SAILING INFORMATION
2019
University Sports Center (ZHS) of the Technical University of Munich
ZHS Water Sports Center

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Course dates
You can find all the course dates in the university sports program on the ZHS (University Sports Center) website.

Requirements to participate in sailing
- Every participant must be able to swim in open water for 10 minutes. This must be confirmed with an official signature on the Blue Card.
- One workday of every skipper has to be within the framework of docking and undocking.
- You must prove you are allowed to participate by presenting your ZHS ID with a valid H tag, membership in the university sports booster club, and the valid H+S tag.
- Participants must always wear a personal flotation device (lifejacket) on board.

I would like to learn to sail, and I can swim
Training takes about 14 days of sailing. Three to four beginner days on a yacht, two days basic course for dinghies, and several days of advanced courses for dinghies or half-day practice courses should add up to about fourteen days - depending on participants’ learning capabilities as well as wind and weather. In the beginning there is an introductory course (class A) on a kind of yacht called “dragon”, which lasts three days during the semester and four days during the semester break. Basic sailing terminology (steering, holding course, tacking and jibing) along with theory and knots are taught on the dragon boat. The first day is mandatory. If you do not appear, you may not continue in the course. This is followed by one basic course for dinghies (2 days) which expands on skills learned in the introductory course. In this class, you will learn how to clear the boat, dock and undock, tack, regatta jibe, and heave to on a Pirate dinghy. The first day of this course is also mandatory. After basic training, participants will continue with advanced courses. They last two days during the semester and 3 or 5 days during the semester break. We recommend participants attend several advanced courses, so they fulfill the approximately 14 days of sailing required. The exact number of advanced course days required before taking the exam depends on how much each participant practices, wind conditions, and past experience. In these courses, you practice the remaining maneuvers, such as man overboard, docking leeward and windward side, backward sailing (see the maneuvers list), until you are ready for the exam.

I would like to learn to sail, and I have past experience
The duration of this training depends on participants’ existing skills. Either way, you must take one intermediate dinghy course first, so you can become familiar with the area, common practices of the sailing school, and handling a Pirate dinghy. The first day is mandatory. If you do not appear, you may not continue in the course. Then, advanced courses or half-day practical courses are next. Course instructors are happy to advise you on the number of additional classes you should take before starting the exam process.

What should I do if I already have a sailing license from DSV or other sports federation?
Even if you already have a sailing license from a sailing sports federation, you still have to pass the skipper examination in order to check out a boat. We therefore recommend you sign up for a few days of class in order to become familiar with our specific sailing maneuver variations. The reasoning behind this: since the sailing center requires skippers to ride along and act as an *extended arm* of the course instructor, it is necessary for the sailing center to assure uniform maneuvers as training prerequisites. This ensures that students learn maneuvers and commands in line with sailing center procedures. The sailing center does not consider you one of their skippers even if you have a DSV sailing license, so you are not allowed to sign up for skippers’ classes or check out a Pirate dinghy.

Skippers
You are required to attend at least 10 days of dinghy sailing before taking the exam. If you obtained qualifications elsewhere and would like to take the exam after fewer days of class, you must receive confirmation from the course instructor first. Exam registration is online at www.zhs-muenchen.de. For more information go to the section on skipper examination.

What is a skipper?
Skippers are sailors that have passed the skipper examination. For intermediate and advanced dinghy courses, they may sail along as a third person to support the course instructor, similar to an *assistant teacher. “
For every day of activity as a skipper, they will receive one day of free boat or SUP rental (Pirate or Laser - if the Laser has been approved). After three working days, they get free rental for the entire season.

What is the university sailing license?
Sailing schools and centers at the universities of Aachen, Erlangen-Nuremberg, Hamburg, Kiel, Konstanz, and Munich mutually recognize each other’s training courses. This makes it possible for sailing graduates of the University Sports Center (ZHS) to check out dinghies at the above-mentioned sailing centers and schools without further training requirements. (A refresher course may be required.) The prerequisite for this is the university sailing license, which is issued to skippers upon request. A boat rental is only possible for sailing center skippers or people who possess a university sailing license.

What can I do once I have my skipper license?
Here at the Starnberg Sailing Center:
- For every workday as a skipper, you get one free boat or board rental (Pirate or Laser) when there is no sailing course, or if boats are available during class. After three working days as a skipper, you get free rentals for the entire season.
- Sailing Laser dinghies* - you may rent a Laser after approval (after an introduction to Lasers and Laser training with wind).
- Spinnaker sailing* - at the introductory Spinnaker sailing course* (and during Regatta practice if the course instructor allows it).
- With a special Spinnaker approval, you are entitled to the free rental of a Spinnaker. There must be a skipper on board with this special approval.
- Regatta training on Pirates or Lasers.
- Active regatta sailing: skipper championships on Pirates / Munich University Championships on Lasers / participation in the adh Open.
- Introductory course on Catamarans (Topcat K2).
- Introductory course on a two-man high-performance dinghy (Korsar).
- Sailing tours - “discover” Lake Starnberg with a skipper.
- Skipper training** – Training to lead and teach beginner courses on yachts.
- Internal sailing teacher training for suitable candidates at the sailing center.

* For these classes, you have to show that you worked one day as a skipper over the course of the same year for each day of class you attend. These work days also count for free rentals.

** For these classes, you have to show you worked as a skipper during the current season. One day of work as a skipper in the same or past season can count for one day of class. These work days also count for free rentals.

- Sailing with the university sports booster club (Förderverein Hochschulsport)

Even after you finish college, you can have access to the entire array of ZHS activities (and, of course, continue sailing) by becoming a member of the university sports booster club. Please visit the booster club link on our ZHS website (www.zhs-muenchen.de). Here you’ll find more information on admission requirements and costs.

