



Level 5: Advanced Whitewater Rafting - Paddle Skills Course

Skills Course Overview

This course is designed as a program emphasizing safety, enjoyment, and skill development. The skills and knowledge gained through this course can set the stage for a lifetime of exploration, adventures, a healthy lifestyle, appreciation of water and the natural world, lasting memories with family and friends, and a rewarding experience for all - we paddle because it is fun.

The **Level 5: Advanced Whitewater Rafting - Paddle** course is designed to refine and expand judgment, decision making and techniques of advanced paddlers on class III to IV whitewater. Advanced techniques include, but are not limited to advanced team management, boat control, high water techniques and technical river running as appropriate to the site.

Judgment, Safety & Rescue Objectives: This course will use on-the-water scenarios to assess risk, evaluate rapid features and complexities, develop strategies, and nurture good judgment. Course will emphasize use of proactive, aggressive rescue skills stressing self-reliance. This course should only be taken by those with a SWR experience and self-rescue skills. ***Participation in a SWR course within the last three years is strongly recommended.***

Skills Course Prerequisites

- Acknowledgment of personal compliance with the [ACA Essential Eligibility Criteria \(EEC\)](#).
- Completion of an ACA Level 4: Whitewater Rafting course or equivalent skills
- Ability to aggressively self-rescue in course venue

- Completion of an ACA, Rescue III, or similar swiftwater rescue course within the last 3 years is strongly recommended

Course Duration

2 days (16 hours) or more.

Course Location / Accessible Venues

Sections of rivers rated class III-IV, in rapids where precise maneuvering in current is required to avoid obstacles. *A rapid class includes rapids at the lower and upper ends of the difficulty range, designated “-” and “+” respectively.*

Course Size

6 Participants : 1 Instructor; with an additional qualified assistant, the ratio can be 12 : 2.

For additional details, see [SEIC Policy Manual Chapter 6](#).

Instructor

This course may be offered by Level 5: Advanced Whitewater Rafting - Paddle ACA Instructors, Instructor Trainers, or Instructor Trainer Educators.

Succeeding Courses

- Level 5: Advanced Whitewater Rafting - Paddle Assessment, Guide Certification, or Instructor Certification Course

Complementary Courses

- Level 5: Advanced Whitewater Rafting - Oar Skills, Assessment, Guide Certification, or Instructor Certification Course

Course Learning Objectives

While navigating class III-IV rapids in a paddle raft the participant will learn to:

- Identify, evaluate, and maneuver through complex whitewater features
- Make advanced on water maneuvers

- Use strategies for good judgment in complex whitewater
- Apply methods for risk assessment
- Use proactive, aggressive rescue skills

Course Outline

The sequence of this course should be adjusted to best fit the participant's needs, class location, time allowance, and craft being used.

Introduction, Logistics, and Expectations

Learning objectives - students should have a basic understanding of the ACA and its policies, how and where this course is being conducted, and acceptable student behavior.

- Welcome! We're so glad that you've chosen to further your paddling experience and education by attending this course! Let's review a few highlights about the ACA
- Let's talk about the course itinerary, expectations, and limitations
- Lay of the land (and water): the logistics of this venue
- Review liability waiver, assumption of risk, challenge by choice, and medical disclosure
- Life jacket policy: always wear while on the water
- Describe and follow safe boating practices (behavior, substance abuse, on water and land etiquette, respecting private property, and Leave No Trace ethics)

Note: The intent of this course is not introducing new material as much as it is refining, upgrading, and expanding upon strokes and maneuvers already mastered in previous courses/experiences.

The Paddling Environment

Learning objectives - students should understand the paddling environment and the venue for the duration of the course.

- Discuss current weather conditions, forecasts, and other environmental factors (water, weather, wind, waves)

- River classifications

Personal Preparation

Learning objectives - students should understand what is expected of them during this course. Check in with students about the following:

- Ability to self-evaluate - *mental and physical*
- Whitewater comfort and confidence
- Whitewater swimming ability
- Fitness, conditioning, and warm-up to reduce injury
- Boat handling experience
- Safety and rescue training
- Personal equipment (reviewed by the instructor)

Hazard Evaluation and Judgment

Learning Objective - Students should be able to use good judgment in the river environment, within themselves and their group.

Operating on class II and III whitewater, emphasis is often placed on hard skills, which are easily defined. Operating in class IV whitewater requires a high level of decision-making based on self-awareness and evaluation of yourself and the group.

Self Awareness

- Students should understand their level of anxiety toward whitewater
- Students should know their personal risk assessment style and tolerance
- Students should know their level of responsibility to the group
- Students should know their level of awareness of the environment and their group

Self Evaluation

- What moves are required to successfully run the rapid?
 - Can I perform the needed moves?
- What are the consequences of missing the required moves?

- Am I willing to accept these consequences?
- What could possibly go wrong?
 - Am I prepared?
- What type(s) of rescue would be required if I fail?
 - Am I capable of performing those potential rescues?

Group Evaluation

- What is the skill level of the group and paddle team?
- What is each member's *self evaluation*? If they have none, how does that affect your decisions?
- Is the size of the group appropriate to the environment?
 - How is boat spacing being managed?
 - Are boat roles being identified? (i.e., point, sweep, trip leader, etc...)
- What are the group dynamics?
 - Are there conflicting personalities?
 - Are members of the group able and willing to support others (without peer pressure)?
- What is the physical condition of the group?
 - What is their fitness level?
 - Are they hot/cold, tired, hungry, dehydrated, etc.?

