Assessment Plan

STCW Code: *Section A-II/2*	*Mandatory minimum requirements for certification of masters and chief mates on ships of 500 gross tonnage or more*	Table A: *Table A-II/2*	
Approved Training Program	*Management Level Course for Marine Deck Officers (Function 1)*	*Instructor:*	*Date Prepared:*
Resources Needed		Assessor:	*Approved by:*

Topics	**Written Assessment**				**Practical Assessment**				
	No. of Test Items	**Assessment Method**	**Assessment Period**	**Grading Scheme**	***Assessment Task***				**Grading Scheme**
Course Introduction	0	Multiple Choice Questions	Written Exam and practical assessment are administered at the end of training period	Obtain at least 75% mark from written test	1. Evaluate the planned route with due consideration to the following, in a given scenario: • restricted waters; • meteorological conditions; • ice; • restricted visibility; • traffic separation schemes; • vessel traffic service (VTS) areas; and • areas of extensive tidal effects. 2. Apply the approved reports in accordance with the published procedures and criteria.	3. Determine the most appropriate ship's position-fixing method to the prevailing circumstances and conditions through the in a given scenario: • celestial observation; • terrestrial observation; and • electronic navigational aids	4. Apply the true course/direction of own ship and frequently check magnetic and gyro compass errors in the prevailing circumstances and conditions in a given scenario.	5. Apply the search and rescue operation coordination procedure of IAMSAR in a given scenario.	
1. Voyage planning and navigation for all conditions	3								
2. Routeing in accordance with the General Provisions on Ships' Routeing	1								
3. Reporting in accordance with the General principles for Ship Reporting Systems and with VTS procedures	3								
4. Position determination in all conditions	1								
5. Errors of the magnetic and gyro-compasses	3								
6. Principles of magnetic and gyro compasses	1				***Assessment Criteria***				
7. Systems under the control of the master gyro, and operation and care of the main types of gyro-compass	1				• The equipment, charts and nautical publications required for the voyage are	• The primary method chosen for fixing the ship's	• The method and frequency of checks for errors of	• The plan for coordinating search	Performance of required tasks based

8. Procedures contained in the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual	5				enumerated and appropriate to the safe conduct of the voyage • The reasons for the planned route are supported by facts and statistical data obtained from relevant sources and publications • Positions, courses, distances and time calculations are correct within accepted accuracy standards for navigational equipment • All potential navigational hazards are accurately identified	position is the most appropriate to the prevailing circumstances and conditions • The fix obtained by celestial observations is within accepted accuracy levels • The fix obtained by terrestrial observations is within accepted accuracy levels • The accuracy of the resulting fix is properly assessed • The fix obtained by the use of electronic navigational aids is within the accuracy standards of the systems in use. The possible errors affecting the accuracy of the resulting position are stated and methods of minimizing the effects of system errors	magnetic and gyro-compasses ensures accuracy of information.	and rescue operations is in accordance with international guidelines and standards • Radiocommunications are established and correct communication procedure are followed at all stages of the search and rescue operations	on Assessment Criteria using a Checklist
9. Content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972, as amended	3								
10. Content, application and intent of the Principles to be observed in keeping a navigational watch	1								

