

Introductory Kayak Lessons

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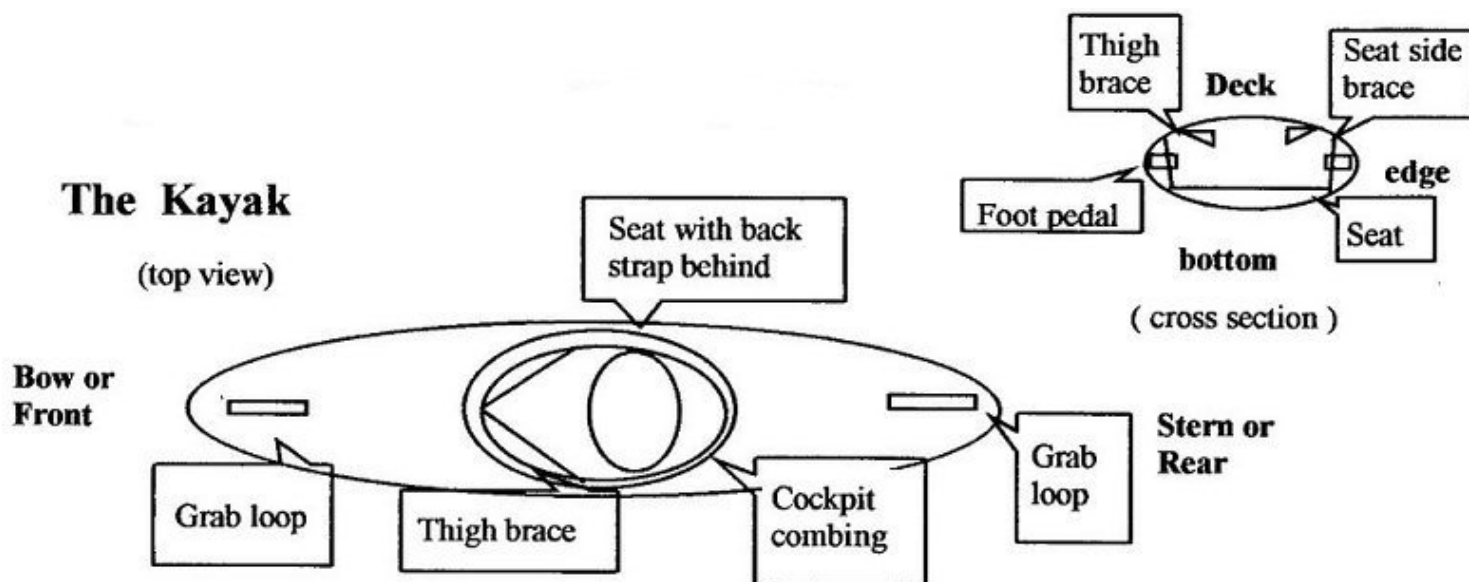
Table of Content

[Basic Kayak Equipment - Page 1](#)
[Spray Skirt - Page 2](#)
[Kayak Paddle - Page 3](#)
[Entry and Exit \(Dry\) - Page 4](#)
[Wet Exit - Page 5](#)
[Kayak Types - Page 6](#)
[Kayak Paddlesports - Page 8](#)
[River Features - Page 9](#)
[Hypothermia - Page 11](#)
[Clothing for Paddling - Page 12](#)
[River Grading System - Page 13](#)
[Trips with E.W.P. - Page 14](#)
[Basic Stroke Technique - Page 15](#)
[Basic Stroke Focus - Page 16](#)
[Basic Stroke Combinations - Page 19](#)
[Most Important Stern Sweep - Page 20](#)
[Kayak Equimo Roll - Page 22](#)
[What is Next ! - Page 27](#)

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Getting to know the Basic Kayak Equipment



During the course, you will have the opportunity to try a number of **different models** of **whitewater kayaks**. So try some different ones and take note of how different features perform differently. These design features and how well you fit into the boat determines in large part your comfort and ability to make the kayak perform for you.

To get in with the boat sitting on the deck or shore step into the kayak, sit down on the back combing, **support your body** with your arms on the combing beside your body and with your **knees straight** slide in under the deck and down into the seat. **Knees must be straight going in and must be straight getting out.** The hands should contact the boat beside your body for both entry and exit. Once in the seat position yourself as follows:

Basically you **sit in a kayak** with legs out in front and your knees flexed (fitting under the deck or thigh braces) your back contacts the back strap and your feet are comfortably resting on the foot pedals. A slight push with the ball (metatarsal head) of your feet should bring **your knees up in contact with the deck** to brace you firmly in the boat. When you attempt to rock from side to side in the seat, the boat rocks from side to side - you **are wearing it not just sitting on it**. With a proper width of seat (often takes some personal customizing) minimal side to side movement of the hips is possible and that is desirable. All components of this fit are adjustable.

The **back strap** can be loosened or tightened usually with a buckle or slider buckle. The **foot pedals** are adjustable on their **sliding track** by reaching behind the pedal, pulling the lever toward you and pushing or pulling the foot pedal to position it to your selection. Another type of foot brace called the **bulkhead type** brace or wall will also be encountered. These are adjusted by changing the length of the bolted aluminum arms inside the kayak just by the cockpit and requires taking off a wing nut to allow adjustment. Even **thigh braces** can be moved in most newer designs but that usually requires a wrench or screwdriver.

