



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

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## **Mandatory Minimum Requirements for the Training and Qualifications for NWKO, CH. Mate and Masters.**

Effective Date 1st January 2022

### **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)**

# **Finalized minimum requirement of equipment's and teaching aids for deck officers**

## **LIST OF PUBLICATIONS, VIDEOS AND EQUIPMENT REQUIRED TO CONDUCT PREPARATORY COURSES**

### **1. Phase I and Phase III (or Phase II of NDT) cadets**

#### **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 distance tables

#### **1.2 Other publications**

- a) IALA Maritime Buoyage System
- b) Nories nautical tables
- c) Ship Borne Radar And ARPA Book 03 (Capt. Subramaniam, H.)
- d) Automatic Radar Plotting Aids (ARPA) Nutshell Series Booklet 04 (Capt. Subramaniam, H.)
- e) Worked Examples in Radar Plotting (Bagshaw, I.w.)
- f) Practical Navigation (Nutshell Series Book 01) Reprinted 1996 (Capt. Subramaniam, H.)
- g) Magnetic Compass Deviation and Correction (Denne, W.) or Ship's Magnetic Compass (Capt. T K Joseph)
- h) Compass-WISE (Klinkert,J.) or Notes on compass work By kemp and Young
- i) Principles of Navigation (Joseph, Capt. T.K.)
- j) Principles of Navigation (Sarma, Capt. P.M.)
- k) Principles of Navigation for Second Mates (Jones, T.G.) or Basic Principles of Marine Navigation (Moore, D.A.)
- l) Nautical Watch keeping (Nutshell Series Book 07) (Subramaniam, Capt. H.)
- m) Bridge Watch keeping (A Practical Guide) (The Nautical Institute)

- n) Chart work for Mariners (Capt. Puri, S.K)
- o) IMO Rule of The Road (Bhandarkar Publications)
- p) A guide to the Collision Avoidance Rules (Cockcroft, A.N.; Lameijer J.N.F.)
- q) A Mariners Guide to Preventing Collisions (Chhabra ,Yashwant)
- r) Cargo work (Fernandes, Errol)
  - s) Cargo work The care handling & carriage of cargoes (Taylor, L.G.)
  - t) Cargo work (Kemp John , Young)
  - u) Cargo work for maritime operations (House, David.J)
  - v) Ship stability I (Subramaniam, H.)
  - w) Marine Meteorology (Subramaniam, H.) or Notes on Meteorology (Kemp, John)
  - x) Seamanship (Bhandarkar, V.K.) or Seamanship notes (Kemp, J. F.; Young) or Seamanship Notes (Witherby Seamanship)
- y) Guide to port entry (Colin, pielow)

### **1.3 IMO publications**

- a) SOLAS as amended
- b) International ship and port facility security code (ISPS Code)
- c) International Safety management code (ISM Code) and guidelines on implementation of the ISM Code
- d) International code for fire safety systems (FSS Code)
- e) MARPOL as amended
- f) Guideline for the control and management of ships Bio fouling to minimize the transfer of invisible aquatic species
- g) Pollution prevention equipment under MARPOL
- h) Particularly sensitive sea Areas (PSSA)
- i) Ballast water management convention as amended
- j) Ballast water management convention and the guidelines for its implementation
- k) Guidelines for the control management of ship's ballast water to minimize the transfer of harmful aquatic organisms and pathogens
- l) International Conference on Load Lines , 1966 as amended
- m) Prevention of corrosion on board ships
- n) Convention on the International Regulations for Preventing Collisions at Sea 1972 (COLREG 1972) as amended
- o) Ships' Routing
- p) International convention on standards of training certification and watch keeping for seafarers,1978, (STCW 1978) as amended
- q) Manual on Maritime safety Information (MSI Manual)
- r) International life saving appliances code (LSA code)
- s) IMO standard Marine Communication Phrases (IMO SMCP) including CD : Pronunciation Guide
- t) International Code of Signals

### **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) Models of buoys
- q) Cargo blocks
- r) Drawings and plans of ships
- s) Photographs of various types of ships
- 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) Mallets
- xxi) Bollards (at least single)
- xxii) Wooden stages
- xxiii)xxiv) Safety harness
- xxv) Safety belt
- xxvi) Wires
- xxvii) Wooden pegs
- xxviii) Wire brushes
- xxix) Palm & needle
- xxx) Container securing devices
- u) Star finders
- v) Computer centre and internet facilities
- w) Photo copy machines

