



Rainbow Sailing School – Course Syllabus

Day Skipper – Shorebased Theory Course

Aim: The aim of this course is to provide an introduction to chart work, navigation, meteorology and the basics of seamanship for Competent Crew. The completion of this shorebased course will greatly enhance the value of the practical course, as the instructor will be able to concentrate on the practical aspects of the syllabus.

Suggested minimum pre-course experience: Some practical sailing experience desirable.

Assumed knowledge: None

Syllabus

1. **Nautical terms**
 - Parts of a boat and her hull
 - General nautical terminology
2. **Ropework**
 - Knowledge of the properties of synthetic ropes in common use
 - Ability to tie the following knots and to know their correct use: figure-of-eight, clove hitch, rolling hitch, bowline, round turn and two half hitches, single and double sheet bend, reef knot
 - Handling ropes, including coiling, stowing, securing to cleats and single or double bollards
 - Handling warps
3. **Anchorwork**
 - Characteristics of different types of anchor
 - Considerations to be taken account of when anchoring
4. **Safety**
 - Knowledge of the safety equipment to be carried, it's 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 procedures
 - Basic knowledge of rescue procedures, including helicopter rescue
5. **International regulations for preventing collisions at sea**
 - Steering and sailing rules (5-10 and 12-19)
 - General rules (all other rules)
6. **Definition of position ,course and speed**
 - Latitude and longitude
 - Knowledge of standard navigational terms
 - True bearings and courses
 - The knot
7. **Navigational charts and publications**
 - Information shown on charts, chart symbols and representation of direction and distance
 - Navigational publications in common use
 - Chart correction

8. **Navigational drawing instruments**
 - Use of parallel rules, dividers and proprietary plotting instruments
9. **Compass**
 - Application of variation
 - Use of hand bearing compass
10. **Chartwork**
 - Dead reckoning and estimated position
 - Techniques of visual fixing
 - Satellite derived positions
 - Use of waypoints to fix position
 - Course to steer
11. **Tides and tidal streams**
 - Tidal definitions, levels and datum
 - Tide tables
 - Use of Admiralty method for determining tidal height at a standard port, and awareness of corrections for secondary ports
 - Use of tidal diamonds and tidal stream atlases for chart work
12. **Visual aids to navigation**
 - Lighthouses and beacons
 - Light characteristics
13. **Meteorology**
 - Sources of broadcast meteorological information
 - Knowledge of terms used in shipping forecasts, including the Beaufort Scale, and their significance to small craft.
14. **Passage planning**
 - Preparation of navigational plans 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
15. **Navigation in restricted visibility**
 - Precautions to be taken in, and limitations imposed by, fog
16. **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
17. **Marine environment**
 - Responsibility for avoiding pollution and protecting the environment