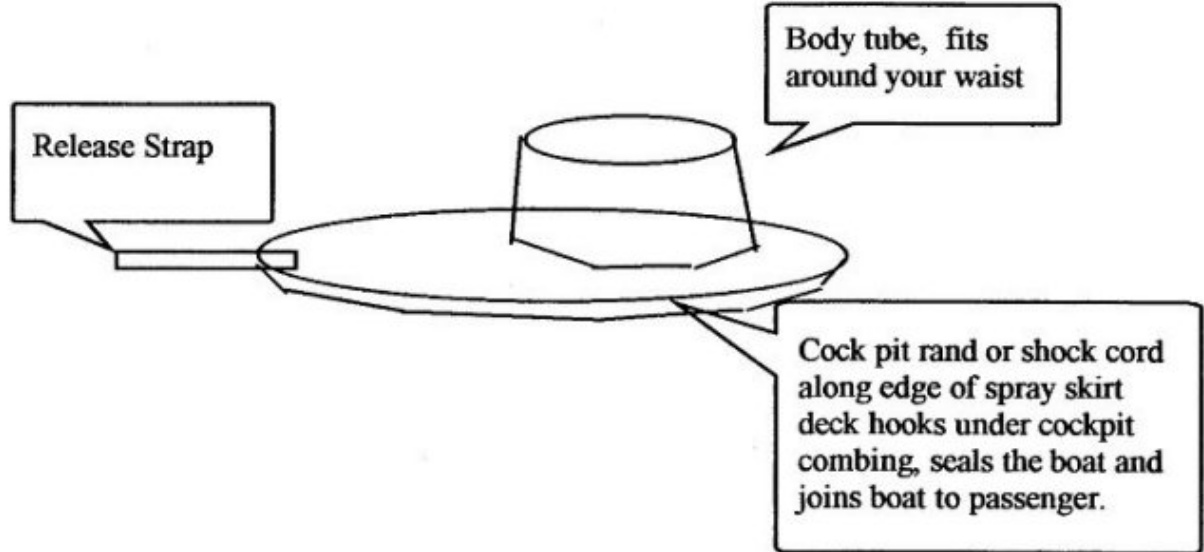
Even with the boat fitted properly it will take a few hours of paddling to get your body familiar with the kayaker sitting position.

When selecting a boat be aware that they come in **array of sizes**. To start out, it is better to err on the big side and then try smaller as you **learn your tastes in a boat**. Too tight a fit initially may cause you some concern if you need to do a wet exit and may be uncomfortable to sit in for the length of the class.

All whitewater kayaks have **grab loops** at either end on the deck and the body opening or cockpit is rimmed by a **combing** under which the **spray cover will fasten** to seal the boat closed when you are sitting in it.

The Spray skirt

Virtually all whitewater kayak skirts are constructed from neoprene (wetsuit) rubber.



Spray skirts come in a variety of body tube sizes and deck sizes.

Neoprene rubber is damaged by over stretching and can be ripped.

Attempting to get into a body tube that is too small or attach too small a spray skirt deck size to a large cockpit will excessively stretch and may rip the spray cover. Pulling hard on the body tube may damage the seam where the body tube is joined to the skirt deck.

Care is required when utilizing them.

Spending a moment to select the **correct size for boat and body** will mean less damage of this nature and We ask for your cooperation. If in doubt as to the correct size and fit - ask the instructors for help.

Plastic whitewater kayaks have a cockpit length **three to four inches longer** than the canoe polo kayaks cockpit length. We store them in separate groups on the kayak rack. The skirts for each are not interchangeable except in the case of the small kids plastic whitewater kayaks such as the Dynamo or Evo which take the polo boat cockpit size.

A spray skirt can be slipped on **over the head and shoulders** or **stepped into** and pulled up over the legs and hips. When pulling them on, excessive force should not be used and you should pull first on one side and then the other to rock it up over your hips which is usually the tightest part while gripping the skirt under the seam between the body tube and the cockpit cover which is the weakest part of the skirt.

The cover is joined to the boat once you are sitting in it and is done so by

- starting at the back of the combing first.

Hook the back and then with one hand on each side working forward hook it on the remainder of the combing. You will have to **keep pulling forward on the portion you have already attached** or it may slip off.

When you get within six inches of the front of the combing the cover can usually be stretched forward to hook the remaining bit.

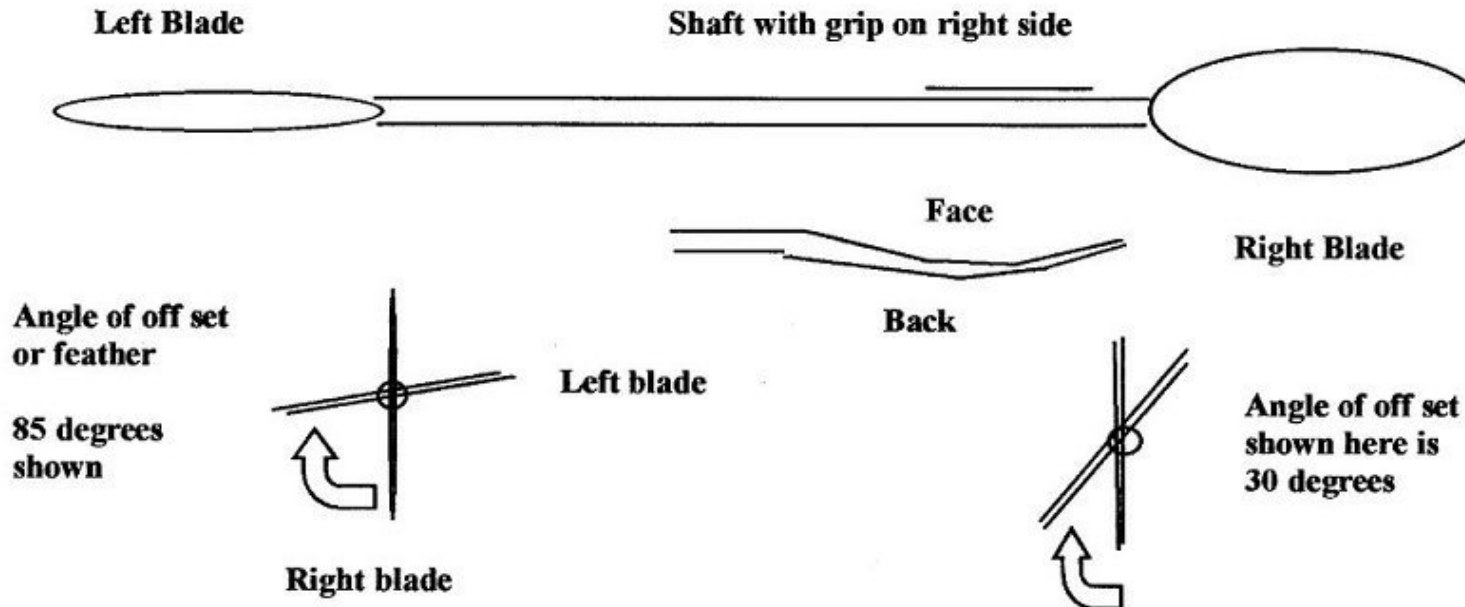
Make sure the release strap is outside.

