

MARA A152: BOAT HANDLING AND SEAMANSHIP

Item	Value
Curriculum Committee Approval Date	03/24/2021
Top Code	095900 - Marine Technology
Units	3 Total Units
Hours	90 Total Hours (Lecture Hours 36; Lab Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	Yes
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S)

Course Description

Students learn safe boating practices and regulations. Practical training while operating small motor boats includes docking procedures, underway maneuvering, anchoring and overboard rescue drills. Time on the water provides experience in crew teamwork, standing watch, maintaining a lookout and general seamanship. This is a required course of the Professional Mariner Program. A facility fee will be charged. PREREQUISITE: Student must be able to swim 50 yards, tread water for 10 minutes. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Show safe boat handling and docking a tender.
2. Display correct procedure for securing a vessel to the dock and describe the deckhand's responsibilities during docking procedure.
3. Explain safe anchoring procedures and describe the deckhand's duties while anchoring.
4. Demonstrate procedures for locating, returning to and recovering someone who has fallen overboard.

Course Objectives

- 1. Identify parts of the boat.
- 2. Use correct boating terminology.
- 3. Identify correct use of knots and securing lines.
- 4. Explain the effects of wind and waves on the stability and passage of a vessel.
- 5. Discuss how a propeller affects steerage.
- 6. List fuel types and explain safe fueling procedures.
- 7. Identify protocol for picking up passengers in a tender.
- 8. Describe docking preparation.
- 9. Demonstrate overboard rescue.

Lecture Content

Seamanship: Identify parts of boat, vessel terminology Recognize wind and wave direction Safe working on deck Vessel stability Stow cargo Log keeping Standing watch, lookout Marlinspike Engine: Engine types

How a propeller works Engine controls Read gauges Fuel types and safe fueling procedures Boat Handling: Steering to a compass course Theory of maneuvering with single or twin engines Effects of wind and waves Overboard rescue drills Docking: Positions of crew preparations Fending off Heaving line Securing a boat, Tie up to cleats Positioning of bow and stern dock lines, spring lines Approaches, Steering, Stopping, Holding position Effects of wind, current tide Anchoring: Operate windlass Match anchor type with seabed Calculate swing room Anchoring Tender: Steering, Maneuvering, Stopping Boat's pivot point Windage Docking Minimum control speed Balance and trim Speed modes, changing speeds, speed regulations, wake control Crossing a wake Effects of wind and waves Approach a yacht, approach a dock, pick up passengers, protocol Secure to vessel, dock, pier, on deck Operate hoist Troubleshooting Towing Anchoring a tender Taking the course two times enhances skills by supervised repetition.

Lab Content

See Course Content.

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- DE Online Lecture (02X)
- Lab (04)
- DE Live Online Lab (04S)
- DE Online Lab (04X)

Instructional Techniques

Lecture, demonstration, practical application with student participation

Reading Assignments

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Writing Assignments

Written assignments Review Questions Reading assignments

Out-of-class Assignments

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Demonstration of Critical Thinking

1. Demonstrate competency at docking, anchoring, overboard rescue and operating a tender.2. Tests: Multiple choice and Written

Required Writing, Problem Solving, Skills Demonstration

Written assignments

Other Resources

1. All materials supplied with certification packet, includes text books, review questions, and logbook.