Opportunities to sail as a member of the athletic association USC Munich sailing department
- Regatta and recreational sailing on a Laser (dinghy), Korsar (dinghy), Topcat (Catamaran) or yacht (J70).
- Cruises on keelboats across the Mediterranean

You can find requirements online on becoming a member of the sailing department of USC Munich.

Other licenses and continuing education

License for competitive sailing (SPOSS and the SPOSS exam)
The German Sailing Federation has been offering their competitive sailing license (SPOSS) since 2003. You may take the exam for this license with the board of examiners at USC Munich.
This includes a theoretical exam, for which you simply request an extra form, and a practical skipper exam. If you have already passed a skipper exam in the past, it cannot be used for the SPOSS examination process, and you will have to take the practical exam again.

Sport boat license for inland waterways (SBF-Binnen for sailing + motor)
The sailing center prepares students for licenses that are only valid at universities (skipper and/or college sailing license). The sailing center only has limited opportunities to take the test for the official sport boat license on inland waterways (SBF-Binnen). Skippers who wish to obtain this official license can either take the exams offered by the sailing department of the USC Munich on our Pirate dinghies or go to the sailing school Weiß-Blau and take the exam preparation and examination on their dinghies. They collaborate with our sailing center.
The practical training and examination process for the motor part is possible through the sailing department of the USC or the sailing school Weiß Blau. Theoretical training and examination is normally done by the sailing department of the USC.

Sport boat license on lakes (SBF-See) and sport boat license on coastal waters (SKS), radio communication certificates (SRC, LRC and UBI)
The sailing department of the USC Munich (responsible for content and execution of the courses and examinations) offers, in cooperation with the University Sports Center (ZHS), courses and exam opportunities for the sport boat license on lakes (SBF-See), sport boat license on inland waterways (SBF-Binnen: sailing + motor), sport boat license on coastal waters (SKS), certification in pyrotechnic distress signal (FKN) and courses for certification in radio communication. Please see the ZHS athletic program and their website for scheduled preliminary meetings and courses.

Information about sailing courses

Class schedule:
Classes take place under all weather conditions.
The all-day sailing courses begin at 9:00 on the dot and have a one-hour lunch break. They end around 17:30, after everyone cleans up and says goodbye.
Times of arrival, if not otherwise announced: 12:10 and 16:30 in the afternoon.
The half-day classes “Ü” start at exactly 16:00 sharp and end around 20:00 after everyone cleans up and says goodbye. Time of arrival is approx. 19:15. Please be aware that class is not over until everything has been cleaned up and the course instructor has said goodbye to all participants. A basic course in dinghies and one advanced course are the minimum prerequisites for classes marked “Ü”. These classes count as all-day sailing for the training course!
IMPORTANT NOTICE
If you arrive later than 15 minutes without a valid excuse, you may lose your place to someone else and will not be compensated.
Before class begins, you may call 089-289-24183 and leave a message about your delay (traffic jam, public transportation issues, etc.) between 8:00 - 8:45. This will count as being excused and will keep your place reserved.

Last-minute sailing rules
For these courses, students who are not on the list may join in at the last minute. (see below-mentioned prerequisites) They simply write their names legibly on the board in the deckhouse (first and last name) before class begins. As long as there is still room and the course instructor is accepting more participants, students may sign up for that day only or for the entire course. Payment is made on the spot using direct debit online. As usual, you will receive a printed receipt. (internet is available)
Available places will be assigned on a first-come-first-serve basis.

It’s worth signing up last minute for yacht and dinghy courses when it’s rainy and windy. Some students have to change their class schedule mid-term and cannot continue with the course. In this case, the class availability forum can help. This is where students can offer and trade courses that are already reserved. Please email the ZHS administration about any new class reservations: zhs-hi@zv.tum.de
Anyone who signs up last minute on the first day of beginner or intermediate dinghy courses may participate for the rest of the course.

Important notice: Don’t forget that there is always a chance that everyone shows up who reserved ahead of time, leaving no room for more participants. If this happens, students hoping to sign up at the last-minute will have driven to Starnberg for nothing. However, as long as the weather plays along, they can stay on the beautiful grounds and enjoy a relaxing day of sunbathing and swimming, or even rent a stand up paddle board.

What equipment should I bring for sailing?
There are no specific dress requirements. Beside your regular street clothes, you’ll need suitable clothes for sailing. Bring long pants, sweatshirt, jacket, and a hat on cold days. On warm and sunny days, bring non-greasy sunscreen, a hat, sunglasses, shorts, t-shirt, and a water bottle. It’s best to attach a band to anything that could sink (e.g. glasses). For safety reasons, tie long, flowing hair together and leave jewelry on shore or at home or keep it in one of our lockers.
Since you can get wet many different ways, you should bring at least one change of clothes and a towel. You should use sailor rain gear (overalls or oilskins) for rainy days or when it’s so windy you may get sprayed.
A change of clothes is a good temporary solution if you don’t have the right protective clothing. The sailing center sometimes has older sailing gear stored away in a boathouse. Please check with the course instructor if you need anything.
It’s important to have shoes with slip-resistant soles, especially in wet conditions (e.g. sneakers, tennis or boat shoes). Please be sure to brush off any pebbles stuck to the soles of your shoes, so you don’t accidentally scratch the varnish.
Sailing bare foot is not allowed for safety reasons, and clumpy shoes belong on mountain trails, not on board.
It’s best for your health (risk of sunburn, hypothermia from cold wind) not to sail in your bathing suit.

Miscellaneous:
- Only pants with no rivets are allowed.
- It’s important that your sailing clothes cover your kidneys well.
- You can change your clothes in the locker rooms, where you can also store your things for a refundable one-euro coin.
- The kiosk on the premises sells food and drink. In good weather, it’s open all day, starting at approx. 11:30, and in bad weather, it opens around mid-day when there are sailing classes.
- Refrigerator, stove, and utensils are also available for use in the sailors’ clubhouse. Their use is, however, contingent on immediate cleanup afterwards.
- Please park efficiently on the street, since there is no parking lot on the premises for class participants.