This will save you a bit of underwater excitement should you need to wet exit.

With the skirt in place, you are ready to launch.

The Kayak Paddle

In a kayak **you** are the **engine** and the **rudder control**; the **paddle** is the **propeller** and the **rudder**. Skill with this instrument takes practice and hard work to master. Different types of kayak paddling utilize different types of paddles; our focus here will be a basic recreational paddle. A quick review of the anatomy of a paddle.



Holding and Controlling your kayak paddle

Paddles can be **right control** or **left control**.

Right control is **most common** and will be described. Length varies greatly depending on personal preference and type of use. Suffice to say when quick transfer from side to side for maneuvering becomes a priority, paddles are shorter. Holding the paddle correctly ALL the time is **basic and crucial** to making it work properly for you. The hands are positioned apart on the shaft the distance between your elbows when the level with your shoulders. Paddles may have grips on both ends but certainly will have one on the Control side. With a **right control** paddle the position or orientation of both blades when used, is determined by the **right controlling hand**. The hand on the left side slips on the shaft as it is rotated by the right controlling hand and **tightens only** when the left blade needs **stabilization**. We **pull** with the blade face and **push** with the blade back.

Positioning of the controlling hand is done by holding the paddle shaft horizontal in front of you with the right blade face toward you as you would place it to take a forward stroke. The right hand grips the paddle such that your **knuckles line up with the thin edge of the blade**. This relationship of your right controlling hand with the right blade must be a constant orientation whether the right blade is in the water or not.

The reason is simple and important :

- **you always know** the orientation of the right blade and from it, the left.

To bring the left blade into play for any type of stroke you must learn to orient it with the blade face vertical. This is achieved by **extending your right wrist** (raising your knuckles up) which will **rotate the paddle shaft** and of course the left blade. How far it rotates is determined by the degree of off set of the blades. When you go back to the right side, the right wrist is flexed from its extended position back to neutral. The **wrist action of orienting the blades** occurs during the removal of one blade from the water and the inserting of the other.

Entry and Exit of the Floating Kayak at Pool or Dockside

We often get beginners to get into the boats while they are sitting on the pool deck or shores put on the cover and then slide into the water. This bypasses the more risky entry of the kayak **while it is floating**. However, all kayakers must be competent at getting into and out of their craft in the upright position while it is floating. The added variable that must be controlled of course is **stability**. What follows is the proper technique for entry and exit from the kayak while it is floating at woodside or along a dock.

During entry we use the **paddle across the boat** just behind the cockpit rim to provide that stability. As we prepare to get into the kayak which is floating parallel to the shore or dock, we place the paddle across the kayak just behind the rim. The other end is on the shore or dock. You must stand in front of the paddle and reach down with the arm nearest the boat to **grasp the paddle and the cockpit rim together** beyond the midline of the kayak. That allows you room to step into the kayak with one leg on the middle of the seat or floor and sit down on the rim just beside and even on your hand that is grasping the paddle and the rim. Your other leg at this point remains outside the boat. Your weight should be leaning slightly toward the shore or dock and your other arm will support that lean by grasping the paddle shaft in the middle. You are now sitting on the back combing of the kayak (and your grasping hand) with one leg in the cockpit and one out. **Maintain your lean slightly onto the paddle** and bring the other leg into the kayak. Make sure the spray skirt is turned up so you do not sit down on it. Straighten your legs and using your arms to unweight, **slide forward** off the rim and **drop down** into the seat. Make sure the back strap is behind you. Once sitting down into the seat your knees can bend and move laterally under the thigh hooks and you position your feet on the footrests. You should no longer be leaning, but **sitting in balance** in the kayak. Now bring the paddle around from behind you and set it across the cockpit in front of you and put on your spray cover.

You are ready to paddle.

To get out while floating beside a dock or pool edge, you basically **do it in reverse**. Bring your boat parallel beside the dock, release the spray cover and place the paddle across the boat just behind the rim (not on the cover) so you can **reach back** and grasp the rim and paddle together. The other hand grasps the shaft at the mid point and after releasing and straightening the knees, you lift your bum up out of the seat and slide backwards and sit on the **back combing** with a slight lean on the hand grasping the middle of the shaft. Now you can transfer your bottom to the shore or bend the knees and stand up to get out of the kayak. Don't forget to grab the kayak so it does not float away.

The Wet Exit

You are sitting inside a boat with your legs under a deck and sealed in by a spray cover. If you capsize, and do not know what to do it can be a scary situation. Exiting the kayak from underwater is not difficult. can be done very quickly and is the bottom line or default safety maneuver with which **you must become familiar**. Following a capsize and failure of other righting attempts it is the **only way for you to regain the surface. For all kayakers, no matter how skilled**, wet exit is the default safety option.

A wet exit is not kicking your way in total panic out of the kayak. **It is a series of specific positioning and movements done in sequence and control.** Once learned, they should be practiced so they are automatic.

Here briefly is **what you must do upon capsize**:

- do not panic
- keep your knees wide apart and lift them against the deck to hold you in the kayak
- tuck forward placing your chest and face against the spray cover and deck in front of you. **Do not lean back** - from a lean back position you cannot reach the pull tab. You may choose to release the paddle at this point to pick it up after.
- reach both arms around and hug the kayak

Note: on the river or sea with no rescue close you may choose to do the wet exit while hanging onto the paddle with one hand so it is not swept or blown away. In that instance there is little point to slapping the boat bottom.

- slap three times with both hands on the bottom of the boat. This is a call for help and lets rescuers or instructors know you are not in panic but control.
- if no rescue comes and you are out of air bring your hands under and locate and grasp the spray cover pull tab. **Pull it first forward and then away from the deck** to release the cover.
- place your hands (one on either side) on the combing and deck beside your hips (just as you did when getting into the kayak)
- relax your knee pressure on the deck (your legs will straighten) and allow your buttocks to drop out of the seat so they **can move backward over the back deck** (the reverse of getting in), with the pushing of your hands, which in turn brings your knees out from under the deck. The action is **similar to taking off a pair of pants**
- keep your hands in contact with boat and bend forward at the waist. You will execute a **forward roll underwater** as you exit the kayak.

