



WATER SAFETY AND RESCUE TRAINING COURSES



WHITewater PROFESSIONALS

About Rescue 3 Europe

Rescue 3 Europe develops state of the art technical rescue courses, providing internationally recognised accreditation for organisations and individuals operating in high risk environments.

As an international accrediting body, Rescue 3 provide up to date best practice guidance that is constantly evolving in line with new research and testing. All changes and developments of Rescue 3 courses go through a process of peer review and oversight by a steering committee made up of industry experts from all over the world.

Rescue 3 training providers deliver courses worldwide, in multiple disciplines, including: rope, water, boat, ice and confined space rescue. Our large suite of courses have been adopted by mountain rescue teams, wind turbine operators, fire and rescue services, ambulance teams, utilities providers, and military personnel.

Within each discipline, Rescue 3 accredited courses cover every level of operations, whether this is at an awareness level, avoiding risks and applying simple safe systems of work; or at more advanced levels where practitioners must acquire high levels of personal skills and understanding to access and navigate difficult environments.

For over four decades Rescue 3 has provided the standard for technical rescue training, offering guidance and support for maintaining best practice.





The course learning outcomes are provided as pre- and post-course reference for people involved in the delivery of Rescue 3 courses (eg Rescue 3 training providers, instructors and students). They are not to be used for any other purpose without the express written permission of Rescue 3 Europe.

www.rescue3europe.com

info@rescue3europe.com

+44 (0) 1978 869069



WHITEWATER PROFESSIONALS COURSES

Whitewater Rescue Technician - Foundation (WRT-F).....	5
Whitewater Rescue Technician - Recreational (WRT-REC)	13
Whitewater Rescue Technician - Professional (WRT-PRO).....	27
Whitewater Rescue Technician Advanced (WRTA).....	45
Water Safety for Expedition Leaders (WSEL)	55
Wild Swimming Safety (WSS)	67
Wild Swimming Safety - Moving Water (WSSM)	75

Whitewater Rescue Technician - Foundation (WRT-F)

Course overview and target audience

The Whitewater Rescue Technician – Foundation course is designed for whitewater users such as kayakers, canoeists, packrafters, stand up paddle boarders with little or no experience, and aims to teach basic safety and rescue skills required in a moderate whitewater environment, and covers the foundation skills used in all our water safety and rescue courses.

Contact hours 6 hours (1 day)	Prerequisites Must be a confident swimmer. Minimum age: 18.
Qualification valid for 3 years	Accredited by Rescue 3 Europe

Taught by

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

Assessment

The assessed elements of this course are:

- Whitewater swimming techniques
- Shallow water techniques
- Throwbags



Whitewater Rescue Technician - Foundation (WRT-F) skill sheet contents

Theory
1. Rescue 3 philosophy
2. Training standards
3. Best practice guidelines
4. River hydrology and hazards
5. Personal equipment
6. River running considerations
7. Assessing risk
8. Communications
9. Strainer considerations
10. Boat wrap/pin considerations
Practical
11. Whitewater swimming techniques
12. Conditional rescues – throwbags
13. Introduction to shallow water techniques
14. Foot/body entrapments
15. Flips/rights and self-rescue



Whitewater Rescue Technician - Foundation (WRT-F) learning outcomes and key teaching points

	Skill sheet element		Learning outcome	Key teaching points
1	Rescue 3 philosophy	1.1	Recall the steps required in order to develop judgement.	Training. Practice. Experience. Judgement
		1.2	Explain the order of priorities at a water rescue scene	Self > team > victim
		1.3	Explain the benefits of applying a simple rescue solution	Quick set-up, ability level of team members
		1.4	Explain the considerations for self-limitations	Everyone has strengths and weaknesses; know what you can do well and what others can do well
2	Training standards	2.1	Recognise the different training courses within the Rescue 3 scheme	Recreational and emergency service rescue courses. WRT vs SRT
		2.2	Recall the remit and role of an individual trained to this level	Whitewater Rescue Technician – Foundation (WRT-F) remit and role: for whitewater users such as kayakers, canoeists, packrafters, stand up paddle boarders with little or no experience, and aims to teach basic safety and rescue skills required in a moderate whitewater environment, and covers the foundation skills used in all our water safety and rescue courses
		2.3	Recall the benefits of an externally accredited training course, such as this one	Inform students about widely trusted and independent organisation producing courses based on best practice, with input from international experts in their fields. Externally accredited courses are backed up with course standards and learning outcomes, that ensure students and organisations receive appropriate training for the environments in which they'll be working, and are able to evidence that training for the protection of all concerned
3	Best practice guidelines	3.1	Apply the Rescue 3 Best Practice Guidelines to produce safer practice in a whitewater environment	Best practice guidelines (formerly known as the 15 Absolutes)

