Beginners Windsurfing School
Introduction

Jump on, set sail, and take off! It's easier to learn how to windsurf than you think, and you'll have a lot of fun in the process. With wide boards, rigs for beginners, and hands-on training by competent and qualified instructors, you'll learn quickly and easily at the University Sports Center.

The syllabus is set up like a cookbook, as in "You take ..." We start off with the basics, such as knots and parts, and then move on, step by step, until you learn to windsurf. We teach all the theory and demonstrate all the practical skills that you'll need to learn windsurfing at level 1 (see informational pamphlet on windsurfing). When the moves are presented in images, we recommend you imagine yourself doing the same thing and go through the maneuvers in your head. This will help you prepare mentally and speed up the process to becoming a good windsurfer.

As the old saying goes, "Nothing good comes easy." So get on your board and learn how great windsurfing can be!

What do I need to learn windsurfing?

You have to be a confident swimmer. Especially for windsurfing, you can't doubt yourself in the water. You don't let bad weather scare you away; instead, you grab the bull by the horns and are eager to experience something new and learn new windsurfing terminology, like a new language. It's also doable for beginners, even if you're not in extremely good shape. Later, especially when the wind is really strong, you'll be able to distribute the strain on your hands and back on a "trapeze." This will save your energy, so you can have fun on the water for a long time.

This beginner's school is basically a "user guide" for the windsurfing class at the ZHS (University Sports Center) sailing center of the TU Munich (Technical University). On the one hand this means that not everything can be covered in the curriculum. You'll have to read more on windsurfing.

On the other hand, these chapters - as accompanying course literature - follow the same order as the steps in the classroom to learn the basics, beginning maneuvers, and the theory. Like a cookbook, the ingredients - "Take a..." - are listed, and the steps - "Next, you..." - of the maneuver shown. The whole thing is interspersed with photos and drawings.

The syllabus includes all basic maneuvers as well as short, easily understandable sections on sailing theory, safety, laws, and right-of-way rules, clothing, board and sail facts, and last but not least how to tie knots.

Since much of the terminology will be new for you, we've put new terms in quotation marks. For example, we call a light rope "marline."

The content will reveal that this book is clearly for beginning windsurfers or those with little experience.

When you climb on your windsurf board, you'll leave all the stress and chaos behind and concentrate solely on working with the wind and waves. You'll quickly forget all your problems and other worries.

You will quickly realize that you're not alone on the water, on the contrary. You're surrounded by sailors, swimmers, windsurfers, and speedboat drivers for whom you have to watch out, but on whom you can also depend if you need help. The elements keep you humble as well, since they don't always "work" the way they're supposed to, and you have to adapt.
Whether that means you need special clothing or have to arduously "beat to windward" instead of sailing straight to your target.

One more thing: A lot of the information is presented in a way that leaves room for interpretation. We did this to keep the steps simple and to not squeeze readers/windsurf students into a corner. Some parts are very detailed, because the author is convinced it's essential.

You will find comments that the following icons will highlight:

- This symbol stands for important instructions, which, if ignored, can have serious consequences.

- This icon stands for technical information.

- This symbol stands for information that might interest an "insider."

- This icon represents advice you should follow.
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**Directions to the water sports facilities**

**Coming by public transportation**
S6 (tram) to Starnberg train station. From there, walk approx. 10 minutes south along the lake promenade. The S-Bahn leaves Marienplatz about every 20 minutes and takes approx. 35 minutes to reach Starnberg. Single day passes are a better deal than one-way tickets.

**Coming by car**
Freeway Garmisch, exit Starnberg, follow the Hauptstraße Street to Possenhofener Str. (veer left at the intersection of Söckinger Str.), drive through the next passage under the train tracks, and then turn right onto Unterer Seeweg Street. Be aware: There is limited parking on the street Unterer Seeweg.

**Layout of water sports facilities and training area**

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**First Aid:**
Ask the custodian / at the kiosk
**First aid kits:** North entrance of Seglerheim (sailor’s clubhouse), deckhouse in front of changing rooms
**Emergency blankets and stretchers:**
South wall in the sailor’s clubhouse next to the cabinet
**Fire extinguisher:** In the sailor’s clubhouse, at the kiosk; in the deckhouse (the boathouse’s classroom), in the boathouse
**Weather monitors:** In the "deckhouse" of the boathouse, to the left, next to the big window.

**Meeting point for windsurfers**
The windsurfers usually meet on the terrace where the instructor is waiting. If you don’t know your way around, it’s best to ask for the windsurfer. Employees at the entrance or kiosks and the custodian are always good people to ask for information. Many students create carpools after the first day so they can save money and time. Those taking the tram (S-Bahn) round trip to Starnberg should consider buying a daypass, which is cheaper than one-way tickets. The course instructor starts off by taking attendance and announcing the rules of conduct and then has everyone sign a document, confirming they are athletically fit. Once this is out of the way, they begin teaching the course.
**First Knots**

No windsurfer can imagine a board without ropes and knots. But for those at the beginning of their windsurfing career, everything is new and seems overwhelming. It's enough to learn the knots presented in this chapter when you're just starting.