- come to the surface (carefully) since if you come up under the boat you will bump your head and retrieve you paddle and boat.
- with a grab loop and paddle in one hand you have **three limbs to swim on your back** towing your boat to shore or pool side.
- if danger was imminent (such as being swept into a log jam) you would release boat and paddle and **turn onto your stomach** to allow more aggressive survival swimming or other movements. That however is a topic for River Safety and Rescue beyond the scope of this course, important later though.

Kayak Paddle Craft Review

Edmonton Whitewater Paddlers Beginners lessons offer an opportunity to learn introductory generic kayaking skills. We say this because the skills you will learn and practice are utilized to drive and maneuver a variety of different water crafts. Those skills can be with a little practice transferred between the different types of kayak paddle powered craft described below.



Whitewater Kayak (length 2..0 m.)

Whitewater kayaks

are what we utilize in our lessons, because they are maneuverable in confined areas such as a swimming pool. Most are made of plastic and hold only one person. They are designed for whitewater rivers. Older designs are longer, up to three meters in length with rounded bottoms and sides; whereas newer designs are shorter, have a bulbous midsection with flat sides separating flat thin ends. Many newer boats have flat bottom with grooves to facilitate spinning quickly. These newer designs are more specialized toward Freestyle paddling (playing on waves and in holes) which may not involve much traveling down the river.



Sea Kayak (length 5 meters)

Sea kayaks

are longer (4 to 6 m.) and are designed for touring. Both plastic, composite and wood construction boats are available on the market. They come as singles and doubles. Most have separate compartments for gear storage accessible through their own hatch. These sealed storage areas help make the boats very sea worthy. Many have skegs or rudders to improve steering in waves and wind. Sea kayaking is growing in popularity as a way to enjoy remote and pristine marine wilderness areas whether salt water or fresh. Boats easily carry lightweight camping gear especially when groups are involved to share food and equipment.



Slalom Kayak (length 4.5 m.)

Slalom kayaks

are a design marriage between need for forward speed and rapid turning capability presented by slalom whitewater racing. The dimensions must conform to ICF specifications for the Olympic sport of slalom. Most are composite construction for light weight with a few plastic versions available. Up until a few years ago most recreational kayakers retained this general shape and size. Most have now shifted towards the shorter freestyle shape.

Kayak Paddlesports

There are **quite a variety of boat sports** that utilize the basic concept of propelling a water craft with a two bladed paddle. These various sports perform their activities on lakes or ponds, rivers, flatwater , whitewater and the sea.

Non-competitive WHITEWATER

River Running - downriver travel through or around whatever features (rapids) the river offers. Focus is on enjoying the river features and the outdoors and learning to read the water and develop technical kayaking skills in a safe manner. Virtually any variety of river kayak may be utilized.

Play Boating - utilizes the specialized freestyle design kayaks, very short with a body compartment between two small flat ends. Open makes recycling use of a specific river feature (s) that lend themselves to the kayak gymnastics activities that comprise this branch of kayak sport. Park and play activities as they are called. Also organized into more formal competitions called Rodeo or Freestyle Events.

Competitive WHITEWATER

Slalom - participants race in slalom boats passing through gates hung over various river features over a set distance. The winner is determined by the sum of the fastest time plus the least penalties. There are slalom kayaks, single slalom canoes and double slalom canoes in this Olympic sport.

Wildwater - timed travel in the specialized boats down a pre-determined section of river usually 3 to 5 km in length. Racers go one at a time usually at one minute intervals. There are wildwater K-1s, C-1s and C-2s.

Freestyle / Rodeo - Competitors perform a time limited routine utilizing a river feature(s) - usually a big hole or wave. Routines involve spinning the kayak in the horizontal or vertical plane and the boater is under water as much as above.

Competitive FLATWATER

Sprint - timed races over specific distances (i.e. 500 or 1000 meters) featuring a variety of boat classes such as K-1, K-2, K-4, C-1, C-2 and war canoe. The races are down a straight course utilizing narrow, long kayaks with rudders or similar shaped canoes. This type of kayak / canoe also comprises an Olympic sport.

Canoe Polo - a team game (five single specialized kayaks per side) played on a set pitch indoors or outdoors with nets suspended at either end. A water polo ball is utilized to be passed around by hand or paddle and thrown into the opponents net to score a goal. Strategically much like hockey or basketball with teamwork required. Games can be very fast utilizing a high level of kayak skills and fitness. Advanced play involves boat or hand tackling to capsize opponents. Players become proficient at rolling the boats with or without a paddle. Great activity to help novices gain skill and confidence.

Kayak Paddlesports (cont'd)

SEA KAYAKING and TOURING

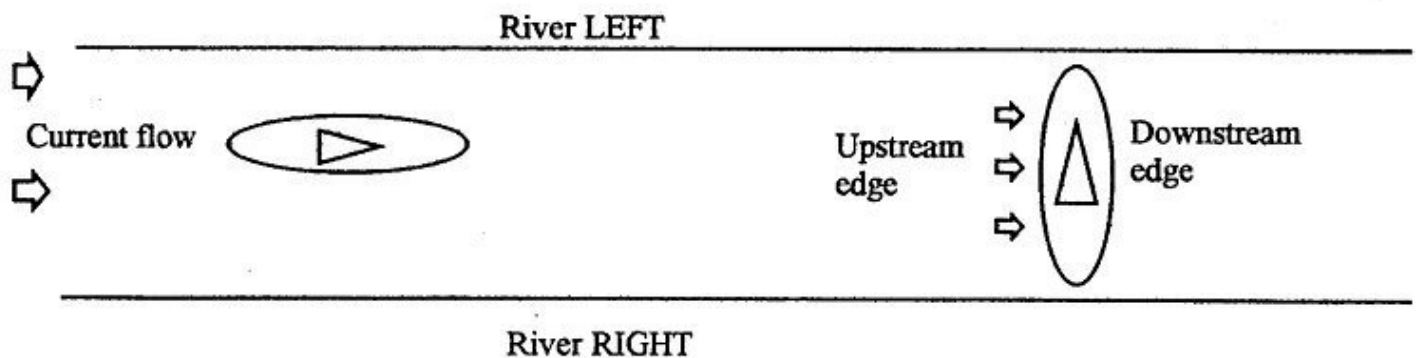
This popular recreational sport now utilizing boats constructed from modern plastics or wood, descended from kayaks utilized by Greenland Inuit and Alaskan Aleut hunters built of wood and seal skins. The boats are long which makes them track well and can be purchased with skegs or rudders to further improve direction control. They often have storage compartments with separate hatches at either end and are suitable for day tripping or multi-day excursion on the sea, large lakes or even rivers. On open water their sealed capability blended with competent handling skills makes them capable of safely paddling in quite adverse conditions. There are a great variety of designs available in single and double kayaks.