WRT-F



	Skill sheet element		Learning outcome	Key teaching points
4	River hydrology and hazards	4.1	Identify the effect that volume, gradient and obstacles have on water	Volume - increase in energy. Gradient - increase in speed. Obstacles - creation of retentive water features, impact risk, siphon/strainer risk
		4.2	Identify water features	Laminar flow, helical flow, current vector, eddies, upstream V, downstream V, undercuts, strainers, siphons, standing waves, hydraulics, weirs
		4.3	Describe the impact that water features would have on individuals in water	Force of water, river grading system, entrapments
		4.4	Identify water hazards in a river environment, and suitable control measures	Depth, temperature, weather, volume, gradient, undercuts, strainers, siphons, hydraulics, weirs/low head dams, bridge pillars, entrapments
		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	Retentive nature, closed ends, anti-scour lips, in-water debris, entrapment risks
		4.6	Identify weir rescue options	Weir rescue techniques - throwbags, reach tools, tethered boats, tethered buoyant objects, helicopter
		4.7	Identify river bank hazards and their control measures.	Slippery ground, steep ground. Appropriate PPE and footwear. Use of lines as hand rails



	Skill sheet element		Learning outcome	Key teaching points
5	Personal equipment	5.1	Identify personal protective equipment (PPE) for operating and performing rescues in a river environment	Helmet, buoyancy aid with quick release chest harness, drysuit, wetsuit, footwear, insulation, knives, throwbags, gloves, waist belts, cowstails, lighting, whistle, eye protection/sunglasses, spray decks
		5.2	Select appropriate PPE for operating and performing rescues in a river environment, perform pre-use checks, and donning	CE standards, PPE inspection, buddy checks
		5.3	Select appropriate clothing for use in a whitewater river environment, based on weather conditions and geographical location.	Drysuits, wetsuits, thermal underlayer
		5.4	Recall post-use care and inspection procedures for personal equipment	PPE inspection, drying, storage and care
6	River running considerations	6.1	Recall techniques to river-run safely and/or protect a group on the river.	Use of CLAP (Communication, Line of sight, Avoidance, Position of maximum usefulness) whilst river-running or protecting a group on the river
7	Assessing risk	7.1	Perform a dynamic risk assessment of a rescue site	Identify the hazards, decide who might be harmed and how, evaluate the risks and decide on precautions, record your findings and implement them, review your assessment and update if necessary. Dynamic risk assessment is an ongoing process - it is important to continually reassess as the situation develops, eg changing water levels
8	Communications	8.1	Recognise hand signals that can be used in a water environment	Ok, help, stop, direction, medical assistance
		8.2	Recognise whistle signals that can be used in a water environment	Stop, upstream, downstream, emergency
		8.3	Identify other methods of communication in a water environment, and their limitations	Radios, mobile telephones, battery life, water resistance, signal strength



	Skill sheet element		Learning outcome	Key teaching points
9	Strainer considerations	9.1	Understand the importance of avoiding strainers and not going underneath them	Natural and man-made strainers. Entrapment, injury. Force of water
10	Boat wrap/pin considerations	10.1	Recall methods to minimise the likelihood of a wrapped boat/craft	Training, practice, experience, judgment, river reading skills, weight distribution, site choice
		10.2	Recall simple options for unwrapping a boat/craft	Simple methods. Weight distribution. Current direction. Changing the shape of the boat. Vector pulls, anchors, angles, upstream spotters, downstream backup
		10.3	Compare wraps of kayaks, canoes, packrafts, SUPs	Friction, attachment points, possible post-incident damage
11	Whitewater swimming techniques	11.1	Identify hazards and suitable control measures when entering and exiting a whitewater environment	Steep banks, slippery surface, difficulty of access and egress, slips, trips and falls. Appropriate PPE/footwear, site assessment, site zoning, safety briefing
		11.2	Demonstrate correct water entry to and exit from a whitewater environment	Appropriate entry and exit point, depth, in-water physical hazards, flat (non-sub-surface) entry
		11.3	Demonstrate the defensive swimming position	When and why, body positioning, lateral movement, breaking out of the flow
		11.4	Demonstrate the aggressive swimming position	When and why, body positioning, lateral movement, breaking out of the flow
		11.5	Transition between the defensive and aggressive swimming positions	Rolling techniques, entrapment issues, increased risk of impact on in-water features
		11.6	Adjust body angle relative to the current vector	Ferry angles, methods of adjusting body angle
		11.7	Apply swimming techniques, angle control and momentum to perform a variety of tasks	Defensive swimming, aggressive swimming, transition from defensive to aggressive, ferry gliding, eddy line techniques, slalom course, breathing techniques, river-reading skills. Increasing and decreasing momentum



