



**DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MERCHANT SHIPPING SECRETARIAT
MINISTRY OF PORTS AND SHIPPING**

1st Floor, Bristol Building, 43-89, York Street, Colombo 01, Sri Lanka.

Telephone: +94(0)112435127, Fax: +94(0)112435160, E-mail: dmsmos@slt.net.lk

General Guidelines and the minimum Equipment List to Conduct NWKO, CH. Mate and Masters.

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Introduction

1. Every officer in charge of a navigational watch serving on seagoing ship of 500 GT or more or less than 500GT shall hold a relevant category certificate of Competency of officer in charge of navigational watch..
2. Every chief mate serving on seagoing ship of 500 GT or more/NCV shall hold a relevant category certificate of Competency of chief mate.
3. Every Master serving on seagoing ship of 500 GT or more/less than 500 GT/NCV shall hold a relevant category certificate of Competency of Master.
4. Mandatory minimum requirements for certification as NWKO ,Chief Mate, of Master are specified in the regulation 9 of the Merchant Shipping Standards of Training, Certification and Watch keeping for Seafarers.

All training institutes should adhere to applicable regulations and required to make assessments of any potential risks to the health and safety of staff and trainees that may be associated with their activities. They are also required to identify, implement, monitor and review effective measures for minimizing and controlling them. In addition, institutes will be required to make effective arrangements for dealing with any emergency, incident or accident that may occur during the course of training.

Standard of competence

Every candidate for certification to above specified competency standards shall be required to demonstrate the competence to undertake the tasks, duties and responsibilities listed in the relevant sections of the STCW Code.

Course approval and Conducting Procedure

1. Entry criteria for the respective courses are given in the code of practice.
2. Core /detailed syllabuses will be given by the Director General of Merchant shipping (DGMS).
3. Lesson plan lecture notes and student hand out should be prepared according to the core and detailed syllabus by the institute.

General guidelines

1. Provisional approval will be granted for Successful submission institutes for a period of three (3) months and permanent approval will be issued after observing of their performance during the three (3) months of provisional period.
2. Approval automatically suspended, if any institute has not conducted the said training programme for a period of two (2) years.
3. Relevant table of the STCW code should be complied and IMO model course to be used for your assistance (if available).
4. The teaching methods, required practical and way of transferring the appropriate knowledge to the students should be demonstrated by attending officer of the training institute at the time course approval.
5. The training institutes must get the individual course approval from Director General of Merchant Shipping and if there are any later changes (e.g. in facilities, equipment, staff) should notify to DGMS immediately if that affect the conduct of the training and/or assessment.
6. The Director General of Merchant shipping must be kept informed of the dates, timing and venue of training programmes so that the examiners can monitor the training at their convenience.
7. Certificates shall be issued only to those trainees who successfully complete the training programme and meet other requirements for the issue of the certificate.
8. Full records of all certificates issued to trainees must be up load to the website and records to be retained by the institute in such a way that authenticity or confirmation of issue of a certificate can be verified at a later stage if necessary.
9. 85% attendance is required for successful completion of the course and if anyone goes below should be notified.
10. Assessment to be carried out at the end of the course.

Note : 1. Any institute who wish to conduct any of the DGMS approved training programme, they shall get the approvals from ascending order. (Ex. No direct approval for chief mate, master or refresher and updating without NWKO approvals)

**LIST OF PUBLICATIONS, VIDEOS AND EQUIPMENT REQUIRED TO CONDUCT
PREPARATORY COURSE FOR OFFICER OF THE WATCH ON SHIPS OF 500 GT OR MORE
(UNLIMITED)**

1. Cadet training programme and experience seafarers following the external route

1.1 Hydrographic publications

- a) Admiralty list of radio signals
- b) Admiralty list of lights & fog signals
- c) Admiralty list of tide tables
- d) Admiralty Co-tidal atlas
- e) Admiralty Pilot volumes
- f) Ocean passages for the world
- g) Mariner's Handbook
- h) Admiralty chart catalogue
- i) Admiralty nautical almanac
- j) Admiralty notices to mariners
- k) Admiralty cumulative notices to mariners
- l) Annual summary of admiralty notices to mariners
- m) Symbols And Abbreviations Used On Admiralty Paper Charts
- n) How to Correct Your Charts Admiralty Way
- o) Admiralty Manual of Navigation Volume 02
- p) Distance tables