RIVER FEATURES

River features are created by the shape of the river bed and its contents over which and around which the water must flow to create features. Let us first introduce a bit of **terminology**.

Current is the defining feature of the river. It is the moving of the water in response to gravity. The **gradient or slope** of the river bed influences the speed of the current. The **steeper** the gradient, the **faster** the current. The power of the current or its ability to push against something is related to the **volume** of the river and the **cross-sectional shape of the river bed**. Because of friction of water against the river banks and bottom while flowing, the fastest flow is usually in the middle of the river. Because of erosion, the wearing of flowing water on the river bed, the bed is constantly changing. Features change with changes in flow and time.

First we need to know **how to look** at a river and describe what we see. If we were to be in a boat on a river our reference frame of **looking down** the river from our point at any one time is **downstream**. In that view **river right** is to our right and **river left** is to our left. So if we were on a river trip and we said go river left for the safe run, you would know that it is left as you look downstream.



If we were floating in the current with the longitudinal axis of our boat crossways or perpendicular to the current. (see above illustration). The side of our boat which is **meeting** the flow is called the **upstream edge**. The other side of the boat where the flow is **moving away** from the boat is called the **downstream edge**. When paddling on the river we must always be conscious of our upstream edge and often have to lift it a bit so a strong current does not act on that side of the deck and cause a capsizing.

River Features (cont'd)

A hump of water over the rock, also called a pillow, may be all that is visible from upstream. These pillows or the edges of larger drops may form horizon lines, beyond which the boater cannot see the water immediately downstream. This may call for scouting, checking out the situation and the feasibility of running the rapid from the shore.

Experienced kayakers use friendly holes to play in and holes allow boaters to perform many tricks difficult or impossible elsewhere.

The backwash behind a weir or lowhead dam is the worst kind of hole as a swimmer is carried back up to the face of the dam by the backwash, pushed down by the current, and carried back for another recycle. The very regular currents created by the dam can be impossible to escape and have led to many fatalities. All lowhead dams or unbroken natural ledges should be treated very carefully.

Hypothermia

This is the cooling of the body's core below its normal operating temperature. It is insidious as the condition is frequently not recognized by the victim. Remember that one hypothermic person is not likely to be of help to another. Watch yourself and others travelling with you. Reaction must be prompt to the onset of hypothermia. **Inability to touch the tip of the little finger with the thumb is the simplest test.** If a person cannot do this you already have a problem.

Stages of Hypothermia

- **Incipient**

Core temperature: 37.5C - 35C: chilliness, skin numbness, shivering begins.

Not uncommon and not considered true hypothermia. However, if this stage is recognized and dealt with correctly major problems will be avoided.

Action: Reduce exposure to wind, add more insulative clothing, eat and drink; exercise but do not rely on increased activity alone.

- **Moderate (Emergency)**

Core temperature: 35C - 32C: Severe shivering, lack of coordination, weakness, stumbling; possibly some mild confusion, apathy; pulse faint and rapid, skin cool and dry.

Action: Reduce exposure to wind, remove wet clothes; add dry clothing. Actively rewarm using pre-warmed sleeping bag, other unaffected people in sleeping bag, hot drinks (no coffee or alcohol), light food. Seek shelter, build wind protection set up a tent or use tarp if available.

- **Severe (Critical emergency)**

Core temperature below 32C: Shivering ceases, gross muscular incoordination, falling, stumbling, inability to use hands, mental sluggishness, impaired speech retrograde amnesia, pupils may be dilated, pulse may be irregular and faint.

Action: Handle the person gently, move them carefully and as little as possible. Do not bump or jostle. The person is in a very precarious state, any physical shock can precipitate ventricular fibrillation. This is a 'fluttering' of the heart muscle which does not pump blood and cannot be corrected in the field. If fibrillation occurs the person will die. If medical help is more than two hours away efforts to carefully rewarm the person should be tried, heat may be applied to the torso only (armpits and groin are best). Chemical heat packs are perhaps the easiest possibility but be very careful not to burn the casualty. Also possible are hot water bottles. The person should be insulated from both the ground and the air.

Clothing for Paddling

Paddling Jacket / Drytop

Purpose - to keep cold water off your torso and out of insulation you might wear.

The paddling jacket generally keeps spray off you while the more sophisticated drytop can keep you dry for a while completely submerged.

Recommended as an early purchase

Wetsuit

Purpose - to provide insulation in a wet environment.

Works by admitting a small amount of water between the suit and the skin which does not circulate. This very thin layer of water can be heated by the body.

Can be rented, but not from EWP. Try Campus Outdoor Centre or Ocean Sports

Polypropylene top

Purpose - provide some insulation for the torso. Usually worn under a wetsuit. More than one may be worn in colder weather

Helmet

Purpose - physical protection of the head also provides some warmth. Good protection over the entire head is the best. The helmet needs to fit properly. Rentable from EWP. Recommended as an early purchase.

Neoprene skull Cap and Balaclava

Purpose - provides extra warmth to the head in very cold water or weather.

PFD

Purpose - Assist in swimming when out of the boat.

Not a lifejacket as it is not guaranteed to float you face up. Also provides some warmth and mechanical protection to your torso. Must fit correctly to be of much use. Rentable From EWP.

Footwear

Wetsocks

- provide warmth for the feet, but no mechanical protection.

Usually worn under something else

Reef boots - Wetsocks with a hard sole, warmth and some protection

Slippers - slight protection, often worn over wet socks

Water boots - protection and some warmth.

Care is needed that they fit in small boats.

Handwear

Neoprene gloves - provide warmth, but may interfere with paddle use

Pogies - Warmth without interfering with paddle grip.

River Grading System

An overall grade from I to VI is generally assigned to a river. The grade of the river refers to the overall 'run' of the river. For many rivers, this is very different than the class of rapids on any particular portion of the run. To assign an overall grade to a river, one considers the following:

- How sustained are the rapids ?
- Is portaging and scouting difficult or easy ?
- Is the run committing, or are there rest spots or areas to exit the run ?
- Is the surrounding topography easy or difficult to negotiate ?