Sailing knots are defined by the following characteristics:
- You can tie them quickly
- They hold really well
- You can untie them easily

Aquatic athletes have their own terminology for roping: the rope itself is often called a "line" or "chain." One "line" has two ends. A really short rope is called a "stopper." A thin and short rope is called a "marline."

**Knots**

Before starting with knots, we need to introduce you to some more terms first:

The end that is tied somewhere is called a "standing end." The opposite end, which is loose and actively used to tie the knot, is called a "working end."

Knots are very often a connection between a "bight" and an "eye," tying in-the-bight to directly form the eye.

**Figure-eight knot**

This "stopper knot" almost forms an "8" and should help prevent a rope slipping through a grommet or "letting go."

**Square knot (reef knot)**

This knot is used to join two equally sized ends of a single line. First, you tie a left-handed "overhand knot" and then a right-handed "overhand knot," continuing, as the common mnemonic for this procedure goes, "left over right; right over left." Both rope ends have to lie on the same side. It's used to tie reefing lines, for example. Sailors also like to use it to tie their shoes, but then they switch to the double "slipped" version.

**Half hitch**

This knot is either for tying a "clove hitch" or for cleaning up the rigging around the boom or mast base.

**Bowline**

This is a universal knot that forms a large, fixed "eye." With this knot, you can moor your board to a post, "bollard," tie your towline around a mast, or tie your rig to the sail.
Clothing and equipment for windsurfing

You can't count on surfing under sunny skies and enjoying mild breezes every time. It can get pretty ugly out there. Those are the days that the right clothing can keep you from constantly asking yourself why in the world you're out on the water in this weather and help you enjoy windsurfing to the fullest. In this part of the world, wetsuits have been a part of windsurfing for a long time.

Falling in the water is part of the learning process, and keeping your skin dry protects you from cooling down.

For classes at the sailing center, we provide "Long Johns" (i.e. a kind of high-cut overalls) along with a matching jacket. They should fit snugly without being too tight.

The surf instructor is happy to help you find your size.

Surf shoes are a bonus, but basic tennis shoes also do the trick when it comes to protecting your feet when you fall or jump in the water.

What to wear on sunny days

Due to the reflection of the sun on the crest of the waves, the light is much brighter than on land.

Therefore athletes on the water need to protect their skin and eyes. You can protect your head from the sun with a hat, a baseball cap, or a sun visor.

Sunglasses do the same for your eyes. Make sure to secure them with a strap (ask your surf instructor) so you don't lose them!

Pull long hair back.

Use only non-greasy sunscreen to avoid slipping on your board.

In order to cover all your needs, the sunscreen should be water-resistant and sweatproof.

Our lips are also very sensitive, so use a lip balm with SPF to protect them from the sun.

Jewelry has nothing to do with windsurfing. Watches, necklaces, rings, bracelets, piercings, and earrings create a risk for the person wearing them and are easily lost while maneuvering your board.

Personal safety

An important piece of safety equipment is a life jacket or buoyancy aid.

Using a life jacket or restubes is mandatory in all ZHS classes.

Falling in the water

There is a "typical fall" which is common while learning to wind surf. When you're in deep water, you can jump in any way you want, but in shallow water (for example in surfer areas) you have to do a "belly flop," so you don't dive too deep and hurt yourself on stones or in other ways.
Equipment

Windsurfing board
A windsurfing board is large and stable, and therefore heavy as well. A mast track is built into the board. This is where you screw in the mast base. The centerboard well can be found right behind the mast track, and it points forward when the centerboard is retracted, hidden in the tail of the board. If the well points backward, the centerboard is sticking out and pointing down perpendicularly (visible on the bottom of the board). It makes sure that your board moves only slightly "leeway" (= "drifting off sideways in the water"). On the bottom of the board, you’ll also find the "fin" - a small fin - at the back (tail). It ensures a stable course. The top part of the board is the "deck," and underneath that is the "bottom."

The Rigg
The rig consists of a sail, mast, boom, various lines, the Universal Joint (a rotating joint) with a mast base, and sometimes a mast extension, basically, everything that you find above the board’s rails.

Rigg accessories
- mast extension with downhaul
- mastbase + Universal Joint
- Antibreak (protectors)
- trimming aid

Trapeze
The trapeze helps to balance the force of the wind in the sails with the body, without straining the arms. Surfing with trapeze conserves energy and allows you to sail with big sails even with strong winds.
Assembled rigs can be hung up on a rig stand before class and in the breaks. To simulate moving rigs and turning boards, we often use a “simulator.” You attach your windsurfing board to it. Being able to support you close-up and the calm yet moving board are wonderful advantages to using the simulator. The instructor can demonstrate a move in front of the group and students can practice without getting wet.

