



Level 3: River Packrafting

Sample Skills Course

Course Overview: The **River Packrafting** course is a program emphasizing safety, enjoyment and skill acquisition for entry-level through intermediate individuals in public, private and commercial settings.

This course is appropriate for all packrafts, including traditional decked, non-decked, and self-bailing vessels. This course outline may be used for packrafts with or without spray skirts and/or thigh straps. The instructor may wish to limit this program to one type of craft, but should announce this prior to accepting participant registrations. The evaluating instructor must be in a packraft. The packraft may be configured according to the instructor's preferences.

Course Prerequisites: All participants must acknowledge personal compliance with the [ACA Essential Eligibility Criteria \(EEC\)](#).

Course Duration: 12 to 16 hours or more, at the instructor's discretion. The course duration should be adjusted to best fit the needs and goals of the participants. Ideally, the course should include a brief approach to a waterway, carrying the deflated packraft.

Course Location / Venue: Moving water on rivers up to and including Class I sections. A *rapid class includes rapids at the lower and upper ends of the difficulty range, designated “-” and “+” respectively.*

Class Ratio: 5 Participants : 1 Instructor; with an additional instructor or qualified assistant the ratio can be 10 : 2

Instructor: ACA Level 3: River Packrafting Instructors (or higher).

Succeeding courses:

Level 4: Whitewater Packrafting (under development)

The following is a general summary of course content for the **Level 3: River Packrafting** course. The content covered, and sequence of instruction should be adjusted to best fit the participant's needs, class location and time allowance.

Course Content

Introduction, Expectations, & Logistics

- Welcome, introductions, paperwork
- Student and instructor course expectations and limitations
- Course itinerary and site logistics
- Review waiver, assumption of risk, challenge by choice, medical disclosure
- Instructor should generally and candidly discuss the risks of packrafting, including injury associated with hiking and carrying craft; cold water exposure; river hazards and entrapment risk; and drowning.
- PFD policy (always wear on water)



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- Appropriate personal behavior
- No alcohol/substance abuse
- Proper etiquette on and off the water
- Respect private property
- Practice “Leave No Trace” ethics
- Promotion of a packraft “Culture of Safety”

Paddling and Packrafting Environment

- Wind
- Waves
- Weather
- Water
- Approach to the water

Personal Preparation

- Personal ability
- Swimming ability
- Water comfort and confidence
- Fitness, conditioning, and warm up
- Safe paddle and boat-handling
- Safety and rescue considerations
- Personal equipment (reviewed by Instructor)
- Judgment. In addition to learning hard skills, the importance of developing personal judgment and group responsibility increases on more difficult paddling venues.

Getting Started

- Boating laws, American Whitewater Safety Code
- Warm up and stretching to reduce injury
- Storing, packing, inflating, deflating and transporting a packraft
- Launching and landing craft
 - Posture, safety, comfort, rocking and balance
 - Boarding, three points of contact, weight kept low, etc.
- Water comfort and confidence
- Address proper rigging, fit and release of thigh straps¹
- Review wet exit maneuver, demonstrate in three ways:²
 - Utilize the spray skirt grab loop
 - Hands on hull tubes, push boat hard away from body
 - Drive knee up through spray skirt
- Emptying packrafts after a capsized
- Basic terminology
- Safe and effective body mechanics

¹ Skills not required for those paddling a packraft without thigh straps.

² Skills not required for those paddling a packraft without a spray skirt.



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- Types of strokes: power, turning
- Stroke components: catch, propulsion, recovery (CPR), control, correction
- Communication: signaling, with hand, paddle, whistle (Universal River Signals System)
- Trip planning principles and elements of a float plan

Equipment

- Packraft
 - Types and parts: sizes, geometry, deck, combing, skirt, self-bailer, cargo zippers
 - Outfitting: comfort, safety, entrapment hazards
 - Outfitting: thigh straps, seat height and position, backrest, perimeter lines, tails, locking carabiners
 - Spray skirt and grab loop
 - Stability
 - Tracking
- Paddle: types, parts, length, and hand position
- Helmets: types and fit
- Life jackets (PFDs): fit and regulations
- Throw ropes
 - Types of ropes, materials, options
 - Where to carry and stow
 - Deployment and re-stuffing
- Appropriate clothing: comfortable/protective:
 - Wetsuit vs. drysuit
 - Approach clothing
 - Footwear
- Equipment care and maintenance
 - Packraft
 - Drysuits
 - Packs and other equipment
- Packraft repair
 - field repair techniques and materials
 - home repair techniques and materials
- Packing of equipment:
 - Methods of packing and transporting packraft and associated gear
 - Securing backpacks and other cargo to, or inside, the boat
 - Entrapment hazards
 - Attachment points
 - Weight distribution
 - Cargo zippers
- Additional personal and group equipment:
 - Extra paddle
 - Dewatering device
 - Rescue equipment (sling for reentry)
 - Survival equipment (head lamp, fire starting devices, signaling equipment)