Other items that are not taken into account in a river's grade, that should be considered by the paddler are the following:

- What is the water's temperature ?
- What are the consequences of a swim ?
- How isolated is the run from an exit route ?

Rapids Classification System

Utilizing the following classification system, a difficulty rating is applied to individual rapids and sections of river. This is a technical rating for the degree of difficulty of the moves required to negotiate a rapid. Usually only rapids which are rated higher than the river grade are noted. If there is a long stretch of river with a grade significantly lower than the overall river grade, you will find a listing of rapids more difficult than that lower grade as well. To assign the class to a rapid, one should consider the following:

- Is the rapid separate and distinct from the surrounding whitewater ?
- Are there clear and defined routes available ?
- Is protracted maneuvering required ?
- Are there features which must be run to navigate the rapid ?
- Are there places to set up safety measures on the river or on the shore ?

Keep in mind that the items not taken into account when deriving a river's grade are also omitted here, but they should be considered as factors when assigning a river's class.

Class I Moving water with few or no obstacles. Passages are wide open and easily seen from the river.

Class II Rapids with small obstacles and regular features. Passages are open and obvious without scouting, but may require maneuvering.

Class III Rapids with irregular features that require maneuvering to negotiate. Passages can be narrow and features such as holes and irregular waves must be run to negotiate the rapid. There is a risk of injury.

Class IV Rapids with highly irregular features. Complicated passages that often include vertical drops and may require scouting to find safe passages. Linked maneuvers are required in convoluted passages. Risk of injury and possible risk to your life.

Class V Rapids with violent and irregular features. Extremely congested passages that almost always require scouting to determine safe routes. Most class V rapids include vertical drops and require running large scale features in a complex series of maneuvers. Definite risk of serious injury and possible risk to your life.

Class VI The difficulties of Class V taken to the extreme. Rapids with extremely violent and unpredictable features where experts require considerable advance scouting and planning to determine possible passages. All Class VI rapids require the paddler to negotiate vertical drops and very large features. Always a risk to your life. Generally only possible at certain water levels.

Within the above 6 main classifications, the whitewater classes are subdivided further by adding a (+) or a (-) to indicate smaller differences in class.

Trips with the EWP

Trip preparations and protocol

There are many opportunities through the year to paddle a wide variety of rivers with the club. The trip schedule should explain clearly what the level of any given trip is, but always feel free to call the trip leader with questions - don't just assume that something is too hard or too easy for you. There are usually several alternatives in an area, and there may be others of your skill level and a willing leader who want to get out and would be fun to paddle with. The designated trip leader should be contacted no later than the Wednesday of the week of the trip to arrange to come along. If there are any last-minute changes, or special arrangements, the trip leader will contact you.

You may want to open a Twitter account and follow " ewp_trips " to get instant notifications regarding trips and events throughout the year.

The trip leader may be able to arrange a ride with someone else if you need one. If you do find a ride with someone else, remember that all expenses should be shared equally.

You are responsible for arranging a boat rental if you need one, and for transporting your gear to and from the river. If you rent a boat from the club, it will include a spraydeck paddle, PFD and helmet. The club does not rent wet suits or other clothing, but the campus outdoor center at the University does. Boats must be tied securely to your vehicle with rope or webbing - bungee cords are not reliable. The rope used should not stretch when wet; yellow polypropylene rope is okay, although it does not hold a knot well. You should tie lines to your front and rear bumpers from the bow and stern of the boat. If you are tying just 2 boats onto a roof rack, run the rope down to the rack between the two boats for extra stability. If you're tying more than two boats down to the roof rack lash them together as a unit rather than trying to tie them down separately.

Many of the camping sites frequented by paddlers are undeveloped - that means you'll have to bring along such basics as water for cooking, and toilet paper. Never assume there will be a cooking shelter - be sure to check with someone who knows the site, like the trip leader.

The day usually gets underway at 10 am, with a meeting at the campsite to iron out the day's plans and organize shuttle travel and lunch.

BASIC STROKE TECHNIQUE FOCUS

Watching an expert kayak paddler go through a series of maneuvers it might appear that they are utilizing an endless variety of strokes and combinations of strokes. It is what you see. They have reached the stage of knowledge and practice where when presented with a need to move the boat a certain way they respond **automatically** with a stroke or combination to get the job done. It is simply a task followed by a response. All the rest for them is automatic. They do not have to think, okay, I need to turn; I can use a sweep or a bow rudder, but which side do I put it and how do I make it. They have long passed through the doorway you are about to enter.

There are many different types of strokes and some have **overlapping function** - that is they can do the same job. Which stroke you choose to do a certain job is a reflection of your paddling education and personal choice. How good you get at it is related to opportunity desire and physical ability.

What is important for the beginner to realize is that paddling is like building a house. There are many ways and types but certain features are common to all. They all have a foundation on which the rest of the structure sits. This introductory kayak course is like a foundation. Our goal is to provide you with the basic skills for the spot on which you can build depending on your interest and inclination.

The basic skills presented are the basic skills for propelling and maneuvering any type of sit in or sit on water craft utilizing a two bladed paddle. Whether you desire is to paddle a sit-on kayak, or drive a wave ski down a collapsing green wall in Maui, cruise lazily across a Caribbean lagoon or cruise the Broken Islands in a sea kayak, or enjoy the Red Deer River features on hot July afternoon in your whitewater kayak, or race down a slalom course on the Kananaskis River, or try Olympic sprint racing, or just play canoe polo on Wednesday evenings, the basic skills are applicable to all those situations.

Your paddle and those basic skills are like a key. A key that can open the doorway to many and varied opportunities for recreation, exercise, adventure and enjoyment of the outdoors and the indoor pool sessions in the winter.

Let's face it, kayaking is a water sport. At some point you are going to get your hair wet and get water up your nose. We teach you basic safety as well as skills and a large part of safety is for you to be comfortable and know what to do when you find yourself upside down in your boat. So initially we teach you how to get out of your craft - for your safety this is always the bottom line. But also for safety we recognize that often you are safer in the boat and therefore spend considerable time teaching you how to brace to prevent that spill necessitating an exit or if you do capsize; how to regain the upright position - the Eskimo Roll.

