

MASSACHUSETTS MARITIME ACADEMY



DEPARTMENT OF MARINE TRANSPORTATION

MT 2231 Basic Seamanship

SPRING 2012

Course Overview

The stated general objectives of Basic Seamanship are as follows:

- Enhance knowledge of marlinspike, lifesaving & safety equipment, advanced firefighting techniques, use of deck machinery, and boat handling
- Enhance deck and bridge watchstanding knowledge and skill
- Prepare the student to apply these skills appropriately when in charge of a navigational and/or deck watch

Specific Learning Objectives – gain/expand knowledge of the following:

- Safety – vessel familiarization tour, station bills, enclosed space entry, respiratory equipment, gas detection equipment, JHA, safety meetings, preventative maintenance, electrical safety, drills, near miss reports, special evolutions (work outside rail, work aloft, welding), documentation, maintenance and inspection of clean safe work areas
- Marlinespike seamanship – categories of line, fiber vs. synthetic, line construction, fiber and synthetic line maintenance and inspection and replacement, breaking strain, wire rope, construction/uses, wire rope fittings, breaking strain, standing vs. running rigging
- Types of weight handling equipment – blocks & tackle, windlass, davit, booms, winch, crane, chain fall, theoretical mechanical advantage vs. actual mechanical advantage, application of electric, hydraulic, and steam power to deck machinery, safety inspections of the above
- Slings and hooks – safe working load, types of hooks, sling and net use, shackles, swivels
- Mooring operations – nomenclature of lines, safety issues, heaving lines, line boats, lines to tugs, line handling devices (chocks, fairleads, winches, capstans), stoppers, line handling commands, mooring alongside other vessels
- Ground tackle – anchors, anchor chain, windlass, stripping bar, pawl, devils claw, wildcat, brake, chain locker, hawse pipe
- Deck officer duties/responsibilities – accountability, watches (at sea/in port), collateral duties (medical, GMDSS, safety, security, training, PPE), reports and inspections, watch turnover, standing orders, logs and records, watch with pilot onboard, watch communications, watch responsibilities during extreme conditions (visibility, weather, traffic), reading draft marks
- Pilot ladder – IMO/IMPA requirements, rigging, relation to freeboard, use of accommodation ladder, boarding the pilot

- Small boats – lifeboats, rescue boats, work boats, launches/tenders, handling under oars (commands), regulations and markings, principles of handling under power, davit types, recovering persons in the water
- Fire prevention and fire fighting – causes, training, fire triangle, fire extinguishing agents, chain reaction, chemistry of fire, pyrolysis, flash point, fire point, flammable liquid, combustible liquid, explosive range, classes of fire, fire tetrahedron, spread of fire (conduction, radiation, convection), fire system components, fire detection systems, sprinklers, foam systems, CO2 systems
- Life saving and damage control – flooding, stability, free surface, de-watering, pumps/eductors, MOB, MOB maneuvers, lifesaving craft, rescue at sea, steering casualty, groundings, collision
- Vessel management – articles of agreement, certificate of discharge, watch rotation cycles, licensing and certification of merchant seaman, vessel entry and clearance procedures
- Vessel records and certificates – USCG documents (SOLAS), FCC and ABS certificates and surveys, bridge log vs. official log, required placards and posted information, vessel oil record book

The student is expected to have gained a working knowledge of the material covered in this course through MT 1111 and Sea Terms I & II. This course will cover a wide range of topics that will require the student to spend considerable preparation time outside of the classroom. If you feel you are falling behind at any time during the semester, see me for extra help. You are required to participate fully in all scheduled lab sessions.

Textbook and Reference Materials

- The required textbooks for this course are ***Knight's Modern Seamanship*** 18th Edition and ***American Merchant Seaman's Manual*** 7th Edition.
- Additional reference materials include:
 1. Seamanship Notes by Captain P.J. Modic
 2. Formulae for the Mariner by Richard M. Plant, Cornell Maritime Press
 3. Marine Fire Prevention, Firefighting and Fire Safety, Maritime Administration
 4. T.S. Kennedy procedures manuals

Outcome Assessment Methods

Seven tests will be administered during the semester, approximately one every two weeks. These tests will account for 75% of your grade. The final exam will account for 25% of your grade.

Cadets are required to be in attendance for all scheduled classroom and lab sessions. **Unexcused absence from any lecture or lab will result in the individual being placed on report.** If unavoidable circumstances require you to miss a lecture or lab you must notify the instructor as far in advance as possible. Cadets missing **five** or more classes will receive a **failing grade** for the course. Any missed lab must be made up and it is your responsibility to meet with your lab instructor to arrange such make-up. Eating, drinking or the use of tobacco products is prohibited from all classes. Cell phones are not permitted in any class. If the instructor removes a cadet from class for whatever reason, you will be marked absent for the class.

Uniform

Cadets will wear the uniform of the day to all lecture sessions. The required lab uniform is a clean working uniform (MMA coveralls) and steel toed work boots with hardhat.

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If at any time during the semester you encounter questions or problems that require extra help do not hesitate to make an appointment or see me at one of the regularly scheduled office hours below:

- Tuesday 1200-1400
- Thursday 1200-1600
- Or by appointment

Please Note: Massachusetts Maritime is committed to providing reasonable accommodations to students with documented disabilities. Students who believe that they may need accommodations in this class are required to contact Assistant Professor Frances Tishkevich, Director of Disability Compliance, at Ext. 1409 or ftishkevich@maritime.edu

Counseling is available from Mrs. K. Shine-O'Brien in Health Services at ext. 1480.

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