Whitewater Rescue Technician - Professional (WRT-PRO)

The Whitewater Rescue Technician - Professional course is designed for professional river users, eg raft guides, safety kayakers, with existing river experience, to provide you with the necessary skills to perform rescues in whitewater river situations.

Contact hours

18 hours (3 days)

Prerequisites

Confident swimmer, with experience of water-based activities (rafting, canoeing, kayaking etc).
Minimum age: 18.

Qualification valid for

3 years

Taught by

- Whitewater Rescue Technician Instructor (WRTI)
- Whitewater Rescue Technician Advanced Instructor (WRTAI)

Assessment

The assessed elements of this course are:

- Whitewater swimming techniques
- Throwbags
- Boat rescue skills
- Knots and anchor systems
- Tensioning systems and mechanical advantage

Whitewater Rescue Technician - Professional (WRT-PRO) skill sheet contents

	Theory
1.	Rescue 3 philosophy
2.	Training standards
3.	Best practice guidelines
4.	River hydrology and hazards
5.	Personal equipment
6.	Technical and group equipment
7.	River running considerations
8.	Assessing risk
9.	Managing an incident
10.	Medical considerations
11.	Night/poor visibility considerations
12.	Introduction to searching rivers
13.	Communications
	Practical
14.	Whitewater swimming techniques
15.	Strainer swim
16.	Conditional rescues – throwbags
17.	Shallow water techniques
18.	Foot/body entrapments
19.	Knots and anchor systems
20.	Tensioning systems and mechanical advantage
21.	Tethered rescues
22.	Line crossing methods
23.	Tensioned diagonals/zip lines
24.	Flips, rights and crew/client recovery (optional)
25.	Boat pins and wraps
26.	Tethered boat techniques
27.	Victim/casualty management
28.	Belay systems
29.	Boat on a highline (optional)
30.	Scenarios

Whitewater Rescue Technician - Professional (WRT-PRO) learning outcomes and key teaching points

	Skill sheet element		Learning outcome
1	Rescue 3 philosophy	1.1	Recall the steps required in order to develop judgement
		1.2	Explain the order of priorities at a water rescue scene
		1.3	Explain the benefits of applying a simple rescue solution
		1.4	Explain considerations for self-limitations
2	Training standards	2.1	Recognise the different training courses within the Rescue 3 scheme
		2.2	Recall the remit and role of an individual trained to this level
3	Best practice guidelines	3.1	Apply the Rescue 3 Best Practice Guidelines to produce safer practice in a whitewater environment
4	River hydrology and hazards	4.1	Identify the effect that volume, gradient and obstacles have on water
		4.2	Identify river features
		4.3	Describe the impact that water features would have on individuals in the river
		4.4	Identify water hazards in a river environment, and suitable control measures
		4.5	Identify hazards and control measures for both victim/casualty and rescuer in a hydraulic/weir, and how they can differ from a natural hole/stopper
		4.6	Identify weir rescue options
		4.7	Identify river bank hazards and their control measures.
5	Personal equipment	5.1	Identify personal protective equipment (PPE) for operating and performing rescues in a river environment
		5.2	Select appropriate equipment for performing rescues in a river environment, perform pre-use checks, and donning
		5.3	Select appropriate clothing for use in a whitewater river environment, based on weather conditions and geographical location.
		5.4	Recall post-use care and inspection procedures for personal equipment

