

EXAMINATION SYLLABUSES

The syllabuses are progressive from grade to grade. The syllabus for a higher grade in both written and oral examinations is always regarded as including the syllabus for the corresponding subject, if any, for certificates of a lower grade.

Although English is not included in these syllabuses as a separate subject, candidates are expected to show a good standard of English in their descriptive answers and the marks obtained will to some extent be a reflection of their skill in the use of the language.

DECK OFFICER (FISHING VESSEL) CLASS 3

ORAL AND PRACTICAL

- (a) A full knowledge of the principles of navigational watchkeeping as laid down by IMO.
- (b) **Compass**
- (i) The care of the magnetic compass. The ability to understand and steer by magnetic compass.
 - (ii) An elementary knowledge of the components of compass error. The determination and application of compass errors.
- (c) Chartwork and Pilotage, in this section of the syllabus candidates will be required to demonstrate their ability to use parallel rulers and dividers in elementary chartwork exercises.
- (i) The meaning of symbols and abbreviations used on Admiralty charts. Recognition of lights; range of visibility of lights. The use of leading lights, transits and light sectors.
 - (ii) To lay off a safe course between two positions on a chart and find the course to steer given the compass error. The application of allowances for tidal streams and leeway.
 - (iii) To fix a position on a chart by latitude and longitude, by means of simultaneous compass bearings, or by compass bearing and range.
 - (iv) To find the times of high and low water at any standard British port; to obtain the approximate direction of the tidal stream at any given time.
- (d) **Meteorology**
- (i) A knowledge of the types of weather messages available to fishermen. A general knowledge of the limits of sea areas for weather forecasts in the limited area.
 - (ii) The use of weather messages; deducing the probable weather and changes in weather to be anticipated.
 - (iii) The Beaufort wind scale and weather notation in use at sea.
 - (iv) A knowledge of the conditions likely to cause the formation of fog, mist or snow.
 - (v) The use of meteorological instruments carried by fishing vessels.
- (e) **Seamanship**
- (i) Use and basic operation of deck appliances, steering gear and bilge pumping system.
 - (ii) Knots, hitches and bends in common use. Seizings, rackings, rope and chain stoppers. Splicing twisted and braided natural and synthetic fibre rope with strict reference to current practice.
 - (iii) Berthing alongside jetties, quays or other ships. Stopping, going astern, manoeuvring. The effect of current, wind and shallow water on manoeuvring. Turning short round. Emergency manoeuvres. Man overboard.
 - (iv) Manoeuvring during fishing operations with special regard to the adverse effect on the vessel's safety which may result from such operations;
 - (v) Precautions to be taken before the onset of heavy weather. Management of a fishing vessel in heavy weather. Means to employ to keep a disabled fishing vessel out of the trough of the sea and lessen her lee drift.
 - (vi) Action to be taken when disabled or in distress. Abandoning ship. Preservation of crew in the event of wreck. Communication with the shore. The use of breeches buoy equipment. Steps to be taken in the case of collision or grounding, heavy weather damage or leaks.
 - (vii) Assisting another vessel or aircraft in distress. Rescuing the crew of a disabled ship or aircraft. Search and rescue procedures.
 - (viii) Towing and being towed.
 - (ix) Bringing a fishing vessel to anchor: the use of anchors and cables.
 - (x) Prevention of fire. Methods of dealing with fire on board a fishing vessel.
 - (xi) The care and use of life-saving appliances and fire-fighting appliances used in fishing vessels. An outline knowledge of the Regulations concerning the carriage of life-saving appliances and fire-fighting appliances in fishing vessels. Knowledge of Regulations concerning musters and drills.
 - (xii) Use of survival craft and their equipment.
 - (xiii) A knowledge of the content and application of the Collision Regulations and those Annexes concerned with safe navigation. Candidates will not be placed in a position of handling a sailing vessel, but will be expected to recognise the lights carried by sailing vessels and have a knowledge of their possible manoeuvres according to the direction of the wind.
 - (xiv) The use of distress signals; penalties for misuse.
 - (xv) The IALA buoyage system A.
 - (xvi) A knowledge of the contents of Merchant Shipping Notices applicable to fishing vessels. A knowledge of the Recommended Code of Safety for Fishermen. The use of Admiralty Notices to Mariners.
 - (xvii) Practical measures to be taken when navigating in ice or in conditions of ice accretion on board.
- (f) **Stowage, Construction and Stability**
- (i) General knowledge of the principal structural members of a vessel
 - (ii) A general understanding of the principles of ship stability as applied in the stability booklet carried on board.
 - (iii) An understanding of the effect of a weight suspended at a height such as when the cod end is hoisted aboard. The effect due to free surface of liquids.
 - (iv) Knowledge of safe handling and stowage of catch and the effect of these factors on the safety of the vessel.

(g) Prevention of pollution of the marine environment

(i) Knowledge of the precautions to be observed to prevent pollution of the marine environment.

(h) Signals

(i) Sending and receiving morse by flash-lamp at 4 words I minute.

(ii) Recognition and knowledge of the meaning of the single flag signals A D F J K L M O T U V and Z of the International Code.

(iii) Practical: To prepare portable radio equipment for operation in a life-raft, erect aerial and operate the radio-telephone facility. Knowledge of the operation of EPIRBs and SARTs.

DECK OFFICER (FISHING VESSEL) CLASS 2

ORAL AND PRACTICAL

- (a) (i) To read and understand a barometer, thermometer and hydrometer. The instruments supplied by the Meteorological Office will be taken as standard.
(ii) To use an azimuth mirror or other instrument for taking bearings.
(iii) To use a sextant for taking vertical and horizontal angles.
(iv) Use, care and limitations of magnetic and gyro compasses and associated equipment.
- (b) (i) General knowledge of the principal structural members of a vessel and the proper names of the various parts.
(ii) The rigging of fishing vessels, methods of ascertaining the safe working loads of ropes including synthetic fibre and wire ropes. Rigging purchases and a knowledge of the power gained by their use. Knots, hitches and bends in common use. Seizings, rackings, ropes and chain stoppers. Splicing twisted and braided natural and synthetic fibre rope and wire rope with strict reference to current practice. Slings a stage, rigging a bosun's chair.
(iii) Care and maintenance of navigation lights and sound signalling apparatus.
- (c) (i) Preparations for getting under way. Duties prior to proceeding to sea, making harbour; entering a dock. Berthing alongside or unberthing from quays, jetties, or other ships and securing to buoys. Towing and being towed.
(ii) Helm orders. Conning the ship. Effects of propellers on the steering of a ship. Stopping, going astern and manoeuvring. Turning short round. Emergency manoeuvres. Precautions when beaching a vessel. Action to be taken prior to, and after, grounding. Bringing a ship to single anchor in an emergency. Man overboard. The effect of current, wind and shallow water on manoeuvring.
(iii) Practical measures to be taken when navigating in ice or in conditions of ice accretion on board, where applicable;
(iv) The duties of the officer of the watch at sea and at anchor. Dragging anchor. Duties of the deck officers in port.
(v) A practical knowledge of search and rescue procedures.
(vi) Manoeuvring the vessel during fishing operations with special regard to adverse effect on the vessel's safety which may result from the fishing gear becoming fast, fouling the vessel's rudder or propeller or otherwise placing the vessel in danger.
(vii) Management and handling of fishing vessels in heavy weather, including appropriate speed in following and quartering seas, assisting a ship or aircraft in distress, towing another ship, means of keeping an unmanageable vessel out of a sea trough, lessening drift and use of oil;
(viii) Transferring fish at sea to factory ships or other vessels.
(ix) The storage and securing of catch and fishing gear on board vessels,
(x) Loading and discharging operations, with special regard to heeling moments from gear and/or catch.
- (d) (i) Anchors, cables their use and stowage.
(ii) Knowledge of the use of all deck appliances including emergency steering gear.
(iii) A practical knowledge of the operation of fishing vessel propulsion machinery and pumping systems.
(iv) Estimation of course and speed whilst towing.
(v) The use and care of rocket and line throwing apparatus.
- (e) (i) The use and care of life saving appliances and equipment used in fishing vessels. Survival procedure in survival craft.
(ii) The use and care of fire appliances including the smoke helmet and self-contained breathing apparatus.
(iii) Organisation of fire fighting and abandon ship procedures.
(iv) Limiting damage and salving the vessel following a fire or explosion.
- (f) (i) A full knowledge of the content and application of the Collision Regulations and those Annexes concerned with safe navigation. Candidates will not be placed in a position of handling a sailing craft, but will be expected to recognise the lights carried by such craft and to have a knowledge of the possible manoeuvres according to the direction of the wind.
(ii) Distress and pilot signals; penalties for misuse.
(iii) A thorough knowledge of safe working practices in fishing vessels including a general knowledge of the contents of MSA 'Merchant Shipping Notices' applicable to fishing vessels and Admiralty 'Notices to Mariners'. The use of Admiralty 'Notices to Mariners'. A knowledge of the Recommended Code of Safety for Fishermen.
(iv) IALA buoyage system A.
- (g) (i) Practical: To prepare portable radio equipment for operation in lifeboat or life-raft, erect aerial and operate the equipment. Knowledge of the operation of EPIRBs and SARTs.

SIGNALS

To send and receive signals:

- (i) Morse-code by flash lamp at four words per minute.
(ii) International Code of Signals.

DECK OFFICER (FISHING VESSEL) CLASS I

ORAL

- (a) (i) Exceptional circumstances
Loss or fouling of rudder and/or propeller. Emergency steering arrangements. Action to be taken following collision or sustaining damage of any kind. Action to be taken on grounding - methods of refloating, surveys subject to refloating. Beaching a fishing vessel.
- (ii) Steps to be taken when disabled and in distress. Preservation of passengers and crew in the event of wreck. Abandoning ship; survival procedure. Communications with the shore. The use of rockets and rocket apparatus.
- (iii) The safety of the vessel, crew and other personnel. Assistance of vessels in distress. Duties in the case of strandings, collisions or other accidents.
- (iv) Assisting a ship or aircraft in distress. The use of direction finding for homing on to a casualty. Rescuing the crew of a disabled ship or ditched aircraft. The launching of boats and life-rafts. A practical knowledge of search and rescue procedures including a thorough knowledge of the Mersar manual.
- (v) Bad weather manoeuvres. Extra precautions to be taken before the onset of heavy weather. The effect of current, wind, shallow water and draught on manoeuvring. Precautions at anchor and at sea. Use of oil. Ship manoeuvring and handling, anchoring and working anchors and cables in all circumstances. Approaching rivers and harbours and manoeuvring therein. Means to employ to keep a disabled or unmanageable vessel out of the trough of the sea and to lessen the lee drift.
- (vi) Steps to be taken in the event of ice accretion.
- (vii) Navigation in, or in the vicinity, of ice.
- (viii) Towing and being towed. Lloyds open form of agreement.
- (ix) Dry docking and slipping, general procedure and precautions to be observed, distribution of weight, bilge blocks, leaving a vessel water-borne.
- (x) Prevention of fire at sea and in port, action to be taken to prevent the spread of fire, full knowledge of the use of fire appliances and the precautions to be taken in their use.
- (xi) Routine inspection of living quarters and store rooms.
- (xii) An outline knowledge of the relevant regulations concerning Life Saving Equipment and fire fighting appliances.
- (xiii) A thorough knowledge of safe working practices in fishing vessels including a general knowledge of the relevant parts of the Health and Safety at Work Act. The Recommended Code of Safety for Fishermen and IMO publications.
- (xiv) Measures to be taken to prevent the spillage of oil during bunkering or oil transfer.
- (b) (i) A full knowledge of the content and application of the Collision Regulations and those Annexes concerned with safe navigation. Candidates will not be placed in a position of handling a sailing craft, but will be expected to recognise the lights carried by such craft and to have a knowledge of the possible manoeuvres according to the direction of the wind.
- (ii) Distress and pilot signals; penalties for misuse.
- (iii) A thorough knowledge of safe working practices in fishing vessels including a general knowledge of the contents of MSA 'Merchant Shipping Notices' applicable to fishing vessels and Admiralty 'Notices to Mariners'. The use of Admiralty 'Notices to Mariners'. A knowledge of the Recommended Code of Safety for Fishermen.
- (iv) IALA buoyage systems A and B.
- (c) (i) Portable radio equipment. The preparation and use of portable radio equipment as used in lifeboats and life-rafts including erection of aerials and knowledge of the facilities and frequencies provided with the equipment.
- (ii) Port Radio Information Services. Knowledge of the types of service available to aid vessels entering ports and assist in berthing as indicated in Admiralty List of Radio Signals 'Port Radio Stations and Pilot Vessels'.
- (d) (i) To correct a sextant into which has been introduced one or more of perpendicularity, side or index errors.
- (ii) To find the index error of a sextant.
- (iii) Candidates will also be questioned on the care and use of chronometers.