Objective and Subjective Hazards

Learning Objective - Students should be able to recognize, evaluate and make good decisions based on objective and subjective factors.

Objective hazards are a natural part of the environment. They cannot be eliminated, i.e.:

- Strainers
- Hydraulics
- Sieves

Ways to avoid objective hazards:

- Understand and identify
- Maneuver around
- Use good judgment

Subjective hazards are human-centric. These hazards can be controlled or minimized through recognition, experience, skill, conditioning, and human connection, i.e.:

- People: individuals that are afraid, intoxicated, overly confident, etc.
- Human factors: is the group affected by conflicting personalities or psychological effects such as groupthink, halo effect, familiarity, scarcity, etc.
- Actual risk vs perceived risk

Ways to avoid subjective hazards:

- Learn to recognize behavioral trends and early indicators of psychological effects
- 5 Ps (Prior Planning Prevents Poor Performance)

Scouting

Learning Objective - students should be able to apply objective and subjective factors, showing good judgment, in the scouting decision-making process.

Scout class III/IV rapids and assess all of the following:

- Objective Hazards
- Subjective Hazards
- Identify various lines to navigate a rapid
- Potential consequences if lines are missed
- Options for setting safety
- Potential places for swimmers and option for rescue
- Options for portaging if running deemed too hazardous for **all or part** of the group

Advanced On-Water Maneuvers

Learning Objectives - students should understand how to successfully use various advanced maneuvers for both play and necessity.

Paddling Techniques

Anticipating paddle strokes - think ahead and anticipate the paddle strokes needed for desired maneuvers

- Reading the water:
 - Identify how water features will affect raft
 - Thinking multiple moves ahead and anticipating the strokes that will make each move

Surfing as a Maneuver

Learning Objectives - students should understand and be able to demonstrate the use of surfing as a maneuver in a rapid as opposed to playing in a single feature.

Surfing Maneuvers - Holes and Waves

- Lateral waves - good for making “typewriter” maneuvers
- Small holes - good for slowing momentum
- Large features - good for making ferry maneuvers (particularly waves)
- Assess holes to make sure they aren’t too “sticky”

Surfing Maneuvers - Direction

- Front surf (bow upstream) - Best for paddle rafts
- Back surf (bow down stream) - Best for oar rafts

Playboating a Paddle Raft

Learning Objectives - students should understand the benefits and consequences of making non essential maneuvers for the sake of fun and practice.

Playboating - Playboating can be a great way to learn but increases chances of swimming. Make sure your crew is comfortable with playing and swimming, and make sure your venue is safe. (i.e., no downstream hazards)

- Downstream safety

- Communication - With crew and other boaters

Making non-essential maneuvers - class IV moves in class II & III whitewater

Practicing higher consequence moves in lower consequence water leads to increased confidence and ability, preparing paddlers for the step up into class IV whitewater.

Using powerful eddy lines as play features

- Playing with tube suck
- Playing with low siding
- Be ready for a potential flip and swimmers on the low tube

Boofing Rafts

- Fun in small rafts on ledges
- Practice boof stroke with crew
 - Large far reaching forward stroke at very edge of ledge
 - Finishing with crew leaning far back while thrusting hips forward
- Timing is key
 - Time the boof stroke when the bow crests the lip of the ledge
 - Each row of paddlers reaches, placing their paddle in the lip of the drop, taking a hard forward stroke at the lip of the ledge.
 - Paddlers stroke in succession, not unison, as they pass over the ledge (like a caterpillar - i.e., front row strokes at edge, then second row then third row strokes as each row of paddlers reaches the lip of the edge)
- Approach the ledge perpendicular to the lip
- Forward momentum approaching the lip is required

Safety & Rescue

Learning Objectives - students should understand the risks involved in a whitewater environment and how to mitigate them. Students should be able to perform required techniques to safely recover from unplanned situations.

Rescue Philosophy

- Rescue Priorities: people first, boats and gear second
- Responsibility: group over an individual, rescuer over a subject
- Rescue management and leadership
 - Have a rescue leader
 - Identify rescue and first aid skill sets in group
 - Develop and communicate a rescue plan
- Fast and simple to slow and complex
- Can I should I? (Do I have the skills? Is it safe?)

Environmental Concerns

- Cold water shock and hypothermia
- Hyperthermia

Whitewater Swimming

- Possibility of longer harder swims
- Swimming techniques for hydraulics
- Re-entering the boat

Boat Recovery Techniques

- Raft flip Recovery
- Boat bumping / bulldozing
- Dealing with a pinned boat
 - Basics of mechanical advantages
 - Understand dangers of mechanical advantage

Proper Outfitting to Improve Safety

- Rig a clean / *svelte boat
- Take what you need for the environment you are boating in
- Rigging your boat for fast flip recovery

Svelte: French word meaning slender or graceful in figure or outline

Conclusion and Wrap Up

Learning objectives - students should understand the importance of continuing education and practice. The instructor should debrief the course and hand out any pertinent materials.

- This has been a great class! Let's talk through what we've learned with a group debrief and/or individual feedback
- Course limitations: there is always more to learn, and the skills and concepts we discussed require more practice and experience
- First aid and CPR training is a very valuable tool and could make the difference between a "near miss" and an emergency requiring outside rescue / first responders
- Paddling is a lifetime sport - there are local organizations, clubs, events, competitions, and classes through which you can continue your learning and build community. Get connected!
- Handouts and reference materials (if applicable)

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This curriculum is managed by the ACA Rafting Committee. To connect with the leadership of this committee, please view the SEIC Committee rosters on [the ACA website](#).