

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

Course Outline Cover Page

Survival Techniques

Course Title

MSG 089

Department and Number

Course Description: To provide candidates with the skills and knowledge required to respond effectively as a crew member in the event of an abandonment from a merchant or small commercial vessel.

Prepared by: Brent Villiers

State: FSM-FMI

	Hours per Week	No. Of Weeks	Total Hours	Semester Credits
Lecture	1/2	2/1	8	0.5
Laboratory	3/6/12/24	16/8/4/2	48	1
Total Semester Credits:				1.5

Purpose of Course

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

Prerequisite Course(s): Nil

Signature, Chairman, Curriculum Committee

Date Approved by Committee

Signature, President, COM-FSM

Date Approved by the President

General Objective: To equip the seafarers in the maritime industry with practical skills and competence in shipboard operations consistent with their duties on merchant vessels and fishing vessels. To enable mariners to adapt with confidence to the demands and opportunities of a team approach to shipboard operations. This course provides candidates with the skills and knowledge required to respond effectively as a crew member in the event of an abandonment from a merchant or small commercial vessel.

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

1. Describe threats to survival, and correct operation of lifesaving appliances, including personal safety equipment on board ships and fishing vessels.
2. Describe initial actions for survival, on abandonment personal preparation for abandonment.
3. Outline the manner in which survival craft will be deployed during an abandonment.
4. Describe the likely location, amount and from a ship.
5. Describe methods of alerting search agencies, ships and aircraft from a survival craft.
6. Outline normal measures used in maritime search and rescue by maritime rescue co-ordination centers.

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. Threats to Survival and survival strategies
 - muster list
 - emergency signals
 - preparing for abandonment
 - thermal shock
 - drowning
 - hypothermia
 - hyperthermia
 - loss of will to live
 - dehydration
 - starvation

2. Lifesaving Appliances
 - lifejackets
 - lifebuoys
 - immersion suits
 - pyrotechnics
 - thermal protective aids
3. Lifeboats
 - types
 - fittings
 - equipment
 - launching methods
 - management
4. Liferafts
 - construction
 - fittings
 - equipment
 - launching
 - management
5. Detection
 - emergency position indicating radio beacons
 - search and rescue transponders
 - heliograph
 - use of pyrotechnics
6. Search and Rescue (SAR)
 - role of SAR agencies
 - SAR resources
 - air searches
 - supply drops
 - helicopter rescue
 - rescue by surface craft

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

Learning Outcome 1 **Describe threats to survival, and personal preparation for abandonment.**

- 1.1 Types of shipboard emergencies are listed.
- 1.2 Actions required on joining a new ship are described.
- 1.3 The information listed on a muster list is described.
- 1.4 Emergency signals are identified.
- 1.5 Response to emergency signals is described.

- 1.6 The manner in which a person should dress for abandonment is described.
- 1.7 Items of shipboard equipment that should be placed into survival craft prior to abandonment, if time permits are listed.
- 1.8 The meaning of IMO emergency symbols is stated.
- 1.9 The actions to be taken in crash abandonment are described.
- 1.10 The threats to survival imposed by the following are described:
 - Cold water shock
 - Hypothermia
 - Psychological response to disaster
 - Loss of will to live
 - Sea sickness
 - Dehydration
 - Injuries
 - Starvation
- 1.11 Strategies that may be used to counter threats to survival are discussed

Conditions and methods of assessment

As specified in the assessment strategy listed at the end of this outline and by a combination of:

- Multiple choice and short answer written examination.
- Oral questions during practical training.

Learning Outcome 2

Outline the manner in which survival craft will be deployed during an abandonment.

Assessment criteria

- 2.1 The methods of launching an inflatable liferaft are described.
- 2.2 The methods for launching lifeboats is described.
- 2.3 The actions to be taken by a non-launching crew member of a survival craft are described.

**Conditions and
methods of assessment**

As specified in the assessment strategy listed at the end of this outline and by a combination of:

- Multiple choice and short answer written examination.
- Oral questions during practical training.

Learning Outcome 3

Describe the likely location, amount and correct operation of lifesaving appliances, including personal safety equipment on board ships and fishing vessels.