The two next steps in learning to windsurf could change order, depending on the situation or wind and weather.

Getting used to your board

After everyone puts their wetsuits on, the instructor goes with them to the surfboard rack and hands out the boards. As mentioned earlier, these boards are pretty heavy, so it's wise to have two people carry it. The best way to do this is take the board out upright, with one person at the bow and the other person at the tail, and then carry it under your arm to the water. Athletic students may also carry their boards upright with a retracted centerboard, as seen in this image.

You carry your board to the water via the surfer/dinghy slip (be careful, it's very slippery!). You kneel or lie down on the board and paddle to deep water.

Here, you'll do some exercises that will help you get used to your board. Once you pull out your centerboard, (the well pointing backwards) you stand up. Then:

- you can rock the board around the transverse axis
- you can move a little toward the bow or tail
- you can turn on your own axis
- you could trade boards with your partner
- you can switch boards among your group

The goal of these exercises is to work on your balance and to help you realize that even though your board is wobbly, it behaves forgivingly when you make a wrong move.
Familiarization

How to carry a rig
Once you receive your rig, you'll need to carry it from the storage shed to the starting point. In order to prevent the wind from blowing your rig around uncontrollably, you should know the easiest way to carry it.

If you get out of the wind, you can comfortably carry your rig in front of your stomach, kind of like a vendor tray.

When you're carrying a rig, don't forget to be especially careful not to bother or endanger others around the water sport facilities with your long mast (approx. 4.60 m).

Identifying the wind situation
Windsurfers need to know in which direction the wind is blowing even before they start carrying their rig, but also later, for example, before they haul up the sail. A simple look at the clouds, the boots around the buoys, or a moving rig or flag can tell you if the wind is blowing “windward” (the side from which the wind is coming) or “leeward” (the side towards which the wind is blowing). Especially newbies should be constantly checking the wind, so they know which way to haul up their sail and in which direction to go.

Familiarization
On land, surfers place their rigs on the mast foot and find the right balance (they achieve this when, for example, it's very easy to hold with just two fingers). Then, they can:
· check the balance and let go of the rig for a second (you can add tricks like clapping your hand, turning around once, or squatting)
· trade places with a partner
· simulate starting
· bring your rig into the wind (“haul in”) and slacken again (“veer”)

After these preliminary exercises, we head over to the simulator. There, we'll attach a rig, and the instructor will show you the first steps in learning to windsurf. Once students have mastered maneuvers on the simulator, they go out on the water.
Assembling your board and rig
Always put your rig into the water first - a rig remains in the water and doesn’t float away. Your board, on the other hand, can easily be blown away by the wind.

After the rig, place your board in the water. Now insert the mast base into its mounting and push the safety device into the mast base. If you have any trouble, let your instructor help you. Tug gently on the mast base to make sure that it is firmly attached. Many boards work in a different way, so feel free to ask the surf instructor how everything works and which mast base belongs to which board.

Paddling out
Once the instructor announces the meeting point, everyone places their rig on the board and paddles out to the deep water area or to the windsurfer buoy where they tie up their board with a bowline.

When surfing near the shore you have to stay clear of bathers and vessels. If you end up being nearby, carefully lay down your rig and paddle out into open water again.

Caution: Your rig is about 4,60 m high and therefore has a far reach if it falls. The swimming area of the water sports facilities (around the bathing pier/T pier) is off limits for windsurfers!
Hauling up your sail

Hold on to the uphaul line as far as possible at the bottom. Next, stand up and lean back with a straight body (Haul up your rig with your body weight only, not with your arm muscles!) The more you stretch out, the better the "lever" is that pulls up the rig.

First step for hauling up

Once you’ve slightly lifted your rig and shaken off the water, it will be lighter, so you won’t need to lean as far back. Next, quickly finish hauling up your rig, hand over hand, until you can grab the mast with one hand or both. You’re now in the “basic position” of windsurfing.

Your rig should remain leeward while hauling it up. While you’re pulling it up, make sure that the mast is always at a right angle to your board. If you need to fix the angle, yank it diagonally toward the bow or tail.

Basic position

This position is the starting position for the following launch, but also while waiting or resting or thinking briefly. While in this position, the rig blows leeward, your board is at a 90° angle to the rig, and waves move crosswise under your board.

180° turn / Aligning your board

If you haven’t reached the basic position yet or your board is completely turned around, lean your rig sideways into the wind. This will make your sail fill up with wind and work as a force on your board to turn it. You go in small steps around the mast, so that your back is always to the wind and toes point to the clew. To stop rotating, hold your rig vertically again.
Riding basics

Launching

Riding position and launching
First, you look in front of you to make sure nothing or no one is in your path. It's like pulling out of a parking spot with your car.

