



Action Your Aspirations

ASIAN YACHTING ACADEMY

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The letters **AYA** embedded in the Sails is our Vision of establishing a **Asian Yachting Academy** in all countries in Asia to bring about safe and enjoyable sailing experience in Asia.

AYA IS A ISSA ACCREDITED SCHOOL FOR SAILING AND POWER BOAT TRAINING PROGRAMME

THE 3 SAILS REPRESENTS TO OBJECTIVES OF ITS 3 SAILING PROGRAMME

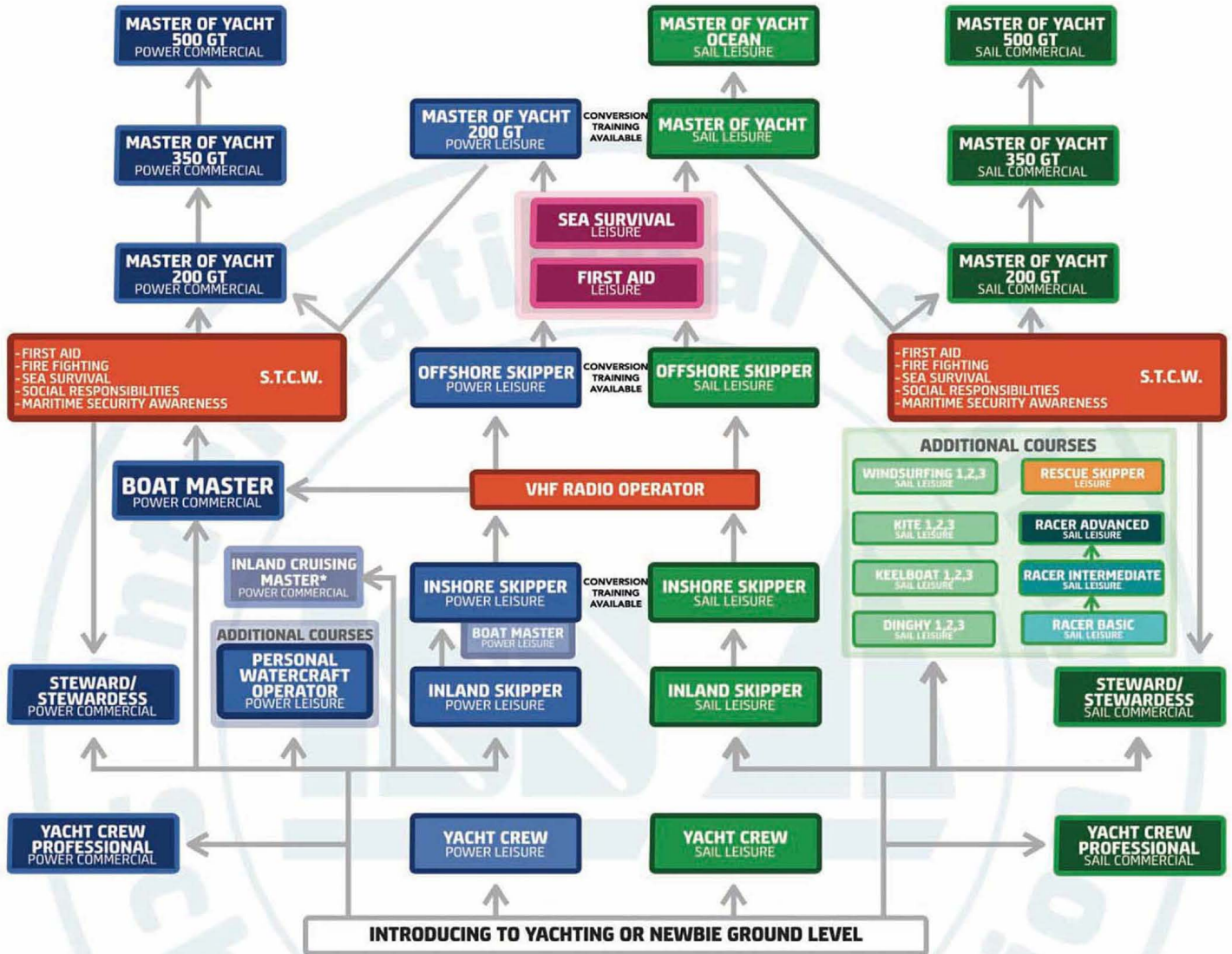
1. The Foresail represents Sail Training and Expeditions pushing forward the ideals of character development through Sailing Expeditions
2. The Mainsail represents the entire Sailing Education and Instruction Programme in ISSA from Competent Crew, Inshore Skipper, Offshore Skipper to Master of Yacht .
3. The Mizzen Sail represents the sailing dinghy programme level 1 2 3 and Racing Skipper Training .

THE 3 WAVES REPRESENTS THE OBJECTIVES OF THE POWERBOATING PROGRAMME

1. The largest waves represents the PPCDL and Inshore Skipper Offshore Skipper to Master of Yacht . 12 – 24 m (Power)
2. The next wave represents training for below 12 m including Boatmaster and RHIB Training
3. The smallest wave represents PWC Training and Racing programme.



ISSA Competence Tree



Legend:

- LEISURE LEVEL
- OBLIGATORY COURSES
- LEISURE LEVEL
- COMMERCIAL LEVEL

NOTE: INSTRUCTOR COURSES NOT SHOWN

ISSA LEVEL POWER LEISURE	MAX LOA	TIME OF NAVIGATION	DISTANCE FROM SHELTER
YACHT CREW	N/A	N/A	N/A
PWC OPERATOR	N/A	DAYTIME	5 NM offshore
INLAND SKIPPER	15 m	DAYTIME	inland waters + 3 NM offshore
BOAT MASTER*	12 m	DAYTIME	10 NM offshore
INSHORE SKIPPER	16 m	DAY + NIGHT	20 NM offshore
OFFSHORE SKIPPER	24 m	DAY + NIGHT	60 NM offshore
MASTER OF YACHT	∞	DAY + NIGHT	150 NM offshore

ISSA LEVEL SAIL LEISURE	MAX LOA	TIME OF NAVIGATION	DISTANCE FROM SHELTER
YACHT CREW	N/A	N/A	N/A
INLAND SKIPPER	15 m	DAYTIME	inland waters + 3 NM offshore
INSHORE SKIPPER	24 m	DAY + NIGHT	20 NM offshore
OFFSHORE SKIPPER	24 m	DAY + NIGHT	80 NM offshore
MASTER OF YACHT	24 m	DAY + NIGHT	∞
MASTER - OCEAN	∞	DAY + NIGHT	∞

ISSA LEVEL POWER COMMERCIAL	MAX LOA	TIME OF NAVIGATION	DISTANCE FROM SHELTER
YACHT CREW	N/A	N/A	N/A
STEWARD/DESS	N/A	N/A	N/A
INLAND CRUISING MASTER*	∞	DAY + NIGHT	inland waters + 3 NM offshore
BOAT MASTER	15 m	DAY + NIGHT	20 NM offshore
MASTER 200 GT	∞	DAY + NIGHT	150 NM offshore
MASTER 350 GT	∞	DAY + NIGHT	∞
MASTER 500 GT	∞	DAY + NIGHT	∞