When you have finished this course, you are just scratching the surface of the potential for you in the sport of kayaking. However you should have a pretty fair grasp of the basic paddling skills and survival skills and personal safety and know how to practice and work toward improvement or greater reliability of the skills you have learned. You will be ready to enjoy a trip on an easy river. We invite you to continue to practice at the pool sessions or try some additional experiences such as a Rolling Course or our Sea Kayak Exposure Course.

We want this to be and will attempt to make this course fun and enjoyable for you.

STROKE	PURPOSE	DESCRIPTION	TECHNIQUE POINTS	KEY POINTS
Forward Stroke	Propel the kayak forward or stop backward motion	Cyclic activity alternating on right and left Look to a point ahead of boat	Reach forward with Trunk rotation adding to length of extended arm. Blade enters water with lift of other arm elbow to shoulder height Pull first with trunk rotation followed by push with top arm and pull with lower. Paddle travel should be close to boat with lower hand pull stopping at front of cockpit. Lower blade out at hip lifts upward to drop other blade, oriented by wrist rotation, into the water. Cycle begins on other side.	Rotate Reach Pull Out at Hip Elbow (arm) lift Lift initiates cycle
Backward or Reverse Stroke	Propel the kayak backward or stop forward motion	Cyclic activity alternating on right and left Look over one shoulder only.	Rotate trunk to side of stroke Place back of blade on water behind cockpit. Push it down into the water and forward with arm and trunk rotation while alternate arm lifts to forehead. Blade travels close along side of boat. At finish trunk rotation is reversed. Remove blade from water at footrest and lifting it up will set up to initiate stroke on other side	Rotate Push forward Lift other arm Blade out at footrest Lift initiates cycle
Draw Stroke (out of water recovery)	Propel kayak Sideways To move right, paddle is in water on right and vice versa	Single stroke placed out from body and pulled toward body and boat to cause to boat to slide sideways. Effect on either end is balanced by paddle placement	Rotate trunk to side of stroke Reach out with lower arm and across in front of head with upper arm. Immerse blade in water and pull toward boat Stop blade 6 " from boat and remove from water by dropping top arm. Reach out and repeat as necessary.	Turn trunk Reach out Reach over Vertical paddle No contact with boat
Repetitive Draw Stroke (in water recovery)	Propel kayak Sideways To move right, paddle is in water on right and vice versa	A cyclic repetition of the draw stroke without removing the blade from the water	At the finish of the initial stroke the wrist is flexed to rotate the blade with edge toward the boat. The arms push the blade away from the boat maintaining the shaft vertical throughout. The wrist extends orienting the blade with the face toward the boat and the draw stroke begins again. Repeat as necessary.	Vertical throughout Wrist flexion and push for recovery Both arms active in pull and push Top arm reach across and out to stroke side throughout

BASIC STROKE COMBINATIONS

There are virtually an infinite number of stroke combinations and variations that one can utilize. Most paddlers have their favorites as they gain more experience, skill and sports specific fitness.

However there are a number of basic stroke combinations of which you should be aware that are utilized for maneuvering your kayak. They will vary depending on the type of boat you are in, the type of water, the speed you need to do the maneuver, your individual skill and fitness.

These combinations and in fact all the strokes you learn are tools. You select the ones you need to do the job. You don't need them all every time; some tools work better than others for certain types of jobs. Not all the types of boats require the same effort to turn. The choice of which tools you will have to draw from your bag for a particular situation may be confusing initially but will improve with practice and experience.

STROKE COMBINATION	PURPOSE	DESCRIPTION	KEY POINTS
Forward Sweep - Stern Sweep (forward sweep on one side is complementary to a stern sweep on the opposite side).	180 degree and plus turn while stationary or moving	If you are traveling forward and want to continue afterward, start with forward sweep and carry the stroke well around toward the stern; remove paddle from water and rotate trunk around to opposite side so you can see the stern and place the stern sweep close to it and make the stern sweep. If you want to stop and turn start with the stern sweep first.	Make use of the full arc of travel of both strokes for maximum efficiency. Look the direction the bow is travelling. Keep the boat flat not allowing it to tilt side to side. Sit upright throughout so you are able to rotate your trunk to power the strokes. Push the bow of the boat around with your foot pedals. Keep the paddle shaft low (both hands at waist level).
Forward Sweep - Bow Rudder - Forward Sweep	180 degree and plus turn while stationary or moving	Forward sweep 3/4 of arc to stern; remove blade and rotate trunk to place bow rudder on opposite side; remove stroke at footrest, change blade to other side and make a second forward sweep on same side as first.	Sit upright in the boat with no forward or backward lean. Keep the boat flat to utilize the wide flat area of the bottom during the spin. Position the paddle with arms and then stabilize it. Apply power to the blade with trunk rotation.

Forward Sweep - Bow Rudder - Forward Stroke	90 degree turn while in forward motion	A variation of the above combination. When the bow rudder reaches the side of the boat or if you want to stop the turn, simply flex the wrist to position the power face for a forward stroke and pull.	By controlling when you begin your forward stroke following the bow rudder, you control the amount you turn. In practice with the boat turning and by pushing the top arm well across during the bow rudder, the rudder / pull combination blends smoothly together and the boat will maintain speed throughout the turn.
Stern Sweep - Bow Draw	180 degree turn while in motion or stationary.	Rotate trunk and shift paddle to reach back and place paddle beside stern. Look for the stern - turn your head. Shift your weight toward the back without leaning very much. This lifts the front. Set the edge. Push the paddle out away from the boat in an arc near the surface.	When it reaches 90 degrees, lift your top arm (to look under it) and extend both wrists to open the blade face for a bow draw. The transition from stern sweep to bow draw must be quick and smooth so the bow does not drop and stall the turn. Stern edge set to dive and plane under the water.

That All Important Stern Sweep

* * By Dale O'Brien

Whether you are trying to turn quickly to catch that inviting wave on the river or your team has lost the ball and your pointing the wrong way or you want to stern pivot as you exit an eddy, the stern (rear) sweep can help you do it fast and efficiently. What do I mean by efficiently? Simply put, it means you get **the most turning possible for the effort expended**. Proper technique allows you to **save energy** (by not expending it unnecessarily and wastefully) when paddling; which is important when you playing on a three hour river trip or in your third game of polo tournament. For purposes of this discussion we will be on flat nonmoving water and will assume your boat fits you properly (very basic and important).