Next, place your rear foot behind the centerboard, and keep your front foot slightly turned forward and slightly pulled back, so that the rig doesn't hit your lower leg. While your rear hand lets go of the mast, your hand in front (now, the "mast hand") pulls the mast past your body, forward and windward, until it's balanced and feels light (see Familiarizing yourself with your rig).

Now grab the boom with your rear hand (in this case, your "sail hand") and pull it in, until the sail fills with wind. Your board will immediately take off. You'll feel a pull in your arms, against which you need to lean back with your straight body (like in tug of war). Once you feel comfortable, switch hands and put your hand in front (your "mast hand") on the boom.

Key words for launching;
- Basic position
- Feet positioning
- Mast windward
- Tighten sail with your sail hand
- Put on your mast hand
- Ride
- Straight posture

We fell in the water. What should we do?
Falling windward: Always hold the boom with stretched-out arms so your head is protected. Otherwise you might end up hurting your head or face. Then just come up on the side of the rig.
Falling leeward: Hold on to the boom and, with slightly bent and tense arms, catch the fall. Then swim away sideways from your rig.
Riding basics

Veering and hauling in
The wind is constantly changing directions and speed, meaning that you'll sometimes have average winds in your sail and sometimes "way too much." When you think the wind is too strong and you can no longer keep your sail upright, you "ease out." This means you open the sail like a door with your sail hand, and the wind can blow out of the sail. (see image on the right)
When the wind calms down, you close the door again, i.e. you "haul in" the sail until it's completely filled with wind again.

Steering
Once you've managed to surf, you'll need to know how to steer your windsurf board. You steer by tilting the rig while maintaining the same wind / air flow, i.e. no veering and no hauling in.

To "head up" (= point the bow of your board toward the wind) tilt the rig back, with the clew to the water.

To "bear off" (= point the bow of your board away from the wind) tilt the rig forward, with the clew facing up. Important: This steering movement is similar to a "windshield wiper motion," and you should keep holding your rig facing the air flow. You should never turn it while veering or hauling in.

You finish steering by putting your rig straight up and getting into riding position, which means the boom should be more or less horizontal.

The riding position
Place your hands shoulder-width apart on the boom. The mast hand is hand-width apart from the mast, and your feet are hip-width apart. Your body is facing straight ahead, and the pull on your hands along with the muscle tension in your legs and back must feel symmetrical. If you're still noticing an asymmetrical muscle tension, move toward the "too tense" side.
The more you tilt your rig, the more pronounced the effect of steering! The force of the wind also helps with steering. When the wind is strong, you only have to tilt your rig slightly in order to be able to steer effectively.

**Keywords for steering:**

- **Head up**
  - Stretch out back arm, front arm in front of body
  - Tip your rig leeward
  - Tilt the end of your boom towards the water
  - Stop turning by pulling your rig straight up into riding position

- **Bear off**
  - Stretch out front arm, rear arm in front of body
  - Tip your rig windward at sail level
  - Stop turning by pulling your rig straight up into riding position

**Maneuvers**

When riding with the wind from one side, you’re going to eventually ask yourself, "How do I get back to the beginning?" There are two ways, one is called “tacking” and the other, “jibing.”

**Tacking**

Tacking is when you “turn your board with the bow through the wind.” You can start tacking from any course (see page 19), but very often you begin from the close-hauled course. Before tacking, make sure the path ahead is clear (like before you turn with your car while driving). Then tilt your rig back to head up. In the following example, you turn the board by placing your foot in front of the mast and switching your mast hand from the boom to the mast. While holding on with both arms stretched out, shift your weight back slightly to the back foot.

Now your board will turn under the sail. The rig is now tilting leeward, so windsurfers can continue to stand comfortably along the longitudinal axis of their surfboards.
Maneuvers

As soon as the foot of the rig touches your lower leg, push yourself up with your back foot and let go of the boom with your sail hand. Now you should be standing in front of the mast, holding on to your rig at the mast.

Many windsurfers hold the mast below the bow, some hold it above it.

In order to turn your board more, tilt the rig a little toward the new windward side. When your board has turned sufficiently to the new side, place your rear foot behind the centerboard, turn your front foot in, and pull the rig windward, past your body, for a new launch.

Once you put your sail hand back, haul in the sail. If you ever need to bear off, tilt the rig forward for a moment before you get into riding position. Arrange your feet comfortably. After that, switch your hand from the mast to the boom.

