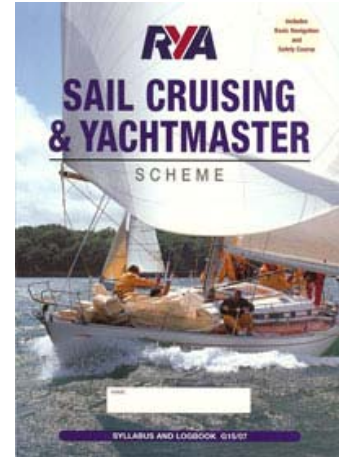


RYA Cruising and Yachtmaster Scheme Shorebased Courses - Full Syllabus

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Copies of the RYA Logbook (G15) can be obtained from
[Marine Publications](#)



RYA Day Skipper Theory

A comprehensive introduction to chart work, navigation, meteorology and the basics of seamanship for Competent Crew. You will find this course invaluable if you want to learn how to start making decision on board.

Nautical terms

- Parts of a boat and hull
- General nautical terminology

Ropework

- Knowledge of the properties of synthetic ropes in common use

Anchorwork

- Characteristics of different types of anchor
- Considerations to be taken into account when anchoring

Safety

- Knowledge of the safety equipment to be carried, its stowage and use (see RYA Boat Safety Handbook, C8)
- Fire precautions and fire fighting
- Use of personal safety equipment, harnesses and lifejackets
- Ability to send a distress signal by VHF radiotelephone
- Basic knowledge of rescue procedures including helicopter rescue

International Regulations for Preventing Collisions at Sea

- Steering and sailing rules (5, 7, 8, 9, 10 and 12-19)
- General rules (all other rules)

Definition of position, course and speed

- Latitude and longitude
- Knowledge of standard navigational terms
- True bearings and courses
- The knot

Navigational charts and publications

- Information shown on charts, chart symbols and representation of direction and distance
- Navigational publications in common use
- Chart correction

Navigational drawing Instruments

- Use of parallel rulers, dividers and proprietary plotting instruments

Compass

- Application of variation
- Awareness of deviation and its causes
- Use of hand-bearing compass

Chartwork

- Dead reckoning and estimated position including an awareness of leeway
- Techniques of visual fixing
- Satellite-derived positions
- Use of waypoints to fix position
- Course to steer

Tides and tidal streams

- Tidal definitions, levels and datum
- Tide tables
- Use of Admiralty method of determining tidal height at standard port and awareness of corrections for secondary ports
- Use of tidal diamonds and tidal stream atlases for chartwork

Visual aids to navigation

- Lighthouses and beacons, light characteristics

Meteorology

- Sources of broadcast meteorological information
- Knowledge of terms used in shipping forecasts, including the Beaufort scale, and their significance to small craft
- Basic knowledge of highs, lows and fronts

Passage Planning

- Preparation of navigational plan for short coastal passages
- Meteorological considerations in planning short coastal passages
- Use of waypoints on passage
- Importance of confirmation of position by an independent source
- Keeping a navigational record

Navigation in restricted visibility

- Precautions to be taken in, and limitations imposed by, fog

Pilotage

- Use of transits, leading lines and clearing lines
- IALA system of buoyage for Region A
- Use of sailing directions
- Pilotage plans and harbour entry

Marine environment

- Responsibility for avoiding pollution and protecting the marine environment

RYA Coastal Skipper and Yachtmaster Offshore Theory

This is an advanced course in navigation and metrology for candidates for the Yachtmaster Coastal and Yachtmaster Offshore Certificate. The syllabus makes some provision for the revision of subjects in the Day Skipper Course but those who have not acquired the knowledge set out in the Day Skipper Course are unlikely to be able to assimilate all the subjects covered in this advanced course in the time available.

The assumed level of knowledge before starting this course is the Day Skipper Shorebased Course.

Position

- Dead reckoning and estimated position
- Satellite-derived position
- Use of waypoints to fix position
- Radar fixes
- Techniques of visual fixing
- Fixes using a mixture of position lines
- Relative accuracy of different methods of position fixing
- Areas of uncertainty

The magnetic compass

- Allowance for variation
- Change of variation with time and position
- Causes of deviation
- Swing for deviation (but not correction)
- Allowance for deviation
- Different types of compass

Tides

- Causes of tides - Springs and Neaps
- Tide tables - sources
- Tidal levels and datum
- Standard and secondary ports
- Tidal anomalies (Solent etc.)