What technique factors are involved?

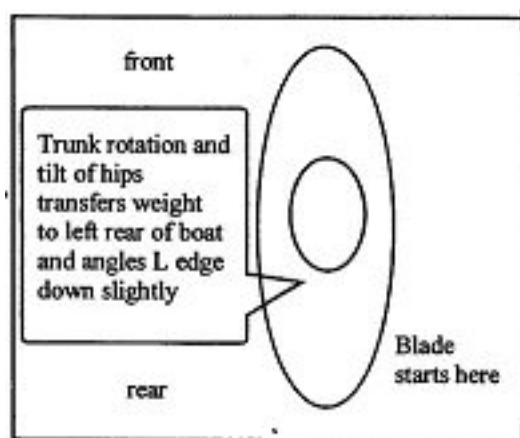
1. You need to **use design features** of your boat to decrease water resistance to your movement.
2. You need to **efficiently transfer** the power you generate to the boat.
3. You need to involve the **largest muscle groups** of the trunk.
4. You need to place and move the paddle so it will have **maximum effect**. The **Technique Points** for Stern (rear) sweep on the right side of the boat turning the bow to the right.

+ turn your **RIGHT** shoulder toward the stern so you can see both of them.

+ With both hands low (shaft horizontal) extend the paddle to the right and place the back of the blade beside the stern. The angle of blade will be such it can provide some support as well as push strongly away from the boat.

+ Push the blade out from the boat in an arc with rotation of the trunk back towards the neutral position. The paddle travels in the horizontal plane and with the blade close to the surface. The foot pedal on the right should feel strong pressure throughout the turn. Push that **RIGHT** foot pedal toward the **RIGHT** blade.

+ As you rotate your trunk your weight should transfer to your left buttock and settle toward the back of the boat. It is not simply leaning back, because you want to keep the trunk mostly upright so the trunk muscles pull in the direction of rotation rather than at an angle to it.



That All Important Eskimo Roll

** By Dale O'Brien

You can kayak without knowing how to roll your boat in case of capsize, but you will be cautious and always concerned about tipping over, **especially on the river**. This will affect your **confidence** and your **potential** to advance your skill level. Rolling is a technically and to lesser degree physically demanding skill that is most easily learned in warm clear water which will allow you to focus on the skill - in other words "a pool". The tutورشip of a skilled instructor will help you acquire important feedback very important especially in the initial stages.

There are a number of books and video tapes out there describing a variety of different rolls for kayaks (the Torque roll, the Brace roll, the C to C roll, the Eskimo roll, the Screw roll) all focusing on a particular aspect that the authors feel differentiates their style of roll. There are a number of **common features** among most of these and for this article, that is where I will focus.

I have to begin by saying, that the description below is for a river roll, with a focus on **safety from impact** with submerged objects , as differentiated from a roll in canoe polo for example, where it matters little whether you come up with your trunk leaning forwards or backwards. It is my opinion that most paddlers, except for the very inflexible, and obese should be taught to roll with the **trunk forward** at the finish.

To begin we must briefly talk about how you **fit the boat**. If you are not voluntarily able to join yourself with the boat, rolling is much more difficult. The boat should have a **back strap, foot pegs, thigh braces and seat width** to which your body will conform without a lot of extra space. A **slight pressure** on the foot braces should bring your **knees against the deck** so you do not slide or rotate around inside the boat - your bottom is held centered and will not slide from side to side in the boat. With the proper fit obtained you are ready to start the learning process. Don't forget to **warm up** your back and shoulders with some **paddling and stretching**.

The **purpose of the roll** is to allow you to **regain the upright position after a capsize**. It should ultimately become an automatic series of movements of body and paddle that do not cost you much energy. In all the descriptions of rolls there are some common positive features:

1. The ability to rotate the boat
2. Positioning the paddle on the surface and keeping it there throughout.
3. Bringing the trunk back over the boat.

Point 1 (above) is directly related to proper boat fit. You must be able to rotate the boat quickly and with minimal effort. You will hear the term "hip flick" to describe this rotation of the kayak. In classes we teach this rotation skill starting with the supporting on the edge of the pool with our hands, lowering the trunk into the water while bringing the boat over on top of ourselves and then rotating it back up without lifting our head. The movement **happens at the waist which is perpendicular to the boat**.

So you have had a lesson series, now what ?

The Edmonton Whitewater Paddlers is a registered amateur sport body established in 1973. The Club is run by a volunteer executive which usually meets on a monthly basis.

When you have finished an introductory course, you should have learned **basic safety skills** and have some knowledge and practice in the strokes to move your kayak about on flat water. You will also have been exposed to bracing and rolling techniques but may not be really confident with them yet.

After the course there are three options:

- 1 - **Drop in** to work on your skills on your own, or with a friend
- 2 - Take a Kayak **Rolling Course**
- 3 - Join in with the **canoe polo** players to work on your paddle skills while learning about the game of polo.

In the spring the Club publishes a **Recreational Trip Schedule** of weekend trips. They start out on easy rivers to provide an opportunity for new paddlers to join in and learn moving water skills in a safe manner. Paddling equipment for these trips can be rented from the Club through our members rental program. Check the [web site www.PaddleEWP.ca](http://www.PaddleEWP.ca) often to see what is going on and for short notice trip announcements. You can also get trip announcements via [Twitter](#) (ewp_trips on Twitter.com).

During the week there are several opportunities for paddling organized through the Club. Out of our Buena Vista Clubhouse not far from the Valley Zoo **we paddle on the river** in a variety of different crafts, from sea kayaks and wildwater kayaks to sprint boats. Some of these boats require a bit of instruction to balance as they are quite narrow.

Also, on every week from June to October, the Club is active at **Rundle Park** in the north east corner of the City. There, the novices can paddle and play polo every Wednesday, and the intermediate and advanced polo group meets on Thursday for weekly practice and games. Equipment is supplied and new members are always welcome.

The EWP also has a **sea kayak interest group** and they get together occasionally for mid-week or weekend trips to local lakes and suitable rivers for touring and nature viewing and appreciation.

All our outings are led by **volunteer leaders** who, although knowledgeable and competent, are not professional guides. Help is always needed to plan and organize outings and events which are safe and fun in the sport of kayaking.