Keywords for tacking:
• Head up
• Mast hand on the mast
• Your front foot in front of the mast when heading up (stretch out arms - rig leeward)
• Turning the board with the wind (rig foot on rear leg)
• Let go of the boom and grab the mast while going around it.
• Turn your board with the rig to the new beam reach (close hauled is also possible)
• Let go with your back hand, pull the mast windward with your front hand, and place your back hand on the boom (see Launching)
• Bring your sail into the wind, start riding, put your front foot back
Jibing

Jibing is when you "turn your board with the tail through the wind." You can start jibing from any course (see page 19), but very often you begin from the beam reach course. Before jibing, make sure the path ahead is clear (like before you turn with your car while driving). After that tilt the rig forward to bear off.

During the resulting turn, place your feet toward the tail and adjust continuously to the riding direction *1.

During the resulting turn, place your feet toward the tail and adjust continuously to the riding direction.

Now your board will turn under the sail. Continue turning your rig windward until you are running downwind. Now you can tilt your rig a little further so you can turn using the wind. It helps to slide both hands toward the clew, so you can lean into the curves.

Once you're sailing a downward course, go back to the front, grab the mast and let the sail turn over the bow.

By leaning the rig into the wind, your board will turn toward the new riding direction.

Now raise your rig up by grabbing the mast with your front hand and pulling it past your body to launch. Place your rear hand on the boom and tighten the sail.

*1 Tip: The further back toward the tail you stand, the faster your board will turn.
Note: The pure movement of your rig from one side to the other over the bow is called "Schiften" or "Schifte" in German.

Keywords for jibing:
• Bear off
• Shift your feet toward the tail and adjust to the new course.
• Using the downwind course, turn to the new broad reach course
• Adjust stance to the new riding position
• Hold the rig upright and the mast near your body
• Mast hand on the mast
• Let go with your sail hand and let the sail flap around
• Swing the rig around with your stretched-out arm to turn the board more
• Switch hands on the mast
• Mast hand pulls rig windward
• Place sail hand on rig and bring the sail into the wind
• Mast hand on the boom
**Combined skills**

**Beating to windward**

While windsurfing, you sometimes drift off during a break or fall over, which causes you to lose "height." This means you are below your starting point, not much different than "being in red" or a "positive balance" on an account.

In order to get "out of the red" - back to your starting point - you have to gain "height." You can only do this by "beating to wind." This is a combination of tacking and close-hauled courses. It can be helpful to pick out a target point on the close hauled course (it can be a tree, house, or any other noticeable place on land).

Once you know how to beat to windward, you can aim for any higher point on shore and on the water!

**360**

360's consist of a close-hauled course, tacking, and another close-hauled course which turns into a downwind course with a jibe. After the jibe, you head up and close the circle again.

Note: Even though we write and talk about a circle, it isn't possible to form an actual circle while demonstrating a 360.

This maneuver is a favorite for checking skills in 'tacking' and 'jibing'.

**Island formation**

Instructors sometimes ask participants to create an "island" in class where everyone meets on the water. First, an instructor lets their sail fall. Then the students come from lee (it's easier to stop a board against the wind) and right before arriving, let their sails fall. To avoid floating away, hold on to your neighbor's rig.

An island formation is used, for example, when an instructor wants to demonstrate a maneuver on the water or needs to talk about something.

Make sure the sail remains on the water surface and doesn't come into contact with a fin. There is an acute risk that the fin will slash your sail, so be careful!
**Sailing Theory**

**Point of sail**

On the water, the different directions in which you ride are called "courses." "True wind" determines these directions.

Sailing on a course as close to the wind as possible is called a close-hauled course, at 90° off the true wind, a beam reach course, at 135° off the wind, a broad reach course, and sailing in the same direction as the wind is called running downwind. On a downwind course, the wind blows directly from behind. There is no more lateral wind, therefore only a propelling force remains.

If you’re sailing close-hauled, your sail should be almost parallel to the board. The wind is blowing sideways, so the force of propulsion is low.

On a beam reach course, the wind force is no longer as sidewise but slightly more aft. Therefore, the propelling force grows while the lateral force decreases a little. You can see this happening from a sailing position as well.

On a broad reach course, the wind is coming even more from behind at an angle. As a result, the propelling force grows significantly. The lateral force continues to weaken, and you can pull up the centerboard a little to reduce the frictional resistance.

For the fastest ride, your ideal sailing position should be between 15 and 25 degrees to the apparent wind.

The drawing shows how the wind currents flow past the leeward side of the sail.

You "sail" with the "apparent" wind which consists of the "headwind" (the wind experienced by an observer who is running or riding a bike) and the atmospheric wind (also called "true wind"). Depending on your own speed and the point of sail, you always adjust the sail to the direction of the "apparent wind."

You must always imagine this course flower in relation to the "true wind," so you can determine points of sail.
**Forces on your rigg & board**

This is a simplified version of how forces like wind affect your sail, and with it, your board.