1.2 IMO publications

- a) SOLAS as amended
- b) ILO/IMO/WHO International medical guide for ships
- c) Quantification addendum : International Medical guide for ships
- d) International ship and port facility security code (ISPS Code)
- e) International Safety management code (ISM Code) and guidelines on implementation of the ISM Code
- f) International code for life safety systems (FSS Code)
- g) International maritime dangerous goods code (IMDG Code) Vol-1 as amended
- h) International maritime dangerous goods code (IMDG Code) Vol. 2 as amended
- i) IMDG Supplement as amended
- j) International maritime solid Bulk Cargoes Code (IMSBC Code) and supplement as amended
- k) International code for the safe carriage of grain in bulk. (international grain code)
- l) BLU code (including BLU manual)
- m) Code of safe practice for ships carrying timber deck cargoes
- n) Code of safe practice for cargo stowage and securing CSS code
- o) Convention on Facilitation of International Maritime Traffic 1965 (FAL 1965)
- p) MARPOL as amended

- q) Guidelines for the control and management of ships Bio fouling to minimize the transfer of invisible aquatic species
- r) MARPOL how to do it
- s) Pollution prevention equipment under MARPOL
- t) Particularly sensitive sea Areas (PSSA)
- u) Crude Oil Washing systems
- v) Ballast water management convention as amended
- w) Ballast water management convention and the guidelines for its implementation
- x) Guidelines for the control management of ship's ballast water to minimize the transfer of harmful aquatic organisms and pathogens
- y) International Conference on Load Lines , 1966 as amended
- z) Graphical Symbols for Fire Control Plans
- aa) Inert gas systems
- bb) International code on INTACT stability as amended
- cc) Prevention of corrosion on board ships
- dd) Convention on the International Regulations for Preventing Collisions at Sea 1972(COLREG 1972) as amended
- ee) Ships' Routing
- ff) International convention on standards of training certification and watch keeping for seafarers,1978,(STCW 1978) as amended
- gg) NAVTEX Manual
- hh) IAMSAR manual Vol.III Mobile facilities
- ii) Manual on Maritime safety Information (MSI Manual)
- jj) International life saving appliances code (LSA code)
- kk) IMO standard Marine Communication Phrases (IMO SMCP)
- ll) International Code of Signals

1.3 Other publications

- a) IALA Maritime Buoyage System
- b) Norrie's nautical tables
- c) Sight reduction tables
- d) Ship Borne Radar And ARPA Book 03 (Capt. Subramaniam, H.)
- e) Automatic Radar Plotting Aids (ARPA) Nutshell Series Booklet 04 (Capt. Subramaniam, H.)
- f) Parallel Indexing techniques (Smith, I.)
- g) Modern Electronic Navigation Aids (8th Edition) or Electronic Navigation Systems (L Tetley & D Calcutt)
- h) Practical Navigation (Nutshell Series Book 01) Reprinted 1996 (Capt. Subramaniam, H.)
- i) Practical Navigation For Officers of the watch (Frost, A.)
- j) Passage Planning Guide Lines (Capt. Salmon, D.R.) or Passage Planning Principles (Seaman Ship International)
- k) Magnetic Compass Deviation And Correction (Denne, W.) or Ship's Magnetic Compass (Capt. T K Joseph)
- l) The American Practical Navigation (Pub No.09) (Bowditch)