Insurance
Only students and university employees are covered by accident insurance at all ZHS courses. Relatives (also with the H tag), members of the booster club or USCM sailing department should insure themselves against accidents. Personal equipment is not insured. We recommend a water sports liability insurance for open sailing sessions (including boat and board rentals).

Terms of cancellation
Please go to “Terms of cancellation“ in the current ZHS program or website at www.zhs-muenchen.de.
How do I get to Starnberg?
The address for a GPS, pedestrians, or cyclists: Unterer Seeweg 5, 82319 Starnberg

Coming by public transportation or car

- If coming by **S-Bahn (tram)** take the S6 to Starnberg (Bahnhof am See). From there, go south on Seeuferweg (path on the lake shore) until you reach the water sports facilities. (it takes about 15 minutes by foot).
  The S-Bahn leaves Munich about every 20 minutes and takes about 36 minutes to reach Starnberg. A day pass is usually less expensive than 2 one-way tickets. A group day ticket for up to 5 participants is the most inexpensive solution. Otherwise, there is always carpooling.

- If coming by **car** follow signs from Munich to Starnberg. Once there, drive toward Possenhofen ("toward the water"). Turn left at the first underpass, then immediately right, and drive up the hill, where you can park. Be aware: There is limited parking on the street. Parking on the premises of the water sports facilities is not possible for class participants.

Water sports facilities layout
Rules and regulations for renting boats and boards

Opening hours

As long as there is enough equipment and no class, boats and boards may be checked out during the following hours:

- **Boat rentals and returns** are possible 9:30-10:00, 13:00-14:00, and 16:00-1 hour before the facilities close.
- **Stand up paddle boards** are available starting at 10:00 until one hour before closing.

You have 30 minutes upon arrival to clean and tidy the boat or board.

If you violate this rule, the terms for late returns apply.

**Before renting, you must fill out a form and sign.**

- You may use your German ID, passport, or driver's license as a security deposit.
- You pay the rental fee after bringing back your boat or board.

**Boats:**

Dinghies (Pirates), Lasers and yachts (Dragon & Varianta) are available for rent.

**Rental requirements:**

- **Pirate dinghy:** ZHS skipper license (free rental after 3 workdays as skipper)
- **Laser dinghy:** ZHS skipper with Laser approval (free rental after 3 workdays as skipper)
- **Dragon yacht:** ZHS yacht skipper (free rental if at least 2 skippers are on board)
- **Varianta yacht:** SBF Binnen Segeln (official German sailing license)

**You might have to present the Blue Card**

**Dinghy (Pirat) fee:**

- All day: 25,- €
- Half day: 15,- €

**Laser fee:**

- All day: 15,- €
- Half day: 8,- €

**Yacht (Dragon) fee:**

- All day: 100,- €
- Half day: 50,- €

**Yacht (Varianta) fee:**

- All day: 50,- €
- Half day: 25,- €

**Boards:**

There are NO windsurf boards for rent. We only offer stand up paddle boards (SUPs).

**Rental requirements:**

- Introductory SUP course: You must present the ZHS SUP Safety Card.
- (free rental after 3 workdays as a skipper, HOWEVER, rentals for open paddling have priority)
- certified swimmer (person can swim in deep water for at least 15 minutes)
- at least 12 years old

**SUP fee:** for every started hour: 7,- €

**General information:**

- Please fill out the rental form.
- The use of a personal flotation device (life jacket or buoyancy aid) is mandatory.
- When renting a SUP, you must wear a leash and life jacket or Restube.
- You must enter all the boat rentals legibly in the logbook.
- The borrower is liable for any damages incurred.
- In the case of grossly negligent or intentional misconduct and/or violation of good seamanship, your right to borrow may be withdrawn.
- Pirate Spinnakers may only be checked out if there is at least one skipper with Spinnaker approval on board. The rental fee for a Spi is 6,- Euros.
 Skipper examination

**General information**

**Exam admission**
Whoever signs up for the exam must prove first that they’ve been sailing on a dinghy for at least 10 days. Of course, as there are sailors who have learned their skills elsewhere, those who have fewer days on their Blue Card will need the course instructor to confirm on the exam card that they’re ready to take the exam.
You have to pay the exam fee before beginning the examination (online registration and payment). Once you begin the examination process, there are no refunds. You must finish the exam within 15 months, otherwise everything achieved in the meantime won’t count. A prerequisite for taking the practical exam is having already passed the theoretical exam.

**Theoretical exam**
- Participants need to bring the receipt from paying the theoretical and practical exam fees and a pen.
- It is a multiple-choice exam.
- You’ll have 90 minutes to take the exam (for repeat candidates, 60 minutes).
- Sometimes an oral exam may follow. Examinees can see their results around 15:00 in the glass case at the sailors’ clubhouse or on the glass door that leads to the “promenade deck.” Those who have to take an additional oral exam should remain where they are and wait for more details.

**Practical exam**
- First, we’ll test your “basic maneuvers” tacking and jibing (circle) and heaving to. If the student can’t do all three maneuvers, the practical exam ends, and they failed.
- Every student gets one chance, but if there is enough time, they’ll sometimes receive a second one.
- Receiving more chances is at the sole discretion of the examiner.
- Students must immediately attempt the examiner’s commands, communicating clearly at all times. If it’s a crew member’s fault that a maneuver doesn’t work, the helmsman won’t lose points as long as he/she didn’t make a mistake.
- Commands must be spoken loud enough that the examiner can hear them.
- We assume that participants already know how to sail. What we are looking for is that they also know how to do maneuvers according to their workbooks and the way the sailing center taught them.
- If your crew tries to whisper the answer, it counts as cheating and you fail the exam.
- The exam starts off with the clearing of boats.
- For the heaving to part of the exam, students may choose which way they want to heave to.
- If any student is involved in a collision with another boat, the exam is immediately over, and the student has failed.
- Students have two chances for each knot during the practical exam.
- Students won’t find out the results of their maneuvering and other exam sections until they reach land.
- If part of the team passes the exam first, they can keep sailing until everyone is finished. If the entire team fails ahead of time, everyone has to go ashore. The reason for this is that the team is no longer insured if they’re not in class or an exam. Open sailing is not allowed for “non-skippers.”