In the drawing, the wind force is blowing forward at an angle to the sail, which is presented here in the sail pressure point (SPP) with an arrow. The water force acts against this wind force (water friction, for example, against your board / centerboard) at a lateral pressure point (LPP). If these forces are equal and on a single line, your board sails straight ahead. However, your board does slightly “float away” due to the water in spite of the centerboard. This is called "leeway."

Now, if you tilt the sail forward at an angle along the imaginary extension of the sail line (with the clew facing up) the sail pressure point is in front of the board's turning point, and you turn away from the wind. This is called "bearing off."

If, on the other hand, you tilt the sail back along the extension of the sail line, with the boom end towards the water, the sailing power in the sail pressure point is behind the board's turning point, and you turn toward the wind. This is called "heading up."

**Safety**

**Emergency stop**

If you've accidentally surfed too close to an obstacle, you can stop your board quickly using an emergency stop. If you let go of your rig, the board will come to a quick stop. It's even faster if you jump off and immediately hold on to the board.

Attention: Be careful with the length of your mast (approx. 4.6 m) when letting go of your rig! Make sure you stop early and far enough away from the obstacle!

**Right-of-way rules**

You're seldom alone on the water when windsurfing. It's usually full of commercial vessels and other people participating in aquatic sports. One of the most important responsibilities of a windsurfer is to avoid colliding with other vessels. Similar to driving on land, water vessels have to comply with driving rules, International Regulations for Preventing Collisions at Sea (Colregs), and other related ordinances. In general, no vessel has the right of way every time. A sailing vessel must always yield the right of way. The other vessels are obligated to maintain course and speed, so the sailing vessels can keep clear / make room.

**Right of way**

Once windsurfers realize they are the "give-way vessel," they must take early, clear, and substantial action, so the "stand-on sailing vessel" can see it and react accordingly. The stand-on vessel must maintain course and speed (see the box above). In most cases, the safest alternative is to ride past the tail of the stand-on board.
**Windsurfers and sailing vessels**

The most important factor in determining who has the right of way is the side on which the wind blows toward the vessel, the side on which the wind hits.

1. If two vessels come across each other with winds blowing in different directions, the vessel that has the wind from port must yield the right of way. (Figure 1)

2. If two vessels come across each other and the wind is on the same side of each boat, the vessel which is to windward (the direction of the wind) must give the right of way to the vessel which is leeward (the opposite direction of the wind). (Figure 2)

3. An overtaking vessel must give right of way! (Figure 3) While passing, it has to maintain a safe distance from the other vessel.

   It's always a good idea and much safer to stay clear of other sailing vessels (twice your mast height). Otherwise you get into their wind shadow and can fall into the water.

**Windsurfers and non-sailing vessels**

Examples of non-sailing vessels are passenger vessels, motorboats, paddle boats, and rowboats; yet, different rules apply.

Large ships are usually limited to a specific route or are used in liner shipping. On Lake Starnberg they display an orange flag and thus have priority over all sailboats and other vehicles.

Windsurfers must yield right of way:

- to vessels carrying out official government business (police = flashing blue light).
- to working fishermen, recognizable by a white flag

Windsurfers only have the right of way over private motorboats, rowboats, and paddle boats.

Swimmers have the right of way over windsurfers and sailing vessels. That's why you have to be especially careful around bathing beaches on nice days. Bavarian navigation regulations mandate that windsurfers, as sailing vessels, must keep a distance of 100 meters from shore. If they'd like to sail out or back from shore, they have to cross the area close to shore using the shortest path possible.

On warm summer days, many "landlubbers" are out on the water with their rowboats, motorboats, or paddle boats. They tend to know very little or nothing about collision safety regulations. Therefore experienced windsurfers change course early to avoid dangerous situations with these boats.
Theory

Sound signals
The most important sound signals on Lake Starnberg come from passenger steamboats: When they want to cast off from a dock in reverse, they sound off 3 long blasts:

* * * = “I am operating astern propulsion!”

This means that you have to stay far away from the boat's stern due to its large turning circle. (Surfing is prohibited in a 200-meter radius around the commercial dock)

If a steamboat is driving toward a windsurfer, is too close, sees a potentially dangerous situation, they give off one prolonged blast:

That means "Watch out!" or "I'm maintaining the course." This means that a steamboat wants to alert others of its presence, so they stay clear of it.

A police boat tends to use its speakers, but it sometimes gives off the following signal to command others to stop: This means "Come alongside!":

* * * * * (short, prolonged, two short)

Vigilance
Many surfing newbies are so busy with their boards and sails that they forget almost everything else around them. It's important to regularly check what's going on in the water around you.