- m) The Distance Tables For World Shipping
- n) Principles of Navigation (Joseph, Capt. T.K.)
- o) Principles of Navigation (Sarma, Capt. P.M.)
- p) Basic Principles of Marine Navigation (Moore, D.A.)
- q) Nautical Watch keeping (Nutshell Series Book 07) (Subramaniam, Capt. H.)
- r) Bridge Watch keeping (A Practical Guide) (The Nautical Institute)
- s) Chart work for Mariners (Capt. Puri, S.K)
- t) Chart Work (Basic Concepts & Miscellaneous Calculations) (Capt. Chaudhari, Sudhir Singh)
- u) Manual Of The Rules Of The Road (Capt. Puri,S.K.)
- v) IMO Rule of The Road (Bhandarkar Publications)
- w) A guide to the Collision Avoidance Rules (Cockcroft, A.N.; Lameijer J.N.F.)
- x) A Mariners Guide to Preventing Collisions (Chhabra ,Yashwant)
- y) Cargo work (Fernandes, Errol)
- z) Cargo work The care handling & carriage of cargoes (Taylor, L.G.)
- aa) Cargo work (Kemp John , Young)
- bb) Cargo work for maritime operations (House, David.J)
- cc) Ship stability I (Capt. Subramaniam, H.)
- dd) Ship stability II (Capt. Subramaniam, H.)
- ee) Marine Meteorology (Capt. Subramaniam, H.)
- ff) Meteorology for Seafarers (Frampton, R.M.)
- gg) Notes on Meteorology (Kemp, John)
- hh) Seamanship (Bhandarkar, V.K.)
- ii) Seamanship notes (Kemp, J. F.; Young) or Seamanship Notes (Witherby Seamanship)
- jj) Seamanship Techniques (House, D.J.)
- kk) The seamanship examiner for STCW certification examinations (House, D. J.)
- ll) The Theory and Practice of Seamanship (Danton, Graham)
- mm) Nicholls's seamanship and Nautical Knowledge (Brown, Charles H)
- nn) Bridge procedures guide (International Chamber of shipping)
- oo) Guide to port entry (Colin, pielow)

1.4 Teaching facilities and equipment

- a) Chart tables
- b) Binnacle with magnetic compass
- c) Azimuth mirror
- d) Sextants
- e) Dividers
- f) Parallel rulers
- g) Large and small scale charts
- h) Routeing charts

- i) Plotting sheets
- j) Ship's lights and signal cards
- k) Thermometer
- l) Whirling psychrometer
- m) Aneroid barometer
- n) Marine hydrometer
- o) Morse key connected to a light
- p) Cargo blocks
- q) Drawings and plans of ships
- r) Photographs of various types of ships
- s) Copies of ship's stability books
- t) Fully equipped seamanship centre
 - i) Shackles (various types & sizes)
 - ii) Bull dog grips
 - iii) Hammers (various types & sizes)
 - iv) Blocks (various types & sizes)
 - v) Boatswain's chairs
 - vi) Chisels
 - vii) Stoppers
 - viii) Chain block
 - ix) Cargo net
 - x) Files (various types)
 - xi) Sounding tape
 - xii) Heaving lines
 - xiii) Jacobs ladders
 - xiv) Lugless joining shackles
 - xv) Pilot ladders
 - xvi) Rat guard
 - xvii) Thimbles (various sizes)
 - xviii) Swivels
 - xix) Scrappers
 - xx) Mullets
 - xxi) Bollards (at least single)
 - xxii) Wooden stages
 - xxiii) Anchors (stock and stockless)
 - xxiv) Safety harness
 - xxv) Safety belt
 - xxvi) Wises
 - xxvii) Wooden pegs
 - xxviii) Wire brushes
 - xxix) Palm & needle
 - xxx) Container securing devices
- u) Photo copy machines
- v) Multimedia with audio and video facilities