ISSA LEVEL SAIL COMMERCIAL	MAX LOA	TIME OF NAVIGATION	DISTANCE FROM SHELTER
YACHT CREW	N/A	N/A	N/A
STEWARD/DESS	N/A	N/A	N/A
MASTER 200 GT	∞	DAY + NIGHT	160 NM offshore
MASTER 350 GT	∞	DAY + NIGHT	∞
MASTER 500 GT	∞	DAY + NIGHT	∞

* NOTE: BOAT MASTER LEISURE & INLAND CRUISING MASTER ARE AVAILABLE ONLY TO CERTAIN REGIONS OF THE WORLD

UNOFFICIAL COMPARISON OF THE LEVELS OF ISSA WITH THE LEVELS OF OTHER SYSTEMS OF YACHT TRAINING



(UNITED KINGDOM)



(UNITED KINGDOM)



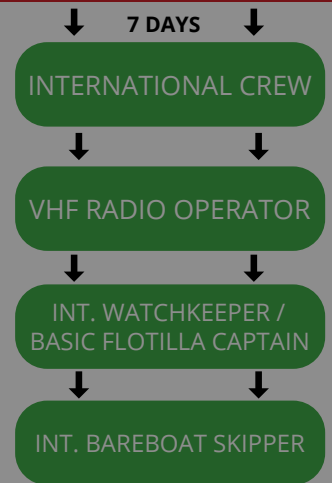
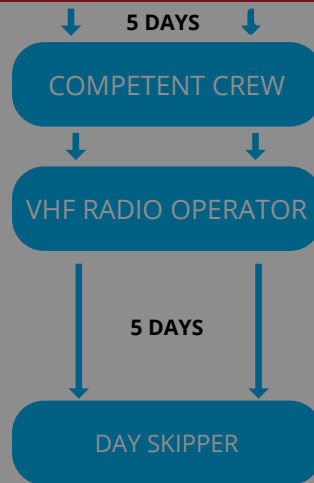
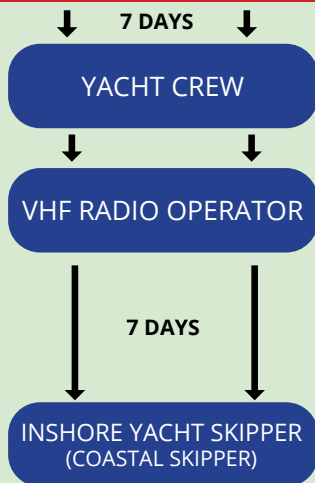
(CANADA)

ZERO LEVEL (KNOWLEDGE ABSENCE)

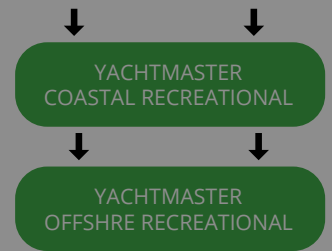
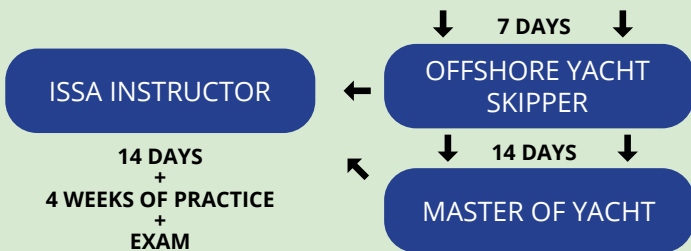
ZERO LEVEL

ZERO LEVEL

TWO WEEKS ONBOARD OF THE YACHT



LEVEL WHICH ALLOW TO RENT A BOAT





The following are the Courses available under AYA and certified by ISSA

POWER YACHT TRAINING

POWERED PLEASURE CRAFT DRIVING LICENCE COURSE (PPCDL)

BOAT MASTER

INSHORE POWER SKIPPER

OFFSHORE POWER SKIPPER

PPWC OPERATOR

SRC-VHF COURSE

SAIL TRAINING

YACHT CREW

INSHORE SKIPPER

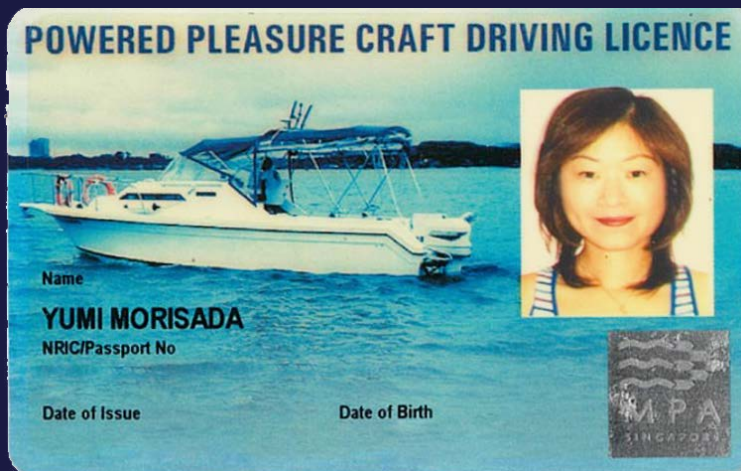
OFFSHORE SKIPPER

MASTER OF YACHT

DINGHY LEVELS 1, 2, 3



POWER YACHT TRAINING

POWERED PLEASURE CRAFT
DRIVING LICENCE COURSE (PPCDL)

- ~ The holder is licensed to drive a powered pleasure craft within the Singapore Port Limits.
- ~ Holder who requires artificial aids for sight test must use them when driving craft.
- ~ Validity of this licence is subject to medical requirement as stipulated by the Authority.

