



AS-102 Advanced Keelboat Sailing instructor guide

This document offers suggestions for the instructor on how to teach AS-102.

Session 1: Review / Intro to advanced controls and tools.

AT DOCK

Review: winch use; crew duties/helm process/choreography during tacks and jibes; heaving to.

Hoist sails and observe effect(s) of each control one at a time...

Mainsail controls.

- Halyard tension.
- Cunningham.
- Outhaul.
- Vang.
- Backstay.
- Traveler.
- Mainsheet.
- Topping lift.

Jib controls.

- Halyard tension.
- Backstay tension.
- Jib sheets.
- Jib cars.

Discuss/demonstrate...

Other equipment/issues.

- Telltales.
- Tiller extension.
- Line stowage.
- Crew placement.
- Anchor.

UNDER WAY.

Tacking.

Achieve a smooth, efficient tack to emerge with best possible velocity:

- Steer smoothly through tack without over- or under-steering.
- Move crew weight in good sequence.

- Manage sails.

Jibing

- Jibe smoothly and safely without over-steering.
- Manage main safely and smoothly.
- Manage jib sheets to avoid wraps.

COB methods.

- Figure 8; Quick Stop.

Session 2: Sailing upwind.

Adjusting sails for wind/water conditions while sailing upwind.

Light wind/flat water.

Full draft for main and jib and little sail twist

Ease outhaul/vang not slack/luff tension not too tight/backstay looser/jib cars forward/crew weight to achieve moderate heel. Crew position to keep hull aspect flat fore and aft. (Note that in extremely light wind, sails should be flatter).

Rising wind.

“Shifting gears” as wind rises.

Reduce sail draft ... add sail twist ... manage crew weight.

- Tighten outhaul/traveler down/jib cars aft/backstay on as wind rises.
- Travel up while easing sheet/vang loose/topping lift to induce twist in stronger wind.
- Reef and follow same steps with traveler/sail twist.

Sailing through chop.

Steer around wave tops, not through.

Play mainsail.

Don't have luff tension too tight — increase range of the groove.

Dipping an obstruction or starboard tack boat.

NOTE: Mainsail may need to be quickly eased significantly.

Session 3: Sailing off the wind.

- Proper sail trim and twist for close reach, beam reach, broad reach.
- Sailing straight in wind/waves.
- Surfing waves when possible.
- Managing jibes.
- Sailing by the lee.
- Whisker pole use.
- COB - figure 8 and quick stop.

Session 4: Using sails and all other tools for best efficiency

- Sail with rudder tied off using sail trim and crew positions to maintain course, tack and jibe.
 - Use backwinded jib to come out of irons on chosen tack.
 - Use all controls to sail efficiently — maintaining optimal heel angle, boat speed for best upwind performance.
- upwind performance.

This document last updated April 5, 2026