Minimum publication & equipment list to conduct Mates & Masters programmes

1.5 Hydro graphic publications

- a) Admiralty nautical almanac
- b) Admiralty tide tables

1.6 Other publications

Latest editions of the following publications

- a) Norries nautical tables
- b) Advanced Electronic Navigation (Professional Series)(Fernandes,Edrich)
- c) Navigation For Masters (D.J. House)
- d) Bridge Team Management (2nd Edition) (The Nautica Institues)
- e) Cargo work The care handling & carriage of cargoes (Taylor, L.G.)
- f) Cargo work (Kemp John, Young)
- g) Cargo work for maritime operations (House, David.J)
- h) Bridge Team Management (Capt.Swift Mini,A.J.)
- i) Ship stability I (Capt. Subramaniam, H.)
- j) Ship stability II (Capt. Subramaniam, H.)
- k) Ship stability III (Capt. Subramaniam, H.)
- l) Complete ship stability (Chaudhari S.S)
- m) Ship stability for masters and mates (Derrett, D.R.)
- n) Problems in stability on M. V. hindship (Joseph, T. K.; Rewari, S. S. S)
- o) Stability, trim and cargo calculations on M.V hindship and oil tankers (Joseph, T. K.; Rewari, S. S. S)
- p) Trim and stability particulars of M. V. Hindship (Joseph, T. K.; Rewari, S. S. S)
- q) Marine Meteorology (Subramaniam, H.)
- r) Meteorology for Seafarers (Frampton, R.M.)
- s) Meteorology for Seaman (Burgess C.R.)
- t) Thomas stowage (Thomas R E)
- u) Seamanship Techniques (House, D.J.)
- v) The Theory and Practice of Seamanship (Danton, Graham)
- w) Ice seamanship (Parnell G.Q)
- x) Business & law self examiner (Maclachlam M.)
- y) International Maritime Security Law (Kraska,James , Pedrozo, Raul)
- z) Maritime Law (Hill Christopher)
- aa) The Mariner and the Maritime Law - Seminar 1 - Singing bills of lading speakers' papers (The nautical institute)
- bb) The Mariner and the Maritime Law - Seminar 2 - Unsafe berths and ports speakers' papers (The nautical institute)
- cc) The Mariner and the Maritime Law - Seminar 3 - Seaworthiness (The nautical institute)

- dd) The Mariner and the Maritime Law - Seminar 5 - Salvage (The nautical institute)
- ee) Shipboard operations (Lavery, H.I.)
- ff) Basic ship handling for masters mates and pilots (Willerton P.F.)
- gg) Liquefied gas handling principles on ships and in terminals (McGuire; White)
- hh) Practical ship handling (Armstrong M.C.)
- ii) Bridge procedures guide (International Chamber of shipping)
- jj) International safety guide for oil tankers and terminals (ISGOTT)

1.7 IMO publications

Latest editions of the following publications

- a) SOLAS
- b) ILO/IMO/WHO International medical guide for ships
- c) Quantification addendum : International Medical guide for ships
- d) ISPS Code
- e) International Safety management code (ISM Code) and guidelines on implementation of the ISM Code
- f) International code for fire safety systems (FSS Code)
- g) International maritime dangerous goods code (IMDG Code) incorporating amendment
- h) IMDG Supplement
- i) International maritime solid Bulk Cargoes Code (IMSBC Code)
- j) Guideline on the enhanced program of inspections during surveys of bulk carriers and oil tankers
- k) International code for the safe carriage of grain in bulk. (international grain code)
- l) BLU code
- m) Code of safe practice for ships carrying timber deck cargoes
- n) Code of safe practice for cargo stowage and securing CSS code
- o) Convention on Facilitation of International Maritime Traffic (FAL)
- p) International convention relating to intervention on the high seas in cases on oil pollution casualties (intervention convention)
- q) International Convention on Civil Liability for Oil Pollution Damage (CLC)
- r) International Conference on Limitation of Liability for Maritime Claims
- s) Civil liability for oil pollution damage
- t) International Convention on Civil Liability for Bunker Oil Pollution Damage
- u) MARPOL
- v) Guideline for the control and management of ships Bio fouling to minimize the transfer of invisible aquatic species
- w) MARPOL how to do it
- x) Pollution prevention equipment under MARPOL
- y) Particularly sensitive sea Areas (PSSA)
- z) International Convention on Oil Pollution Preparedness, Response & Co-operation(OPRC)
- aa) Crude Oil Washing systems
- bb) Ballast water management convention and the code
- cc) Ballast water management convention and the guidelines for its implementation