	Skill sheet element		Learning outcome
6	Technical and group equipment	6.1	Identify technical and group equipment for operating in and performing rescues in water
		6.2	Recall post-use care and inspection procedures for technical and group equipment
7	River running considerations	7.1	Recall techniques to river-run safely and/or protect a group on the river
8	Assessing risk	8.1	Perform a dynamic risk assessment of a rescue site
9	Managing an incident	9.1	Explain the phases of a successful rescue
		9.2	List rescue options
		9.3	Explain the importance of undertaking a simple rescue option.
		9.4	Explain the difference between true and conditional rescues
		9.5	Select an appropriate plan of action for a given incident
		9.6	Based on hazard recognition, apply appropriate control measures to protect your team, clients and other river users at a rescue scene
		9.7	Apply different roles that may be allocated at a water incident
		9.8	Apply a simple structure and centralised command, in order to brief and manage a team
		9.9	Identify how and when to contact the emergency services in the event of an incident
10	Medical considerations	10.1	Identify signs/symptoms and treatment for common medical issues found in a water environment
		10.2	Identify individuals at risk for common medical issues found in a water environment, and control measures to minimize this
		10.3	Recall the importance of decontamination procedures
		10.4	Recall procedures for protecting the spine when trauma is suspected
		10.5	Identify bank hazards, and suitable control measures to prevent slips, trips and falls
11	Night/poor visibility considerations	11.1	Identify hazards associated with night/poor visibility operations, and suitable control measures

	Skill sheet element		Learning outcome
12	Introduction to searching rivers	12.1	Identify the roles in a river-based search
		12.2	Identify relevant information that should be passed on to a team leader/emergency services
		12.3	Explain the importance of establishing a point last seen, time last seen and search area
		12.4	Identify variables that affect the search area
		12.5	Identify appropriate search models
		12.6	State what tasks a team member would carry out during a river-based primary search
		12.7	State what tasks a team member would carry out during a river-based secondary search
		12.8	Recall considerations before a downstream boat search can be undertaken
13	Communications	13.1	Recognise hand signals that can be used on a river trip
		13.2	Recognise whistle signals that can be used in a water environment
		13.3	Identify other methods of communication in a water environment, and their limitations
14	Whitewater swimming techniques	14.1	Identify hazards and suitable control measures when entering and exiting a whitewater environment
		14.2	Demonstrate correct water entry to and exit from a whitewater environment
		14.3	Demonstrate the defensive swimming position in a whitewater environment
		14.4	Demonstrate the aggressive swimming position in a whitewater environment
		14.5	Transition between the defensive and aggressive swimming positions in a whitewater environment
		14.6	Adjust body angle relative to the current vector in a whitewater environment
		14.7	Apply swimming techniques, angle control and momentum to perform a variety of tasks

	Skill sheet element		Learning outcome
15	Strainer swim	15.1	Identify strainers and the hazards they pose to groups members in a the water
		15.2	Understand that strainers should be avoided
		15.3	Understand the consequences of going underneath a strainer
		15.4	Identify rescue options for a casualty in a strainer
		15.5	Using a strainer simulator, demonstrate and compare aggressive and defensive approaches to the simulator.
16	Conditional rescues – throwbags	16.1	Identify conditional rescue options and the limitations of conditional rescues
		16.2	Identify, check and prepare suitable equipment for performing a conditional rescue in an advanced/higher grade river environment
		16.3	Identify appropriate sites where conditional rescues can be performed in an advanced/higher grade river environment
		16.4	Demonstrate the correct method for receiving a throwbag in a river environment
		16.5	Perform a variety of conditional rescues in a river environment
		16.6	Identify methods of managing force directed on rescuer and victim/casualty during a reach rescue as water speed increases
17	Shallow water techniques	17.1	Identify the variables and hazards that will directly affect shallow water techniques
		17.2	Perform single and team-based shallow water techniques
		17.3	Explain how the addition of a casualty would affect shallow water techniques
18	Foot/body entrapments	18.1	Identify the hazards and consequences of foot and body entrapments, and control measures to reduce likelihood
		18.2	Identify extrication methods of an entrapped casualty
		18.3	Identify risks to the rescuers of an entrapped casualty
		18.4	Demonstrate use of stabilisation line and extrication methods from one and two banks
		18.5	Compare the merits and hazards of using hands-on techniques, when approaching from upstream and downstream

	Skill sheet element		Learning outcome
19	Knots and anchor systems	19.1	Be able to identify, tie and check appropriate knots for whitewater rescue
		19.2	Recall factors affecting knot choice for whitewater rescue applications
		19.3	Identify use of anchor systems in whitewater rescue
		19.4	Be able to select an appropriate single anchor point, and create an attachment point
		19.5	Tie load-sharing and load-distributing anchor systems
20	Tensioning systems and mechanical advantage	20.1	Identify the need for mechanical advantage systems within whitewater rescue
		20.2	Identify why external mechanical advantage systems are applied
		20.3	Build and check appropriate internal and external mechanical advantage systems for use within whitewater rescue
21	Tethered rescues	21.1	Identify the hazards and control measures associated with a tethered swim in a whitewater environment
		21.2	Set-up and demonstrate an in-water emergency release using the quick release harness on a buoyancy aid
		21.3	Identify how water speed and distance will affect timing of a tethered swim
		21.4	Demonstrate a true rescue using a tethered swim
		21.5	Demonstrate correct rope management when performing a tethered rescue
		21.6	Identify other uses of quick release harnesses for kayakers and canoeists, their hazards and control measures.
22	Line crossing methods	22.1	Identify the variables that would influence methods for crossing a line over a channel
		22.2	Identify appropriate methods of crossing a line over a channel
		22.3	Demonstrate a variety of methods of crossing a line over a channel

	Skill sheet element		Learning outcome
23	Tensioned diagonals/zip lines	23.1	Explain why it is important for a tensioned diagonal/zip line to be tensioned and at the correct angle to the current vector
		23.2	Identify advantages of a releasable tensioned diagonal/zip line
		23.3	Demonstrate appropriate use of a tensioned diagonal/zip line
		23.4	Demonstrate appropriate methods for joining ropes for use in a diagonal/zip line
24	Flips, rights and crew/ client recovery (optional)	24.1	Identify steps to minimise the likelihood of a flip/capsize occurring (optional)
		24.2	Recall options once a kayak/canoe capsizes (optional)
		24.3	Demonstrate a rescue of a kayak/canoe, paddler and paddle (optional)
		24.4	Recall options and priorities for a raft flip (optional)
		24.5	Perform a raft re-flip and recovery (optional)
25	Boat pins and wraps	25.1	Identify methods to minimise the likelihood of a wrapped or pinned boat
		25.2	Recall the priorities during a boat wrap/boat pin
		25.3	Recall importance of stabilising the scene
		25.4	Identify methods for evacuation of crew if applicable
		25.5	Recall options for unwrapping a raft
		25.6	Compare wraps and pins of kayaks/canoes and rafts
26	Tethered boat techniques	26.1	Compare the application and limitations of single-, 2- and 4-point tethered systems
		26.2	Relate river flow, intended use and catastrophic failure consequences to anchor selection and belay methods for tethered boats
		26.3	Use a tethered boat for transportation and mid-stream access

	Skill sheet element		Learning outcome
27	Victim/casualty management	27.1	Identify hazards and control measures associated with victim/ casualty management in a whitewater environment
		27.2	State the effects that panic and counter-panic can have on victims/casualties
		27.3	Identify priorities for managing casualties' common medical issues
		27.4	Demonstrate techniques for managing casualties' common medical issues, including airway
		27.5	Demonstrate use of improvised stretchers.
28	Belay systems	28.1	Demonstrate appropriate use and application of friction-based belay
		28.2	Identify considerations for choosing a belay
29	Boat on a highline (optional)	29.1	Identify the limitations of hand-controlled tethers for boats (optional)
		29.2	Construct tethered boat solutions that increase the system's ability to deal with force and increase redundancy (optional)
		29.3	Build and operate a boat on a highline (optional)
		29.4	Compare boat on a highline reeving options and variables that would affect their application (optional)
30	Scenarios	30.1	Complete river rescue scenario(s)