	Skill sheet element		Learning outcome	Key teaching points
12	Conditional rescues - throwbags	12.1	Identify conditional rescue options and the limitations of conditional rescues	Talk. Reach. Throw. Victim participation required
		12.2	Identify, check and prepare suitable equipment for performing a conditional rescue	Talk. Reach - pole, paddle, throwbag. Throw - buoyant object, eg life ring
		12.3	Identify appropriate sites where conditional rescues can be performed	River features, appropriate eddies, downstream backup, upstream spotter, in-water physical hazards
		12.4	Demonstrate the correct method for receiving a throwbag	Stay on back, make target/body as large as possible, keep line of sight with rescuer, listen to instructions. When being pulled in, don't wrap rope around body, rope over shoulder, stay on back when being recovered. Don't let go of rope until safely on bank
		12.5	Perform a variety of conditional rescues	Talk rescues. Reach rescue - reach pole, throwbag
		12.6	Identify methods of managing force directed on rescuer and victim as water speed increases	Rescuer/belayer moving downstream, paying out of line, appropriate site choice, appropriate eddies for recovery
13	Introduction to shallow water techniques	13.1	Identify the variables and hazards that will directly affect shallow water techniques	Water speed, depth, channel bed morphology, personnel, equipment
		13.2	Perform single and team-based shallow water techniques	Individual, line astern, wedge, use of wading pole/paddle
		13.3	Explain how the addition of a casualty would affect shallow water techniques	Appropriate team-based techniques, appropriate stretcher/transport method, protection of casualty from flow, downstream hazards



	Skill sheet element		Learning outcome	Key teaching points
14	Foot/body entrapments	14.1	Identify the hazards and consequences of foot and body entrapments, and control measures to reduce likelihood	River bed morphology, snag hazards, submersion, trauma. Defensive swimming position. Training
		14.2	Identify extrication methods of an entrapped casualty	Hands-on methods, wading, single bank access, twin bank access
		14.3	Identify risks to the rescuers of an entrapped casualty	Access difficulties, river bed morphology, snag hazards, river depth, upstream vs. downstream access, access to both banks, hands-on techniques, wading
		14.4	On dry land, demonstrate use of stabilisation line from one and two banks	Single and twin bank entrapment techniques, line crossing methods
15	Flips, rights and self-rescue	15.1	Identify steps to minimise the likelihood of a flip/capsize occurring	Experience, river reading skills, weight distribution, site choice
		15.2	Recall options once a kayak, canoe, packraft, SUP capsizes	Self-rescue, personal safety, recover swimmer first, recovery of equipment. Identification of downstream hazards to swimmer and rescuer. Paddle throws into eddies. Pushing or towing of boats. Rescuers not becoming part of the problem and adding another person to the problem



Whitewater Rescue Technician - Recreational (WRT-REC)

Course overview and target audience

The Whitewater Rescue Technician - Recreational course is designed for recreational paddlers with existing river experience, to provide you with the necessary skills to perform rescues in whitewater river situations.

Contact hours 12 hours (2 days)	Prerequisites Confident swimmer, with experience of water-based activities (rafting, canoeing, kayaking etc). Minimum age: 18.
Qualification valid for 3 years	Accredited by Rescue 3 Europe

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
- Knots and anchor systems
- Tensioning systems and mechanical advantage



Whitewater Rescue Technician - Recreational (WRT-REC) 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. Communications	
13. Strainer considerations	
Practical	
14. Whitewater swimming techniques	
15. Conditional rescues – throwbags	
16. Introduction to shallow water techniques	
17. Foot/body entrapments	
18. Introduction to knots and anchor systems	
19. Introduction to mechanical advantage	
20. Tethered rescues	
21. Line crossing methods	
22. Handheld diagonals/zip lines	
23. Simple boat wraps/pins	
24. Victim/casualty management	
25. Scenarios	



Whitewater Rescue Technician - Recreational (WRT-REC) learning outcomes and key teaching points

