Code of Ethics for Filipino Marine Deck Officers
And
Filipino Marine Engineers

For the marine profession to progress and remain as an orderly and dignified profession, and to further maintain its fruitful standard of practice for the interest of the nation and the general public, these rules of professional conduct are hereby formulated and adopted as guidance for all its practitioners:

Article I

GENERAL DEFINITION

Section 1. A marine officer shall mean any person who holds a certificate as a deck officer and/or as a marine engineer of any grade.

Section 2. A marine officer shall be covered by this Code even if he is under suspension, but his status as a marine officer shall cease if his license has been revoked for any cause.

Section 3. A marine officer is said to have performed an act unethical to the profession if such action or actions are contrary to the established conduct hereforth mentioned.

Article II

DUTY TO THE PROFESSION

Section 1. A marine officer shall strive to elevate, maintain and contribute to the honor and dignity of the profession.

Section 2. He shall conduct himself with the traditional decorum of an officer and a gentlemen, restraining himself from all acts contrary to the established rules of morality and personal discipline.

Section 3. He shall continually improve his professional competency by keeping up to date with the latest technological and scientific knowledge being applied in the marine fields.

Section 4. It shall be his obligation to keep himself in readiness for the next higher license by constant reading, diligent studies and keen observation of the shipboard activities.

Section 5. He shall make financial gain secondary only to the service that the entire profession can render to the economic growth of the country.

Section 6. A marine officer shall not hesitate to consult his fellow marine officers in matters that will affect the honor and integrity of the marine profession.

Section 7. He shall expose, without fear or favor, to the proper authorities of the profession, corrupt or dishonest conduct of members of the profession whose existing practices can degrade the reputation of other practitioners.

Section 8. Every marine officer should aid in safeguarding the profession against the admission to its rank persons
who are unfit or unqualified in moral character or professional training.

Article III
DUTY OF THE STAFF
Section 1. A marine officer, in his capacity as a person of high technical potentialities and delegated with leadership for the discipline of his men shall recognize and respect the supreme authority of the state.
Section 2. A marine officer shall strive to become an exemplary citizen by the devoted or fruitful fulfillment of his civic duties.
Section 3. He shall perform his professional duties in conformity with the existing laws.
Section 4. He shall endeavor to assist and cooperate with the proper authorities in the enforcement of maritime and custom laws and regulations.
Section 5. He shall offer to the state his full knowledge, experience and material possession in the interest of national security and especially in time of national emergency.

Article IV
DUTY TO THE PUBLIC
Section 1. Every marine officer shall compose himself as an officer and a gentleman, and act honorably when dealing with the general public.
Section 2. He should be concerned foremost with the safety of every man, woman and child who boards his ship as a passenger by following all safety measures prescribed for shipboard use.
Section 3. He shall contribute his professional knowledge for the general welfare and comfort of the riding public to gain their respect and confidence.
Section 4. He shall, above all, continually consider the preservation of life, health and property, even at the risk of his own life, to enhance the sense of public interest that is an integral obligation of the profession.

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Article V
DUTY TO A SUPERIOR
Section 1. Marine officers in a subordinate capacity shall always render the traditional respect to a superior officer.
Section 2. Subordinate shall render the necessary assistance, if possible above and beyond the call of duty, so that their superior, or the entire organization, can be assured of a successful operation of his assigned duties.
Section 3. A subordinate shall strive to gain the confidence and respect of his superior through a prompt and
efficient performance of his assigned duties.

Section 4. A marine officer shall promptly and efficiently follow and obey all lawful orders of his superior without questioning his integrity.

Section 5. A subordinate must always remember that he can only give recommendation to his superior and that final decision must be left to his superior’s discretion.

Section 6. A subordinate must always remember the command responsibility of a superior and must give the proper assistance within or beyond his specific duties.

Section 7. A subordinate should never openly criticize the actuation of his superior with other subordinate officers, more particularly with unlicensed personnel.

Section 8. In the event of inquiries he should only state actual facts but never his opinion as to whether his superior is right or wrong.

Article VI

DUTY TO A SUBORDINATE

Section 1. A superior officer shall always conduct himself with the proper decorum in his act or deeds and thoughts to set an example for his subordinate befitting his rank or designation.

Section 2. He should give the necessary training, guidance and opportunities for the improvement of his subordinate’s competency and especially to overcome his shortcomings demanded by his license as a marine officer.

Section 3. He should continually mold the character of his subordinates to impress the importance of command responsibility.

Section 4. He should give merits unselfishly when due, to inspire his subordinates to achieve greater results.

Section 5. He should not hesitate to listen to advice of his subordinates but exercise discretion before implementation.

Section 6. He should not hesitate to admit errors in his decision when it is obvious, but it must be done within the circle of his staff.

Article VII

DUTY TO HIS FELLOW-PRACTITIONER

Section 1. Every marine officer should work together in mutual cooperation and harmonious relationship by sharing individual knowledge for professional advancement.

Section 2. He should associate with his colleagues in any reputable and recognized marine society to further broaden his knowledge.

Section 3. He should never attempt to issue statements to the general public concerning the shortcomings of his fellow officer.

Section 4. The following specified acts of a marine shall be deemed to be unethical as a breach of professional ethics, subject to immediate disciplinary action.

a. Open criticism of a fellow officer without the knowledge of the other.

b. Spreading false information on the professional competency and ability of another practitioner.

c. Degrading a colleague in order to acquire his position.

d. False recommendation on the competency of another
officer.
e. Maliciously withholding information or knowledge to place others in a controversial situation.
f. Tending to accept a position lower than his highest license to displace another officer applying for the same.
g. Exerting political influence to displace a co-marine officer or engineer.
h. Certifying that he can work better or could render service more satisfactorily than another.
i. Openly expressing that he holds exclusive methods of practice or style of service.

Article VIII
VIOLATION AND EFFECTIVITY
Section 1. Non-compliance with any of the provisions of this Code shall be deemed sufficient grounds for proceeding against a marine officer and/or engineer which may lead to suspension or revocation of his license or licenses. Section 2. This Code of Ethics shall take effect upon approval hereof of the President of the Philippines. Done in the City of Manila, this 14th day of March, 1968.