- x) Multimedia with audio and video facilities

## **2. Phase V / Class III (excluding NDT)**

### **2.1 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

### **2.2 Other publications**

- a) IALA Maritime Buoyage System
- b) Nories 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 (8<sup>th</sup> 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) Marine Gyro compasses For Ships' Officers (Frost, A)
- k) Passage Planning Guide Lines (Capt. Salmon, D.R.)
- l) Coastal Navigation (3<sup>rd</sup> Edition) (Smith, Gerry)
- m) Choosing & Using Ship's Radar (Capt. Wylie, F.J.)
- n) The Principles And Practice Of Navigation (Frost, A)
- o) Magnetic Compass Deviation And Correction (Denne, W.) or Ship's Magnetic Compass (Capt. T K Joseph)

- p) Chart Work And Passage Planning (Naik, Capt. M.V.)
- q) Compass-WISE (Klinkert,J.)
- r) The American Practical Navigation (Pub No.09) (Bowditch)
- s) The Distance Tables For World Shipping
- t) Principles of Navigation (Joseph, Capt. T.K.)
- u) Principles of Navigation (Sarma, Capt. P.M.)
- v) Principles of Navigation for Second Mates (Jones, T.G.)
- w) Basic Principles of Marine Navigation (Moore, D.A.)
- x) Principles of Navigation Calculations (Mitchell, J.V.)
- y) Nautical Watch keeping (Nutshell Series Book 07) (Subramaniam, Capt. H.)
- z) Bridge Watch keeping (A Practical Guide) (The Nautical Institute)
- aa) Chart work for Mariners (Capt. Puri, S.K.)
- bb) Chart Work (Basic Concepts & Miscellaneous Calculations) (Capt. Chaudhari, Sudhir Singh)
- cc) Manual Of The Rules Of The Road (Capt. Puri,S.K.)
- dd) IMO Rule of The Road (Bhandarkar Publications)
- ee) A guide to the Collision Avoidance Rules (Cockcroft, A.N.; Lameijer J.N.F.)
- ff) A Mariners Guide to Preventing Collisions (Chhabra ,Yashwant)
- gg) Cargo work (Fernandes, Errol)
- hh) Cargo work The care handling & carriage of cargoes (Taylor, L.G.)
- ii) Cargo work (Kemp John , Young)
- jj) Cargo work for maritime operations (House, David.J)
- kk) Passage Planning Principles (Seaman Ship International)
- ll) Ship stability I (Subramaniam, H.)
- mm) Ship stability II (Subramaniam, H.)
- nn) Marine Meteorology (Subramaniam, H.)
- oo) Meteorology for Seafarers (Frampton, R.M.)
- pp) Notes on Meteorology (Kemp, John)
- qq) Seamanship (Bhandarkar, V.K.)
- rr) Seamanship notes (Kemp, J. F.; Young) or Seamanship Notes (Witherby Seamanship)
- ss) Seamanship Techniques (House, D.J.)
- tt) The seamanship examiner for STCW certification examinations (House, D. J.)
- uu) The Theory and Practice of Seamanship (Danton, Graham)
- vv) Nicholls's seamanship and Nautical Knowledge (Brown, Charles H)
- ww) Bridge procedures guide (International Chamber of shipping)

## 2.3 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 fire 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) International convention relating to intervention on the high seas in cases on oil pollution casualties (intervention)1969
- q) International Convention on Civil Liability for Oil Pollution Damage 1969 (CLC 1969) as amended
- r) International Conference on Limitation of Liability for Maritime Claims, 1976
- s) Civil liability for oil pollution damage as amended
- t) International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001 as amended
- u) MARPOL as amended
- v) Guidelines 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 , 1990 (OPRC) as amended
- aa) Crude Oil Washing systems
- bb) Ballast water management convention as amended
- 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 , 1966 as amended
- gg) Graphical Symbols for Fire Control Plans
- hh) Inert gas systems
- ii) International code on INTACT stability as amended
- jj) Prevention of corrosion on board ships
- kk) Convention on the International Regulations for Preventing Collisions at Sea 1972(COLREG 1972) as amended
- ll) Ships' Routing
- mm) International convention on standards of training certification and watch keeping for seafarers,1978,(STCW 1978) as amended
- nn) NAVTEX Manual
- oo) IAMSAR manual Vol.III Mobile facilities
- pp) Manual on Maritime safety Information (MSI Manual)
- qq) International life saving appliances code (LSA code)
- rr) IMO standard Marine Communication Phrases (IMO SMCP) including CD : Pronunciation Guide
- ss) International Code of Signals

## 2.4 Teaching facilities and equipment



- a) Chart tables
- b) Binnacle with magnetic compass
- c) Azimuth mirror
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- g) Large and small scale charts
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- 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) Ship's stability programmes
- v) Photo copy machines
- w) Over head projectors
- x) Multimedia with audio and video facilities