CARTOGRAPHY

UNIT CODE: LSM/CU/LM/CC/06/6/A

Relationship to Occupational Standards

This unit addresses the unit of competency: Apply principles of cartography

Duration of Unit: 120 hours

Unit Description

This unit describes the competencies required

Summary of Learning Outcomes

1. Apply cartographic techniques
2. Communicate using maps
3. Distinguish between maps and plans
4. Determine scale of maps and plans
5. Compile maps
6. Project maps
7. Apply principles of reference systems
8. Represent relief

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Apply cartographic techniques	❑ Meaning of cartographic techniques ❑ Terms used in cartography ❑ Drawing instruments and their use ❑ Care of drawing instruments and materials ❑ Types and characteristics of drawing materials ❑ Drawing media and inks ❑ Properties of good drawing materials ❑ Mapping scales ❑ Classification of mapping scales ❑ Methods of scale change	❑ Observation ❑ Oral questioning ❑ Written tests ❑ Projects

	❑ Map texts ❑ Lettering ❑ Construction of rectangular grid		
2. Communicate using maps	❑ Process of cartographic communication ❑ Cartographic symbols	❑ Observation ❑ Oral questioning ❑ Written tests ❑ Projects	
3. Distinguish between maps and plans	❑ Types of maps ❑ Types of plans	❑ Observation ❑ Oral questioning ❑ Written tests ❑ Projects	
4. Determine scale of maps and plans	❑ Type of scales ❑ Determination of scales ❑ Application of Scales	❑ Observation ❑ Oral questioning ❑ Written tests ❑ Projects	
5. Compile maps	❑ Sources of mapping data ❑ Phases of map compilation ❑ Types of map compilation ❑ Compilation procedure ❑ Generalization ❑ Map design	❑ Observation ❑ Oral questioning ❑ Written tests ❑ Projects	
6. Project maps	❑ Meaning of map projection ❑ Basic concepts in map projection ❑ Classification of map projections ❑ Characteristics of map projections ❑ Commonly used projections ❑ Map grids ❑ Factors influencing choice of projection	❑ Observation ❑ Oral questioning ❑ Written tests ❑ Projects	
7. Apply principles of reference systems	❑ Meaning of reference systems ❑ Earth's Geometry 　o Geoid 　o Spheroid / Ellipsoid 　o Spherical ❑ Types of coordinate systems 　o Geographical 　o Cartesian	❑ Observation ❑ Oral questioning ❑ Written tests ❑ Projects	

	o Projected (UTM, Cassini)	
8. Represent relief	❑ Methods of showing relief ❑ Construction of profiles ❑ Calculation of gradients ❑ Contour interpolation ❑ Inter-visibility	❑ Observation ❑ Oral questioning ❑ Written tests ❑ Projects

Suggested Delivery Methods

- Lecturing
- Demonstration by trainer
- Exercises by trainee
- Group discussions

Recommended Resources

- Scientific Calculators
- Rulers, pencils, erasers
- Charts with presentations of data
- Graph books
- Dice
- Online resources
- Cartographic software