

Davidson Outdoors Whitewater Kayaking Teaching Progression

1. Orientation to boat and gear

*Parts of boat and their function

Hull design characteristics: Rocker vs “V”, length/width ratio and effect on hull speed, playboats, touring hulls, plastic vs kevlar/glass

Bow & stern: Paddler can find bow on overturned boat by finding footbrace screws on hull – this can make dumping easier since you can lift the stern first (has float bags & less water in it).

Grab loops and broach loops or security loops

Cockpit and rim

Seat & back band if present

Thigh braces

Hip pads

Foot braces

Walls

Float bags & care of (Keep tubes out from under seat to avoid splitting and causing leaks)

Drain plugs

*Fitting boat to paddler

*Features, fitting and use of paddles, PFDs, skirts, helmets

2. Body motions of kayaking

Importance of good posture - erect spine allows wide range of motion

Tuck: Protection during wet exit and roll set up

Rotation : Good body rotation protect shoulders from injury and taps into power of torso muscles for strokes.

Hands in the Box: Keep hands inside an imaginary “box” defined by eye level as top, sides are slightly wider than shoulder width, bottom is just above skirt. When you do any strokes behind body, rotate torso to keep hands in box. Keeps elbows down, upper arm near ribs, preventing exposure of shoulder to injury.

Bending of spine from side to side: C to C motion for rolling, “J” spine for edging or balancing in a lean.

(Dedicated stretching can improve flexibility in these motions.)

3. Wet exit instruction on land:

Instructor demonstrates wet exit sequence while upright on carpet or pool deck. Emphasize that everyone swims while learning to kayak (we are all just between swims!), and that effective self-rescue skills are a vital part of kayaking safely.

Components:

1. Tuck. Nose to skirt, hands above water on either side of boat, sliding and slapping for bow rescue (to be taught later).

2. Pop skirt. Remain in tuck while sliding hands forward along skirt to skirt loop, pull.

3. Exit. With hands at hips BUT NOT ON TOP OF SKIRT, remain tucked while sliding boat all the way off until feet are free of cockpit.

4. Swim to surface, paddle and loop in same hand, swim enthusiastically for *safest* bank or eddy, not necessarily the nearest.

5. Dump overturned boat by lifting *stern* first with bow on shore. Then use drain plug for the remainder.

4. Wet exit practice:

*Students rehearse wet exit while in upright boats on pool deck.

*Students practice wet exits one on one with instructors until each is comfortable with a safe, controlled exit.

*Instructor may demo “hand of God” rescue on students as they begin to practice wet exits. Have student flip and stay tucked. When student signals by taping hands on boat, instructor rights boat by grabbing across hull and pulling boat upright. Can be done by instructor in boat or standing in pool. Effective only if student remains tucked.

Remind group that “Hand of God” and Eskimo rescues are effective in limited circumstances and they should always make their own judgment on whether to stay in the boat and wait for an assist or wet exit and swim to prevent washing into downstream hazards.

5. Roll demo on land:

Instructors present C to C roll as a complete body motion relying on power from torso, not arms and paddle. C to C motion can be broken down and learned in steps. Each step has kinesthetic “landmarks” that help the student’s mind map the roll as a body motion. Proper execution of each step sets the paddler up well for the next step; rushing will confuse the “map” and hamper the roll.

We don’t usually teach a sweep roll first, since we don’t have a simple sequence for students to follow. Once a paddler learns the C roll, he/she can modify it into a faster sweep roll by simply beginning to roll the boat as soon as the paddle starts to move the paddle from the first to second position.

This may sound odd, but in order to teach a really good roll, you have to get the student to forget about the goal of getting upright. Focus the student’s effort on achieving good execution of the roll motion, NOT on getting upright anyway possible. Praise and reinforce any good use of the C motion. Don’t let your comments drift to rewarding them for almost righting the boat etc. Student’s goal should be practice toward an efficient, effective and effortless roll. Remember: being able to struggle just up with a marginal roll in a pool, where conditions are in your favor, is poor preparation for rolling on a real river. The more they dial-in the whole body roll motion, the easier kayaking gets in general. Learning a hands roll is a snap, and bracing and head dinks become instinctive. Reiterate risk of shoulder injury if roll is forced, hurried or performed incorrectly.

Parts of the roll are presented by instructor modeling on carpet in overturned boat (description given for right-blade roll). Put a large trash bag on the carpet to help you slide during the demo – prevents rug burn, too. You will be surprised how much movement you get from snapping the C in the roll phase, and your students will see that you are not pushing off the carpet with your paddle blade. This reinforces the lesson that the roll comes from the torso and knee, not from arms and paddle.