For example, when a boat from the Weiße Flotte (German passenger boat society) is cruising at 12 knots, it covers 6.3 meters / second, or 378 meters / minute. This means that they can travel a kilometer in about three minutes. It's only natural that windsurfers think a boat from the Weißen Flotte is still far away at first sight. But before they know it, a white wall can suddenly appear in front of these "dreaming" windsurfers!
Clothing for Windsurfing

In this part of the world, wetsuits have been a part of windsurfing for a long time. Falling in the water is part of the learning process, and keeping your skin dry protects you from cooling down. For classes at the sailing center, we provide "Long Johns" (i.e. a kind of high-cut overalls) along with a matching jacket. They should fit snugly without being too tight. The sleeves should be loose especially around the underarms, so they don't cut off your circulation.

Surf shoes are a bonus, but basic tennis shoes also do the trick when it comes to protecting your feet when you fall or jump in the water.

Once you become a seasoned windsurfer, you have to think long and hard when selecting your "surfing turf." It will determine which wetsuit you'll buy. For colder weather, you'll need a thicker semi-dry suit (5 or 4 mm thick).

For slightly warmer areas, you could consider a "Steamer" (full wetsuit about 3 mm thick). Sleeves can be attached with Velcro.

For sunny and really warm waters, a »Shorty« (= only covers your core, 1.5 - 2 mm thick) would be the right choice.

In these parts of the world, you should never go out on the water without some kind of protection against the cold. The cold from evaporating sweat steals an incredible amount of energy from our bodies, which leads to a tired central nervous system and, therefore, more falls. You should protect yourself even in warm areas. There, sunscreen is essential and should be non-greasy and waterproof. Even on Lake Starnberg, protecting your skin in the summer should be taken seriously.

Wearing booties or not depends on habits, personal preferences, and water temperatures. Many windsurfers ride barefoot.

Safety

Equipment check

As soon as you call a board yours, or even when you’re simply renting one, you need to take your safety into your own hands. Failure to do so can ruin your day of surfing or even lead to emergency situations.

Before you start windsurfing, do a safety check of all your gear:

- Lines check (all okay or already sealed?)
- Universal Joint without cracks?
- Foot straps correctly in place?
- Mast base, centerboard and/or fin securely fastened?

*wetsuits by Neil Pryde*
**Alone on the water**
If you are planning on windsurfing by yourself, you should always tell someone:
- where you will be surfing,
- when you want to be back,
- and which sail you're taking (color, shape, anything to help recognize it)

**Tides and currents**
Along the North Sea shore, water around the low-lying islands and shallow Wadden Sea area can flow so fast as the tides change from high to low that you can end up in some dangerous situations. You will not be able to swim against the currents.

On inland waters, you usually don't have to worry about currents unless a dam is discharging water, in which case you will always be warned and must avoid the area (see below).

**Weather**
You should always check the weather forecast, so you're not caught off guard by strong winds or storms. You can find really reliable information about your area at www.wetteronline.de, www.windguru.cz, or www.unwetterzentrale.de.

**Storm warnings**
Bavarian lakes have a storm warning system installed that warns people with about 40 flashes per minute if winds over 6 Knots are possible. If the system gives off 90 flashes per minute, it means there is an immediate storm warning. People out on the water need to take the necessary measures to reach the closest shore as quickly as possible.

**Distress Signals**
If for whatever reason you cannot surf back to shore, inform your instructor, (or have someone inform them) who will then take the necessary measures to help you.
If you are alone, however, you'll need to give off a distress signal. Spread your arms out and slowly wave them up and down. Another distress signal is to wave your arm in a circle, with or without an object in your hand.
You should leave your sail in its rig, so you don't drift off too quickly and can be seen better from the air.

**Rules and regulations**
No sports are allowed near harbor entrances, locks, dams, or steamboat landings. Windsurfers are furthermore not allowed to surf in waterways and nature reserves or at night and in poor visibility.
Bavarian navigation regulations mandate that an area of 100 meters around the shore is only navigable for docking and undocking.

If you're in a new surfing area, it's always important to ask other windsurfers or a surfing school about local rules and regulations, peculiarities of the area, and currents.

**Environmental protection**
Windsurfers should behave in an environmentally conscious way and leave their starting place cleaner than they found it.
You can save gas, pollute less, and as a result, have more travel funds by transporting your board further back on the roof of your car.
Carpooling is another way to save money, and it's more fun with friends anyway.
Windsurfers should also avoid spawning areas, large bird concentrations, reed banks, and nature reserves.