						on the resulting position are properly applied			

Topics	Written Assessment				Practical Assessment			
	No. of Test Items	Assessment Method	Assessment Period	Grading Scheme	*Assessment Task*			Grading Scheme
11. System errors and operational aspects of navigational systems	1	Multiple Choice Questions	Written Exam and practical assessment are administered at the end of training period	Obtain at least 75% mark from written test	6. Analyze the operational aspects of the Radar/ARPA and other navigational systems in respect to the information obtained taking into account the limitation of equipment and prevailing circumstances and conditions in a given scenario and Analyze possible system errors that might occur while using the Radar/ARPA and other navigational systems, and measures to correct them in accordance with the operations manual in a given scenario. 7. Perform the blind pilotage safely in accordance with established watchkeeping procedures in a given scenario. 8. Perform the safe navigation to avoid a close encounter or collision with another vessel in accordance with the International Regulations for Preventing Collisions at Sea, 1972, as amended, and Use all navigational data derived from navigational equipment for conducting safe	9. Create and maintain the following in accordance with the established procedure: • system configuration and backup files; • log files; and • route plan files. and Use ECDIS log-book and track history functions for inspection of system functions, alarm settings and user responses. 10. Perform the ECDIS playback functionality for passage review, route plan and review of system functions.	11. Forecast likely weather conditions for a determined period based on all available information. 12. Validate the calculated tidal condition of a secondary port with the use of tide tables in a given scenario. 13. Use the appropriate nautical publications on tides and currents when passing through ocean routes in a given scenario.	
12. Blind pilotage planning	2							
13. Navigational information derived from all sources	2							
14. The interrelationship and optimum use of all navigational data available for conducting navigation								
15. Management of operational procedures, system files and data • Procurement, licensing and updating of chart data and system software	1							
• System and information update	1							
• Creation and maintenance of system configuration and backup files	2							
• Creation and maintenance log files								
• Creation and maintenance route plan files								
• Using ECDIS log-book and track history functions for inspection of system functions, alarm settings and user responses								

					navigation in accordance with the established watchkeeping procedures in a given scenario.			
16. ECDIS playback	2				***Assessment Criteria***			
17. Synoptic chart and forecast area weather	1				• Information obtained from navigation equipment and systems is correctly interpreted and analysed, taking into account the limitations of the equipment and prevailing circumstances and conditions • Action taken to avoid a close encounter or collision with another vessel is in accordance with the International Regulations for Preventing Collisions at Sea, 1972, as amended	• Operational procedures for using ECDIS are established, applied and monitored • Actions taken to minimize risk to safety of navigation	• The likely weather conditions predicted for a determined period are based on all available information • Actions taken to maintain safety of navigation minimize any risk to safety of the ship • Reasons for intended action are backed by statistical data and observations of the actual weather conditions	Performance of required tasks based on Assessment Criteria using a Checklist
18. Characteristics of various weather systems	1							
19. Ocean current systems	1							
20. Tidal conditions	2							
21. Nautical publications on tides and currents	2							

Topics	Written Assessment				Practical Assessment	
	No. of Test Items	Assessment Method	Assessment Period	Grading Scheme	*Assessment Task*	Grading Scheme
22. Manoeuvring and handling a ship in all conditions 22.1 Approaching pilot stations and embarking or disembarking pilots	5	Multiple Choice Questions	Written Exam and practical assessment are administered at the end of training period	Obtain at least 75% mark from written test	14. Manoeuvre the ship to embark and disembark pilots in various conditions of loading (loaded and ballast) and weather in accordance with the established procedures in a given scenario. 15. Manoeuvre the ship in rivers, estuaries and restricted water in various conditions of loading (loaded and ballast) and weather in accordance with the established procedures in a given scenario. 16. Manoeuvre the ship using constant-rate-of-turn techniques under various conditions of loading (loaded and ballast) and weather in a given scenario. 17. Manoeuvre the ship in shallow water including the reduction in under-keel clearance caused by squat, rolling and pitching under various conditions of loading and weather in a given scenario. 18. Manoeuvre the ship when passing close to other ships and nearby banks, considering canal effect, in accordance with the established procedures in a given scenario. 19. Perform the berthing and unberthing of the ship, with and without tugs, under various conditions of loading (loaded and ballast) and weather. 20. Perform the ship handling as per ship's manoeuvring and engine characteristics considering external forces to be expected during ship and tug interaction in a given scenario. 21. Perform the ship handling using available propulsion and manoeuvring systems under various conditions of loading (loaded and ballast) and weather in accordance with the established procedures. 22. Perform the ship anchoring in accordance with the established procedures in a given scenario. 23. Perform the actions to be taken when dragging anchor in accordance with the established procedures in a given scenario. 24. Manoeuvre the ship when approaching a shipyard for dry-docking with and without damage in accordance with the established procedures.manage and handle the ship in heavy weather, including assisting a ship or aircraft in distress, towing operations, lessening drift and use of oil in accordance with established procedure. 25. Perform the ship handling with respect to manoeuvring and propulsion characteristics of own ship in accordance with IMO manoeuvring standards as posted in the wheelhouse (manoeuvring poster), with special reference to stopping distances, turning circles at various draughts and speeds. 26. Perform the safe manoeuvres in and near, Traffic Separation Schemes (TSS) in accordance with Rule 10 of COLREGs, and Vessel Traffic Service (VTS) areas under the List of Radio Signals.	
22.2 Handling ship in rivers, estuaries and restricted water	4					
22.3 Application of constant-rate-of-turn techniques	3					
22.4 In shallow water and under-keel clearance	3					
22.5 Interaction between passing ships and between own ship and nearby banks (canal effect)	3					
22.6 Berthing and unberthing in all conditions	5					
22.7 Ship and tug interaction	1					
22.8 Propulsion and manoeuvring systems	3					