**Failed maneuvers**
- Any candidate who has failed three or more maneuvers (no matter which ones) must repeat the entire practical exam and pay the examination fee again. (cancelled sailing due to a lack of time or wind does NOT count)
- If they fail two or less maneuvers, then they only have to repeat those (see “Repeating maneuvers”)
- Jibing, regatta jibing, and tacking within a practice circle count as individual maneuvers during the exam.
- “Leeeward docking and undocking” count as one maneuver, as well as “windward docking and undocking.”
- If an exam is interrupted due to a lack of wind or time, students may continue at the next available exam date for free. Examiners make a note of this on the exam cards. Please see “Repeating maneuvers” for two or less failed maneuvers.

**Repeating maneuvers**
- Assistant skippers are not allowed to redo failed maneuvers.
- If a student fails two or less maneuvers, she must attend and pay for another day of class, where she can make up the missing parts. If the make-up exam has to be cancelled due to a lack of wind, another date will be scheduled.
- The course instructor allows a maximum of two attempts at each maneuver, which have to be carried out one after the other. If students don’t pass, they can repeat the missing maneuvers in another paid day of class. Every make-up exam has to be noted on the exam card.
- If they fail a third time, they have to retake the entire practical exam.
- If the remaining two maneuvers cannot be sailed because of a lack of wind or time, the student gets a “voucher-note” on their exam card. They can then check out a boat without paying the class fee. However, one additional day of class for examining must be paid. If they still don’t pass the exam, then they have to repeat the entire practical exam.

**Becoming a skipper**
You will not be considered an official skipper until you’ve worked two mandatory days as a skipper during class.
Material for the skipper exam

1. **Maneuvers:**
   - Tacking; jibing/ shifting (regular jibing and regatta jibing);
   - Reverse sailing (at least the length of 10 boats, then turning forwards);
   - Heave to / lie to;
   - Mooring on a practice raft or jetty on the leeward and windward side (with a final casting off); boat clearing; casting off at the port berth; docking in the port into a slip; man overboard maneuvers with jibing and shooting head to wind in rough seas (and lie to)
   - Boat clearing; casting off at the port berth; docking in the port into a slip; man overboard maneuver “Munich maneuver,” seafaring behavior.

2. **Knots:**
   - Figure eight knot, half hitch; round turn with two half hitches; clove hitch (stuck and thrown);
   - Clove hitch with two half hitches; simple and double sheet bend; simple bowline;
   - Anchor bend; rolling hitch; overhand knot with draw-loop; square knot (reef knot); covering a cleat (also on a slip); cast and coil the lines.

3. **Other:**
   - Rig a sail (fasten head, tack, and clew correctly);
   - Fold up sail and tarpaulin;

4. **Theoretical:**
   - Knowledge in the following areas:
     - Theory from class, “Sailing Curriculum Alpha” (see below); boat customer; right of way; safety; maneuver descriptions; regatta sailing; customs at the sailing center; distress signals according to BinSchO (German inland waterway regulations), theory from this informational pamphlet on sailing.

Literature list

„Segellehrplan Alpha”, (Sailing Curriculum Alpha) available ONLY in German at the sailing center for 10,-€.

On top of that, the exam may contain questions from this pamphlet.

Yield – “right of way”

For more information on right of way while sailing, please read the above-mentioned sailing curriculum.

If two different kinds of watercraft cross paths or come so close they might crash, the following hierarchy for right of way rules applies:

1. Police boat at work (blue light)
2. Liners (orange flag on bow during the day and additional green light at night)
3. Commercial fishing vessel (white flag or board) at work
4. Sailboats / wind surfers
5. Rowboats and paddleboats / stand up paddle boards
6. Machine-driven vessels, usually motorboats or electric boats

Sound signals / Optical signals

Among others, the following sound signals are given off by the Starnberger liners:

1 short blast: “Course change to starboard”
2 short blasts: “Course change to port”
3 short blasts: “I am operating astern propulsion.”
1 prolonged blast: “Watch out!”

Flags during class

“L” flags
During class:
"Come within hearing range" or regatta:
"Come within hearing range"

“Y” flags
During class:
“Life jackets are always used” or regatta:
“Put on life jackets!”

“N” flags
During class:
“Enter the harbor immediately!” or regatta:
“Abort race!”

“S” flags
During class:
“Sail close to harbor!” or regatta:
“Shortened course!”

“H” flags
During class:
“Work on the water is finished!” Enter the harbor!

“A” flags
Meaning:
“I have a diver below; keep at least 50m clear!”

Storm warning

Around the Upper Bavarian lakes, storm warnings are announced by flashing lights, which are positioned around the lake.

**Strong winds warning:** Orange intermittent light with about 40 flashes per minute. It is an orientation for the probability of abrupt storm winds emerging without giving specific times. It is announced with the intention of alerting aquatic athletes to the potential danger and causing them to take appropriate precautions and follow the weather.

**Storm warning:** Orange intermittent light with about 90 flashes per minute - announces immediate hazardous weather.

Sailing course participants’ and skippers’ behavior: Any time there is a hazardous weather warning, flag S applies, and everyone must sail close to harbor. If necessary reef or, as a last resort, remove the sail. Enter the nearest port or go to sheltered shore if needed.
Rigging: All the equipment on board that is necessary to take advantage of the wind in the sails (masts, spars, stays, shrouds, spreaders, halyards, sheets, pulleys, and fittings).

Spars: All "logs" except the mast (for example main boom, spinnaker pole, jibboom).

Boom head: rear ( aft) end of the main boom

Stays: Wire rope for bracing the mast in the ship’s longitudinal direction ( e.g. forestay and backstay).

Shrouds: These support the mast laterally. There are various kinds depending on the size of the boat, e.g. upper, lower, and mid-shroud.

Spreaders: Strut on the mast for keeping the shrouds spread out. Causes a more effective angle of the shrouds on the mast, thereby reducing bend into the mast.

Halyards: These are lines used to hoist ( raise) or veer ( slacken) something, such as a mainsail with a main halyard, headsail with a jib halyard, rudder halyard, centerboard halyard.

Standing rigging: All shrouds and stays. It holds the mast in place and is usually made of wire rope.

Running rigging: Everything used for raising, lowering, reefing, shaping and stowing the sails. Running rigging consists of halyards, sheets, stretchers, uphauls, downhauls, reefing lines, topping lifts, and preventers. It is made of fiber and/or wire ropes.

Topping lift: A line which runs over a pulley at the top of the mast to the boom head and carries the weight of the boom while furling, after furling, or reefing.

Preventer: A line that maintains the main boom on a downwind course.

Eliminating dangers with on-board resources

Shroud breakage: If you manage to reach the other bow to relieve the mast before it breaks, you can provisionally replace the broken shroud after lowering the sail with a topping lift ( if you have one) or a halyard. A shroud clamp can be replaced with a marline, shom and pulled through several times.

Forestay breakage: The head sail stands still! Without a set head sail, you can temporarily replace it with the luff of the jib and jib halyard.

Rigged sail: Lower the sail and try to repair it. Fabric tape is often enough. If the rip is close to the main boom, you can sometimes get by with reefing.

Racing rules of sailing

Regatta course: The traditional triangular course is typical (despite some variations). This is a course marked by 3 buoys with beating and broad reaching and a downwind section. Green flag at the beginning of the start procedure = to the right ( buoys remain starboard). More commonly used is the red flag ( or no flag) = to the left ( buoys remain port side).

Complete course = Start-1-2-3-1-2-3-4-finish or one triangle less is also possible as a shortened course: Start-1-2-3-1-3-finish.

Start: Normally against the wind, it starts off with beating to the first buoy. Then broad reach to buoys 2 and 3 ( jibe at 2) and then back up to buoy 1. The path from buoy 1 back to 3 is in front of the wind.

The following signals usually determine what happens the last 5 minutes before start:

5 minutes beforehand = Announcement signal: Class flag and a sound signal
4 minutes beforehand = Preparation signal: Flag " P" and a sound signal
1 minute beforehand: A sound signal and lowering of the " P" flag
Start: 1 sound signal and lowering of the class flag

"Right of way" in races: Here, too, the right of way rules apply ( according to the COLREGs): The watercraft that has the wind from port, must yield the right of way to the watercraft that has the wind from starboard. / leeward before windward / Those passing on the windward side have to stay clear. The exact text can be found in the racing rules of sailing.

Remember: Just because sailors are participating in a race, it does not mean they always have the right of way in German waters. Right of way regulations still apply to both racing sailors and non-racing ones. HOWEVER: «A fair sailor sometimes yields the right of way to a racing sailor voluntarily»

Basic sailing terminology

During class, we will go into more detail about the terminology listed below: You should master the terms and their meanings by the time you take the skipper exam.

General: leeward; offshore; onshore; astern; aft; forward; port; starboard; starboard tack; port tack; Fender; stable form; stable weight; leeward; windward; lee helm; to drain/ scud; bilge pump; to row; to paddle; paddles; bucket, oars; shackles, snap hooks; stowing, swiveling.

Boat and fittings: stern; bow; eyebolt; eye; bilge; keelson; bow; stern; cockpit; thwart, freeboard; foresheet fitting / jib sheet lead; dinghy; yacht; keel / ballast keel; cleats, ( cam cleats, jam slot cleats); fairleads; lateral plane; tarpaulin; tiller, tiller extension; chain plate; rudder; rudder blade; protecting rib; transom; coaming; overhang; underwater section of the hull; waterline; design waterline; winch.

Rigging, sails, ropes: boom head; boom support; pulley ( double block, one and two-piece block, lock / ratchet block, main sheet rope block); wire spring; halyard; main boom; rigging ( standing, running); thimble; mast ( mast step, masthead); spreaders; sheets ( main, jib, head); sails ( high, gaff, main, head, and light sails, jibs, genoa, spinnaker, sail signs, head, tack, clew, luff / foot / leech, headboard, batten pockets, battens); stays ( headstay, backstay, running backstay); hanks; rigging; whipping; tackle; ropes ( braided, laid, marine, lines, hawser, rope end, splices, hitches); apparent wind indicator; pennant; shrouds; turnbuckle.

Work while sailing: bear off; head up; hang on; cut off; unrig; rig; shoot head to wind; fur; hiking; set taut / haul in / veer; come up, jibe; hoist; luff, heal; courses ( close-hauled, beam reach, broad reach, downwind, beating course); longside; broad-reaching; header; reef; jibe-ho; shift; tack ( tacking); " schricken" ( release cleated sail, lower a little, then cleat again); set sail; drop sail; come about; wind ( true wind, apparent wind, headwind, disturbed area, cover); tack.
Practical exam
Participants must be able to properly execute the maneuvers listed below for the exam. Usually, each candidate goes through all the maneuvers first. If you need to repeat a maneuver you did not execute properly, (not more than one, as a general rule) you have to wait until all other candidates have finished their exam first. The examiner makes this decision. Repeating a maneuver is not a right.

What is expected from you: seafaring behavior; clearly audible, articulate commands and that the position of the sail always reflects the course you’re sailing.

Each maneuver and its criteria

1. Tacking
   - Change course to close-hauled
   - Put out aft toe
   - When luffing, remain seated until the main sail comes over
   - Dive under the main boom and stand all the way up
   - Check close-hauled course
   - Sheet hand takes over the raised tiller extension behind the back
   - The freed-up extension hand now takes over the main sheet
   - Do not slacken the main sheet during the entire tack
   - Sit down

2. Regatta jibes
   - Fall off to downwind broad reaching course
   - Stand up, change hand from sheet to extension without changing course
   - Change location after coordinating with the bowman, sit down, and fall off to downwind course
   - Overhaul main sail by grabbing the tackle, slowly give support rudders (downwind broad reaching = maintain course)
   - Change course

3. Jibing
   - Downwind broad reaching course
   - Stand up, tiller (extension folded back) between your legs, both hands on the main sheet
   - Quickly haul in main sheet until main sail is taut
   - **Now** slightly overshot = fall off until the main sail comes over
   - Quickly ease out and slowly give support rudders (downwind broadreaching = maintain course)

4. Heave to / lie to
   Lie to: The boat is almost standing still, or drifts with slackened main sail and windward rudder position leeward. If there is one, the headsail is in inverted position.
   Heave to: Maneuvers to lie to as quickly as possible. There are three variations.

   **Variation 1**: let it drive out (possible from any course, optimal from close-hauled courses)
   - Ease out main sail
   - Head up until main sail is freely luffing, then maintain course
   - When the boat stops, jib inverted (command: “jib inverted”)
   - Boat turn with bow leeward. Rudder blade windward

   **Variation 2**: Stop with headsail (possible from any course, optimal from broad reaching courses)
   - Headsail inverted (command: “headsail inverted (on ...)”)
   - Lower the main sail entirely and head up very slowly

   **Variation 3**: A tack
   - Slacken the main sail (command: „Clear to heave to by tacking, jib remains”)
   - Ready rudders for the tack (command: “Ree”)
   - Lift the main boom or ease out sheet
   - Let boat fall off until boom is about a hand away from the shroud and rudder blade leeward

5. Reverse sailing
   - Shoot up head to wind, then wait until the boat almost stops
   - Helmsman pushes the main sail in the opposite direction to the shroud
   - Maintain boat in wind
   - If there is too much pressure on rudders and/or sails let out main sail
   - Once finished sailing backwards, turn bow. Place rudders on the side the boat will sail away from
   - Make headway

6. Dock/leeeward side (island)
   - Sail on a beam reach and shoot directly head to wind
   - Stop in front of the objective (1 cm – 50 cm space between you)
   - If you went too far veer round, and if you have a little left to go break with controlled, inverted pressure of the main sail
   - If your sails “die” bear off in time (~before the boat stops) and try again
7. Undock/leeward side
   - Reverse out of a space and then turn away – see reverse sailing (bow away from land or obstacles)

8. Dock/windward side (island)
   - Sail on a beam reach with a clearly laid main halyard, then shoot head to wind and let the main sail lower. Turn (at times with help from inverted jib) and straight downwind to island, jib halyard clear, - let it lay
   - Drop jib well before reaching the island
   - Go longside on the island. Close the remaining space between boat and dock with a rotating movement

9. Undock/windward side (island)
   - Off the island astern with help of paddle
   - Steer boat in the wind
   - Raise the main sail while drifting astern

10. Man overboard maneuver with jibing and preliminary shooting head to wind
    - Close-hauled course, continue sailing approx. 6 lengths of a boat, bear off downwind and jibe
    - Bearing abreast on downwind course, slowly shoot head to wind to practice ball (the "man" overboard)
    - While shooting head to wind (= indirect shoot head to wind) maintain slightly windward side of the ball, mainsail must be freely luffing
    - If you’re about to "die," briefly haul in (grip in the tackle) the main sheet just in time (= before the boat stops)
    - The boat should stop windward from the ball. Ball leeward between shroud and transom
    - Lower sail with ball windward

11. "Munich maneuver" (Man overboard maneuver as a drift maneuver)
    - The helmsman does this maneuver alone and only at wind force 2 or above
    - Close-hauled course, throw ball overboard, count to 5, heave to (see section 4 – variation 3)
    - Clear windward position of rudder and drift to ball
    - Ball between shroud and transom
    - Lower sail with ball windward

12. Harbor maneuver (dock and undock)
    Box maneuvers, shift, set sail and undock depending on the direction of the wind (see maneuvers pamphlet)
    Dock according to the direction of the wind
New skipper ritual
The new skipper celebration is not only a ritual done by others for you. You are also expected to prepare a few things beforehand. See your course instructor for more information. After a traditional ritual, you are officially a skipper.

To demonstrate proficiency, every skipper of the sailing center can request (include passport picture and 5€) the adh sailing license (German University Sports Federation).
This is valid at all university sailing schools in Aachen, Erlangen-Nuremberg, Hamburg, Kiel, Konstanz, and Munich. Submit the application in the mailbox of the sailing center or send it to:

ZENTRALEN HOCHSCHULSPORT MÜNCHEN / Ressort 4 -Segeln
Connollystraße, 32 - 80809 München

Application to issue university sailing license

Please put an X next to the one that applies:

New issue

Duplicate, transcription, new issue for exam before 1996 (10,- €)

Last name, first name: ...............................................................
born on: ...................................... in: ..........................................
Address: .................................................................

Official skipper as of: ............................................................

Enclosed:  1 passport picture  Fee: 5,- € (please include in envelope)
Steps to becoming a certified skipper

This training is open to all suitable ZHS skippers. It takes place at the end of the season in one session. In addition to yachting and the technical side of sailing, learning how to behave in the presence of students is paramount. We review all safety maneuvers and discuss the ins and outs of teaching beginners. Those interested should send a personal statement to the head of the water sports center (Tobias Borucker: borucker@zv.tum.de).

Prerequisites for skipper training:
- One Spinnaker course
- Laser approval
- At least one workday as skipper during the same season (you don't lose these days for free rentals).

Training content that also has to be mastered for the skipper examination:

**Practical:**
- Mastering all maneuvers in the wind on a Dragon: docking and undocking, 180°-shoot head to wind, docking longside on jetty or dock, docking with bow and/or stern anchor to jetty during onshore winds, sailing circle, aft horizontal to wind, aft vertical to wind, Echelon sailing, Butterfly sailing, Munich maneuvers, man overboard (using a ball) with jibing, man overboard with shooting head to wind, man overboard with Q turn, drop anchor, reefing (close-hauled course, hove to), towing, towing longside, form a pack
- How to operate a dinghy, heaving lines
- Preparation on land, - onboard, final work after sailing (incl. ship cleaning)

**Theoretical:**
- Boot care and knowledge (lateral plan, stability, boat types, Dragon knowledge), Safety check
- Equipment on board, mandatory terminology according to the "informational pamphlet on sailing," conveying sailing theory, knowledge of forces on ship and sail, weight and sail trim, knowledge about ropes and knots, right of way rules, short teaching quiz. In addition, a logbook is kept, in which each skipper enters weather conditions, wind direction and force, practiced maneuvers, etc., and makes an assessment of the character traits, assertiveness, pedagogical and didactic skills of the participants.

If a skipper confirms the excellent performance of a participant, that participant will be admitted as an intern to the training team of associated skippers, taking into account the results of the logbook. We will also test participants' ability to manage stress. The evaluation of this internship is decisive in determining who may take the exam (see below).

**Examination**

There is no separate exam. Instead, at least three skipper instructors decide who will join their ranks.

How to become a sailing instructor

This training is open to all suitable ZHS skippers.

Prerequisites for sailing instructor training:
- One Spinnaker course
- Laser approval
- Sport boat license for inland waterways (motor)
- Sport boat license on lakes or coastal waters (SBF SEE or SKS)
- Participated in a regatta as a bowman or helmsman

**Examination**

There is a separate exam.

Practical exam for sailing instructors (Pirate)

Sailing
- Directly and indirectly shooting head to wind on buoy or raft
- Man overboard maneuvers (2)
- Reverse sailing/drifting to raft and fasten bowline to leeward cleat
- Drift from windward side to raft, tying bowline to leeward cleat
- Windward docking
- NE Wind (requirement): Park backwards into the slip with full sail, shift forward, and sail out again, beating to windward (take advantage of the entire width of the slip)
- S Wind (requirement): Sail backwards out of the slip and harbor
- Sail into the slip lane and then out again, after slaloming around every second bitt (without touching)
- Shifting - once around the harbor (examiners determine the direction)
- Sailing without rudders: Sail to island/buoy. There, pull the rudders up and fasten them in middle position: Sail two maneuver circles (1 x to the right, 1 x to the left), sailing at least one tack and one jibe each time. All sailing means are allowed.
- Maneuvers from the skipper exam may also be tested.
Glossary for Pirate sailors

This glossary consists of important sailing and organizational information in alphabetical order.

keep at bay  To protect a boat from damage, it is kept at bay, which means you push it away from an obstacle. Make sure your skin or bones don’t ever get caught in the boat and other object.

undock  Before undocking check the direction of the wind and determine if you can leave the slip with no problems. Think about how and where you can set sail.

furling  During lunch or longer breaks in sailing, you furl the main sail: release the head, wrap the sail around the head to the boom and fasten it with the tow line. Pull the jib into the cockpit and tie around the mast with a marline.

Bathing suit  Wearing a bathing suit while sailing does not protect you from sunburn or a cold breeze. It’s better to use sailing clothes.

Clean up boat  In the evening you remove the sails, put away the sheets, and clean the boat. You pull up the rudder blade, extension is tied to the tiller, and the side bilge pumps are opened shortly before the tarpaulin is put on. Pull up centerboard. Put on the tarpaulin and fasten it.

Clearing the boat  Take off the tarpaulin and fold it up. Lower the centerboard halfway. Pump bilge. Open the inspection covers on plastic boats and check whether there is water in the double bottom of the ship.

Logbook  Before clearing the boat, all crew members have to enter their name in the logbook. After cleaning up the boat in the evening, everyone in the logbook checks out and (legibly) notes any damages.

Glasses  Attach a band to your glasses so you don’t lose them (you can find one in the boathouse).

Arrival times  Times of arrival for all-day courses are: 12:10 and 16:30 in the afternoon. For the practice afternoons, arrival time is 17:40.

Boarding  After checking that no one has pebbles in the soles of their shoes, you carefully board the boat in coordination with the other sailor.

Electronic devices  These devices (mobile phones, MP3 players, etc.) are usually not waterproof and should, therefore, remain behind.

Halyards  The main halyard is always on the starboard side, the jib halyard on the port side. When cleaning up the halyards, wrap them once or twice around the mast to avoid hitting.

Mooring  Always attach the boat so that it can swing when boarding. Usually it is moored with a clove hitch and two half hitches.

Flag signals  Flags are usually flown on the flag mast of the boat. The signal orders and information: „L“ = Come within hearing range; „Y“ = Put on life jackets; „N“ = Enter the harbor immediately; „S“ = Sail close to harbor; „H“ = Work on the water is finished! Enter the harbor immediately!

Jib sheet eyelet  Used to properly adjust the tension of the jib foot and leech.

Jib  Head sail, through which the effect of the sails is significantly improved. The luff must be very taut, which is achieved by pulling on the forestay while putting through the jib halyard at the same time.