If found, please return to:

Maritime and Port Authority of Singapore
460 Alexandra Road
#19-00 PSA Building
Singapore 119963



90424

OBJECTIVE

The Powered Pleasure Craft Driving Licence (PPCDL) is required for driving a pleasure craft/ powered yacht that are less than 24 meters in length within Singapore Port Limits

COURSE SYLLABUS (THEORY & PRACTICAL)

1. Introduction
2. Nautical Terms
3. Equipment and Usage
4. Rules of the Road (Traffic Rules at Sea)
5. Coastal Navigation
6. Regulation, Circulars & Notices
7. Practical Boat Handling
8. Emergencies
9. Useful Information
10. Practical Theory Test

ENTRY REQUIREMENTS

1. Be at least 16 years of age and physically fit
2. No colour blindness
3. No physical handicap

HOW TO OBTAIN THE MPA LICENCE

1. Attend 2 Days PPCDL Course (Theory and Practical)
2. Take Theory at Singapore Polytechnic (medical certification required)
3. Take Practical Test at Singapore Polytechnic

REGISTER FOR PPCDL

POWER YACHT TRAINING

BOAT MASTER

Experience required prior training: None

Minimum age required: 16 years old

Equipment requirements:

Power boat up to 12 m long, able to plane

Suggested number of training hours:

25 hours (including 6 h practice)

Who can run the training: ISSA Instructor

Who can do the examination: ISSA Instructor

How to submit the application:

To authorised ISSA school only

Qualifications obtained after the course:

Skipper power boats:

- Up to 12 m long (with inboard or outboard engine)
- Day time
- Conditions up to 6 B degrees
- Up to 10 mile from shore



SKILLS AND KNOWLEDGE REQUIRED FOR A BOAT MASTER

BOAT'S CONSTRUCTION

- Knows the basic terminology of a power boat:
 - Bow;
 - Stern, aft, etc.
- Can fill up the water and fuel tanks;
- Can operate the engine;
 - Start is;
 - Switch it off;
 - Check operation of cooling system;
 - Check oil level;
 - Top up engine oil;
 - Check cooling fluid level;
 - Top up cooling fluid level;
 - Find bottom valves;
 - Recognize the breakdown of impeller in cooling system and possibly replace it;
 - Check whether alternator is charging batteries when engine is working.
- Knows elementary equipment of yacht:
 - Echo-sounder (location, operation, typical errors);
 - Log;
 - Steering system;

LINE AND SPRING HANDLING

- Can combine two lines of the same and different diameter;
- Can make:
 - Bowline;
 - Fast a line on a cleat;
 - Fishermen's bend;
 - Coil mooring lines;
- Can:
 - Pass, take, make fast on cleat, let go mooring lines;
 - Throw mooring lines;
 - Describe different ways of taking a mooring.

HANDLING FENDERS

- Can:
 - Fix the fenders using adequate knots;
 - Effectively apply the manouvering fender;

OPERATING THE ANCHOR

- Can:
 - Prepare the anchor for weighing;
 - Select safe location for staying at anchor;
 - Apply rules for safe anchoring (4xdepth, anchor alarm/watch);
 - Distinguish different types of anchors and their characteristics.

POWER YACHT TRAINING

BOAT MASTER

SAFETY

- Can:
 - Perform the safety briefing:
 - How to move on deck;
 - How to apply personal safety equipment (harness, jackstay, etc.);
 - Apply distress signalling equipment (pyrotechnics, flags, etc.);
 - Different methods to send distress signal;
 - Make a distress call with help of VHF;
 - Knows procedures to be applied in restricted visibility;
 - Basic knowledge about SAR procedures (RIB, helicopter);
 - First Aid Kit (location and content).

HANDLING BOAT UNDER POWER

- Can:
 - Launch and recover a boat;
 - Manouver a boat under power;
 - Approach a MOB;
 - Take a berth/leave a berth (longside, stern-to, bow-to);
 - Weigh anchor.

INTERNATIONAL RULES FOR PREVENTING COLLISIONS AT SEA

- Knows the navigation shapes and lights:
 - Vessel not under command;
 - Vessel restricted in ability to manouver;
 - Vessel engaged in fishing;
 - Vessel aground;
 - Pilot vessel;
 - Towing set
 - Sailing yacht;
 - Power driven vessel;
- Knows the vessels' priority at sea;
- Knows how to proceed in a „close encounter“ situation;
- Is familiar and complies with the requirement for continues observation;
- Is familiar with other legal obligations of a skipper and crew;
- Is familiar with and understands after-collision rules applicable at sea.

NAVIGATIONAL AIDS

- Knows, understands and is able to recognize lateral and smaller channel marks at day time in system IALA A and B;
- Knows, understands and is able to recognize cardinal marks and other navigational marks (safe water mark, isolated danger mark) at day time;
- Is able to use the list of marks and symbols used on charts (eg. Chart 5011);
- Is able to apply navigational publications when planning a port's entry (pilot books, almanacs, navigational plans);
- Knows and can recognize light characteristics of Lighthouses/navigational marks.

TERRESTRIAL NAVIGATION

- Knows and understands the basic terms from geography:
 - Latitude;
 - Longitude;
 - Magnetic pole;
 - Geographic pole;
 - Earth's magnetic field;
- Knows the basic types of sea charts, their construction and application:
 - Mercator's projection chart (how is it constructed, spreading of parallels, construction parallel)
 - Passage charts, coastal charts, plans;
- Can read elementary information from a chart that is crucial for safe sailing:
 - Depths;
 - Distance;
 - Navigational obstacles
 - Navigational marks;
- Can read charts/ plot latitude and longitude;
- Knows and understands the phenomenon of Earth's magnetism, variation and deviation;
- Can use a compass;
- Can make use of various bearing lines;
- Has general information about tides and tide-related dangers.



ELECTRONIC-BASED NAVIGATION

- Knows how the GPS system works;
- Can enable and check the elementary settings of GPS and plotter;
- Can set and read adequate course on GPS;
- Can plot a position on a chart taken from a GPS;
- Knows what is AIS, ARPA, VTS.
- Understands meteo messages (including those broadcast by radio coastal stations)
- Can take meteo factors into consideration when planning a passage in a coastal zone;
- Has the habit not to leave harbour without valid weather forecast.

METEOROLOGY

- Knows the Beaufort scale and its meaning for small craft;
- Knows sources of meteo information and how to use them;
- Has the basic knowledge about high, low pressure areas, fronts;
- Can recognize cumulonimbus clouds;
- Environmental friendly approach and respect to other yachtsmen and women;
- Knows and applies basic pro-environmental rules;
- Knows and applies social friendly approach at sea and in harbour.

POWER YACHT TRAINING

INSHORE POWER SKIPPER

Experience required prior training:

At least 1 cruise on a power yacht

Certification required prior training: None

Minimum age required: 16 years old

Suggested number of training hours:

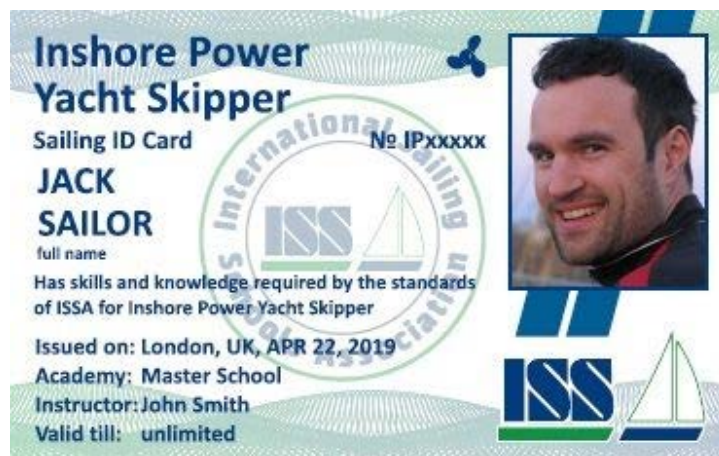
10 hours theory / one day practical

Who can run the training: ISSA Instructor

Who can do the examination: ISSA Instructor

How to submit the application:

To authorized ISSA school only



SKILLS AND KNOWLEDGE REQUIRED FOR AN INSHORE POWER YACHT SKIPPER

YACHT'S CONSTRUCTION

1. Knows the basic parts of yacht and what are they designed for:

- Cockpit
- Bildge
- Heads
- Galley
- Bow
- Stern, aft etc.

