

Maritime-Basic Officer's Course

LOS ANGELES COUNTY SHERIFF'S DEPARTMENT

LOS ANGELES PORT POLICE DEPARTMENT

MARITIME OFFICER'S TRAINING INSTITUTE

"Basic Maritime Officer's Course"

80 hours

Day One

0800-0900 Registration & Introduction (Classroom)

- Complete forms
 - Registration
 - Waivers
- Staff & student introductions
- Course overview
- Review of safety guidelines for the course

0900-1100 Basic Boating (Lecture - Classroom)

- Nomenclature/Nautical Terminology
 - Nautical vs. commonly used terms
- Vessel Types

- Power (inboard/outboard/jet)
- Sail (Sloop, Ketch, Schooner)
- Commercial Vessels
 - Passenger (Cruise Ships)
 - Container Ships
 - Tankers
 - Bulk Carriers
- Hull Types
 - Displacement
 - Planing
 - Mono, catamaran, trimaran
- Vessel documentation & recognition
 - Federal/state and local laws regarding vessel recognition and identification of vessels operating in the U.S.
 - Documentation and registration requirements
 - ID lights and shapes for all vessels.
 - ID sound and light signals.
- Safety and emergency equipment commonly carried on law enforcement vessels
 - Uniforms
 - Web gear
 - Weapons
 - Ballistic shields
 - Medical Equipment
 - Binoculars
 - Radiation pagers
 - Four gas meters
 - Personal Protective Equipment (hats, gloves, sunglasses, sunscreen, etc.)

1100-1200 Lunch

1200-1400 Vessel Inspection (Practical - Docks)

- Pre-operational checks
 - Inspection Checklist
 - Maintenance

- Necessary tools
- Lights
- Fueling
 - Electrical system off
 - Engine compartment open
 - Inspect bilge for odor/fuel
- Post operational checks

1400-1700 Swim Assessment, PFD's, and Environmental Risks (Practical - Pool)

- Swim test
 - 100 yards any style
 - 25 yards underwater
 - Treading water for 10 minutes (weighted)
 - Floating
 - Self rescue
- PFD's
 - Type I "Offshore Lifejacket"
 - Type II "Near Shore Buoyant Vest"
 - Type III "Flotation Aid"
 - Type IV "Throwable Device"
 - Type V "Special Use Device"
- Environmental protections/risks and hazards of exposure in a marine environment/environmental risk assessments and mission planning
 - Weather
 - Hypothermia
 - Sea life

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Day Two

0800-0830 Review & Critique (Docks & Classroom)

0830-0930 Environmental Stresses (Lecture – Classroom)

- Current and Wind
 - Effects on maneuvering
 - Working into the current and/or wind
 - Vessel power and steering input
 - Effects on differing types of vessels
 - Mooring on the leeward side
 - It's all about control, not speed!

0930-1200 Navigation Rules – Parts A & B (Lecture – Classroom)

- Part A – General
 - Application
 - Responsibility
 - Definitions
- Part B – Steering and Sailing Rules
 - Conduct of vessels in all visibility conditions
 - Conduct of vessels in sight of one another
 - Conduct of vessels in restricted visibility

1200-1300 Lunch

1300-1400 Weather Warning System (Lecture – Classroom)

- Types of warnings
 - Small craft
 - Gale
 - Storm
 - Hurricane

- Criteria for each warning
- Sources for weather information
- Characteristics of weather systems

1400-1500 Hazardous Material Response (Lecture – Classroom)

- Make your observations from a safe distance.
 - Be mindful of current and wind conditions
- Communicate the information to appropriate authorities.
 - Dispatch/communications center, fire department, port authorities, and USCG.
- Contain the problem if possible.
 - Request resources
 - Prevent additional people/vessels from entering the affected area.
 - Boom deployment
- Notify appropriate authority for clean up.
- Documentation
 - Required reports

1500-1700 Emergency Fire Fighting (Lecture/Practical – Classroom/Dockside)

- Primary areas/causes aboard ships
 - Engine room (oil leaks, bearing overheating, etc.)
 - Galley (appliances, grease)
 - Spontaneous ignition (cargo, waste, etc.)
 - Hot work (welding, cutting, etc.)
 - Electrical apparatus (short circuit, non-professional repairs)
- Characteristics
 - Class A, B, C, and D fires
- Appropriate extinguishing agents
- Use of portable extinguishers
- Damage control
- Personal protective equipment
 - Turnout gear

- SCBA's (Self Contained Breathing Apparatus)
- Natural vs. man-made clothing

Day Three

0830-1000 Review & Critique (Classroom)

0830-1000 Marlinspike Seamanship (Practical – Docks)

- Difference in lines
- Care and maintenance of lines
- Knots
 - Bowline
 - Cleat Belay
 - Sheet Bend
 - Clove Hitch

1000-1200 Basic Seamanship (Lecture – Classroom)

- Handling
 - Drive types
 - Throttle control
 - Anchoring during prevailing wind and sea conditions
 - Characteristics of good seamanship
- Towing vessels
 - Stern tow
 - Side tow
- Anchoring
 - Types of anchors
 - Scope
 - Techniques

- Damage control/emergency repairs
 - Vessel flooding
 - Electrical problems
 - Mechanical problems

1200-1300 Lunch

1300-1400 Electronics and E-Navigation (Lecture – Classroom)

- Global Positioning System (GPS)
 - Identify the three components
 - How does it work?
 - Plot a chart position from GPS information
 - What kinds of information can it provide?
 - Electronic Navigation Accuracy Verification
 - Setting up and storing routes
- Radar and Chartplotting
 - How does a radar work?
 - What are the basic controls?
 - What are the positioning capabilities of a radar unit?
 - Operational functions of a radar
 - Operational functions of an integrated GPS/Chartplotter

1400-1700 Vessel Maneuvering & Electronics (Practical – Docks)

- Low speed handling
 - Prop and steering (use together)
 - Twin screw vs. single
 - Backing
 - Docking, properly secure a vessel to a dock or pier
 - Jet drive handling characteristics
- GPS, Radar, and VHF
 - Basic functions

- Anchoring

Day Four

1200-1300 Docking Practice & Critique (Docks & Classroom)

1300-1600 Navigation (Lecture – Classroom)

- Charts
 - Latitude & longitude
 - Depth/datum
 - Symbols
 - Locating structures, objects, landmarks
 - Charting a course
- Aids to Navigation (ATON)
 - Identify the purpose of an aid to navigation
 - Identify the purpose of beacons, buoys, and the appliances used on aids to navigation
 - Lateral system of buoyage

1600-1700 Dinner

1700-2100 Night Operations (Practical – Docks & Underway)

- Patrol Vessel
 - Size
 - Type
 - Lighting
- Vessel Identification & Maneuvering
 - Lights
 - Sounds

- Signals
- Safety Underway
 - Night vision
 - Lookout responsibility
 - Speed
 - Hazards
 - ATON
- Use of navigational equipment and electronics
 - Compass
 - Chart Plotter
 - Radar
 - Sonar
 - Radio Direction Finder (RDF)
 - Communications
- Personal equipment

Day Five

0800-0830 Review & Critique (Classroom)

0830-1200 Trailering, Launch, & Recovery (Practical – Launch Ramp)

- Trailer operation
 - Towing dynamics
 - Safety/failure
 - Tow vehicle ratings
 - Hitch types & ball sizes
- Trailer/vessel inspection
 - Pre-operations check
 - Inspection sheet
 - Maintenance
 - Fueling
- Maneuvering the trailer

- Launching the vessel
 - Bilge plug
 - Disconnects
 - Pre-start checklist
 - Check the water depth
 - Back down until vessel floats
 - Visual inspection of drive unit
 - Start vessel
 - Back off trailer and secure to dock
 - Rinse trailer, park, and secure tow vehicle
- Recovering the vessel
 - Back to proper depth
 - Slowly maneuver vessel onto trailer using bunks as guides
 - Secure bow to winch
 - Slowly pull trailer & vessel out of water
 - Remove bilge plug
 - Secure tie-downs
 - Check light operation

1300. Lunch

1300-1500 Navigation Rules – Parts C & D (Lecture – Classroom)

- Part C – Lights and Shapes
 - Application
 - Definitions
 - Power Driven Vessels
 - Towing & Pushing
 - Sailing Vessels
 - Vessels Constrained by Their Draft
 - Pilot Vessels
- Part D – Sound and Light Signals
 - Definitions
 - Equipment
 - Maneuvering & Warning Signals

