

TRAINING MANUAL FOR MICHIGAN 4-H

OUTDOOR ADVENTURE CHALLENGE



Section: KAYAKING



KAYAKING SECTION CONTENTS

- Coastal Kayak Basic Strokes & Rescues
- Coastal Kayak Day Trip Leading Course Outline



Coastal Kayak Basic Strokes & Rescues

Course Overview: Introduce basic coastal kayaking skills and safety to beginners.

Course Objectives: Participants will be introduced to:

- Proper fit and adjustment of their kayak for effective control and comfort
- Attaching and releasing the spray skirt
- Safely entering and exiting kayak, including wet exit
- Effective use and control of the paddle
- Performing basic strokes efficiently
- Performing T-rescue and Paddle float self rescue
- The importance and influence of weather and tides on the coastal kayaker
- Dealing with marine hazards and other safety issues
- Understanding personal limitations and skill level

Prerequisite: None

Minimum Personal Equipment for the course:

Properly sized and outfitted kayak with front and rear flotation. Standard gear and safety equipment (paddles, PFD's, sprayskirts, paddle floats, bilge pumps, and appropriate clothing for weather and immersion)

Course Duration: One day (8 hours)

Course Location: Ideal teaching conditions are a protected freshwater lake or saltwater cove environment. Waves should not exceed 1 foot; winds should not exceed 10 knots. Groups must be kept within ½ mile of shore

Course Ratio: 1 Instructor to every 5 students (1:5) / 2:10 with an additional instructor or qualified assistant

Successive Courses: CK Strokes and Maneuvers Refinement, Open Water Coastal Kayaking, Advanced Coastal Kayaking

The following is a general summary of course content for Coastal Kayak Basic Strokes and Rescue. The content and sequence of instruction should be arranged to best fit the student's needs, safety, the class location, and time allowance.

Introduction & Expectations (15 minutes)

- Enrollment/registration/liability
- Welcome and introductions
- Student and instructor expectations
- Course Itinerary

On Shore Presentations (45 minutes)

- Equipment orientation
- Personal clothing and gear
- PFD's, wetsuits, spray skirts
- Safety equipment
- Basic boat design and kayak terminology
- Boat fit and adjustment
- Boat/body weld
- Foot brace adjustment
- Spray skirt attachment/release
- Dry land "wet exit" drill
- Paddle orientation and use
- Correct hand placement
- Control hand/relaxed grip
- Torso rotation and paddlers' box

Launching & Landing / Wet-exit practice & Kayak Orientation (30 minutes)

- Carrying kayak to and from water
- Entry/exit of kayak from shore or dock
- Boat stability, "hip wiggle," j-lean
- Practice wet-exits with one-on-one supervision by instructor (if in cold water environment, wait until rescue session)
- Allow students a few minutes to paddle around and get oriented with their kayak

Basic Strokes & Skills (120 minutes)

- Rafting up
- Sweep stroke (forward/reverse/pivot in place)
- Forward Stroke
- Reverse stroke and stopping
- Draw stroke
- High and low braces (hip snap/boat lean/lower body control)

On Land Discussion Items (60 minutes)

- Weather conditions
- Chart use
- Tides and currents (if applicable)
- Signaling and safety devices

Deep Water Rescues (90 minutes)

Note: Use stirrup if necessary

- Demonstrate and practice T-rescue
- Demonstrate and practice paddle float self-rescue
- Bonus: Reentry and roll with paddle float

Group Safety Discussion (15 minutes)

- Group signals
- Staying together (i.e. lead/sweep)
- What to do in an emergency
- Dealing with boat traffic

Short Skills Development Tour (if time allows)

- Continue to develop efficient stroke technique
- Practice course corrections
- Have fun

Conclusion & Wrap-up (30 minutes)

- Load boats showing proper tie-down technique
- Reinforce idea of paddling with a partner or group
- Provide individual feedback, if possible
- Group debrief on how course went/questions
- Explain what is next in the learning progression
- Further practice on the water is essential
- Course evaluation

REFERENCES

General:

- Shelly Johnson, *Woman's Guide to Sea Kayaking & The Complete Sea Kayaker's Handbook*
- Andy Knapp, *The Optimum Kayak*
- John Robison, *Sea Kayaking Illustrated*
- David Seidman, *The Essential Sea Kayaker*

Safety/Rescue:

- John Lull, *Sea Kayaking Safety & Rescue*
- Schuman/Shriner, *Sea Kayak Rescue*

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Coastal Kayak Day Trip Leading Course Outline

Course Overview: This workshop is intended to provide the minimum skills and training necessary for an adult leader (age 18), with at least ACA Basic coastal kayaking skills, to safely lead a trip for participants with beginner level paddling skills, on lakes, rivers and other protected coastal environments in gentle conditions and water levels. Wind not to exceed 10 knots, current to 2 knots and waves not to exceed 1 foot. Launching should be easy from a protected site if possible, or with easy spilling surf of no more than one foot. This program is designed to be a pass or fail assessment of competence with an examination.

Course Objectives: At the conclusion of this course, each participant should be able to:

- Demonstrate appropriate maturity and judgment.
- Plan a trip using a float plan with travel distances, times and contingency plans for weather, equipment failure and medical emergencies
- Rate the difficulty of a trip and note the skills required for participation
- Screen potential participants for skill and health
- Identify general and local hazards e.g. environmental, equipment failure, etc.
- Determine appropriate personal and group safety equipment with knowledge of regulations
- Describe off and on water organization for effective group leadership and control
- Provide and demonstrate a pre “launch” talk/briefing
- Demonstrate basic paddling skills in moderate conditions up to 15 kt wind and 1.5 foot seas
- Demonstrate effective self-rescue and assisted rescues including injured paddler rescue and support

- Demonstrate how to recover and repair equipment (i.e. paddles and boats) effectively
- Demonstrate towing rescues
- Demonstrate basic chart and compass use
- Demonstrate knowledge of signaling device use including VHF radio procedure.

Trip Leader Qualities (1 hour)

- Qualifications and desired characteristics of trip leaders
 - Judgment and leadership
 - Competent paddler
 - Good communication skills
 - River/Sea sense
 - Safety and rescue trained

Intended Audience: Adults (age 18) responsible for leading day trips on flat water rivers, lakes, bays and other protected coastal areas.

Prerequisites: ACA Basic Coastal Class, ACA 2 Assessment Skills or equivalent, with paddling trip experience.

Course Duration: 16 hours minimum, generally 2 days at IT discretion. Times shown are approximations (IT discretion).

Teaching site: Protected flat water site and classroom for the first part of the course and more open area for practicing rescues etc.

Course Outline: Classroom and on shore discussion (IT judgment) depending on locale etc.

Schedule - Day One

Introduction and Logistics (40 minutes)

- Welcome
- Introduction of instructors and participants
- Workshop objectives
- Schedule
- Insurance waivers and medical

- disclosure
- PFD policy/Eligibility
- ACA SmartStart

Trip Leader Qualities (1 hour)

- Qualifications and desired characteristics of trip leaders:
 - Judgment and leadership
 - Competent paddler
 - Good communication skills
 - River/Sea sense
 - Safety and rescue trained

Trip leader

- Applies appropriate discipline & group control
- Makes final safety decisions including trip cancellation
- Considers the well being of the group over the wants of an individual
- Takes final responsibility overall

Trip Leader Knowledge (1.5 hour) discussion

- Group Organization
 - Assignment of buddy boats
 - Group formations; Diamond and other, with attention to best position for the Leader
 - Communication systems
 - Audio and visual signals
 - Radios and protocol
 - Rules of the Nautical road
- Group day camping ethics, including outdoor hygiene
 - Leave no trace, stretch breaks & lunch stops
- Group etiquette

Trip Preparations and Planning (2 hours) discussion

- Recommended Guidelines for Leader/Participant Ratio:
 - 1 leader for every 6 participants with a minimum of 2 leaders/1 plus an assistant, for the first 10 participants 2:10 is recommended
 - Conditions or skill levels may warrant additional leaders or assistants
- Appropriate site selection and determining the skill level of the group

- Sources of information on venues: other paddlers, guidebooks, Internet, locals, radio, and trip reports etc.
- Develop a float plan including:
 - Driving route to and from trip
 - Specific put-in, break & take-out locations on a chart/map if possible /emergency take outs
 - Daily schedules with approximate times
 - Contingency plans for bad weather, special health needs, problems or equipment failures. Plans should include evacuation routes.
 - Identify trip leaders and participants. Include emergency contact telephone numbers.
 - Emergency contact information for local rescue, governmental agencies for the chosen trip and designated emergency contact person(s) for the group.
 - Attach copies of permits and documentation of permissions from private landowners when appropriate.
- Make assignments to secure the necessary permits and permissions.
- Develop a planning and orientation outline when appropriate. Include organizational, classroom and on water sessions. If no paddling orientation is planned, determine methods to verify skills and experience.
- With group input, determine trip rules for acceptable behavior being a requirement.
- Determine meals and cooking assignments, if any.
- Discuss personal and group equipment.
- Make assignments for specific group equipment.
- Secure medical releases and parental permissions.
- Discuss site-specific concerns.
- Organize transportation and shuttles.
- Include use of possible outfitters or delivery services.