Jib sheet  Used to adjust the jib; lead inside the shroud

Main boom  For safety reasons, it can only be carried at waist level. When setting sail, the helmsman lifts the boom so that the bowman can put the halyard through. When lowering the sail, the helmsman props up the main boom.

Hair  Long hair should be covered or pulled back, so it doesn’t get caught in sheets or pulleys.

Sternt valves  Large valves on the transom that open after capsizing which makes sailing the water out of the hull quickly possible.

Thimble  Metal pressed eye / eyelet in the sail or metal insert in the rope.

Regulations for Preventing Collisions at Sea  These rules for avoiding collisions regulate the behavior of all vessels and must be observed.

Drain  Scooping out with hand bailer or pumping water from the boat. There are pumps in the boathouse. Sometimes you drain while clearing, in the evening, or while sailing. Either way, it’s important that there is no water in the boat.

Pier  Surrounds the harbor. Only for sailors No sailing school equipment left on the pier.

Wet sails  Hang up wet sails along with the main boom and jib bag after use.

Numbering  Boats are numbered, as well as equipment, so each Pirate has matching objects. That is why you should only exchange materials after talking to your course instructor first.
Tarpaulin
It helps protect a boat against storm damage. It is taken off before sailing and, after folding, stored with the tarpaulin boom on the trestles.

Punctuality
Classes start on time. Anyone who arrives late has to put .50 in the skipper jar.

Ratchet block
A block for headsheet and mainsheet, which can be adjusted for light wind to low-resistance pulleys and for strong wind to blocking in one direction.

Ship cleaning
Every day after sailing you have to clean and drain the boat.

Territory/
Boundaries
The area for sailing and practicing is the Starnberg Bay. The Munich Yacht Club’s north pier borders its south side. When there are strong winds, you may be ordered to “tighten your boundaries,” which means to sail close to harbor.

Rudder blade
It is always lowered in principle. It is slightly raised only in shallow water. When you’re in the harbor, lift it all the out before leaving the boat.

Damasages
If possible, repair minor damage yourself, or arrange for repair with the help of the instructor. Existing or not-yet fixed damages have to be noted in the logbook.

Schackles
Metal bracket with bolts, with which the sail and e.g. halyards are connected. When working with a shackle, be careful with the bolt, because it could easily fall overboard.

Tow line
It is used to tow a boat being rescued. When clearing a boat, it is tied above deck around the mast with a bowline. The rest of the line is coiled up and stored below deck.

Jewelry
It should remain on land. Rings could be damaged, and necklaces could be torn in the heat of a maneuver.

Clew
The leech of the mainsail is trimmed on the clew, which adjusts the sailing profile. The jib sheet is attached to the jib clew.

Shoes
For safety reasons, only boat shoes or boots or athletic shoes with a suitable sole are allowed. Mountain boots or clumpy shoes are prohibited.

Centerboard
Helps to prevent drifting. It is usually lowered but is slightly raised during strong winds and jibing.

In harbor, the centerboard has to be slightly raised (to the crease) due to shallow water. Put the halyard over the riding beam forward.

When lowering the centerboard, caution should be exercised. There should be no hand on the centerboard case during this time.

Centerboard clip
This keeps the centerboard from sliding out when the boat capsizes. Therefore, be sure to always belay it on the cleat on the centerboard case.

Life jackets
There must be a life jacket in the right size for every sailor onboard. You must put it on in cold water (< 15° C.), for storm warnings, strong or squally wind, and breeding storms. You must also close the belt.

Lowering sails
Pulling in one or more sails. The mainsail, which is in a channel in the mast, is lowered when the boat is in the wind. The jib turns around the wire in the luff and can be lowered on all courses.

Sail tack
The front, lower corner of a sail. For the mainsail, the tack must be tightly fastened to the boom and as far as possible on the mast. If you do this with a marline, you’ll need to keep checking it.

Rip in the sail
If a sail rips, lower the sail immediately to prevent it from ripping further. Replace the sail.

Sail bag
A sail bag is where you store a sail. The jib bag should always remain on a hook in the boathouse.

Set sail
When setting sails, set from back to front, which means first the mainsail, then the headsail. To do this, the boat must be in the wind, weather on a jetty or simply drifting.

Side bilge pumps
They suck water out of the boat while in use. When working on a boat or when the wind dies down, the bilge pumps are closed so water can’t get in.

Safety
Safe sailing means bringing the ship and team unharmed to harbor. This requires the right equipment and choice of sails, heeding the weather conditions, and good seamanship.

Gale
If there are gale winds replace the mainsail with a storm mainsail. If necessary, lower the jib and continue with only the mainsail. Even without an announcement, sail close to harbor and wear a life jacket.

Storm sails
These are smaller sails that increase safety. When replacing these sails, please leave the marlines on each sail. Make sure to pull the sail tack marline tight and trim the clew marline well.

Storm warning
White intermittent light with about 90 flashes per minute. If you haven’t yet, put on your life jacket and sail close to harbor. If necessary, reef or lower sails. Secure everything that might be lost if you capsize.

Participant card
All activities are noted on the blue participant card. Cards will be filled out according to boat division and theory and will be hung on the board with boat numbers to sign.

Rules of way regulations
Technically, these rules as we know them don’t exist. See page 6 and The International Regulations for Preventing Collisions at Sea (COLREGs).

Bowl line
Mooring line leading from the foredeck to land. You use it from the pier.

Your ZHS team wishes you a lot of fun on the water!

Legal notice

Zentraler Hochschulsport München, Segelzentrum
Editorial staff: Tobias Borucker / Kerstin Brunner
Errors excepted
Issued: January 2018
# Self-check of maneuvers and knots

If you have any questions about maneuvers or knots, feel free to ask your course instructor or a skipper.

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