

General Objective:

This course is designed to provide the learner with the basic knowledge and skills regards Fishing gear designs, Fishing machineries and Fishing instruments.

Outline of Content:

This course contains:

1. Fishing gear
 - Fishing gear materials
 - Fishing gear components
 - Fishing gear design
 - Fishing gear selectivity
2. Fishing instruments
 - Fish finder
 - Sonar
3. Fishing machinery
 - Classification of fishing machineries
 - Power supply systems
 - Hydraulic systems

Learning Outcomes:

Upon successful completion of this course the student will be able to:

1. Describe the main characteristics of materials used for fishing gear
2. Describe the major components of netting yeans, fiber ropes and wire ropes
3. Describe basic fishing gear
4. Make a simple fishing gear design drawing.
5. Describe basic concept of mesh size selectivity
6. Describe sound wave propagation in the water.
7. Analyze typical echo of fish finder
8. Describe sonar basics
9. Describe classification of fishing machineries
10. Outline power supply system of fishing machinery
11. Outline hydraulic systems

Assessment Criteria:

Learning outcome	Assessment Criteria
1. Describe main character of materials used for fishing gear	<ul style="list-style-type: none"> ● Different types of chemical groups introduced for fishing gear are described ● Different types of fishing gear materials are identified
2. Describe major components of netting yeans, fiber ropes and wire ropes	<ul style="list-style-type: none"> ● Basic components of netting yeans are described ● Different types of fiber ropes are described ● Different types of wire ropes are described ● Different types of Lay and its characters are

	described <ul style="list-style-type: none"> ● Denier and Tex systems are described ● Tensile strength of wire and fiber ropes are estimated
3. Describe basic fishing gear	<ul style="list-style-type: none"> ● Typical fishing gear drawings are described ● Hanging ratio and net depth are calculated ● Buoyant force and sinking force are calculated
4. Make a simple fishing gear design drawing.	<ul style="list-style-type: none"> ● Drawings for simple fishing gear are developed
5. Describe the basic concept of mesh size selectivity	<ul style="list-style-type: none"> ● Difference between gill net and Trawl net mesh size selectivity are described ● By-catch reduction devices are explained
6. Describe sound wave propagation in the water.	<ul style="list-style-type: none"> ● The difference between radio wave, light wave and sound wave propagation are described ● The relationship of ultra sonic wave frequency and fish finder range are described ● Basic concept of fish finding system are described
7. Analyze a typical echo of fish finder	<ul style="list-style-type: none"> ● Typical sea bottom echoes are analyzed ● Typical false echoes are identified ● Typical fish school echoes are identified
8. Describe sonar basics	<ul style="list-style-type: none"> ● Types of sonar introduced for fishing operation are described
9. Describe classification of fishing machinery	<ul style="list-style-type: none"> ● The purpose introduce fishing machinery for fishing operation are described
10. Outline power supply system of fishing machinery	<ul style="list-style-type: none"> ● Several types of power supply system of fishing machinery are described ● Advantages and disadvantages of each power supply system are describe
11. Outline hydraulic systems	<ul style="list-style-type: none"> ● Major parts and its function of hydraulic systems are described
	As specified in the Assessment Strategy listed at the end of this outline and by a combination of: <ul style="list-style-type: none"> · Written assessment · Oral assessment · Observation during practical sessions.

Delivery strategy

The course provides for delivery by on or off-the-job training and assessment utilizing practical demonstration that simulate conditions found on commercial fishing vessels.

Some areas of content may be common to more than one learning outcome, and therefore integration of training and assessment may be appropriate.

Methods of instruction should include:

1. Classroom instruction;

2. Instructor demonstrations;
3. Participation in practical exercises;
4. Group work and
5. Simulation

Resource requirements

Delivery of the training will require:

- Classroom
- Overhead projector
- Video and monitor
- Learners guides
- Fishing gear and materials
- Working space protected by sunlight
- Fish finder
- Fishing machinery (Hydraulic pump, winch, and line hauler)

Assessment Strategy

Assessment Method

Learning outcomes may not be assessed separately. A holistic assessment strategy is proposed that attempts to ensure as much as possible that the assessment replicate conditions that learners may encounter in their workplace.

Practical assessment will be undertaken by observing the ability of learners to correctly apply the techniques taught in the course.

Condition of Assessment

Assessment may take place on or off-the-job. Where assessment is conducted off-the-job, the environment, where possible will simulate the real work place situation.

Evaluation:

Final Grade for this course will be based on meeting the course requirements at the following percentage rates:

- | | |
|------------|-------------------|
| 96% - 100% | A – Superior |
| 90% - 95% | B – Above Average |
| 80% - 89% | C – Average |
| 69% - 79% | D – Below Average |
| 0 % - 69% | F – Failure |

Attendance:

The COM-FSM attendance policy will apply.