- dd) Guidelines for the control management of ship's ballast water to minimize the transfer of harmful aquatic organisms and pathogens
- ee) Bunkers sampling guidelines
- ff) International Conference on Load Lines
- gg) International Conference on Tonnage Measurement of Ships
- hh) Inert gas systems
- ii) International code on INTACT stability
- jj) Convention on the International Regulations for Preventing Collisions at Sea 1972(COLREG)
- kk) Ships' Routing
- ll) International convention on standards of training certification and watch keeping for seafarers
- mm) IAMSAR manual Vol.III Mobile facilities
- nn) Code of the International standards and recommended practice for A safety investigation into a marine casualty or marine incident (Casualty investigation code)
- oo) International convention for safe containers
- pp) Conference on the Establishment of an International Compensation Fund for Oil Pollution Damage
- qq) Official Records of the Conference on the Establishment of an International Compensation Fund for Oil Pollution Damage
- rr) Athens Convention Relating to the Carriage of Passengers & their Luggage by sea,(PAL)
- ss) International Conference on Savage, 1989
- tt) International Conference on the Suppression of Unlawful Acts Against the Safety of Maritime Navigation
- uu) Nairobi International Convention on the Removal of Wrecks
- vv) International Convention on Liability & Compensation for Damage in Connection with the Carriage of Hazardous & Noxious Substances by sea, (HNS Convention)
- ww) Condition Assessment Scheme (CAS)
- xx) Guidelines for the Provisional Assessment of Liquids Transported in Bulk
- yy) Provisions Concerning the Reporting of Incidents Involving Harmful Substances under MARPOL
- zz) Guidelines on the Convention on the Prevention of Marine Pollution by Dumping of Wastes & other Matter
- aaa) International Conference on Special Trade Passenger ships
- bbb) International conference on space requirements for special trade passenger ships, 1973
- ccc) International Code for the Construction & Equipment of ships Carrying Dangerous Chemicals in Bulk (IBC Code)
- ddd) Code for the construction and equipment of ships carrying dangerous chemicals in bulk BCH code
- eee) International code for the construction and equipment of ships carrying liquefied gases in bulk IGC code
- fff) Code for the construction and equipment of ships carrying liquefied gases in bulk GC code

1.8 Videos

- a) Load line survey

- b) Safety construction survey
- c) Safety equipment survey
- d) Ro-ro Watertight Integrity
- e) Maintenance & Inspection of Lifeboat On load Release Systems
- f) Shipboard Maintenance and Painting Systems Series: Part 2 - Preparation and Application
- g) Navigation in ice part I
- h) Navigation in ice part II
- i) Ship handling in restricted waters – bank effect & interaction between ships
- j) Interaction
- k) Meteorology for safe navigation in tropical & extra tropical cyclones
- l) The master/pilot relationship
- m) Part 1 - Theory of mooring edition 4
- n) Helicopter operations at sea edition 2
- o) Hatch Covers – A practical guide
- p) Operation & maintenance of inert gas systems edition 3
- q) Dangerous and difficult bulk cargoes – Best practice and the IMSBC Code
- r) Bulk carrier safe guards
- s) Fatigue and stress at sea
- t) Prevention & reaction to marine oil spills –Under OPA 90
- u) MARPOL Annex vi – Prevention of air pollution from ships Edition 2
- v) Salvage – A practical guide
- w) Stresses & Construction Part 1
- x) Introduction to docking
- y) Entering dry dock
- z) Dry dock inspections Part 1
- aa) Dry dock inspections Part 2
- bb) Dry docking tests

1.9 Teaching facilities and equipment

- a) Binnacle with magnetic compass
- b) Gyro scope
- c) Routeing charts
- d) Drawings and plans of ships
- e) Copies of ship's stability books
- f) Computer centre and internet facilities
- g) Photo copy machines
- h) Over head projectors
- i) Multimedia with audio and video facilities