The Golden Rule also applies to surfers.
Basic terminology for windsurfing beginners

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>to bear off</td>
<td>turn away from the wind → tilt mast forward</td>
</tr>
<tr>
<td>to head up</td>
<td>turn toward the wind → tilt mast back</td>
</tr>
<tr>
<td>to haul in</td>
<td>pull in the sail with your rear hand</td>
</tr>
<tr>
<td>to veer</td>
<td>slightly let out the sail with your rear hand</td>
</tr>
<tr>
<td>to tack</td>
<td>a turn with your bow through the wind to the new bow</td>
</tr>
<tr>
<td>to jibe</td>
<td>a turn with your tail through the wind to the new bow</td>
</tr>
<tr>
<td>Close-hauled course</td>
<td>a course with a sharp angle toward the wind; against the wind</td>
</tr>
<tr>
<td>Beam reach course</td>
<td>a course at a right angle to the wind</td>
</tr>
<tr>
<td>Broad reach course</td>
<td>a course partially away from the wind</td>
</tr>
<tr>
<td>Downwind course</td>
<td>a course directly in front of the wind</td>
</tr>
<tr>
<td>Beat (sail a beat)</td>
<td>the distance from one maneuver to the next</td>
</tr>
<tr>
<td>beating to windward</td>
<td>sailing to windward close-hauled and tacking against the wind</td>
</tr>
<tr>
<td>Progress</td>
<td>the distance you successfully advance against the wind in one beat</td>
</tr>
</tbody>
</table>

Sailing rules:

"Wind from starboard before wind from port" The surfer that has the wind coming from the left (port) must give way to the vessel that has the wind coming from the right (starboard).

"Leeward before windward" Those on the windward side of a sailing vessel have to give way to the leeward vessel.

"If passing, stay clear" Those who come sailing up from behind must give the other vessel a wide berth when passing.

Small vessels give way to large vessels Windsurfers must give way to official ships and those vessels that depend on specific routes.

Wind:

"true wind" atmospheric winds at ground level

"apparent wind" the wind experienced by a sailing person

headwind the velocity a moving person would experience in still air

lee the leeward side; the direction the wind is blowing

windward the windward side; the direction the wind is coming from

offshore the wind blowing from land towards waters

onshore the wind blowing from waters towards land

shadow an area on the water that is covered from the wind by someone or something

Board:

bow the nose of a board; in front

tail the end of a board; back
Basic terminology for windsurfing beginners

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<thead>
<tr>
<th>Term</th>
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<tbody>
<tr>
<td>port</td>
<td>the left side of a board</td>
</tr>
<tr>
<td>starboard</td>
<td>the right side of a board</td>
</tr>
<tr>
<td>centerboard</td>
<td>area in the middle of a board, retractable, helps prevent leeway</td>
</tr>
<tr>
<td>leeway</td>
<td>a board doesn't sail entirely straight, because water gives way, so the board drifts slightly leeward</td>
</tr>
<tr>
<td>fin</td>
<td>a small skeg under the tail which helps ensure a stable course</td>
</tr>
<tr>
<td>longitudinal axis</td>
<td>your center of gravity should be directly over the longitudinal axis of your board, so it doesn't wobble</td>
</tr>
<tr>
<td>lee helm</td>
<td>the tendency of a board to steer away from the wind</td>
</tr>
<tr>
<td>weather helm</td>
<td>the tendency of a board to steer into the wind</td>
</tr>
</tbody>
</table>

**Rig:**

<table>
<thead>
<tr>
<th>Term</th>
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</tr>
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<tbody>
<tr>
<td>mast</td>
<td>long plastic pipe over which a sail is pulled</td>
</tr>
<tr>
<td>boom</td>
<td>a pole that stretches the sail back and that you use to hold on to the sail</td>
</tr>
<tr>
<td>luff</td>
<td>the front edge / side of a sail</td>
</tr>
<tr>
<td>leech</td>
<td>the back edge / side of a sail</td>
</tr>
<tr>
<td>foot</td>
<td>bottom edge / side of a sail</td>
</tr>
<tr>
<td>sail battens</td>
<td>strips that stiffen a sail at the leech</td>
</tr>
<tr>
<td>clew</td>
<td>back corner of a sail where you thread the rig lines</td>
</tr>
<tr>
<td>sail tack</td>
<td>lower corner of a sail where you hang the trim hook</td>
</tr>
<tr>
<td>downhaul line</td>
<td>a rope used to fasten a sail down</td>
</tr>
<tr>
<td>rig lines</td>
<td>a rope used to fasten a sail in the back</td>
</tr>
<tr>
<td>uphaul line</td>
<td>a line used to help pull up the sail out of the water</td>
</tr>
<tr>
<td>mast base / mast support</td>
<td>a unit in which you stick the mast and through which you thread the downhaul</td>
</tr>
<tr>
<td>Universal Joint</td>
<td>a rotating joint between board and rig</td>
</tr>
<tr>
<td>rig up</td>
<td>to pull a sail over a mast and fasten the boom and sail</td>
</tr>
<tr>
<td>trim the sail</td>
<td>to tighten the sail with downhaul and rig lines as to ensure maximum performance</td>
</tr>
</tbody>
</table>

Illustration of the courses: