

**College of Micronesia – FSM  
P.O. Box 159  
Kolonia, Pohnpei**

**Course Outline Cover Page**

**Basic Seamanship**

Course Title

**MWD 102**

Department and Number

**Course Description:** To provide the learner with the knowledge and skills in seamanship required to perform duties as a deck rating forming part of a navigational watch. This course is targeted at mariners who wish to obtain a Certificate of Competency as Watch keeper Rating Class 1 in accordance with the South Pacific Maritime Code.

**Prepared by:** Brent Villiers

**State:** FSM-FMI

	Hours per Week	No. Of Weeks	Total Hours	Semester Credits
Lecture	2/4/8	4/2/1	8	0.5
Laboratory	24/12/6	3/6/12	72	1.5
Total Semester Credits:				2

**Purpose of Course**

Degree Requirement	_____
Degree Elective	_____
Advanced Certificate	_____
Certificate	_____XX_____
Remedial	_____
Other (Workshop)	_____

**Prerequisite Course(s):** MWD 100 Enabling English

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**Signature, Chairman, Curriculum Committee**

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**Date Approved by Committee**

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**Signature, President, COM-FSM**

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**Date Approved by the President**

**General Objective:**

The information covered in this course will provide the learner with the knowledge and skills in seamanship required to perform duties as a deck rating forming part of a navigational watch. When considering the safety of a vessel, you should always relate your role as a lookout or helmsman to that of the watch-keeper and other members of a bridge team. Your duties are directly related to theirs, and carried out for exactly the same reasons. This course contains information that will help you understand the role of all members of that bridge team. You should use the information contained in this module in conjunction with your learning of other courses dealing with ship operations to ensure that your vessel is always operated in a safe manner.

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

1. Maintain and handle ropes in accordance with established shipboard practice;
2. Use ropes for shipboard applications in accordance with established practice;
3. Provide a safe means of access to personnel embarking and disembarking the vessel;
4. Perform support duties during mooring and anchoring operations;
5. Observe safety precautions during the stowage and handling of cargoes;
6. Carry out basic deck maintenance procedures.

***STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEALTH AND SAFETY ISSUES IN ALL SITUATIONS AND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES.***

**Outline of Content:**

This course contains:

1. Rope work
  - Natural fiber ropes
  - Synthetic ropes
  - Flexible steel wire ropes
  - Small stuff
  - Knots, bends, hitches
  - Whippings and seizing
  - Splicing
  - Flexible steel wire rope clamps

2. Personnel Access ways
  - Pilot ladders and hoists
  - Accommodation ladders and gangways
  - Helicopter transfers
  - Access ways on RO-RO vessels
3. Arrivals and Departures
  - Terminology
  - Methods of mooring
  - Methods of anchoring
  - Safety Precautions
4. Cargo Safety
  - Identification of hazards
  - IMDG code
  - Safety precautions
  - Cargo gear
5. Deck maintenance
  - Corrosion/deterioration
  - Maintenance procedures and materials
  - Chairs and stages
  - Working aloft and over the side

**Learning Outcomes:** On completion of this course the learner will be able to:

**Learning Outcome 1** **Maintain and handle ropes in accordance with established shipboard practice.**

Assessment Criteria

- 1.1 Structure and distinguishing features of natural fiber ropes are described.
- 1.2 Structure and distinguishing features of synthetic fiber ropes are described.
- 1.3 Structure and distinguishing features of flexible steel wire ropes are described.
- 1.4 The method of determining rope size is described.
- 1.5 Safety precautions to be taken whilst handling ropes are described.
- 1.6 Basic understanding of safe working loads and breaking strains is demonstrated.
- 1.7 Care and maintenance of ropes is described.
- 1.8 Ability to handle ropes correctly and safely is demonstrated.

Conditions This outcome may be assessed on-the-job and off-the-job.

Learning and assessments will take place in a combination of classroom; laboratories; appropriate vessels, ship simulator; and other suitable study environments.

Assessment Method

- written test involving the use of sketching, diagram interpretation, short answer questions, multiple choice questions;
- oral questioning;
- observation during practical exercises.

You will be provided with:

- a suitable classroom environment and answer booklet for written tests;
- models, simulation and/or laboratory equipment.

**Learning Outcome 2**

**Use ropes for shipboard applications in accordance with established practice.**

Assessment criteria

- 2.1 Tying of knots, bends and hitches in common use is demonstrated
- 2.2 Application of whippings and seizings in common use is demonstrated.
- 2.3 Construction of an eye splice in three strand fiber rope is demonstrated.
- 2.4 Construction of a short splice in three strand fiber rope is demonstrated.
- 2.5 Construction of an eye splice in synthetic multi-plait rope is demonstrated.
- 2.6 Construction of a locking eye splice in Flexible steel wire rope is demonstrated.
- 2.7 Correct application of wire rope grips is demonstrated.