2. Can operate elementary yacht's systems:

- Toilet
- Gass oven
- Sink
- Shower

3. Can fill up the water and diesel tanks

4. Can operate the inboard engine

- Start it
- Switch it off
- Check whether cooling system works
- Inspection before starting
- Top up engine oil
- Check cooling fluid level
- Top up cooling fuel level
- Control the tension of V-belt on engine
- Find bottom valves
- Recognize the breakdown of impeller in cooling system and possibly replace it
- Check whether alternator is charging batteries when engine is working.

5. Knows elementary yacht equipment

- Boom
- Mast (with various methods of sail reefing)
- Rigging
- Haulyards
- Echosounder (location, operation, typical errors);
- Log
- Steering system
- Keel

LINE AND SPRING HANDLING

1. Can combine two lines of the same and different diameter

2. Can make:

- Bowline
- Fast a line on a cleat
- Fishermen's bend
- Coil mooring lines

3. Can:

- Pass, take, make fast on cleat, let go mooring lines
- Throw mooring lines
- Describe different ways of taking a mooring

HANDLING FENDERS

1. Can:

- Fix them by applying adequate knots
- effectively operate the manouvering fender

OPERATING THE ANCHOR

1. Can:

- Prepare anchor for weighing (switches and controls)
- Operate the windlass (control the letting out and pulling in the chain)
- Select safe location for staying at anchor
- Apply rules for safe anchoring (4xdepth, anchor alarm/watch)
- Distinguish different types of anchors and their characteristics

HANDLING THE DINGHY

1. Can:

- Inflate dinghy, take it off the deck and put it back on the deck
- Secure the dinghy to the yacht
- Paddle
- Secure the dinghy to the yacht deck
- Install the outboard engine on the yacht (for storage) and on the dinghy (for work)
- Connect the fuel system to the outboard engine
- Start and switch off the outboard engine

POWER YACHT TRAINING

INSHORE POWER SKIPPER

SAFETY

- Can perform the safety briefing under the deck:
 - Gas system
 - Toilet operation
 - Fire fighting equipment
 - Water supply system
 - Electric system
- Can perform the safety briefing on deck:
 - How to move on deck
 - How to apply personal safety equipment (harness, jackstay, etc.)
 - Apply distress signalling equipment (pyrotechnics, flags, etc.)
 - Liferaft
 - Different methods to send distress signal
 - Make a distress call with help of VHF
 - Knows procedures to be applied in restricted visibility
 - Basic knowledge about SAR procedures (RIB, helicopter)
 - First Aid Kit (location and content)

HANDLING YACHT UNDER POWER

- Can:
 - Manouver a yacht under power
 - Approach a MOB
 - Take a berth/leave a berth (longside, stern-to, bow-to)
 - Weigh anchor

INTERNATIONAL RULES FOR PREVENTING COLLISIONS AT SEA

- Knows the navigation shapes and lights:
 - Vessel not under command
 - Vessel restricted in ability to manouver
 - Vessel engaged in fishing
 - Vessel aground
 - Pilot vessel
 - Towing set
 - Sailing yacht
 - Power driven vessel
- Knows the vessels' priority at sea
- Knows how to proceed in a „close encounter“ situation
- Is familiar and complies with the requiremet for continues observation
- Is familiar with other legal obligations of a skipper and crew
- Is familiar with and understands after-collision rules applicable at sea

NAVIGATIONAL AIDS

- Knows, understands and is able to recognize lateral and smaller channel marks at day time in system IALA A and B

- Knows, understands and is able to recognize cardinal marks and other navigational marks (safe water mark, isolated danger mark) at day time
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TERRESTRIAL NAVIGATION

- Knows and understands the basic terms from geography:
 - Latitude
 - Longitude
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 - Gegraphic pole
 - Earth's magnetic field
- Knows the basic types of sea charts, their construction and application:
 - Mercator's projection chart (how is it constructed, spreading of parallels, construction parallel)
 - Passage charts, coastal charts, plans
- Can read elementary information from a chart that is crucial for safe sailing:
 - Depths
 - Distance
 - Navigational obstacles
 - Navigational marks
- Can read charts/ plot latitude and longitude
- Knows and understands the phenomenon of Earth's magnetism, variation and deviation
- Can use a compass
- Can calculate, set, read and plot courses on a chart with respect of variation, deviation and leeway
- Can plot yacht's position using bearing lines
- Can plot yacht's position using the maintained course, distance ran and estimated leeway
- Can make use of various bearing lines
- Has general information about tides and tide-related dangers

POWER YACHT TRAINING

INSHORE POWER SKIPPER

ELECTRONIC-BASED NAVIGATION

1. Knows how the GPS system works.
2. Can enable and check the elementary settings of GPS and plotter.
3. Can set and read adequate course on GPS.
4. Can plot a position on a chart taken from a GPS.
5. Knows what is AIS, ARPA, VTS.

METEOROLOGY

1. Knows the Beaufort scale and its meaning for small craft.
2. Knows sources of meteo information and how to use them.
3. Has the basic knowledge about high, low pressure areas, fronts.

4. Can recognize cumulonimbus clouds.
5. Understands meteo messages (including those broadcast by radio coastal stations).
6. Can take meteo factors into consideration when planning a passage in a coastal zone.
7. Has the habit not to leave harbour without valid weather forecast.

OTHER

1. Environmental friendly approach and respect to other yachtsmen.
2. Knows and applies basic pro-environmental rules.
3. Knows and applies social friendly approach at sea and in harbour.





LOGS (MEASUREMENT OF SPEED AND DISTANCE)

Different types and operation

LOGBOOK

1. Logbook as an official document
2. Running of a logbook

METEOROLOGY

1. Basic terms, Beaufort's scale
2. Air masses
3. Types of clouds
4. Characteristics of weather in specific pressure and front systems
5. Sources of weather forecasts
6. Ability to interpret weather forecasts/ charts, weatherfax
7. Day/night breeze
8. Fog
9. Use of barometer

ANCHORING

1. Types of anchors and operation
2. Selection of place to anchor

COLLISION REGULATIONS

Good knowledge of International Regulations for Preventing Collisions at Sea

SAFETY AT SEA

1. Personal safety, use of lifejackets, harnesses, jackstays
2. Fire prevention and fighting
3. Distress signals
4. Role of coastguard
5. Preparation to heavy weather
6. Liferafts and recovery by helicopter

INTERNATIONAL SIGNALLING CODE

Rules of application

NAVIGATING IN RESTRICTED VISIBILITY

1. Restricted visibility procedures
2. Limitations for safe navigation

PASSAGE PLANNING

1. Preparation of charts and notes to plan a passage
2. Standard actions when navigating in inshore waters
3. Strategy to plan a passage
4. Use of weather information in passage planning
5. Sources of local and national regulations

ENVIRONMENT PROTECTION

Responsibility for environment pollution and sea environment protection

POWER YACHT TRAINING

OFFSHORE POWER SKIPPER

Experience required prior training: 28 days at sea as skipper or watch leader in at least 2 voyages, at least in 2 sea areas

Certification required prior training:

SRC and First Aid Certificate

Minimum age required: 18 years old

Suggested number of training hours: 40 hours theory / 2 days practical + 2 hours night navigation

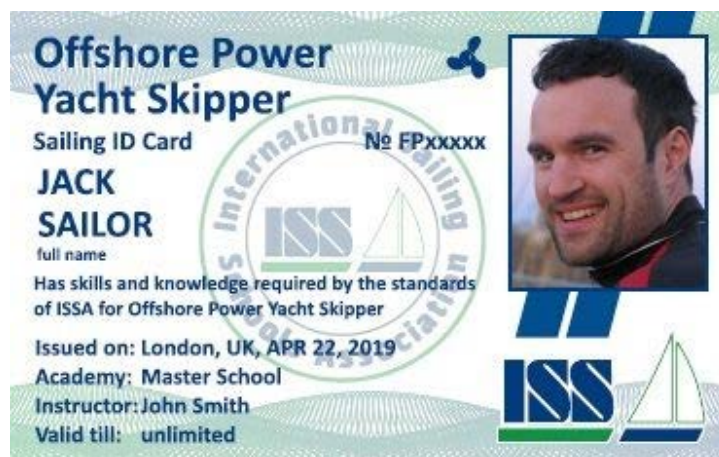
Who can run the training: ISSA Instructor

Who can do the examination: ISSA Instructor

Examination: Needs to include navigation at darkness

How to submit the application:

To authorized ISSA school only



SCOPE OF REQUIRED KNOWLEDGE AND SKILLS

YACHT HANDLING UNDER POWER

1. Unberthing/berthing (longside and stern-to)
2. Approaching a mooring buoy
3. Weighing an anchor
4. Recovery of Man Over Board
5. Practical skills

DEAD RECKONING NAVIGATION

1. Definition of DR navigation
2. Running of DR and plotting of DR position
3. Practical skills

FIXING LINES

1. Sources of fixing lines (leading lights, bearings, depth contour)
2. Error analysis/ accuracy assessment
3. Practical skills

MAGNETIC COMPASS

1. Consideration of variation. Change of variation in time and place
2. Siting of compass and reasons for deviation (impact of electronic devices)
3. Stationary and handbearing compasses
4. Determination of deviation

TIDES

1. Reasons of Tides – Springs and Neaps
2. Tidal Tables
3. Tidal levels and chart datum
4. Time and height of tide in standard ports
5. Secondary ports
6. Anomalies

TIDAL CURRENTS

1. Tidal current atlases
2. Tidal current diamonds
3. Information about tidal currents in navigation publications
4. Consideration of tidal currents when calculating courses and passage planning
5. Overfalls, tidal races

BUOYS AND BEACONS

1. Navigation signs in IALA A and B
2. Limitation of navigational marks as navigational aid

LIGHTS

1. Characteristics
2. Range – visual and nominal
3. List of lights

PILOTAGE

1. Harbour specific regulations and signalling systems
2. Planning and strategy to enter/leave a harbour
3. Practical skills to make a pilotage

ECHO SOUNDERS

1. Operation of manual echosounder
2. Types of echosounders
3. Limitations of echosounders
4. Secondary echoes

SATELLITE SYSTEMS

Basic knowledge of satellite systems, their abilities and limitations

POWER YACHT TRAINING

PWC OPERATOR

A YACHT CONSTRUCTION

1. Basic yacht parts and what they are designed for:
 - a) On deck
 - Bow, stern, aft, cockpit, etc.
2. Basics of safe onboard operations
 - a) Outfit suitable for sailing in various conditions
 - b) Personal safety equipment (lifejackets, harnesses, jackstays, etc.)
 - c) Distress signaling equipment (pyrotechnics, mirror, flags etc.)
 - d) Fire fighting equipment (fire extinguishers- with consideration of various types available, fire blanket)
 - e) Various methods to make a distress signal (at least 4 methods)
 - f) First Aid Kit location and content
 - g) Secure ways to store things on board
 - l) Basic level of practical skills in the above.
3. Safe operation of elementary yacht systems
 - a) Electric system
 - b) Basic level of practical skills in the above.
4. Fuel supply system
 - a) Secure storage and handling of fuel and other flammable substances onboard as well as the ecological hazards of dealing with such substances
 - b) The design and operation of the fuel system and its proper functioning
 - c) Filling up the fuel tanks
 - d) Basic level of practical skills in the above.
5. Elementary yacht sailing equipment and how to use It
 - a) Logs (measurement of speed and distance)
 - b) Steering system
 - c) Basic level of practical skills in the above.

B ENGINE HANDLING

1. Operating the inboard engine
 - a) Safety issues in relation to engine operations
 - b) Check before starting
 - c) Starting
 - d) Checking whether the cooling system works
 - e) Switching off
 - f) Checking oil level
 - g) Basic level of practical skills in the above.

C LINES AND SPRINGS

1. Knots
 - a) Bowline
 - b) Fast line on a cleat
 - c) Coiling mooring lines
 - d) Basic level of practical skills in the above.
2. Lines handling
 - a) Basic safety issues when handling lines
 - b) Basic level of practical skills in the above.

**D ANCHORING**

1. Safety issues when using an anchor
 - a) Principles of how the anchor works
 - b) Basic level of practical skills in the above.

E SAFETY

1. Handling emergency situations
 - a) GSM rescue call;
 - b) Safety procedures in case of:
 - Capsizing
 - c) Basic level of practical skills in the above.

F HANDLING YACHT UNDER POWER

1. Safe handling of the yacht under power
 - a) Inertia and lack of steering upon engine shut down on yachts with certain types of engine;
 - b) Effective helm operation during the day and in good weather conditions;
 - c) Launching and recovering a boat;
 - d) Basic level of practical skills in the above.

POWER YACHT TRAINING

PWC OPERATOR

G MAN OVER BOARD

1. Procedure after falling overboard
 - a) Proper behaviour (Do not panic, do not swim, take a position protecting against heat loss. Protect your face.)
2. M.O.B. approach under power
 - a) Approach a MOB: Against the wind and current, pick up from the side. Watch your propeller;
 - b) Basic level of practical skills in the above.

H CEVNI REGULATIONS

1. Signs/marks and buoyage
 - a) Signs/marks applicable on inland waters;
 - b) Buoyage on inland waters;
2. Other rules
 - a) Vessels, priority;
 - b) Continuous observation requirement;
 - c) After-collision rules;

I PILOTAGE

1. Basic pilotage rules and sources of information on inland waters
 - a) Distinction of water routes (on rivers, on lakes etc.);

J COLLISION REGULATIONS

1. Other rules
 - a) Vessels' priority at sea;
 - b) Continuous observation requirements;
 - c) After-collision rules applicable at sea.

K NAVIGATIONAL AIDS

1. IALA A and B
 - a) Lateral marks (day and night)
 - b) Cardinal marks (day and night)
 - c) Other navigational marks (day and night)

L METEOROLOGY

1. Beaufort scale and its meaning for small craft;
2. Sources of meteorological information and how to use them;
3. Clouds
 - a) Cumulonimbus cloud

M OTHER SKILLS (Ecology, Social skills)

1. Keeping observation of the sailing area and passing over Information about the direction and distance to objects;
2. Environmental friendly approach and respect to other yachtsmen and women;
 - a) Application basic pro-environmental rules;
 - b) Sailing etiquette
 - c) Social friendly approach at sea and in harbor.

**N PULLING A SKIER OR AN OBJECT**

1. Safety procedures for pulling a skier or an object
 - a) Communication signs;
 - b) Wet start;
 - c) Dry start;
 - d) Mono-ski start;
 - e) Wet landing;
 - f) Dry landing;
 - g) Yacht circulation and slalom riding;
 - i) Basic level of practical skills in the above.
2. Areas dedicated for pulling a skier or an object. including marking of such areas;
3. Local law with respect to pulling a skier or an object;



ISSA VHF / SRC RADIO

Experience required prior training: **None**
 Certification required prior training: **None**
 Minimum age required: **16 years old**
 Suggested number of training hours: **7 hours theory / 1-hour exam practical**



The radio operator's certificate is indispensable training that each of us must undergo if we are thinking about driving a yacht. This certificate must have at least one person on the seagoing yacht crew with sea communication equipment (which is on virtually every marine yacht).

It is a one-day course, but it is worth preparing for it a few days earlier—even mastering the alphabet, whose knowledge is one of the most important skills when using the VHF radio station outside our country. In addition to the alphabet, the course includes several selected elements related to the operation of marine radio. These are extremely practical skills. Practical exercises on real radio stations are an inseparable element of the training. The course lasts from 5 to 7 hours, depending on the number of participants, and ends with a test on the same day.

COURSE PROGRAM:

- Introduction to VHF Radio
- Types of VHF Radios (Fixed & Portable)
- Simplex & Duplex Transmission
- VHF Radio International channels (16, 70, 13, 6, 14, 8, etc)
- VHF Radio Functions (use of each button on the unit)
- Digital Selective Calling (DSC).
- VHF Radio Regulation
- Phonetic Alphabet & Numerals
- VHF Radio Procedure words and its use (Mayday – Pan Pan – Securite- ship to ship call)
- GMDSS Components (DSC – EPIRB – SART – NAVTEX – INMARSAT – HF RADIO – POWER SUPPLY)

SAIL TRAINING

YACHT CREW

Experience required prior training: None
 Certification required prior training: None
 Minimum age required: 10 years old
 Suggested number of training hours:
 20 hours (minimum 3 days)
 Who can run the training:
 ISSA Instructor or minimum Offshore Skipper
 Who can do the examination:
 ISSA Instructor or minimum Offshore Skipper
 How to submit the application:
 Only through authorized ISSA school



SKILLS AND KNOWLEDGE REQUIRED FOR A YACHT CREW

YACHT'S CONSTRUCTION

- Knows the basic parts of yacht and what are they designed for:
 - Cockpit
 - Bildge
 - Heads
 - Galley
 - Bow
 - Stern, aft etc.
 - Boom
 - Mast
 - Rigging
 - Haulyards
- Can operate elementary yacht's systems:
 - Toilet
 - Gass oven
 - Sink
 - Shower
- Can fill up the water and diesel tanks
- Can operate the inboard engine
 - Start it
 - Switch it off
 - Check whether cooling system works
 - Inspection before starting

LINE AND SPRING HANDLING

- Can combine two lines of the same and different diameter
- Can make:
 - Bowline
 - Fast a line on a cleat
 - Fishermen's bend
 - Coil mooring lines
- Can:
 - Hand over
 - Take
 - Make fast on cleat
 - Let go mooring lines
- Can describe different ways of taking a mooring.

HANDLING SAIL SHEETS AND HAULYARDS

- Can:
 - Set and bring down the sails
 - Reef down and shake off the reefs

HANDLING FENDERS

- Can:
 - Fix them by applying adequate knots
 - effectively operate the manouvering fender

OPERATING THE ANCHOR

- Can:
 - Prepare anchor for weighing (switches and controls)
 - Operate the windlass (letting out and taking in the chain)

OPERATING THE DINGHY

- Can:
 - Take the dinghy off the deck and pull it in onto the deck
 - Secure the dinghy to the yacht
 - Use paddles effectively
 - Secure the dinghy to the deck

SAFETY

- Can:
 - Safely move arround the deck
 - Use the safety equipement
 - Use the distress singalling equipment (pirotechnics, mirror, flags etc.)
 - Use the fire fighting equipment (fire extinguishers - with consideration of various types available, fire blanket)
 - Apply various methods to make a distress signal (at least 4 methods)

OTHER SKILLS

- Can:
 - Keep observation of the sailing area and pass over information about the direction and distance to objects
 - Knows the lights of their own yacht in the night
 - Make adequate signals in fog
 - Effectively hold the helm

SAIL TRAINING

INSHORE SKIPPER

Experience required prior training:

At least 1 sailing cruise

Certification required prior training: None

Minimum age required: 16 years old

Suggested number of training hours: 50 hours

Who can run the training: ISSA Instructor

Who can do the examination: ISSA Instructor

How to submit the application:

To authorized ISSA school only



SCOPE OF REQUIRED KNOWLEDGE AND SKILLS

YACHT'S CONSTRUCTION

1. Knows the basic parts of yacht and what are they designed for:

- a. Cockpit
- b. Bildge
- c. Heads
- d. Galley
- e. Bow
- f. Stern, aft etc.
- g. Boom
- h. Mast
- i. Rigging
- j. Haulyards

2. Can operate elementary yacht's systems:

- a. Toilet
- b. Gass oven
- c. Sink
- d. Shower

3. Can fill up the water and diesel tanks

4. Can operate the inboard engine

- a. Start it
- b. Switch it off
- c. Check whether cooling system works
- d. Inspection before starting
- e. Top up engine oil
- f. Check cooling fluid level
- g. Top up cooling fuel level
- h. Control the tension of V-belt on engine
- i. Find bottom valves
- j. Recognize the breakdown of impeller in cooling system and possibly replace it
- k. Check whether alternator is charging batteries when engine is working.

5. Knows elementary yacht equipment

- a. Boom
- b. Mast (with various methods of sail reefing)
- c. Rigging
- d. Haulyards
- e. Echosounder (location, operation, typical errors);
- f. Log
- g. Steering system
- h. Keel

Can name the points of sail in relation to wind

OPERATING SAIL SHEETS AND HAULYARDS

1. Can:

- a. Manage crew to set and bring down the sails
- b. Manage the crew to reef down and shake off the reefs
- c. Adjust sails depending on the point of sails
- d. Make a tack
- e. Make a gybe

LINE AND SPRING HANDLING

1. Can combine two lines of the same and different diameter

2. Can make:

- a. Bowline
- b. Fast a line on a cleat
- c. Fishermen's bend
- d. Coil mooring lines

3. Can:

- a. Pass, take, make fast on cleat, let go mooring lines
- b. Throw mooring lines
- c. Describe different ways of taking a mooring

HANDLING FENDERS

1. Can:

- a. Fix them by applying adequate knots
- b. effectively operate the manouvering fender

OPERATING THE ANCHOR

1. Can:
 - a. Prepare anchor for weighing (switches and controls)
 - b. Operate the windlass (control the letting out and pulling in the chain)
 - c. Select safe location for staying at anchor
 - d. Apply rules for safe anchoring (4xdepth, anchor alarm/watch)
 - e. Distinguish different types of anchors and their characteristics

HANDLING THE DINGHY

1. Can:
 - a. Take the dinghy off the deck and pull it in onto the deck
 - b. Secure the dinghy to the yacht
 - c. Paddle
 - d. Secure the dinghy to the yacht deck
 - e. Install the outboard engine on the yacht (for storage) and on the dinghy (for work)
 - f. Connect the fuel system to the outboard engine
 - g. Start and switch off the outboard engine

SAFETY

1. Can perform the safety briefing under the deck:
 - a. Gas system
 - b. Toilet operation
 - c. Fire fighting equipment
 - d. Water supply system
 - e. Electric system
2. Can perform the safety briefing on deck:
 - a. How to move on deck
 - b. How to apply personal safety equipment (harness, jackstay, etc.)
 - c. Apply distress signalling equipment (pyrotechnics, flags, etc.)
 - d. Liferaft
 - e. Different methods to send distress signal
 - f. Make a distress call with help of VHF
 - g. Knows procedures to be applied in restricted visibility
 - h. Basic knowledge about SAR procedures (RIB, helicopter)
 - i. First Aid Kit (location and content)

HANDLING YACHT UNDER POWER

1. Can:
 - a. Manouver a yacht under power
 - b. Approach a MOB
 - c. Take a berth/leave a berth (longside, stern-to, bow-to)
 - d. Weigh anchor

YACHT HANDLING UNDER SAILS

1. Can:
 - a. Heave-to
 - b. Approach MOB – as emergency manouver
 - c. Approach a bouy/ weigh anchor – as emergency manouver

INTERNATIONAL RULES FOR PREVENTING COLLISIONS AT SEA

1. Knows the navigation shapes and lights:
 - a. Vessel not under command
 - b. Vessel restricted in ability to manouver
 - c. Vessel engaged in fishing
 - d. Vessel aground
 - e. Pilot vessel
 - f. Towing set
 - g. Sailing yacht
 - h. Power driven vessel
2. Knows the vessels' priority at sea
3. Knows how to proceed in a „close encounter“ situation
4. Is familiar and complies with the requiremet for continues observation
5. Is familiar with other legal obligations of a skipper and crew
6. Is familiar with and understands after-collision rules applicable at sea

NAVIGATIONAL AIDS

1. Knows, understands and is able to recognize lateral and smaller channel marks at day time in system IALA A and B
2. Knows, understands and is able to recognize cardinal marks and other navigational marks (safe water mark, isolated danger mark) at day time
3. Is able to use the list of marks and symbols used on charts (eg. Chart 5011)
4. Is able to apply navigational publications when planning a port's entry (pilot books, almanachs, navigational plans)
5. Knows and can recognize light characteristics of Lighthouses/navigational marks

TERRESTRIAL NAVIGATION

1. Knows and understands the basic terms from geography:
 - a. Latitude
 - b. Longitude
 - c. Magnetic pole
 - d. Gegraphic pole
 - e. Earth's magnetic field



2. Knows the basic types of sea charts, their construction and application:
 - a. Mercator's projection chart (how is it constructed, spreading of parallels, construction parallel)
 - b. Passage charts, coastal charts, plans
3. Can read elementary information from a chart that is crucial for safe sailing:
 - a. Depths
 - b. Distance
 - c. Navigational obstacles
 - d. Navigational marks
4. Can read charts/ plot latitude and longitude
5. Knows and understands the phenomenon of Earth's magnetism, variation and deviation
6. Can use a compass
7. Can calculate, set, read and plot courses on a chart with respect of variation, deviation and leeway
8. Can plot yacht's position using bearing lines
9. Can plot yacht's position using the maintained course, distance ran and estimated leeway
10. Can make use of various bearing lines
11. Has general information about tides and tide-related dangers

ELECTRONIC-BASED NAVIGATION

1. Knows how the GPS system works.

2. Can enable and check the elementary settings of GPS and plotter.
3. Can set and read adequate course on GPS.
4. Can plot a position on a chart taken from a GPS.
5. Knows what is AIS, ARPA, VTS.

METEOROLOGY

1. Knows the Beaufort scale and its meaning for small craft.
2. Knows sources of meteo information and how to use them.
3. Has the basic knowledge about high, low pressure areas, fronts.
4. Can recognize cumulonimbus clouds.
5. Understands meteo messages (including those broadcast by radio coastal stations).
6. Can take meteo factors into consideration when planning a passage in a coastal zone.
7. Has the habit not to leave harbour without valid weather forecast.

OTHER

1. Environmental friendly approach and respect to other yachtsmen.
2. Knows and applies basic pro-environmental rules.
3. Knows and applies social friendly approach at sea and in harbour.

Experience required prior training: 28 days at sea as skipper or watch leader in at least 2 voyages, at least in 2 sea areas

Certification required prior training:

SRC and First Aid Certificate

Minimum age required: 18 years old

Suggested number of training hours: 40 hours

Who can run the training: ISSA Instructor

Who can do the examination: ISSA Instructor

Examination: 6 hours, including 2 at darkness.

Maximum 3 candidates at a time

How to submit the application:

To authorized ISSA school only



SCOPE OF REQUIRED KNOWLEDGE AND SKILLS

YACHT HANDLING UNDER POWER

1. Unberthing/berthing (longside and stern-to)
2. Approaching a mooring buoy
3. Weighing an anchor
4. Recovery of Man Over Board
5. Practical skills

YACHT HANDLING UNDER SAILS

1. Tacking
2. Gybing
3. Recovery of Man Over Board
4. Practical skills

DEAD RECKONING NAVIGATION

1. Definition of DR navigation
2. Running of DR and plotting of DR position
3. Practical skills

FIXING LINES

1. Sources of fixing lines (leading lights, bearings, depth contour)
2. Error analysis/ accuracy assessment
3. Practical skills

MAGNETIC COMPASS

1. Consideration of variation. Change of variation in time and place
2. Siting of compass and reasons for deviation (impact of electronic devices)
3. Consideration of deviation
4. Stationary and handbearing compasses
5. Determination of deviation

TIDES

1. Reasons of Tides – Springs and Neaps
2. Tidal Tables
3. Tidal levels and chart datum
4. Time and height of tide in standard ports
5. Secondary ports
6. Anomalies

TIDAL CURRENTS

1. Tidal current atlases
2. Tidal current diamonds
3. Information about tidal currents in navigation publications
4. Consideration of tidal currents when calculating courses and passage planning
5. Overfalls, tidal races

BUOYS AND BEACONS

1. Navigation marks in IALA A and B
2. Limitation of navigational marks as navigational aid

LIGHTS

1. Characteristics
2. Range – visual and nominal
3. List of lights

PILOTAGE

1. Harbour specific regulations and signalling systems
2. Planning and strategy to enter/leave a harbour
3. Practical skills to make a pilotage

SAIL TRAINING

OFFSHORE SKIPPER

ECHO SOUNDERS

1. Operation of manual echosounder
2. Types of echosounders
3. Limitations of echosounders
4. Secondary echoes

SATELLITE SYSTEMS

Basic knowledge of satellite systems, their abilities and limitations

LOGS (MEASUREMENT OF SPEED AND DISTANCE)

Different types and operation

LOGBOOK

1. Logbook as an official document
2. Running of a logbook

METEOROLOGY

1. Basic terms, Beaufort's scale
2. Air masses
3. Types of clouds
4. Characteristics of weather in specific pressure and front systems
5. Sources of weather forecasts
6. Ability to interpret weather forecasts/ charts, weatherfax
7. Day/night breeze
8. Fog
9. Use of barometer

ANCHORING

1. Types of anchors and operation
2. Selection of place to anchor

COLLISION REGULATIONS

Good knowledge of International Regulations for Preventing Collisions at Sea

SAFETY AT SEA

1. Personal safety, use of lifejackets, harnesses, jackstays
2. Fire prevention and fighting
3. Distress signals
4. Role of coastguard
5. Preparation to heavy weather
6. Liferafts and recovery by helicopter

INTERNATIONAL SIGNALLING CODE

Rules of application

NAVIGATING IN RESTRICTED VISIBILITY

1. Restricted visibility procedures
2. Limitations for safe navigation

PASSAGE PLANNING

1. Preparation of charts and notes to plan a passage
2. Standard actions when navigating in inshore waters
3. Strategy to plan a passage
4. Use of weather information in passage planning
5. Sources of local and national regulations

ENVIRONMENT PROTECTION

Responsibility for environment pollution and sea environment protection





Experience required prior training:

60 days at sea as skipper or watch leader in at least 5 voyages, at least in 3 different sea areas, including tidal waters (at least one area), 2 passages over 100 nautical miles as skipper

Certification required prior training: SRC, First Aid Certificate, Sea Survival

Minimum age required: 18 years old

Suggested number of training hours: 40 hours – training covers more exam preparation

Who can run the training: ISSA Instructor who holds MoY certificate

Who can do the examination: ISSA Examiner

Examination: 6 hours, including 2 at darkness Maximum 3 candidates at a time

How to submit the application: To authorized ISSA school only

Candidate for Master of Yacht should possess the same knowledge as Offshore Skipper but should be more fluent in applying it.

Apart of that, Master of Yacht should:

- Have proper appearance (dressing and hygiene) and should behave properly (show respect to others)
- Be confident in his actions;
- Be friendly to his crew;
- Remain calm in all situations and should not escalate stressful situations;
- Have good communication skills with the crew;



SAIL TRAINING

DINGHY LEVELS 1, 2, 3

SKILLS AND KNOWLEDGE REQUIRED
FOR A DINGHY LEVEL 1

1. Can sail a dinghy, without an instructor, in light winds.
2. Knows the Collision Regulations.
3. Wears appropriate clothing and buoyancy.
4. Can rig, reef, and launch a dinghy.
5. Can balance the boat, a) using body weight b) using the sheet.
6. Can identify reaching, can turn, and 'slalom' back to departure point.
7. On a reach, can accelerate and decelerate with the sheet only.
8. Can accelerate and decelerate with the tiller, trimming sails appropriately.
9. Can sail close-hauled, and tack.
10. Running: can balance the boat using the tiller, and can gybe.
11. Can stop the boat on a reach, close-hauled, and from a run.
12. Can prepare for towing.
13. Can recover a capsized dinghy.
14. Can tie a figure of eight knot, and a round turn & two half hitches.
15. Knows about weather forecasts, and sail aerodynamics.

Experience required prior training: None
 Certification required prior training: None
 Who can run the training:
 ISSA Instructor or minimum Offshore Skipper
 Who can do the examination:
 ISSA Instructor or minimum Offshore Skipper
 How to submit the application:
 Only through authorized ISSA school

SKILLS AND KNOWLEDGE REQUIRED
FOR A DINGHY LEVEL 2

1. Can plane a dinghy, in moderate wind and wave conditions.
2. On a run, can maintain a constant angle of heel without body movement, spinnaker (optional) correctly trimmed.
3. Can reach with a constant angle of heel.
4. Can trapeze and hike smoothly.
5. Can stop, reverse 2 boat lengths, and re-start on a pre-determined tack.
6. Can tack and replicate trim and heel.
7. Can gybe reach to reach with spinnaker (optional)
8. Can beat within a corridor.
9. Can tie a bowline and heat seal rope ends.
10. Can recover an inverted dinghy.
11. Can release a trapeze harness
12. Can reduce sail afloat.
13. Can interpret weather forecasts.
14. Knows about, points of sailing, buoyage, lee shores, tides, overhead power lines, anchors, boat maintenance.
15. Plus level 1 criteria





SKILLS AND KNOWLEDGE REQUIRED FOR A DINGHY LEVEL 3

1. Can plane a dinghy in strong wind conditions.
2. Can tune a dinghy, centreboard, mast rake, vang, Cunningham, outhaul, barber haulers.
3. Can roll tack and gybe
4. Can sail backwards.
5. Can sail without a rudder.
6. Can detect wind shifts.
7. Can mark round accurately.
8. Able to start at correct end of line.
9. Can cover and lee bow another dinghy
10. Can determine local weather patterns and wind strategy.
11. Knows Sailing Instructions, and the Racing Rules of Sailing.
12. Plus levels 1 & 2 criteria



NOTE: The ISSA standards are written in the form of competences, they are generic, and for guidance only. They exist in order to provide a simple method by which sailing certificates can be compared, to give guidance to organisations developing new certification schemes, and to establish standards for teaching and safety in sailing schools.