Assessment criteria

- 3.1 The lifesaving appliances carried on board vessels are listed.
- 3.2 The location of lifesaving appliances on board vessels is stated.
- 3.3 A lifejacket is donned correctly.
- 3.4 A life jacket light is operated.
- 3.5 Correct donning of a thermal protective aid is described.
- 3.6 Correct donning of an immersion suit is described.
- 3.7 The operation of lifebuoys, lifebuoy lights and lines is described.
- 3.8 The method of deployment of a MOB combination light and smoke float is explained.
- 3.9 The operation of a rocket line throwing appliance is described.
- 3.10 The shelf life of pyrotechnics is stated.
- 3.11 The operation of hand held pyrotechnics is demonstrated.

**Conditions and
methods of assessment**

As specified in the assessment strategy listed at the end of this outline and by a combination of:

- Multiple choice and short answer written examination.
- Oral questions during practical training.

Learning Outcome 4**Describe initial actions for survival, on abandonment from a ship.****Assessment criteria**

- 4.1 The initial actions for survival management are listed.
- 4.2 Jumping from a height of 3 meters whilst wearing a lifejacket is demonstrated.
- 4.3 In-water survival techniques are demonstrated, including:
 - the group huddle
 - heat escape lessening posture
 - swimming in a lifejacket
 - towing with a lifejacket
 - remaining afloat without a lifejacket.
- 4.4 A liferaft is boarded unassisted, whilst wearing a lifejacket.
- 4.5 An unconscious or injured person is pulled into a liferaft.
- 4.6 The importance of launching all survival craft in an abandonment is discussed.
- 4.7 Taking of a liferaft undertow from a lifeboat or rescue boat is described.

Conditions and methods of assessment

As specified in the assessment strategy listed at the end of this outline and by a combination of:

- Multiple choice and short answer written examination.
- Oral questions during practical training.

Learning Outcome 5**Methods of alerting search agencies, ships and aircraft from a survival craft are described.****Assessment criteria**

- 5.1 The alerting and detection aiding equipment provided on ships and survival craft are listed.
- 5.2 The normal location of alerting and detection equipment on board vessels are stated.
- 5.3 An emergency position indicating radio beacon (EPIRB) is activated.

- 5.4 The capabilities of the following are described:
- 121.1/243 Mhz EPIRB
 - 406/121.5 Mhz EPIRB
 - 'L' Band EPIRB
- 5.5 The capabilities of a search and rescue transponder (SART) are described.
- 5.6 The capability of a GMDSS survival craft portable VHF radio transceiver is described.

Conditions and methods of assessment

As specified in the assessment strategy listed at the end of this outline and by a combination of:

- Multiple choice and short answer written examination.
- Oral questions during practical training.

Learning Outcome 6

Methods of alerting search agencies, ships and aircraft from a survival craft are described.

Assessment criteria

- 6.1 The resources available to a typical MRCC are listed
- 6.2 Search methods used by a typical MRCC are described.
- 6.3 Methods for recognizing and responding to an aircraft searching at night are described.
- 6.4 The methods used and precautions required for rescue by helicopter are stated.
- 6.5 A helicopter single lift strop is donned.
- 6.6 The means by which marine supply containers are deployed are described.

Conditions and methods of assessment

As specified in the assessment strategy listed at the end of this outline and by a combination of:

- Multiple choice and short answer written examination.
- Oral questions during practical training.

Delivery strategy

This course is designed to be taught off-the-job and will be delivered in full-time mode. Some areas of content may be common to more than one learning

outcome, and thus integration may be appropriate.

Methods of instruction should include:

1. classroom lectures
2. handouts
3. course notes
4. overhead transparencies
5. slide presentations
6. video material
7. whiteboard notes as well as:
 - Simulated shipboard abandonment scenarios with role playing.
 - Practical demonstrations using shipboard equipment.
 - Case studies.

Resource requirements

Delivery of the training will require:

- classroom
- whiteboard
- overhead projector (or equivalent)
- video player
- swimming pool
- inflatable liferaft
- lifejackets
- immersion suits
- thermal protective aids
- other appropriate life saving appliances as training aids.
- SPC 001 Learners Guide

Assessment Strategy

Assessment Method

Conditions of assessment

A range of methods is suggested for measuring progress towards and achievement of learning outcomes in this course. Knowledge-based criteria will be satisfied through written or oral questioning relating to practical training sessions. Skill-based criteria will be satisfied through practical wet drill exercises throughout the learning period.

Assessment will be undertaken off-the-job, however, where possible the environment will simulate a 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.