Trip Hazards and Prevention (2 hours)

- Environmental Hazards
 - Air and water temperature, sunburn
 - Hypothermia/Hyperthermia
 - Weather/lightning
 - Topography/shoals
 - Local hazards

- Dynamics
 - Tidal Currents
 - Tides
 - Winds, fetch
 - River Currents
 - River mouths
 - Straight channel
 - Bends
 - Right angle corners
 - Refracting waves
 - Eddies
 - Waves, chop, swell
- Specific Hazards
 - Access and egress conditions
 - Oyster Beds
 - Sand bars and other features
 - Wrecks
 - Weeds
 - Debris and logjams
 - Manmade obstructions
 - Bridge abutments
 - Entrapments
 - Disabled paddler
 - Boat traffic
- Difficulty of classification systems
- Prevention- reduce risk with recognition, avoidance and or management
 - Proper planning and pre-trip hazard identification
 - Proper skill training (first aid knowledge).
 - Scouting. Don't go where you don't know.
 - Always reassessing changing conditions
 - Towing, when and how
 - Just say "no" if uncomfortable. Better safe than sorry. "Challenge by choice"
- Survival kit (knife, matches, etc.)and where to carry what e.g. on your person
- Personal items including sunscreen, meds, hygiene products, plenty of food & water
- Items NOT to bring e.g., glass containers.
- Boats – properly outfitted.
 - Hatches/covers
 - Bailers and sponges
 - Bulkheads
 - Flotation materials and float bags
 - Foot braces, seating , deck lines
- Group
 - Adequate first aid kit(s).
 - Kayak repair kit for use on/off water
 - VHF's, cell phones (several), flares, dye, smoke etc.
 - Bivouac Kit
 - Tow bags-rescue ropes
 - Chart, Map and compass
 - Emergency Group Shelter
 - Spare paddles, food & water
 - Water purification
 - Bio breaks and Sanitation equipment

Debrief and discuss day two preparations, boats, gear etc.

End day one, or at IT discretion an evening session, homework etc.

Schedule - Day Two

The Put-in Talk/ Pre launch briefing (40 minutes)

- Discuss weather and water temperature for the day
- Review trip plan for day including known hazards and plans to deal with them
- Review paddling partner and buddy boat assignments
- Discuss responsibility of buddy boats, lead boat and sweep boats and group organization on water
- Check PFD's for size and fit
- Check each boat for safety equipment, extra paddle and that gear is well secured.
- Review auditory and visual signals
- Discuss what to do in the event of a capsized, the responsibility of the individual and the group.

Personal and Group Safety Equipment

(1hour) discussion

- Effective communication is key.
- Risk management issues. Warn and inform.
 - PFD-right type and size
 - Appropriate paddling clothes plus spares
 - Dry bags, water proof containers and packs
 - Appropriate foot wear
 - Night lighting and signal devices as appropriate and required by law.
 - Bivy bag, ground cloth, etc.

- Discuss lost paddler procedures/scenario.
- Make sure wet exit procedure is clear and demonstrate/test as appropriate.
- Review etiquette and outdoor ethics

Review of Basic Paddling Skills (2hours as needed) on water

- Strokes
 - Forward
 - Back
 - Draws
 - Sculling
 - Sweeps
 - Braces
 - Rudder
- Maneuvers
 - Forward: boat moves in a straight line
 - Reverse: boat moves in a straight
 - Edging: boat turns by edge control
 - Stopping in 3 to 4 strokes
 - Look back brace underway
 - Brace turns
 - Sideslips, draws on the move

Water Reading and Route Determination (30minutes)

- Beaufort Scale
- River Mouths and headlands
- Use of eddies
- Weather awareness

Rescue (2 hours)

- Principles of Rescue discussion and on water demo/practice.
- Priorities – People or boats/gear depending on conditions. Don't lose boat.
- Responsibilities of Victim
- Responsibilities of Rescuers
- Responsibilities of the Group
- Self defense; bracing, rolling, wet exits, swimming with boat and paddle

Rescues on-water (2 hours)

- Back Deck and bow hug
- Towing with rigs
- Towing Injured paddler
- Contact Tows
- T Rescues
- Paddle Float
- Re enter and roll w/float

- Sling assisted
- Scoop
- Hand of God
- Eskimo, bow and paddle

Boat and recovery and repair

- Bulldozing, herding, cowtails
- Rafting up for repairs on water

Conclusion & Wrap Up

- Safety importance & trip leader responsibility
- Avoid and manage risks as much as possible
- Incident reporting
- Additional training in advanced first aid, maintaining CPR certification
- Take ACA/BCU courses
- Making things fun with games etc.
- Administer written exam
- Evaluation of course by participants
- Assessments of participants by Instructor

References

- *Sea Kayaking Safety and Rescue* by John Lull
- *Safety and Rescue* by Alderson and Pardy
- *Performance Sea Kayaking* by Performance Video

Feb, 2006, Mike Aronoff ITE, Chair CKC

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