Conditions

Learning and assessments will take place in a combination of classroom; laboratories; appropriate vessels; and other suitable study environments.

Assessment Method

- written test involving the use of sketching, diagram interpretation, short answer questions, multiple choice questions;
- oral questioning;
- observation during practical exercises.

**Learning Outcome 3**

**Provide a safe means of access to personnel embarking and disembarking the vessel.**

Assessment criteria	3.1	Requirements for providing a safe means of access to a vessel is described.
	3.2	Rigging of a ship's accommodation ladder / gangway is described.
	3.3	Requirements for using a cargo access ramp as a personnel access way is described.
	3.4	On-board pilot boarding arrangements are described.
	3.5	Requirements for a pilot ladder and the correct rigging procedure are described.
	3.6	Safety Procedures during helicopter transfers are described.

Conditions	Learning and assessments will take place in a combination of classroom; laboratories; appropriate vessels; and other suitable study environments.
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Assessment Method	<ul style="list-style-type: none"> <li>• written test involving the use of sketching, diagram interpretation, short answer questions, multiple choice questions;</li> <li>• oral questioning;</li> <li>• observation during practical exercises.</li> </ul>
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**Learning Outcome 4      Perform support duties during mooring and anchoring operations.**

Assessment criteria	4.1	Meaning of terms commonly used in relation to mooring and anchoring is described.
	4.2	General anchoring procedures are described.
	4.3	Ability to operate anchor handling equipment as instructed, is demonstrated.
	4.4	General mooring procedures are described.
	4.5	Ability to handle mooring ropes and associated equipment and machinery as instructed, is demonstrated.
	4.4	Safety precautions to be observed during mooring and anchoring operations are described.

Conditions	Learning and assessments will take place in a combination of classroom; laboratories;
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	appropriate vessels; and other suitable study environments.
Assessment Method	<ul style="list-style-type: none"> <li>• written test involving the use of sketching, diagram interpretation, short answer questions, multiple choice questions;</li> <li>• oral questioning;</li> <li>• observation during practical exercises on a vessel underway.</li> </ul>
<b>Learning Outcome 5</b>	<b>Observe safety precautions during the stowage and handling of cargoes.</b>
Assessment criteria	<p>5.1 Hazards to personnel associated with dry bulk cargoes and break-bulk cargoes are outlined.</p> <p>5.2 Information available from hazardous cargo labels is interpreted correctly.</p> <p>5.3 Measures taken for the safety of vessel, personnel, and environment during the handling and stowage of dangerous cargoes are described.</p> <p>5.4 Safety precautions to be observed when using derricks, cranes, and associated equipment are described.</p>
Conditions	Learning and assessments will take place in a combination of classroom; laboratories; appropriate vessels; and other suitable study environments.
Assessment Method	<ul style="list-style-type: none"> <li>• written test involving the use of sketching, diagram interpretation, short answer questions, multiple choice questions; calculations.</li> <li>• oral questioning.</li> <li>• observation during practical exercises.</li> </ul>
<b>Learning Outcome 6</b>	<b>Carry out basic deck maintenance procedures.</b>
Assessment Criteria	<p>6.1 Causes of corrosion/deterioration of ship structures are described.</p> <p>6.2 Procedures and materials used for preventative and corrective maintenance are described.</p>

- 6.3 Safety precautions to be observed in the handling and use of maintenance equipment and materials are described.
- 6.4 Rigging of stages and chairs for working aloft and over the side of the vessel is demonstrated.
- 6.5 Safety precautions when working aloft and over the side of the vessel are described.

**Conditions**

Learning and assessments will take place in a combination of classroom; laboratories; appropriate vessels; and other suitable study environments.

**Assessment Method**

- written test involving the use of sketching, diagram interpretation, short answer questions, multiple choice questions;
- oral questioning;
- observation during practical exercises.

**Resource Requirements:**

1. Suitable theory teaching space
2. Suitable simulation and/or laboratory equipment
3. Access to a fully equipped seagoing vessel in survey.

**Method of Instruction:**

This module provides for off-the-job delivery in a classroom, supported by laboratory equipment and access to a vessel in survey. The learning outcomes dealing with mooring, anchoring, and maintenance may also be effectively delivered on-the-job.

**Reference Materials:**

SPC 012 Basic Seamanship Learners Guide

**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.