Step One: Tuck

Body and head tucked
Paddle along left side of boat, right hand forward
Forearms against side of hull
Hands in air
Rolling blade cocked to a climbing angle for the sweep

Step Two: Sweep or Set-Up

Head moves first! Roll chin off chest, left ear to left shoulder
Left hand over middle of seat (not back of thigh or knees). Deeper boats may force the left hand to a place on the side of the boat, since wrapping torso around the boat is more difficult.
Right hand and blade to 90 degrees to boat, hand in air
Chest should be open, spine curved into left C
Student should have face turned out as though looking at rolling blade

Step Three: Roll

Release any tension on left thigh brace
Snap head down toward right shoulder
Pull quickly against right thigh brace
Move whole spine from left C to right C
NOTE: No force actively applied to blade

Step Four: Recovery

Continue curving spine into right C
Leave right ear on back of right shoulder
Slide chest & Paddle as one unit across centerline of boat (lead w/ left side ribs)
Shift weight to left butt cheek until boat leans left
Then lift head from right shoulder.

6. Rolling instruction in pool:

*Bow rescue practice is often used as a lead-in to roll learning. After an instructor demo, students can pair up to practice, progressing from righting their boat while above water with both hands on rescuer's bow, to flipping and waiting for rescuer to hands paddle to assist. Emphasize the need for each "victim" to execute each bow rescue as a rehearsal for rolling - ie, use spine, not arms, to get back up.

*Sequence: In one-on-one instruction, we usually begin w/ step 4, then teach 3 to 4, then teach 1, 2, 3, 4 as a whole. This allows the student to focus on the roll and recovery motions first.

*20 minutes on, 20 minutes off. Avoid burning out students by limiting roll instruction time to 20 min.

Try to fix one problem at a time and avoid giving the student a long list of changes to make.

Common glitches to watch for (in a right-side roll):

1. Failing to finish each step before moving on to the next. Paddler gets lost, paddle is vertical in the water before roll begins.

2. Left hand is on hull behind the knee, not over the butt. This keeps the paddler in a forward tuck and prevents good C motion.
3. Chin down on chest throughout roll. Forces forward curve in spine and hinders C motion. Tell paddler to bring head out of tuck and left ear to left shoulder BEFORE moving the paddle out of the first position.
4. Paddler lifts head off right shoulder in the roll or recovery phase. The real issue here is that they have to pull with the left (non-rolling) knee in order to lift the head. This interferes with the rolling effort of the right knee and stops the roll.
5. Paddle pulls. For some boaters it is very hard not to pull on the shaft. I like to tell them that the paddle blade is just the point at which their whole rolling motion makes contact with the water. The blade does not have to be moved or pulled on – the C to C action of their body transfers to the water via the motionless blade.
6. Any number of torso movements that are not in the vertical plane from the boat or go against the roll motion will hamper the power of the C. You might see an “Anti C”, or arms and paddle forcing the blade to the right while the torso and head struggle to bend left, over the boat. Back deck or front deck finishes are really indications that the paddler is not using their torso snap enough in the roll, and they are trying to get back over the boat too early. Like raising the head, this also means they’ll have to pull on the left knee in order to get back over the boat.

7. Flatwater Skills:

Emphasis on efficient use of body and paddle. This should not appear to be a “strong man” sport.

This time prepares students for their first river day with focus on: Balance, lean until turn stops, fwd stroke power, good correction strokes, vision.

We usually work from a “demo then practice” format, with students rafting up to watch a technique demonstrated, then break up to practice w/ observation & comment from instructors. One new thing at a time.

Students in boats, no paddles:

Body motion review, Posture reminder

Edging: Index of leans 1-4 to both sides

Veer: It is gonna happen. Hands paddle until you veer. Lean into turns & Lean until turning stops

Students in boats with paddles:

Pass out paddles, brief lesson in fwd stroke, symmetry

Demo “power circle” and use of stern draw to get out of veer.

Key points of stern draw

Intro rudder, demo, key points

Alternate rudder/stern draw

Push exercise for rudder, stern draw

Fwd sweep, emphasize that end of sweep is really a stern draw, not an arc.

Reverse sweep, emphasis on beginning of stroke being a rudder

Vision: Look where you want to go; don’t fixate on bow.

Back stroke, stopping

Draw to side for positioning

Forward stroke instruction: Goal is to be able to accelerate boat in a straight line with 3 or 4 strokes.

Posture!

Body rotation in stroke: Power and windup for next stroke, hands in box idea

Arms as linkage between power (body) and paddle

Fingers just hook the active blade, high hand relaxed, open, palm pushing.

upper hand should block view forward

Remove blade when it reaches upper thigh

Recovery begins w/ elbow leading

Over-gripping leads to tendonitis

Distance lake paddle

Kayak polo, hands only or with paddles if group is capable

Bow rescuer wins possession for her team

Slalom gate sequence w/ emphasis on eddy turn style moves

8. First river day:

River features from bridge overlook

River safety talk on shore

Safe swim position

Self rescue

Rescue by another boat or by rope

Assist in the rescue of others only as you are comfortable; don't interfere

Avoiding pins by leaning toward obstruction BEFORE you hit it

Lead/Sweep trip organization; Look out for your fellow paddlers, not just yourself!

River signals

Etiquette

Instruction in pool

Balance and lean refresher

Beginning peel outs

Entering eddies

Ferries

Move Downstream! Teach as appropriate:

Eddy/Peel out practice

Ferries

Scouting, river hazards

Front surfing

Side surfing