- Restricted Visibility Signals
- Signals to Attract Attention
- Distress Signals

1500-1700 Enforcement Stops (Practical – Underway)

- Tactical considerations
 - Officer safety
 - Vessel approach
 - Crew responsibilities
 - Sea/weather conditions
 - Vessel/equipment limitations
- Boardings & Inspections
 - Officer safety
 - Crew isolation
- Arrest techniques
- Vessel pursuits

Day Six

0800-0930 Mid-Term & Critique

0930-1030 Patrol Missions (Lecture – Classroom)

- Routine patrol
 - Agency specific roles
 - Port security
- Boater assistance
 - Vessel towing
 - Marine Assistance Radio Broadcast (MARB)

- Search and rescue
 - Search patterns
 - Communication
 - Capsizing
 - Helicopter evacuation
 - Victim rescue
- Body recoveries
- Special operations

1030-1200 Patrol Missions (Practical – Underway)

- Search and rescue
 - Search patterns
 - Communication
 - Use of navigational equipment

1200-1300 Lunch

1300-1700 Patrol Missions (Practical – Underway)

- Vessel Towing
- Special Operations
 - Search for surface and subsurface intruders
 - Maneuver a vessel to engage a hostile vessel with deadly force
 - Clearing fields of fire
- Safety & security zones

Day Seven

0800-0830 Review & Critique (Classroom)

0830-1000 Boating Law (Lecture – Classroom)

- Discuss the most frequently used codes from the:
 - H and N code
 - Vehicle code
 - Title 13 and 14
 - Penal Code
 - Fish and Game Code
 - LA County Code
 - Local ordinances
- Reasonable suspicion for vessel stops and searches

1000-1200 Piloting and Dead Reckoning (Lecture – Classroom)

- Four types of navigation
- Three dimensions or problems of navigation
- Solving time, speed, and distance problems
- Compass error
- Navigation tools
- Fixing a geographic position and relative position on a chart
- Plot and label a Dead Reckoning course

1200-1300 Lunch

1300-1700 Navigation (Practical – Underway)

- Students will be asked to demonstrate their proficiency with the following:
 - Chart a course using the chartplotter
 - Identify ATONS while en route
 - Identify an object/vessel on their radar

- Utilize sonar to determine water depth

Day Eight

1200-1230 Review & Critique (Classroom)

1230 -1600 Navigation & Righting a Vessel (Practical – Underway)

- Students will plot and navigate a course to Marina Del Rey
 - Charting a course using a paper chart
 - Charting a course using the on-board electronics
 - Maintaining a compass heading
- Students will participate in a vessel righting exercise
 - A small sailing vessel will be used

1600-1700 Lunch

1700-2100 Night Operations (Practical – Underway)

- Review of safety practices underway (returning from Marina Del Rey)
 - Night vision
 - Lookout responsibility
 - Speed
 - Hazards
 - ATON
- Review of navigational equipment and electronics
 - Compass
 - Chart Plotter
 - Radar
 - Sonar

- Radio Direction Finder (RDF)
- Communications
- Review of Vessel Identification & Maneuvering
 - Lights
 - Sounds
 - Signals

Day Nine

0800-0830 Review & Critique

0830-1030 Investigations (Lecture – Classroom)

- Boating Under the Influence (Lecture – Classroom)
 - PAS Device
 - Field Sobriety Test
 - Applicable Codes
- Vessel Accident
 - Reportable incidents
 - Report forms

1030-1230 Chartplotting Practice (Practical – Classroom & Dockside)

- Students will practice paper and electronic charting.

1230-1330 Lunch

1330-1700 Search & Rescue (Practical – Underway)

- Search patterns
- Victim recoveries
- Man overboard approaches
- Body recoveries
- Self-Rescue, Throw Bags & Rings, Floating, Cold Water

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Day Ten

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0800-1200 Water Survival (Practical – Pool)

- Resistive Victims & Combative Suspects
 - Students will be shown how to overcome the resistance of a combative suspect or resistive victim in a water environment.

1200-1300 Hosted Lunch

1300-1500 Final Exam Review

1500-1700 Final Exam & Critique