Tidal streams

- Sources of tidal information
- Tidal stream information in sailing directions and Yachtsmen's Almanacs
- Allowance for tidal streams in computing a course to steer
- Tide rips, overfalls and races
- Tidal observation buoys, beacons etc.

Buoyage

- IALA system buoyage in Region A
- Limitations of buoys as navigational aids

Lights

- Characteristics
- Ranges - visual, luminous and nominal
- Rising and dipping distances
- Light lists

Pilotage

- Harbour regulations and control signals
- Methods of pre-planning
- Clearing lines
- Use of soundings
- Transits and leading lines

GPS and chart plotters

- Principles of operation and limitations of use
- Raster and vector charts
- Datum
- Importance of confirmation of position by an independent source and keeping a separate record of position
- Importance of paper charts

Echo sounders

- Principles of operation and limitations of use

Deck log

- Importance of log as yacht's official document
- Layout of log, hourly and occasional entries

Meteorology

- Basic terms
- Air masses
- Cloud types
- Weather patterns associated with pressure and frontal systems
- Sources of weather forecasts
- Ability to interpret a shipping forecast, weatherfax and weather satellite information
- Land and sea breezes
- Sea fog
- Use of barometer as a forecasting aid

Rule of the Road

- A sound knowledge of the International Regulations for Preventing Collisions at Sea, except Annexes 1 and 3

Safety at Sea

- Personal safety, use of lifejackets, safety harnesses and lifelines
- Fire prevention and fire fighting
- Distress signals
- Coastguard and Boat Safety Scheme
- Preparation for heavy weather
- Liferafts and helicopter rescue
- Understanding of capabilities of vessel and basic knowledge of stability

Navigation in restricted visibility

- Precautions to be taken in fog
- Limitations to safe navigation imposed by fog
- Navigation strategy in poor visibility

Passage planning

- Preparation of charts and notebook for route planning and making, and use at sea
- Customs regulations as they apply to yachts
- Routine for navigating in coastal waters
- Strategy for course laying
- Use of waypoints and routes
- Use of weather forecast information for passage planning strategy
- Sources of local and national regulations

Marine Environment

- Responsibility to minimise pollution and protect the marine environment

RYA Yachtmaster Ocean Theory

This is a course in astro-navigation and worldwide meteorology which also reveals the mysteries of the sextant. It assumes a knowledge of all subjects covered in the other shorebased courses.

The earth and the celestial sphere

- Definition of observer's zenith and position of a heavenly body in terms of latitude, longitude, GHA and declination
- Right angle relationships, latitude and co-lat, declination and polar distance
- Relationship between GHA, longitude and LHA
- Tabulation of declination in nautical almanac
- Rate of increase of hour angle with time

The PZX triangle

- The tabulated components of the triangle, LHA, co-lat and polar distance
- The calculable components, zenith distance and altitude
- Relationship between zenith distance and altitude
- Introduction to the tabular method of solution in the Air Navigation Tables and basic sight form
- The use of calculators for the solution of the PZX triangle

The sextant

- Practical guide to the use and care of a sextant at sea
- Conversion of sextant altitude to true altitude
- Application of dip, index error and refraction
- Correction of side error, perpendicularity, index error and collimation error

Measurement of time

- Definition of, and relationship between, UT, LMT, standard time and zone time
- Rating of chronometers and watches

Meridian altitudes

- Forecasting time of meridian altitude
- Reduction of meridian altitude sights

Sun, star and other sights

- Reduction and plotting of sun sights using Air Navigation Tables
- Awareness of use of calculator for sight reduction
- The plotting of a sun-run-sun meridian altitude
- Awareness of the reduction and plotting of sights obtained from stars, moon and planets

Compass checking

- Use of amplitude and azimuth tables systems and/or calculator

Satellite Navigation Systems

- Principles and limitations of use of all systems

Great circle sailing

- Comparison of rhumb lines and great circles
- Vertices and composite tracks
- The computation of a series of rhumb lines approximating to a great circle by use of gnomonic and Mercator projections

Meteorology

- General pressure distribution and prevailing winds over the oceans of the world
- Tropical revolving storms, seasonal occurrence and forecasting by observation

Passage planning

- Publications available to assist with planning of long passages (routeing charts, ocean passages of the world and other publications)
- Preparation for ocean passages including survival equipment, victualling, water and fuel management, chafe prevention, spares and maintenance

Passage making

- Navigational routine
- Watchkeeping
- Crew management

Communications

- Satellite and terrestrial systems
- Weather information