Board of Marine Deck
and Marine Engine Officers

Resolution No. 04-A
Series of 1998
Revision of the Syllabi of the Subjects in the Licensure Examination
for Merchant Marine Deck Officers

WHEREAS, the Board for Marine Deck Officers created under Presidential Decree No. 97 adopted and promulgated a syllabi for all the subjects in the licensure examination for Merchant Marine Deck Officers under Resolution No. 05, s. 1995 issued by the Board and approved by the Commission in March, 1995.
WHEREAS, a new law was enacted known as the Philippines Merchant Marine Officers Act of 1995 (R.A. No. 8544) creating a new Board of Marine Deck Officers which is empowered to prepare, adopt and issue the syllabi of the subjects for examination in accordance with the STCW 78 Convention, as amended in 1995.
WHEREAS, the present Board created under P.D. No. 97 is authorized to function in the interim until such time as the new Board shall be duly constituted under the new Act (see Sec. 33 (2), R.A. No. 8544).
WHEREAS, the present Board, in order to comply with the requirements of STCW Ô78 Convention, as amended in 1995,
deems it necessary to revise the syllabi of the subjects in the licensure examination for Marine Deck Officers as part of the
BoardÕs compliance with the requirements of STCW Ô78 Convention as amended in 1995.
WHEREFORE, the Board resolved, as it hereby resolves, to revise the syllabi of the subjects in the licensure examination
for Merchant Marine Deck Officers in accordance with and to conform to the requirements of STCW Ô78 Convention
as amended in 1995 as well as the STCW Code which are required by R.A. No. 8544 to be complied with and, in accordance
therewith, hereby adopts and issues a revised syllabi of the subjects in the licensure examination for Merchant
Marine Deck Officers embodied in a document denominated as ÔSyllabi for the Subjects in the Licensure Examination for
Merchant Marine Deck OfficersÓ appended to this Resolution and marked as Annex ÔAÓ including its sub-markings and
made an integral part of the Rules and Regulations of the Board.
The questions which shall be prepared strictly within the scope of this syllabi of the subjects for examinations shall be
used starting with the January, 1999 licensure examination for Merchant Marine Deck Officers. This Resolution shall take effect after fifteen (15) days from its publication in full in the Official Gazette or in a newspaper
of general circulation, whichever comes earlier.
Done in the City of Manila, this 28th day of August, 1998
MARIO K. ALFELOR
Chairman
EUGENIO J. YNION VIRGILIO A. PATOC
Member Member
Attested to:
CARLOS G. ALMELOR
Secretary, Professional Regulatory Boards
Approved:
HERMOCGENES P. POCRE
Chairman
ALFONSO G. ABAD AVELINA DELA REA-TAN
Associate Commissioner Associate Commissioner
Professional Regulation Commission

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Part A-Examination Framework
1. Introduction
The Board of Marine Deck Officers, pursuant to Section 32(2)
of Republic Act No. 8544, has revised the examination syllabus to reflect the provisions of the International Convention Standards of Training, Certification and Watchkeeping (STCW) 1978, as amended. Under this revised syllabus new subject-titles were introduced and some old titles which were considered redundant were changed. Likewise the topics under the subject titles were realigned and regrouped in conformance with the meaning and intent of STCW Regulation II/1 and Regulation II/2 in conjunction with Section A-II/1 and Section A-II/2 respectively of Annex I of the STCW Code which prescribes the minimum standards of competence for Masters and Chief Mates and for Officers in
charge of a navigational watch on ships of 500 gross tonnage or more.

With established belief that ninety percent of collisions at sea grow out of carelessness disregard for the Rules for Preventing Collisions at Sea, or out of plain ignorance of these Rules or their meaning, the Board included the subject of ÒCollision RegulationsÓ in the examination syllabus of both management and operational levels.

Another subject title which is common to all grades is ÒDeck SafetyÓ. This subject is introduced to emphasize the importance of safety in all aspects of the deck officer's work on board ship. The topics covered under this subject conform with the functions performed by the deck officers in their respective levels of responsibility. The multiple-choice type of examination is still used.

2. The Examination Subjects
The examination consists of the following subjects:

2.1 For the Management Level (Master Mariners and Chief Mates)
2.1.1 Navigation and Voyage Planning
2.1.2 Management and Maritime Laws
2.1.3 Collision Regulations
2.1.4 Safety Maintenance and Emergency Procedures

2.2 For the Operational Level (Second Mates and Third Mates)
2.2.1 Ocean and Offshore Navigation
2.2.2 General Ship Knowledge and Cargo Operations
2.2.3 Watchkeeping and Safe Operations
2.2.4 Collision Regulations and Maritime Laws
2.2.5 Safety and Emergency Procedures

2.3 Another level of responsibility is the function performed by the Major and Minor Patrons who are serving as officers on board ships of less than 500 gross tons and navigation within the territorial waters of the Philippines. Their roles and functions are defined under Section 3 paragraph 13 and 14 respectively of the Rules and Regulations Implementing R.A. No.8544. The subjects for examination on this level are the following:

2.3.1 Major Patron
2.3.1.1 Principles of Navigation
2.3.1.2 Seamanship Knowledge
2.3.1.3 Meteorology
2.3.1.4 Rules and Regulations

2.3.2 Minor Patron
2.3.1.5 Principles of Navigation
2.3.1.6 Seamanship Knowledge
2.3.1.7 Meteorology
2.3.1.8 Rules and Regulations

2.4 Distribution of relative weights, time table, corresponding functions as per level of responsibility, and specified number of items to be given in each subject.

2.4.1 Table A-I summarizes the relative weights, corresponding major functions, time allowed and the number of items to be given in the examination for deck officers performing functions in the management level.

2.4.2 Table A-II summarized the relative weights, corresponding major functions, time allowed and the number of items to be given in the examination for deck officers performing functions in the operational level.

2.4.3 Table A-III summarizes the relative weights, corresponding major functions, time allowed
and the number of items to be given in the examination for major and minor patrons.

2.5 Scope of the Examination

The examination covers the mandatory minimum requirements of the 1978 STCW Convention as amended, Regulation II/1 for the operational level and Regulation II/2 for the management level. It is based on the minimum knowledge required for certification of masters and chief mates and of officers in charge of a navigational watch on ships of 500 gross tonnage or more as set out in Table A-II/1 and Table A-II/2 respectively of Annex 1 of the STCW Code. Account has also been taken of associated national maritime regulations and of other areas of knowledge supplementary to the minimum requirements.

2.6 Objectives

On passing the examination deck officers will be capable of taking full responsibility of the safety of the ship, its passengers, crew and cargo. They will be aware of their obligations under international agreements and conventions concerning safety and property at sea and the protection of the maritime environment and will be able to take the practical measures necessary to meet those obligations.

2.7 Entry Standards

Candidates to this examination should meet the requirements prescribed under Section 17 and 21 subsections 1 and 2 of the Rules and Regulations Implementing R.A. No.8544.

Table A-1

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<thead>
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<th>Subjects Time No. of Function Relative Weights (%)</th>
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<td>Allowed Items Master Chief Mariners Mates</td>
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<tr>
<td>1. Navigation and Voyage Planning 4h 00 m 100 1 20 15</td>
</tr>
<tr>
<td>2 Management and Maritime Laws 4h 00 m 100 3 &amp; 7 25 20</td>
</tr>
<tr>
<td>3 Collision Regulations 2h 30 m 100 1 &amp; 7 15 15</td>
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<td>4 General Ship Knowledge and Cargo</td>
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Table A-I

<table>
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<th>No. of Function</th>
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Legend of Function Column:
Seven Main Functions referred to in Annex A 1, Part A, Paragraph 2 of the STCW Code
1. Navigation
2. Cargo handling and stowage
3. Controlling the operation of the ship and care for persons on board
4. Marine engineering
5. Electrical, electronic and control engineering
6. Maintenance and repair
7. Radio communications

Table A-II

<table>
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<th>Subjects</th>
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Legend of Function Column:
Seven Main Functions referred to in Annex A 1, Part A, Paragraph 2 of the STCW Code
1. Navigation
2. Cargo handling and stowage
3. Controlling the operation of the ship and care for persons on board
4. Marine engineering
5. Electrical, electronic and control engineering
6. Maintenance and repair
7. Radio communications

Table A-1

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Legend of Function Column:
Seven Main Functions referred to in Annex A 1, Part A, Paragraph 2 of the STCW Code
1. Navigation
2. Cargo handling and stowage
3. Controlling the operation of the ship and care for persons on board
4. Marine engineering
5. Electrical, electronic and control engineering
6. Maintenance and repair
7. Radio communications
2. Cargo handling and stowage
3. Controlling the operation of the ship and care for persons on board
4. Marine engineering
5. Electrical, electronic and control engineering
6. Maintenance and repair
7. Radio communications

Annex A DPart B
The Examination Syllabus
ANNEX A-I/1
Merchant Marine Deck Officers Examination Syllabus
for Marine Deck Officers Performing Functions in the Management Level (Master Mariners and Chief Mates)
1. Name of Subject: Navigation and Voyage Planning
2. Scope:
A major portion of this subject covers the theory and practice of navigation necessary for the effective and safe navigation of a ship in coastal waters and in the open sea. It also includes voyage planning and all methods employed in determining the position of a ship when at sea taking into consideration all possible errors introduced by tides, currents, direction-finding instruments, like the magnetic and gyro compasses and errors of electronic position-fixing instruments. Meteorology and Oceanography which is essential to the knowledge and proficiency of deck officers performing functions in the management level is also covered.
3. Objectives:
Successful candidates should
3.1 Be able to carry out passages independently in a proper and safe manner and be able to solve problems that may arise during a voyage.
3.2 Be able to fix positions and analyze in a practical way the quality of the fix, read the tide tables and do tidal calculations for a port.
3.3 Be able to use publications and other information services for safe voyage planning.
3.4 Have knowledge of electronic position fixing systems and operating principles of making them capable of navigating safety in all parts of the world.
3.5 Understand and interpret a synoptic chart, predict the kind of weather along the route of his trip, have a knowledge of the characteristics of various weather systems and wave current systems and to use all appropriate navigational publications on currents.
3.6 Have specific knowledge in the use of weather facsimile charts and wave charts and
information on the presence of ice for the safe operation of the ship.

3.7 Working knowledge of the general principles of ship reporting and safety systems and ship reporting requirements including guidelines for reporting incidents involving dangerous goods, harmful substances and/or marine pollutants.

4 Examination Syllabus

Master Mariner and Chief Mate
(Navigation and Voyage Planning D Management Level)

GROUP AREA TOPICS

A 1 Voyage planning and navigation for all conditions taking into account
1. restricted waters
2. meteorological conditions
3. ice
4. restricted visibility
5. traffic separation schemes
6. areas of extensive tidal effects

A 2 General Principles of Ship’s Routeing

A 3 Ship Reporting and Safety System

B 4 Position determination by
1. Terrestrial observation
2. Celestial observations
3. Electronic position fixing system

B 5 Magnetic and Gyro Compasses, Auto Pilots
1. Theory of Magnetism
2. Principles of operation, compensation of magnetic compass, errors and corrections
3. Principles of operation of gyro-compass, errors and correction

C 6 Meteorology
1. The Atmosphere
2. Clouds and Precipitation
3. Visibility
4. Climatology
5. Weather systems, including tropical revolving storms
6. Laws of storms, maneuvers to avoid the storm’s center
7. Synoptic charts and weather forecasting
8. Interpretation of weather chart and weather facsimile

D 7 Oceanography
1. Ocean current system
2. Waves
3. Tidal terminology
4. Navigational predictions on tides and currents
5. Ice

Group weights due to safety of operation:
A - 30%  C - 20%
B - 30%  D - 20%

Merchant Marine Deck Officers Examination Syllabus
For Marine Deck Officers Performing Functions in the Management Level (Master Mariners and Chief Mates)

1. Name of Subject: Management
2. Scope:
This subject covers the requirements of Regulation II/
2 of the 1978 STCW Convention as amended, and its implementing Òstandards of competenceÓ laid out in Table A-II/2 of the STCW Code. Those parts of the Geneva Convention on the Law of the Sea of 1958 and the United Nations Convention on the Law of the Sea, 1982, which are relevant to the master’s conduct of the voyage and international conventions, regulations and recommendations which directly affect the master in carrying out his obligations and responsibilities are also included. Emphasis is placed on the master’s legal obligation concerning the requirements for certificates and other documentation, the survey requirements, the provision for inspections by the master or an officer delegated by him, the maintenance of equipment and the records that are to be kept. The subject also covers the necessary basic knowledge of law concerning the carriage of cargo and marine insurance.

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3 Objectives
Successful candidates should be
3.1 thoroughly conversant with the certificates required to be on board, their periods of validity and the procedures for their renewal.
3.2 Aware of their legal obligations and responsibilities concerning international as well as national provisions for the safety of the ship, crew, passengers and cargo and for the prevention of pollution from the ship.
3.3 Familiar with the correct procedures for all matters concerning the crew, their engagement and discharge, treatment of wages and deductions, discipline and dealing with disciplinary offenses and repatriation.
3.4 Sufficiently knowledgeable of shipping documents related to cargo and the shipowner’s liabilities and obligations in respect of charter-parties and the carriage of cargo to enable them to protect the ship’s interest.
3.5 Capable of carrying out the requirements of the International Health Regulations and be able to respond effectively to medical emergencies.
3.6 Able to effectively observe the correct victualling scale for the proper nutrition of the ship’s crew.

4 The Examination Syllabus
GROUP AREA TOPICS
& Protocol
A 2 SOLAS 1978
A 3 MARPOL 73/78
B 6 Tonnage Convention, 1969
B 7 Legal obligations on vessels certificates and survey requirements
  1. Hull
  2. Machinery
C 8 Marine Insurance
  1. Hull policies
  2. Machinery
  3. Cargo
  4. Protection and Indemnity Clubs
  5. Liens, Salvage and Averages
C 9 ShipOs Business
  1. Charter Parties And Freight Rates
  2. Bills of Lading and Mates Receipts
  3. Laytime and Demurrage
  4. Port Entrance and Clearance Procedures
  5. Notes of Protest
  6. Tramp and General Trades
  7. Liner Vessels and Trades
  8. Voyage Costs and Capital Costs
C 10 Relevant ILO Conventions and Resolutions
D 11 International Health Regulations
D 12 National Maritime Laws
  1. Revised Philippine Merchant Marine Regulations 1997
  2. R.A.8544
  3. Philippine Code of Commerce
  4. MARINA Memo Circulars
  5. PPA Circulars
Group weights due to safety of operation: A - 30% C - 30%
B - 20% D - 20%

Merchant Marine Deck Officers Examination Syllabus
For Marine Deck Officers Performing Functions in the Management Level(Master Mariners and Chief Mates)
1 Name of Subject: General Ship Knowledge and Cargo Operations
2 Scope:
This subject covers the requirements of Regulation II/2 of the 1978 STCW Convention as amended, and its implementing Òstandards of competenceÓ laid out in Table A-II/2 of the STCW Code.
It covers the principle structural members of a ship and methods of construction, the theory of stability and trim and the use of tables, diagrams to plan loading and deballasting so as to maintain satisfactory stability and trim (taking account of applicable IMO recommendation concerning intact stability) and determination of stress levels during loading, discharging and sea passage.
The effects of damage to, and the consequent flooding of a compartment on the trim and stability of a ship and the counter-measures to be taken are also included.
Emphasis is also made on the care and maintenance of cargo gears, the loading, stowage and discharging.
of heavy weights and the handling and carriage of
dangerous and hazardous cargoes and the codes of
safe practice related to them.
The safe handling of oil cargoes and the application
of the International Safety Guide for Oil Tankers and
Terminals and the operation of loading, discharging,
ballasting and tank cleaning, together with load-on-top
procedures, are briefly covered.
The calculations of quantities of cargo, bunkers and
water which can be carried in compliance with the
load-line regulations for the zones and areas through
which the ship will pass is also included.
The subject also includes factors affecting the maneuvering
and handling of ships under all imaginable situations.
The subject also covers diesel and steam turbine main
engines, auxiliary machinery, electrical installations,
steering gears and other engine-room equipment at
an introductory level. It is intended to provide an understanding
of the working and operations of the
equipment without going into details.

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The SOLAS requirement for steering and emergency
steering gears and the provision of emergency electrical
power are also included.

3 Objectives
Successful candidates should
3.1 have a knowledge of the principal structural
members of a ship and methods of
construction.
3.2 Understand the theory of stability and trim ad
be able to use tables, diagrams to plan
loading and ballasting so as to maintain
satisfactory stability and trim and to ensure
that hull stresses remain within acceptable
limits.
3.3 Be able to understand the effects of damage
to , and the consequent flooding of a compartment
on the trim and stability of a ship
and the counter-measures to be taken.
3.4 Be able to plan and organize the stowage of
cargo, taking into account of all relevant
regulations and safety codes.
3.5 Have sufficient knowledge of the construction
and operation of marine power plants and
auxiliary machinery to discuss intelligently
with the engineers matters related to their
running and maintenance. They should also
be aware of what is involved in making the
main propulsion ready for use or in preparing
for manuevering from full sea speed and the
length of notice required.
3.6 Be familiar with, and able to use correctly, common engineering terms.

5 The Examination Syllabus

GROUP AREA TOPICS

A 1 Ship Construction, Stability and Damage Control

1.1 Ship Construction
1.1.1 shipbuilding materials
1.1.2 welding
1.1.3 bulkheads
1.1.4 watertight and weathertight doors
1.1.5 corrosion and its prevention
1.1.6 surveys and drydocking
1.2 Stability
1.2.1 approximate calculation of areas and volumes
1.2.2 effects of density
1.2.3 calculation of free surface effect
1.2.4 stability at moderate and large angles of heel
1.2.5 simplified stability data
1.2.6 trim and list
1.2.7 dynamical stability
1.2.8 approximate GM by means of rolling-periods tests
1.2.9 inclining test
1.2.10 intact stability for passenger and cargo ships under 100 meters in length
1.2.11 intact stability requirements for the carriage of grain
1.2.12 rolling of ships
1.2.13 drydocking and grounding
1.2.14 shear force
1.2.15 bending moments and torsional stress

1.3 Damage Control
1.3.1 flooding of compartments
1.3.2 effects of flooding on transverse stability and on trim

B 2 Cargo Handling and Stowage

2.1 Dry Cargoes
2.1.1 timber deck cargoes
2.1.2 loading
2.1.3 stowage and discharge of heavy weights
2.1.4 procedures for receiving, tallying and delivering cargo, care during carriage

2.2 Cargo-handling gear and hatch covers
2.2.1 requirements applicable to cargo-handling gears
2.2.2 maintenance of cargo and of hatch covers
2.3 Dangerous, hazardous and harmful cargoes
2.3.1 dangerous goods in packages
2.3.2 solid bulk cargoes
2.3.3 IMO grain rules
2.4 Tanker Operations
2.4.1 Terms and definitions
2.4.2 International safety guide for oil
tankers and terminals
2.4.3 Tanker operations and related pollution-prevention regulations
2.4.4 Chemical and gas tanker operations
2.4.5 Control of pollution from ships
2.5 Methods and Safeguards when fumigating holds
2.6 Cargo Calculations
2.6.1 drafts
2.6.2 trim and stability
2.6.3 shear forces
2.6.4 bending moments and torsional moments
2.6.5 minimum freeboard requirements of the load-line regulations
2.6.6 calculation of stresses on cargo gear
C 3 Ship Maneuvering and Handling
3.1 maneuvering when approaching a pilot vessel or station
3.2 handling a ship in rivers and estuaries, having regard to the effects of current, wind

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and restricted water on the response to the helm
3.3 berthing and unberthing under various conditions of wind and tide, with or without tugs
3.4 anchorage
3.5 lightening at sea
3.6 dry-docking
3.7 management and handling of ships in heavy weather and the use of oil
3.8 determining maneuvering and engine characteristics of ships, stopping distances, turning circles
3.9 practical measures to be taken when navigating in ice or condition of ice assimilation on board.
D 4 Ship Power Plants
4.1 Marine Power Plants
4.1.1 operating principles of marine diesel engine
4.1.2 steam turbine systems
4.1.3 propeller and propeller shafts
4.1.4 bridge control
4.2 Auxiliaries
4.2.1 auxiliary boilers
4.2.2 distillation and fresh-water system
4.2.3 pumps
4.2.4 steering gears
4.2.5 generators
4.2.6 alternators and electrical distribution
4.2.7 refrigeration
4.2.8 air-conditioning and ventilation
4.2.9 stabilizers
4.2.10 sewage treatment plants
4.2.11 oily water separators and filters
4.2.12 incinerators
4.2.13 deck machinery
4.2.14 hydraulic systems
4.3 Marine Engineering terms, fuel consumption and conservation

Group weights due to safety of operation:
A - 30% C 25%
B - 30% D 15%

Merchant Marine Deck Officers Examination Syllabus
For Marine Deck Officers Performing Functions in the Management Level (Master Mariners and Chief Mates)

1. Name of Subject: Safety, Maintenance and Emergency Procedures
2. Scope:
This subject covers the requirements of Regulation II/2 of the 1978 STCW Convention as amended, and its implementing Òstandards of competenceÓ laid out in Table A-II/2 of the STCW Code. The syllabus covers contingency planning, including the drawing up of muster lists and emergency instructions, and the actions to take in the event of various emergencies arising. Firefighting and fire prevention as well as assisting a vessel in distress are also covered.
Medical care which should test marine officerÓs knowledge and understanding of the actions that he should take in case of accidents or illnesses which are likely to occur on board ship is covered in this subject.
The syllabus also includes the various systems and procedures in communication particularly with respect to distress, urgency, safety and navigational messages. The obligations and responsibilities of the master under the requirements of the life-saving appliance regulations of the International Convention for the Safety of Life at Sea 1974, as amended, are included in this subject.
MERSAR which should provide a thorough knowledge and understanding of the IMO Merchant Ship Search and Rescue Manual is also covered.

Personal Management, organization and training which should enable the masters and chief mates to organize and manage the crew for the safe and efficient operation of the ship and also know the requirements for training in the operation and maintenance of safety equipment and be able to implement that training on board made up for the full coverage of this subject.

2 Objectives
Successful candidates should be
2.1 able to draw up contingency plans and muster lists for dealing with various emergencies
2.2 able to organize the crew into emergency parties, assign duties to those parties and arrange efficient communication with them.
2.3 Able to carry out the masterÓs duties and responsibilities arising as a result of an
emergency
2.4 Knowledgeable of the requirements for training in the operation and maintenance of safety equipment and be able to implement that training on board.
2.5 Capable of taking immediate and effective action in the case of accidents or illness likely to occur on board ship.
3 The Examination Syllabus
GROUP AREA TOPICS
A 1 Emergency
1.1 contingency plans for response to emergencies
1.2 measures which should be taken in emergencies for the protection and safety of ship, passengers and crew
1.2.1 precautions to be taken when beaching a vessel
1.2.2 actions to be taken on stranding
1.2.3 actions to be taken following a collision
1.2.4 precautions for the protection and safety of passengers in emergency situations

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1.2.5 means of limiting damage and salvaging the ship following a fire or explosion
1.2.6 procedure for abandoning ship
1.2.7 use of auxiliary steering gear and the rigging and use of jury steering arrangements
1.2.8 arrangements for towing and being taken in tow
1.2.9 rescue of persons from a vessel in distress or from a wreck
1.2.10 man-overboard procedures
1.2.11 actions which can be taken when emergencies arise in port
A 2 Medical Care - First Aid
2.1 Ship medicine chest and medical aid at sea
2.2 International medical guide for ships
2.3 International medical code of signals
B 3 Fire Prevention and Fire Fighting
3.1 Classes and Chemistry of Fire
3.2 Basic Fire Fighting Techniques
3.3 Organization of Fire Drills
### 3.4 Firefighting Equipment and Regulations

### C 4 Communications

4.1 International Code of Signals

4.2 Radiotelephone conversation

4.3 Procedures for distress, urgency, safety and navigational messages in the global maritime distress and safety system

4.4 Radiotelex

4.5 Maintenance and checking of equipment

### D 5 Lifesaving, Search and Rescue

5.1 Lifesaving Appliance Regulations, SOLAS 1974 as amended

5.2 Lifesaving / appliance Operations

5.3 IMO Merchant Ship Search and Rescue

### D 6 Personnel Management, Organization and Training

6.1 Personnel Management

6.1.1 principles of controlling subordinates and maintaining good relationships

6.1.2 staff attitude

6.1.3 exercise of authority

6.1.4 group behavior

6.2 Organization of Staff

6.2.1 manning arrangements

6.2.2 analysis of work

6.2.3 allocation of staff

6.2.4 organizing for safety, for emergencies, for staff duties and for maintenance

6.2.5 shipÕs record

6.2.6 organizing communications on the ship

6.3 Training on Board Ships

6.3.1 method

6.3.2 safety

6.3.3 emergency drills

6.3.4 ship operations

6.3.5 maintenance

Group weights due to safety of operation

<table>
<thead>
<tr>
<th>Group</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>25%</td>
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Merchant Marine Deck Officers Examinations Syllabus For Marine Deck Officers Performing Functions in the Management Level(Master Mariners and Chief Mates)

1 Name of Subject: Collision Regulations

2 Scope:

This subject covers the requirements of Regulation II/ 2 of the 1978 STCW Convention as amended, and its implementing Òstandards of competenceÓ laid out in Table A-II/2 of the STCW Code.

A major portion of the syllabus focuses on the International Regulations for Preventing Collisions at Sea as amended in 1981.

Watch keeping arrangements which is essential to effective management of watchkeeping duties comprise the rest of the contents of this subject.

3 Objectives

Successful candidates should

3.1 have a thorough knowledge of the content, application and intent of the Collision Regulation.
3.2 Have a thorough knowledge of the content, application and intent of the principle to be observed in keeping a navigational watch.
3.3 Have ample knowledge of effective bridge teamwork procedures.
3.4 Have an appreciation of system errors and thorough understanding of the operational aspects of modern navigational systems, including Radar and ARPA.
3.5 Know how to evaluate navigational information derived from all sources, including Radar and ARPA, in order to make and implement command decisions for collision avoidance and for directing the safe navigation of the ship.

4 The Examination Syllabus

GROUP AREA TOPICS

A 1 International Regulations for Preventing Collisions at Sea as amended by the IMO General Assembly in 1981
1.1 General
1.1.1 Application
1.1.2 Responsibility
1.1.3 General Definitions
1.2 Steering and Sailing Rules
1.2.1 Conduct of vessels in any condition of visibility
1.2.2 Conduct of vessels in sight of one another
1.2.3 Conduct of vessels in restricted visibility

B 2 Lights and Shapes
2.1 Application
2.2 Definitions
2.3 Visibility of Lights
2.4 Lights and Dayshapes

B 3 Sound and Light Signals
3.1 Definitions
3.2 Equipment
3.3 Manoeuvring Signals
3.4 Warning Lights
3.5 Sound Signal in Restricted Visibility
3.6 Distress Signals

B 4 Exemptions

C 5 Annex I - Positioning and technical details of lights and shapes

C 6 Annex II - Additional signals for fishing vessels fishing in close proximity

C 7 Annex III - Technical details of sound signal appliance
Merchant Marine Deck Officers Examination Syllabus
For Marine Deck Officers Performing Functions in the Operational Level (Second Mate and Third Mate)
1 Name of Subject: Ocean and Offshore Navigation
2 Scope:
This subject covers the requirements of Regulation II/2 of the 1978 STCW Convention as amended, and its implementing 'standards of competence' laid out in Table A-II/2 of the STCW Code
Basically the subject covers the theory and practice of navigation necessary for the effective and safe navigation of a ship in coastal waters, including the use of charts, position fixing by terrestrial observation.
It also includes the theory and practice of the use of observations of celestial bodies for determining position lines and checking compass errors.
The basic theory of magnetism and magnetic compasses and the basic theory of gyro-compass and automatic pilots including their routine maintenance and their limitations with emphasis on their errors, adjustments, the importance of frequent checking and the ways of doing it are also covered in this subject.
This subject covers the mathematical skills required to perform calculations in navigation.
The subject concludes with the topic on meteorology.
3 Objectives
Successful candidates should
3.1 understand the basic principles of navigation as a whole.
3.2 Be able to carry out routine day-to-day navigation watchkeeping duties in a proper and safe manner.
3.3 Be able to read information from a chart, fix the ship's position in coastal waters, conduct a proper coastal passage, read basic information from the tables and check magnetic compass and gyro-compass.
3.4 Be able to fix the position of the ship, determine error of the compass by using observations obtained from celestial bodies.
3.5 Have adequate knowledge of the basic theory of electronic navigational aids and the use of appropriate instruments.
3.6 Have a thorough knowledge of the basic theory of magnetism and theory of gyrocompass.
3.7 Have a sufficient knowledge and understanding
of meteorology to be able to apply it for safe operation of the ship.
3.8 Have the skills necessary to perform mathematical calculations in navigation.
3.9 Be proficient with the operation of the various mathematical formulas employed in the solution of problems in navigation.
4 The Examination Syllabus
GROUP AREA TOPICS
A 1 Terrestrial and Coastal Navigation
1.1 Charts and Chart Projections
1.1.1 ECDIS systems are considered to be included under the term ÒchartÓ
1.2 Navigational Publications
1.3 Electronic Systems of position-fixing
1.3.1 Radar Navigational Problems
1.4 Satellite Navigation Systems
1.5 RDF, echo-sounder and speed logs
1.6 Bouyage Systems
1.7 Aids to Navigation
1.8 Dead Reckoning
1.9 Sailing Problems
B 2 Magnetic Compass and Gyro-Compass, Auto Pilot
2.1 EarthÕs Magnetism and ShipÕs Deviation
2.2 Magnetic Compass, Errors and Corrections
2.3 Gyro-Compass, Errors and Corrections
2.4 Operation and Care of Gyro-Compass
2.5 Automatic Pilot
C 3 Celestial Navigation
3.1 Nautical Astronomy
3.2 Equinoctial System of Coordinates
3.3 Horizon System of Coordinates
3.4 Time Diagram
3.5 Sextant and Altitude Corrections
3.6 Nautical Almanac
3.7 Celestial Observations
3.7.1 Lat by Meridian Altitude (Sun only)
3.7.2 Lat by Polaris
3.7.3 Time of Meridian (Sun only)
3.7.4 Zone Time of Sunrise, Sunset
3.7.5 Zone Time of Moonrise, Moonset
3.7.6 Azimuth and Amplitude (Sun only)
3.7.7 GMT, LMT and Zone Times
D 4 Meteorology
4.1 The Meteorological Elements
4.1.1 Shipborne Meteorological Instruments
4.1.2 The Atmosphere
4.1.3 Composition and physical properties of the atmosphere
4.1.4 Atmospheric pressure
4.1.5 Wind
4.1.6 Cloud and Precipitation
4.1.7 Visibility
4.2 Climatology
4.2.1 The wind and pressure systems over the oceans
4.3 Weather Systems
4.3.1 Structure of depressions
4.3.2 Anticyclones and other pressure systems
4.4 Weather Reports and Forecasting
4.4.1 Services for shipping
4.4.2 Recording and reporting weather observations
4.4.3 Weather forecasting

Group weights due to safety of operation:
A - 30%  C - 25%
B - 25%  D - 20%

Merchant Marine Deck Officers Examination Syllabus
For marine Deck Officers performing Functions in the Operational Level (Second Mate and Third Mate)
1 Name of Subject: General Ship Knowledge and Cargo Operations
2 Scope:
This subject covers the requirements of Regulation II/2 of the 1978 STCW Convention as amended, and its implementing Òstandards of competenceÓ laid out in Table A-II/2 of the STCW Code.
It covers almost all the safety aspects of ship operations, from the fundamentals of ship construction, basic stability, safe cargo handling and stowage of the measures to be taken to prevent fire and to fight fire.
3 Objectives
Successful candidates should:
3.1 have a knowledge of the principal structural members of a ship and the proper names of the various parts.
3.2 Understand the use of trim and stability data to calculate the ship’s initial stability, draft and trim for any given disposition of cargo and other weights.
3.3 Know the fundamental actions taken in the event of partial loss of intact buoyancy.
3.4 Be able to supervise the preparation and dunnaging of holds and the operation of ship’s cargo gear.
3.5 Be aware of the importance of adequate securing cargo to prevent damage to the ship or cargo.
4 The Examination Syllabus

GROUP AREA TOPICS
A 1 Ship Construction
1.1 Principal structural members
1.2 Ship nomenclature
1.3 Ship dimension and forms
1.4 Load lines and draught marks, fresh water allowance
1.5 Displacement, buoyancy
1.6 Vessels plans
B 2 Ship Stability
2.1 Centers of gravity and buoyancy
2.2 Density and Drafts
2.3 GM and Weight Calculation
2.4 Stowage Factors
2.5 Deadweights and Capacity Plans
2.6 Lists and its Correction
2.7 Free Surface Effects
C 3 Cargo handling, Stowage and Security
3.1 Cleaning and preparation of holds and deep tanks
3.2 Dunnaging
3.3 Stowage
3.4 Separation and securing of various cargoes
3.5 Precautions to be taken with bulk and deck cargoes for the safety of the ship
3.6 Ship cargo gear and the methods of using it for handling various types of cargo
D 4 Tanker Operations
4.1 Terms and Definitions
4.2 International safety guide for oil tankers and terminals
4.3 Tankers operation and related pollution prevention regulations
4.4 Chemical and gas tanker operations
4.5 Control of pollution from ships
Group weights due to safety operation:
A - 25% C - 25%
B - 25% D - 25%

Merchant Marine Deck Officers Examination Syllabus
For Marine Deck Officers Performing Functions in the Operational Level (Second Mate and Third Mate)

1 Name of Subject: Watchkeeping and Safe Operations

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2 Scope:
This subject covers the requirements of Regulation II/2 of the 1978 STCW Convention as amended, and its implementing Standards of competence laid out in Table A-II/2 of the STCW Code.
The main emphasis is on the Basic Principles of Watchkeeping which is essential to the knowledge and understanding of an officer in charge of a navigational watch.
The subject also includes the basic theories of Ship maneuvering and Handling and Steering Control Systems.
The ordinary work of monitoring pollution from ships, effective bridge teamwork procedures and the general provisions on ship's routeing also form part of the coverage of this subject.

3 Objectives
Successful candidates should
3.1 be able to demonstrate knowledge of STCW Regulation II/1 "Basic Principles to be observed in keeping a navigational watch."
3.2 Be able to demonstrate a sense of responsibility, independence and a willingness to cooperate with others as part of a bridge team.

3.3 Have a commanding knowledge of steering control systems, its operational procedures.

3.4 Be conversant with the general provisions on Ship’s Routeing.

3.5 Be able to identify dangerous goods and know that they are to be stowed and separated according to the requirements of the IMDG Code.

3.6 Be able to know the hazards related to some bulk cargoes and the precautions to take during their loading and carriage.

4 The Examination Syllabus

GROUP AREA TOPICS

A 1 Basic Principles of Watchkeeping

1.1 IMO Operational Guidance for Officers in charge of a Navigational Watch

1.1.1 Fitness for duty

1.1.2 Qualifications to stand watch as officers in charge

1.1.3 Protection of marine environment

1.1.4 Lookout

1.1.5 Watch arrangements

1.1.6 Taking over the watch

1.1.7 Performing the navigational watch

1.1.8 Watchkeeping during clear water

1.1.9 Watchkeeping during restricted visibility

1.1.10 Watchkeeping in hours of darkness

1.1.11 Coastal and congested waters

1.1.12 Navigation on pilot on board

1.2 Keeping an effective deck watch in port or while at anchor under normal conditions

1.2.1 Plotting ship’s position

1.2.2 Checking whether ship remains securely at anchor

1.2.3 Lookout

1.2.4 Inspection rounds

1.2.5 Meteorological, tidal conditions and state of the sea at anchorage

1.2.6 Actions if ship drags anchor

1.2.7 State of readiness of main engines

1.2.8 Lights, shapes and sound signals

1.2.9 Measures to protect the environment from pollution by the ship

1.3 Keeping a safe watch in port when carrying hazardous materials

1.3.1 IMO dangerous goods classes 4-9

1.3.2 Hazardous materials in bulk (MHB)

1.3.3 Health hazards

1.3.4 1974 SOLAS Convention as amended

1.3.5 Code of Safe Practice for Solid Bulk Cargoes (BC Code)

1.3.6 Flammable Solids

1.3.7 Substances liable to spontaneous combustion

1.3.8 Substances which, in contact with water emits flammable gases
1.3.9 Oxidizing substances
1.3.10 Toxic substances
1.3.11 Radioactives
1.3.12 Corrosives
1.3.13 Safety precautions and emergency procedures
B 2 Effective Bridge Teamwork Procedures
B 3 Pollution of Marine Environment
3.1 Monitoring shipboard operations and ensuring compliance with MARPOL requirements
3.2 Oil record book
3.3 Control of oil from machinery spaces
C 4 Ship Maneuvering and Handling
4.1 Effects of deadweight, draft, trim, speed and under keel clearance
4.2 Turning circles and stopping distances
4.3 Effects of wind and current
4.4 Squat, shallow water effect
4.5 Anchoring and mooring
4.6 Dragging, clearing fouled anchor
C 5 Search and Rescue
5.1 IMO Merchant Ship Search and Rescue Manual (MERSAR)
5.2 Manoeuvres and procedures for the rescue of a man overboard
D 6 Steering Control System
D 7 General Provisions on Ship’s Routeing
7.1 Procedures and functions of IMO
7.2 Recommended and compulsory practice
7.3 Methods
7.4 Traffic separation schemes

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Group weights due to safety operation:
A - 30% C - 25%
B - 25% D - 20%

Merchant Marine Deck Officers Examination Syllabus
For Marine Deck Officers Performing Functions in the Operational Level (Second Mate and Third Mate)
1 Name of Subject: Collision Regulations and Maritime Laws
2 Scope:
This subject covers the requirements of Regulation II/2 of the 1978 STCW Convention as amended, and its implementing Standards of competence laid out in Table A-II/2 of the STCW Code.
A major portion of the syllabus focuses on the International Regulations for Preventing Collisions at Sea as amended in 1981, SOLAS 1978 as amended, and MARPOL 73/78 as amended.
The rest of the syllabus covers RADAR navigation and
ARPA.
The subject also covers necessary basic knowledge concerning National maritime Laws.

2 Objectives
Successful candidates should
3.1 have a thorough knowledge of the content, application and intent of the Collision Regulations, SOLAS Regulations, and MARPOL Regulations.
3.2 Have a thorough knowledge of the fundamentals of RADAR and Automatic Radar Plotting Aids (ARPA)
3.3 Have adequate knowledge to operate, interpret, and analyze information obtained from radar and ARPA, including the factors affecting their knowledgeable and capable in complying with the International Health Regulations including medical emergencies.
3.4 Have an adequate knowledge of the content, application and intent of applicable Philippine Maritime Laws.
3.5 Have an adequate knowledge of the content, application and intent of applicable Philippine Maritime Laws.

4 The Examination Syllabus

GROUP AREA TOPICS
A 1 International Regulations for Preventing Collisions at Sea as amended by IMO General Assembly in 1981
1.1 General
1.1.1 Application
1.1.2 Responsibility
1.1.3 General Definitions
1.2 Steering and Sailing Rules
1.2.1 Conduct of vessels in any condition of visibility
1.2.2 Conduct of vessel in sight of one another
1.2.3 Conduct of vessels in restricted visibility
B 2 Lights and Shapes
2.1 Application
2.2 Definitions
2.3 Visibility of Lights
2.4 Lights and Dayshapes
B 3 Sound and Light Signals
3.1 Definitions
3.2 Equipment
3.3 Maneuvering Signals
3.4 Warning Lights
3.5 Sound Signals in Restricted Visibility
3.6 Distress Signals
B 4 Exemptions
C 5 Annex I - Positioning and Technical details of lights and shapes
C 6 Annex II - Additional Signals for Fishing vessels fishing in close proximity
C 7 Annex III - Technical Details of Sound Signal appliance
C 8 Distress Signals
D 9 Radar Navigation, ARPA
9.1 operating principles of radar and ARPA
9.2 interpretation and analysis of information obtained from RADAR
9.3 principal types of ARPA, their display characteristics and performance standards
9.4 operation, interpretation and analysis of information obtained from ARPA

D 10 SOLAS 1978
D 11 MARPOL 73/78
D 12 Legal obligations on vessels certificates and survey requirements:

12.1 Hull
12.2 Machinery
D 13 International Health Regulations
D 14 National Maritime Laws

14.1 Revised Philippine Merchant Marine Regulations 1977
14.2 R.A. No. 8544
14.3 Philippine Code of Commerce
14.4 MARINA Memo Circulars
14.5 PPA Circulars

Group weights due to safety of operation:
A - 30%  C - 20%
B - 25%  D - 25%

Merchant Marine Deck Officers Examination Syllabus
For Marine Deck Officers Performing Functions in the Operational Level(Second Mate and Third Mate)

1 Name of Subject: Safety and Emergency Procedures
2 Scope:
This subject covers the requirement of Regulation II/2 of the 1978 STCW Convention as amended, and its implementing “standards of competence” laid out in Table A-II/2 of the STCW Code.

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The syllabus covers contingency planning, including the drawing up of muster lists and emergency instructions, and the actions to take in the event of various emergencies arising. Firefighting and fire prevention as well as assisting a vessel in distress are also covered. Medical care which should test the marine officer’s knowledge and understanding of the actions that he should take in case of accidents or illnesses which are likely to occur on board ship is covered in this subject.