22.9 Anchoring	4				***Assessment Criteria***	
22.10 Dragging anchor					• All decisions concerning berthing and anchoring are based on a proper assessment of the ship's manoeuvring and engine characteristics and the forces to be expected while berthed alongside or lying at anchor • While under way, a full assessment is made of possible effects of shallow and restricted waters, ice, banks, tidal conditions, passing ships and own ship's bow and stern wave so that the ship can be safely manoeuvred under various conditions of loading and weather	Performance of required tasks based on Assessment Criteria using a Checklist
22.11 Dry-docking	3					
22.12 Management and handling of ships in heavy weather	4					
22.13 Precautions in manoeuvring to launch rescue boats or survival craft in bad weather	1					
22.14 Methods of taking on board survivors from rescue boats and survival craft	1					
22.15 Manoeuvring and propulsion characteristics of common types of ships	3					
22.16 Navigating at reduced speed	1					
22.17 Navigating in or near ice or in conditions of ice accumulation on board	1					
22.18 Manoeuvring in and near, traffic separation schemes and in vessel traffic service (VTS) areas	3					

Topics	Written Assessment				Practical Assessment	
	No. of Test Items	Assessment Method	Assessment Period	Grading Scheme	***Assessment Task***	Grading Scheme
23. Precautions when beaching a ship	5	Multiple Choice Questions	Written Exam and practical assessment are administered at the end of training period	Obtain at least 75% mark from written test	27. Evaluate the appropriate actions when beaching a ship in accordance with the established procedures in a given scenario. 28. Assess the extent of damage when a ship is grounded and decide appropriate measures to ensure safety and minimize the effects of damage of the ship and ensure safety of person on board in accordance with the contingency plan in a given scenario and Evaluate the appropriate actions/measures to prevent further damage to the ship, and subsequently refloat it using her own power (self-propelled) or with the assistance of tugboat in a given scenario. 29. Apply the action to be taken if collision is imminent and after the collision or impairment of the watertight integrity of the hull and to mitigate risks to personnel, vessel stability and the marine environment in accordance with the contingency plan in a given scenario.	
24. Action to be taken if grounding is imminent, and after grounding	4					
25. Refloating a grounded ship with or without assistance						
26. Action to be taken if collision is imminent and following a collision or impairment of the watertight integrity of the hull by any cause	2					
27. Assessment of damage control	1					
28. Emergency steering	1					
29. Emergency towing arrangements and towing procedure	1					
30. Operating principles of marine power plants	0				***Assessment Criteria***	
31. Ships' auxiliary machinery	0				• The type and scale of any problem is promptly identified and decisions and actions minimize the effects of any malfunction of the ship's systems • Communications are effective and comply with established procedures • Decisions and actions maximize safety of persons on board	Performance of required tasks based on Assessment Criteria using a Checklist
32. General knowledge of marine engineering terms						
Total Number of Test Items	**100**					

Note: The MTI has the prerogative to cluster related tasks into one scenario provided that it addresses all expected learning outcomes in the achievement of the competence and can be assessed in accordance with the specified assessment criteria.