

College of Micronesia – FSM
P.O. Box 159
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Course Outline Cover Page

Cargo Operations I
Course Title

MM 217
Department and Number

Course Description: This course provides the student with the knowledge and skills required by the master of a vessel of up to 500 gross tons to monitor the handling, stowage, and care of cargoes.

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State: FSM-FMI

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

Purpose of Course

Degree Requirement _____XX_____

Degree Elective _____

Advanced Certificate _____

Certificate _____

Remedial _____

Other (Workshop) _____

Prerequisite Course(s): MM 175 Small Vessel Stability
MM 176 Nautical Knowledge II

Signature, Chairman, Curriculum Committee

Date Approved by Committee

Signature, President, COM-FSM

Date Approved by the President

General Objective: By successfully completing this course, students will have been provided with the knowledge and skills required by the master of a vessel of less than 500 gross tons to monitor the handling, stowage, and care of cargoes.

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

1. Manage the stowage and handling requirements of a range of cargoes.
2. Apply the principles of cargo care to a range of cargoes.
3. Manage the handling and stowage of dangerous, hazardous, and harmful cargoes.

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. Principles of safe carriage
 - Measurement of cargo, and cargo space
 - Effect on stability & trim
 - Distribution and disposition of cargo
 - Protection and security of cargo
 - Safety of life
 - Seaworthiness
 - General requirements for stowage and handling of break-bulk, bulk, unitized, refrigerated, heavy lift and deck cargoes
 - Documentation
 - Regulations governing cargo-handling equipment.
2. Cargo care
 - Carrier's responsibilities
 - Sources of cargo damage
 - Prevention of cargo damage.
3. Dangerous goods
 - International and local regulations
 - Documentation and procedures
 - Recognition of hazards
 - Use of the IMDG Code
 - Use of EmS and MFAG.

Learning Outcomes:	On completion of this course the learner will be able to:
Learning Outcome 1	Manage the stowage and handling requirements of a range of cargoes.
Assessment criteria	<p>1.1 Meaning and use of the terms 'bale capacity', 'grain capacity' and 'stowage factor' is explained.</p> <p>1.2 General principles of stowage of cargo are described with regards to:</p> <ul style="list-style-type: none"> • Stability & trim of the vessel • Distribution and disposition of cargo • Protection of cargo • Security of cargo • Seaworthiness • Safety of life. <p>1.3 General stowage and handling requirements of the following types of cargoes are described:</p> <ul style="list-style-type: none"> • Break-bulk • Solid bulk • Unitized cargo • Refrigerated cargo • Heavy lift cargo • Deck cargo. <p>1.4 Documentation associated with the management of cargo is described with regards to:</p> <ul style="list-style-type: none"> • Cargo plans and manifests • Bills of lading • Mate's receipts
Conditions and Method of assessment	<p>As specified in the Assessment Strategy listed at the end of this outline and by a combination of:</p> <ul style="list-style-type: none"> • Written test involving the use of sketching, diagram interpretation, short answer questions, multiple choice questions • Oral questioning • Observation during practical exercises.

Learning Outcome 2	Apply the principles of cargo care to a range of cargoes.
Assessment criteria	<p>2.1 Carrier's obligations with respect to the carriage of cargo are outlined.</p> <p>2.2 Sources of damage to cargo are identified and general precautions/procedures to prevent such damage are described with regards to:</p> <ul style="list-style-type: none"> • Handling of cargo • Stowage of cargo • Contamination of cargo • Ventilation of cargo • Pilferage of cargo • Securing of cargo.
Conditions and Method of assessment	<p>As specified in the Assessment Strategy listed at the end of this outline and by a combination of:</p> <ul style="list-style-type: none"> • Written test involving the use of sketching, diagram interpretation, short answer questions, multiple choice questions • Oral questioning • Observation during practical exercises.
Learning Outcome 3	Manage the handling and stowage of dangerous, hazardous and harmful cargoes in packaged form.
Assessment criteria	<p>3.1 International and local regulations governing the carriage of dangerous, hazardous, and harmful cargoes are outlined.</p> <p>3.2 Documentation and procedures required to load and unload dangerous cargoes are described.</p> <p>3.3 Classification of dangerous goods in accordance with the IMDG Code is explained.</p> <p>3.4 Ability to identify the hazards associated with a particular cargo with reference to its markings/labels is demonstrated.</p> <p>3.5 Ability to plan the stowage of dangerous goods, including segregation requirements, in accordance with the IMDG Code and National Regulations is demonstrated.</p>

Conditions and Method of assessment	<p>3.6 Ability to extract and interpret information from EmS and MFAG is demonstrated.</p> <p>As specified in the Assessment Strategy listed at the end of this outline and by a combination of:</p> <ul style="list-style-type: none"> • Written test involving the use of sketching, diagram interpretation, short answer questions, multiple choice questions • Oral questioning • Observation during practical exercises.
<u>Delivery strategy</u>	<p>This course provides for off-the-job delivery in a classroom, supported by simulation and/or laboratory equipment and access to a vessel in survey.</p>
<u>Resource requirements</u>	<p>Delivery of the training will require:</p> <ul style="list-style-type: none"> • A suitable theory teaching space • Simulation and/or laboratory equipment • Vessel in survey • Access to IMDG Code, EmS and MFAG. • Access to national and local regulations concerning cargo handling and stowage, and cargo handling equipment • A vessel's stability book and/or loading manual • Sample cargo documents • Sample cargo securing equipment and materials • Instrument for determining dew point.
Assessment Method	<p>Knowledge, skills and attitudes may be measured by using a combination of practical exercises, oral assessment, and written tests.</p>
Condition of Assessment	<p>This course may be assessed on-the-job and off the job. Competence may be assessed in the following situations: a vessel under survey; approved training</p>

vessel/facility; approved equipment laboratory;
approved simulator facility.

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.