The syllabus also includes the various systems and procedures in communication particularly with respect to distress, urgency, safety and navigational messages. The obligations and responsibilities of the officer under the requirements of the life-saving appliance regulations of the International Convention for the Safety of Life at Sea 1974, as amended, are included in this subject. MERSAR which should provide a thorough knowledge
and understanding of the IMO Merchant Ship Search and Rescue manual is also covered.
Emergency procedures which is the penultimate component of safety is also substantially covered.
3 Objectives:
3.1 have thorough knowledge of fire prevention, fire fighting and the procedures and actions to take in cases of emergencies.
3.2 Be able to carry out the officer’s duties and responsibilities arising as a result of an emergency.
3.3 Be knowledgeable in the operation and maintenance of safety equipment and be able to implement that training on board.
3.4 Be capable of taking immediate and effective action in the case of accidents or illness likely to occur on board ship.
4 The Examination Syllabus
GROUP AREA TOPICS
A 1 Fire Prevention and Firefighting
1.1 The Fire Triangle and Fire Detection
1.2 Ignition Sources and Flammable Materials
1.3 Classification of Fire and Applicable Extinguishing Agents
1.4 Fixed Fire Fighting Installation on Board
1.5 Fireman’s Outfits, personal Equipment
1.6 General Equipment (identification and location)
1.7 Fire Fighting Methods and Fire-Fighting Agents
1.8 Ship Fire-Fighting Organizations
B 2 Emergency Procedures
2.1 Preparation of contingency plans for response to emergencies
2.2 Assessment of damage and damage control
2.3 Action to be taken following a collision
2.4 Temporary plugging a leakage
2.5 Precautions for the protection and safety of passengers in emergency situations
2.6 Emergency steering (use of auxiliary steering)
2.7 Rigging and use of jury steering
2.8 Rigging a jury rudder
2.9 Arrangements for towing or being towed
2.10 Assisting a vessel in distress
C 3 Medical Care - First Aid
3.1 Ship Medicine Chest and Medical Aid at Sea
3.2 International Medical Guide for Ships
3.3 International Medical Code of Signals
D 4 Life saving, Search, Rescue and Communications
4.1 Life Saving, Search and Rescue
4.1.1 Lifesaving appliance Regulations, SOLAS 1974 as amended
4.1.2 Lifesaving Appliance Operations
4.1.3 IMO Merchant Ship Search and Rescue
4.2 Communications
4.2.1 International Code of Signals
4.2.2 Radiotelephone Conversation
4.2.3 Procedures of distress, urgency, safety and navigational messages in the global maritime distress and safety system

4.2.4 Radiotelex

4.2.5 Maintenance and checking of equipment

Group weights due to safety of operation:
A - 25% C - 25%
B - 25% D - 25%

Merchant marine Deck Officers Examination Syllabus

For Major Patrons
1 Name of Subject: Principles of Navigation
2 The Examination Syllabus

GROUP AREA TOPICS
A 1 Applied Arithmetic
A 2 Geometry
B 3 Time, Speed and Distance
B 4 Elements of piloting/Relative Bearings
C 5 Terrestrial Coordinates
C 6 Plane Sailing
D 7 Magnetic Compass, Errors and Corrections
D 8 Gyro-Compass, Errors and Corrections

Group weights due to safety of operation:
A - 25% C - 25%
B - 25% D - 25%

Merchant Marine Deck Officers Examination Syllabus

For Major Patrons
1 Name of Subject: Seamanship Knowledge
2 The Examination Syllabus

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GROUP AREA TOPICS
A 1 Ship’s Nomenclature
B 2 Basic Ship’s Stability
C 3 Ship handling and Mooring
C 4 Buoyage Systems
D 5 Navigational Aids
D 6 Sounding Leads and Markings

Group weights due to safety of operations:
A - 25% C - 25%
B - 25% D - 25%

Merchant Marine Deck Officers Examination For Major Patrons
1 Name of Subject: Meteorology
2 The Examination Syllabus

GROUP AREA TOPICS
A 1 Climate and Seasons
A 2 Land Sea Breezes
B 3 Temperature and Atmospheric Pressure
B 4 Meteorological Instruments
C 5 Depressions and Typhoons
C 6 Monsoons
D 7 Weather Forecasting and Reporting
D 8 Tides and Currents

Group weights due to safety of operation:
A - 25% C - 25%
B - 25% D - 25%

Merchant Marine Deck Officers Examination Syllabus

For major Patrons
1 Name of Subject: Rules and Regulations
2 The examination Syllabus
GROUP AREA TOPICS
A 1 Rules for Preventing Collisions at Sea
B 2 Maritime Pollution Prevention (MARPOL)
C 3 Accident Prevention and maritime Protests
C 4 Local harbor Regulations
D 5 Ship’s papers and Documents
D 6 Life Saving, Fire Prevention and Firefighting

Group weights due to safety of operation:
A - 30% C - 25%
B - 25% D - 20%

Merchant Marine Deck Officers Examination Syllabus
1 Name of Subject: Principles of Navigation
2 The Examination Syllabus
GROUP AREA TOPICS
A 1 Applied Arithmetic
A 2 Geometry
B 3 Time, Speed and Distance
B 4 Elements of Piloting/Relative Bearings
C 5 Terrestrial Coordinates
C 6 Plane Sailing
D 7 Magnetic Compass, Errors and Corrections
D 8 Gyro-Compass, Errors and Corrections

Group weight due to safety of operation:
A - 25% C - 25%
B - 25% D - 25%

Merchant Marine Deck Officers Examination Syllabus
For Minor Patrons
1 Name of Subject: Seamanship Knowledge
2 The Examination Syllabus
GROUP AREA TOPICS
A 1 Ship’s Nomenclature
B 2 Basic Ship’s Stability
C 3 Ship handling and Mooring
C 4 Buoyage Systems
D 5 Navigational Aids
D 6 Sounding Leads and Markings

Group weights due to safety of operation:
A - 25% C - 25%
B - 25% D - 25%

Merchant Marine Deck Officers Examination Syllabus
For Minor Patrons
1 Name of Subject: Meteorology
2 The Examination Syllabus
GROUP AREA TOPICS
A 1 Climate and Seasons
A 2 Land and Sea Breezes
B 3 Temperature and Atmospheric Pressure
C 5 Depressions as Typhoons
C 6 Monsoons
D 7 Weather Forecasting and Reporting
D 8 Tides and Currents

Group weights due to safety of operation:
Merchant Marine Deck Officers Examination Syllabus
For Minor Patrons

1 Name of Subject: Rules and Regulations
2 The Examination Syllabus

GROUP AREA TOPICS
A 1 Rules for Preventing Collisions At Sea
B 2 Maritime Pollution Prevention(MARPOL)
C 3 Accident Prevention and/or Time Protest
C 4 Local harbor Regulations
D 5 Ship’s Papers and Documents
D 6 Life Saving, Fire Prevention and Firefighting

Group weights due to safety of operation:
A - 30% C - 25%
B - 25% D - 25%

Board for Marine Deck
and Marine Engine Officers