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- Food and water
- Map and compass; GPS
- Communication tools
- Sun protection
- Bug spray
- Storage systems (dry bags, dry boxes)
- Equipment location
- Making safe gear choices while considering weight sensitivity

River Reading:

- Current (cfs), volume, direction, and changes caused by streambed features
- Man-made obstacles
- Strainers and other debris
- Fundamentals of river currents and hydrology
 - Current speed, direction and changes caused by streambed features
 - Downstream and upstream V's and chutes
 - Eddies and eddy lines
 - Waves and wave holes
 - Bends
 - Effects of obstacles
 - Ledges and horizon lines
 - Strainers and sieves
 - Rocks and pillows
 - Holes and hydraulics
 - Wood hazards
 - Current power, river volume and river level
 - Cold water
 - Dams, flow diversion structures and pipelines
 - Undercuts / ice
 - International Scale of River Difficulty (American Whitewater Safety Code)

River Running

- Strategies in running rivers:
 - Spacing
 - Avoid tunnel vision
 - Paddle your own route
 - Scouting
 - Portaging
- Group organization on the river:
 - Cohesiveness (lead, sweep boats, etc.)
 - Communication and signaling; Universal River Signals
- Discuss danger vs. difficulty
- Emergency Procedures



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Safety & Rescue:

- Exercising judgment, safety as a state of mind
 - Discuss the safety implications of easy access to remote paddling environments
- Principles of Rescue
 - Priorities: first people, then boats and paddles, finally other gear
 - Responsibilities of the victim
 - Responsibilities of the rescuers
 - Responsibilities of the group
- Types of Rescue
 - Self-Rescue
 - Swimming in current
 - Body/boat position
 - Handling equipment
 - Emptying boats
 - Techniques for re-entry
 - Responding to sudden deflation (popped boat or accident cargo fly opening)
 - Boat assisted rescue
 - Assisted re-entry
 - Bow and stern towing for a tired swimmer
 - Towing or bulldozing a capsized boat
 - Shoreline Rescue: Extension rescues, use of throw ropes/bags
- Wading principles
 - Avoiding foot entrapment
 - Limitations (water depth and speed, bottom conditions, downstream hazards, debris in water)
 - One and two person techniques

Strokes

- Stroke components: catch, propulsion, recovery (CPR), control and correction
- Safe and effective body mechanics
- Types of strokes: power, turning:
 - Forward
 - Back (to stop)
 - Draw (to move sideways)
 - Bow draw (to turn)
 - Stationary draw (to control turn or sideslip)
 - Sculling draw/brace
 - Sweep
 - Stern draw
 - Reverse sweep
 - Rudder
 - Low brace and high brace to avoid capsize



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Maneuvers

- J-lean / heeling the boat
- Spin: boat pivots in place
- Abeam: boat moves sideways without headway
- Forward: boat goes forward in a reasonably straight line
- Stopping: boat stops within a reasonable distance
- Turns: boat turns in a broad arc while underway
- Veering, carving, and paddling the “inside circle”
- Eddy turns
 - Deep into eddy vs. near eddy line
- Peel outs
 - Deep into current vs. pivot near eddy line
- Ferries
 - Facing upstream to move laterally with control
 - Facing downstream (to stop in current and move laterally to avoid hazards)
- C-turns (eddy turn and peel out from the same side of an eddy)
- S-turns (eddy turn on one side of an eddy, peeling out from the other side)
- Surfing

Conclusion and Wrap Up:

- Group debrief or individual feedback
- Course limitations
- Importance of First Aid and CPR
- Importance of additional instruction, practice, experience
- Importance of appropriate level of safety and rescue training
- Demo advanced maneuver
- Life sport and paddling options
- Local paddling groups and clubs
- Handouts and reference materials
- ACA membership forms
- Course evaluation and participation card