ASA 106: Advanced Coastal Cruising Curriculum

This course will teach you to sail a 30 to 50 foot boat in any weather conditions during day and night as both skipper and crew on coastal and inland waters.

Pre-study is vital to the success of your course. There will be two tests for this course, one performance and one written. Upon successful completion of this course you will receive your American Sailing Association, Advanced Coastal Cruising certification.

The textbook used for this course is "The International Marine Book of Sailing" by Robby Robinson. It is available directly from the American Sailing Association, Amazon.com or your local book store. Be sure to compare prices listed on the ASA website before purchasing from another source. We also strongly recommend the "Advanced Coastal Cruising Study Guide" produced by "Go-Sailing". The study guide is available on the Go-Sailing website (www.gosailing.info).

The Annapolis Book of Seamanship is an excellent book for your sailing library and can help you in your preparation for this course.

Please study the material outlined below so that you will be prepared at the time of your course and able to concentrate on the principles taught by the instructor.

Listed below are the standards set by the American Sailing Association which you will have mastered upon successful completion of the course.

Prerequisites: Basic Keelboat Sailing, Basic Coastal Cruising, Bareboat Chartering and Coastal Navigation Certification

Description: Able to safely act as skipper and crew of a sailing vessel about 30 to 50 feet in length. This is a day and nighttime Standard in coastal and inland water, in any weather.

SAILING KNOWLEDGE

A Certified Sailor has successfully demonstrated his or her ability to:

1. Describe the theory of true and apparent wind.
2. Describe the theory of sailing using force diagrams. Graphically find the center of effort and center of resistance of sails and keel, respectively.
3. Describe with the aid of diagrams the causes of lee and weather helm and methods of correcting them. Include the reasons for preference of slight weather helm, sail selection (including full sails or reefed sails), mast position and mast rake.
4. Describe sail shapes and sail interactions as needed for different wind strengths and points of sail. Describe the effects on sail shape and sail interactions when adjusting the following:

Luff tension	Outhaul	Downhaul
Leech line	Boomvang	Cunningham
Backstay tension	Jib fairleads	Jib sheet tension
Mainsheet	Traveller	

Weather

5. Identify how to use a barometer and a thermometer either singly or together to assist in predicting weather.
6. Describe cirrus, cirrostratus, altocumulus, stratocumulus, cumulonimbus and cumulus clouds and the weather expected to be associated with each.
7. Describe local weather in relation to thermal winds and prevailing winds.
8. Describe three sources of weather information available to yachtsmen in the United States.

Seamanship

9. Describe the proper selection of sails on a given boat for all weather conditions and give reasons for the selection made.

10. Describe the appropriate heavy weather precautions for the boat selected and describe how they are carried out. Include sail changes, use of special equipment (safety harness, sea anchor), doubling up of gear, special checks in areas liable to chafe, stowage of equipment (above and below decks), additional checks on condition of bilge, special arrangements for towing dinghy/tender (if used), problems of fatigue, selection of clothing, and the need of at least two on deck at all times.
11. Describe all the steps to be taken by skipper and crew for "heaving to" and "lying ahull."
12. Describe the methods Of rafting at anchor and the possible problems with day and night rafting.
13. Describe how to prevent the tender/dinghy from riding up and bumping the vesselâs hull while anchored at night.
14. Describe step by step how to secure a boat overnight with one anchor and stem made fast to the shore or dock.
15. Describe two methods of using a second anchor to reduce swinging.
16. Describe four different methods of recovering an anchor which is fouled on the bottom.
17. Describe when and how to use a trip line and an anchor buoy.
18. Describe when and how to set an anchor watch and the responsibilities of such a watch.
19. Describe how to:
    - Prepare a towing bridle
    - Pass a tow to another boat
    - Get underway with a tow and which speeds to use
    - Avoid fouling the propeller
    - Avoid danger of towline parting under stress
    - Make proper lookout arrangements
20. List from memory the visual distress signals listed in the applicable U.S. Coast Guard publications.
21. Describe how the boat should be handled and what actions should be taken when the following emergencies occur while under sail-
    - The boat is dismasted
    - The boat runs aground on a lee shore

22. Describe how the boat should be handled and what remedial action should be taken when the following emergencies occur while under power:
    - The engine cooling water fails to flow.
    - The engine fails in a crowded anchorage.
    - The engine fails in a busy channel.
23. State the fuel tank capacity and range of the selected boat and thefactors that could affect its range.
24. State the water tank capacity on your boat and the minimum water requirement per person-
25. Describe the skipper's responsibilities and action for the following common courtesies and customs of yachtsmen:
    - Permission to board.
    - Permission and entitlement to come alongside.
    - Permission and entitlement to cross adjacent boats when rafted.
    - Rights of first boat at an anchorage.
    - Keep clear of boats racing (even though cruising boats may be the "stand on boats").
    - Offering assistance to yachtsmen in trouble.
    - Flag etiquette: National flag, Courtesy flag, Burgee/house flag, Dipping flag.
    - Lines dangling over side.
    - Fenders over side when underway.
    - Checking of boat's appearance (shipshape & Bristol).
26. List the documents required and the procedures followed when leaving and entering U.S. territorial waters.

Engineering

27. Describe and demonstrate the appropriate collective measures for the following common engine problems as applicable to the boat selected:
    - Stoppage in fuel line
    - Burned and defective points

- Fouled spark plug/injector problems
- Carburetor icing (spring and fall sailing)
- Unserviceable starter
- Electrolysis

28. Describe when and how to carry out an oil change in the engine selected.
29. Describe the minimum preseason maintenance and checks given to the following:
    - Hull (including underwater fittings, electrical systems, painting, antifouling)
    - Spars and rigging (including electrolysis)
    - Sails

Safety

30. Describe recommended permanent and temporary installation methods of grounding for lightning.
31. State the factors you would consider before allowing anyone to go swimming while the boat is at anchor.
32. State the danger of overhead power lines.
33. Describe the uses, capabilities and limitations of a portable radar reflector.

SAILING SKILLS

Boat Handling Under Sail (by Day and Night, 30 hours minimum ASA instructional program)

A Certified Sailor has successfully demonstrated his or her ability to:

34. Act as helmsman and demonstrate the proper techniques of beating, reaching, running, tacking, jibing, heading up, heading down (bearing away) and luffing in approximately 20 knots of wind.
35. Work to weather to best advantage using wind shifts, tides and local geography.
36. Sail a compass course (within 10 degrees) with sails trimmed.
37. Demonstrate correct methods of towing a dinghy.
38. Properly carry out nighttime man overboard procedures.
39. Demonstrate correct procedures for hoisting, setting, trimmings, jibing, dousing and packing a spinnaker.*

40. Anchor, weigh anchor, pick up and cast off moorings while acting as helmsman and/or crew.
41. Demonstrate how to take a sounding using two different methods.
42. Stand a navigation watch during a passage of about 20 miles by night and 20 miles by day and demonstrate all of the skills required for the ASA Coastal Navigation Standard.

*Spinnaker work is optional. The certifying instructor will indicate spinnaker use in the certification box on page