

HYDROGRAPHIC SURVEY

UNIT CODE: LSM/CU/LM/CR/04/6/A

Relationship to Occupational Standards

This unit addresses the unit of competency: Conduct hydrographic survey

Duration of Unit: 130 hours

Unit Description

This unit describes the competencies required by a surveyor to conduct a reconnaissance, conduct shore control survey, determine position of sea features and prepare bathymetric and nautical charts

Summary of Learning Outcomes

1. Conduct a reconnaissance
2. Conduct shore control survey
3. Determine position of sea features
4. Prepare bathymetric charts
5. Prepare nautical charts

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Conduct a reconnaissance	<ul style="list-style-type: none"><input type="checkbox"/> Meaning of reconnaissance<input type="checkbox"/> Objectives of reconnaissance<input type="checkbox"/> Importance of a reconnaissance<input type="checkbox"/> Reconnaissance procedure<input type="checkbox"/> Safety Of Life At Sea (SOLAS)	<ul style="list-style-type: none"><input type="checkbox"/> Observation<input type="checkbox"/> Oral questioning<input type="checkbox"/> Practicals
2. Conduct shore control survey	<ul style="list-style-type: none"><input type="checkbox"/> Meaning of control point<input type="checkbox"/> Types of monuments<input type="checkbox"/> Geodetic control and tidal effects<input type="checkbox"/> Establishment of horizontal controls	<ul style="list-style-type: none"><input type="checkbox"/> Observation<input type="checkbox"/> Oral questioning<input type="checkbox"/> Written tests<input type="checkbox"/> Practical assessments

	<input type="checkbox"/> Establishment of vertical controls <input type="checkbox"/> Application of control points	
3. Determine position of sea features	<input type="checkbox"/> Fundamentals of hydrographic survey <input type="checkbox"/> Horizontal positioning <input type="checkbox"/> Vertical datum and positioning <input type="checkbox"/> Depth determination <input type="checkbox"/> Real-time hydrographic mapping <input type="checkbox"/> Applications of hydrographic surveys	<input type="checkbox"/> Observation <input type="checkbox"/> Oral questioning <input type="checkbox"/> Written tests
4. Prepare bathymetric charts	<input type="checkbox"/> Meaning of bathymetric charts <input type="checkbox"/> Framework of bathymetric charts <input type="checkbox"/> Scale and precision of bathymetric charts <input type="checkbox"/> Map projections <input type="checkbox"/> Data collection and plotting <input type="checkbox"/> Design of bathymetric charts <input type="checkbox"/> Production of bathymetric charts <input type="checkbox"/> Challenges in bathymetric mapping <input type="checkbox"/> Elements of bathymetric charts <input type="checkbox"/> Uses of bathymetric charts	<input type="checkbox"/> Observation <input type="checkbox"/> Oral questioning <input type="checkbox"/> Written tests/drawings and sketches <input type="checkbox"/> Practicals
5. Prepare nautical charts	<input type="checkbox"/> Meaning of nautical charts <input type="checkbox"/> Framework of nautical charts <input type="checkbox"/> Scale <input type="checkbox"/> Map projections <input type="checkbox"/> Elements of nautical charts <input type="checkbox"/> Data collection <input type="checkbox"/> Design of nautical chart <input type="checkbox"/> Plotting of nautical charts <input type="checkbox"/> Digital production of nautical charts <input type="checkbox"/> Uses of nautical charts	<input type="checkbox"/> Observation <input type="checkbox"/> Oral questioning <input type="checkbox"/> Sketches and drawings <input type="checkbox"/> Practicals

Suggested Delivery Methods

- Teaching
- Demonstration by trainer
- Practical work by trainee
- Demonstration videos
- Projects
- Group discussions
- Group projects

Recommended Resources

- Survey equipments and tools
- Sea vessel
- Stationery
- Survey data
- Mapping software
- Relevant text books.
- Online resources.
- Transportation
- Water body.

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