

RYA Coastal Skipper / Yachtmaster theory syllabus

This is an advanced course in navigation and meteorology for candidates for the Coastal Skipper and Yachtmaster offshore certificate. 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 corrected)
- 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

- AILA Bouyage in Region A
- Importance of lights 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

- Principals 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

Logs (speed and distance measuring)

- Principles of operation and limitations of use

Deck Log

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

Meteorology

- Basic terms, the Beaufort scale
- Air masses
- Cloud types
- Weather patterns associated with pressure and frontal systems
- Sources of weather information
- Ability to interpret a shipping forecast, weatherfax and weather satellite information
- Land and sea breezes
- Sea fog
- Use of a 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 boat 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 navigation 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 Equipment

- Responsibility to minimise pollution and protect the marine environment