questions

		1.1.2 Importance of geographic information systems 1.1.3 Management of ecosystems 1.1.4 Determination of environmental governance laws	• Individual/group assignments
2. Perform geo-graphic communicatio n	**Theory** 2.1 Geo-graphic communication 2.2.1 Definition of Geo-graphic communication 2.2.2 Importance of geo-graphic communication 2.3 Development of digital maps 2.4 Generation of graphs 2.5 Generation of digital models		• Written tests • Case Studies • Projects • Interviews/ Oral questions • Individual/group assignments
3 Generate geo-maps	**Theory** 3.2 Geo-maps 3.2.1 Definition of geo-maps 3.2.2 Importance of geo-maps 3.3 Maps projected 3.3.1 UTM (Universal Transverse Mercator) 3.3.2 UPS (Universal Polar Stereographic) 3.4 Coordinate reference systems 3.4.1 Geographical coordinates 3.4.2 Projected Coordinate system		• Written tests • Case Studies • Projects • Interviews/ Oral questions • Individual/group assignments

Suggested Methods of Instruction

- Role playing

- Group discussion
- Direct instruction

Recommended Resources for 25 Trainees

- 15 Desktop computers/laptops
- Internet connection
- 1 Projector
- 1 whiteboard
- Rolls flip charts
- White board
- Marker pens