	Skill sheet element		Learning outcome	Key teaching points
1	Rescue 3 philosophy	1.1	Recall the steps required in order to develop judgement	Training. Practice. Experience. Judgement
		1.2	Explain the order of priorities at a water rescue scene	Self > team > victim
		1.3	Explain the benefits of applying a simple rescue solution	Quick set-up, ability level of team members
		1.4	Explain considerations for self-limitations	Everyone has strengths and weaknesses; know what you can do well and what others can do well
2	Training standards	2.1	Recognise the different training courses within the Rescue 3 scheme	Recreational and emergency service rescue courses. WRT vs SRT
		2.2	Recall the remit and role of an individual trained to this level	Whitewater Rescue Technician – Rec (WRT-REC) remit and role: Recreational paddlers who wish to have a rescue capability whilst paddling or in a whitewater environment with their peers, eg kayak club members, informal non-paying paddlers completing a river trip. Comparison with WRT-PRO. Elements of WRT-REC training take place in grade 2-3 whitewater
3	Best practice guidelines	3.1	Apply the Rescue 3 Best Practice Guidelines to produce safer practice in a whitewater environment	Best practice guidelines (formerly known as the 15 Absolutes)



	Skill sheet element		Learning outcome	Key teaching points
4	River hydrology and hazards	4.1	Identify the effect that volume, gradient and obstacles have on water	Volume - increase in energy. Gradient - increase in speed. Obstacles - creation of retentive water features, impact risk, siphon/strainer risk
		4.2	Identify river features	Laminar flow, helical flow, current vector, eddies, holes/ stoppers, waves, undercuts, strainers, siphons, standing waves, hydraulics, weirs/low head dams
		4.3	Describe the impact that water features would have on individuals in the river	Force of water, river grading system, entrapments
		4.4	Identify water hazards in a river environment, and suitable control measures	Depth, temperature, weather, volume, gradient, undercuts, strainers, siphons, hydraulics, weirs/low head dams, bridge pillars, entrapments
		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	Retentive nature, closed ends, anti-scour lips, in-water debris, entrapment risks
		4.6	Identify weir rescue options	Weir rescue techniques - throwbags, reach tools, tethered boats, tethered buoyant objects, helicopter
		4.7	Identify river bank hazards and their control measures.	Slippery ground, steep ground. Appropriate PPE and footwear. Use of lines as hand rails



	Skill sheet element		Learning outcome	Key teaching points
5	Personal equipment	5.1	Identify personal protective equipment (PPE) for operating and performing rescues in a river environment	Helmet, buoyancy aid with quick release chest harness, drysuit, wetsuit, footwear, insulation, knives, throwbags, gloves, waist belts, cowstails, lighting, whistle, eye protection/sunglasses, spray decks
		5.2	Select appropriate equipment for performing rescues in a river environment, perform pre-use checks, and donning	CE standards, PPE inspection
		5.3	Select appropriate clothing for use in a whitewater river environment, based on weather conditions and geographical location.	Drysuits, wetsuits, thermal underlayer
		5.4	Recall post-use care and inspection procedures for personal equipment	PPE inspection, drying, storage and care
6	Technical and group equipment	6.1	Identify technical and group equipment for river trips and performing rescues in water	Contents and transportation of group rescue kit. Karabiners, slings (closed loop), tapes (3-5m open), canyon lines, pulleys, Prusiks, natural rock pro/camming devices, pruning saws. Group shelter, first aid kits. Communication equipment – phones, satellite phones, radios etc
		6.2	Recall post-use care and inspection procedures for technical and group equipment	Equipment inspection, drying, storage, transportation
7	River running considerations	7.1	Recall techniques to river-run safely and/or protect a group on the river.	Use of CLAP (Communication, Line of sight, Avoidance, Position of maximum usefulness) whilst river-running or protecting a group on the river
8	Assessing risk	8.1	Perform a dynamic risk assessment of a rescue site	Identify the hazards, decide who might be harmed and how, evaluate the risks and decide on precautions, record your findings and implement them, review your assessment and update if necessary. Dynamic risk assessment is an ongoing process - it is important to continually reassess as the situation develops, eg changing water levels



	Skill sheet element		Learning outcome	Key teaching points
9	Managing an incident	9.1	Explain the phases of a successful rescue	LAST (Locate. Access. Stabilise. Transport)
		9.2	List rescue options	Talk, reach, row, throw, go, tow, helo. Not a hierarchy of risk
		9.3	Explain the importance of undertaking a simple rescue option.	Quick to set-up and effect a rescue. Ability of group. Consideration of simplest rescue option appropriate to the complexity of the rescue scenario
		9.4	Explain the difference between true and conditional rescues	Ability of victim/casualty to participate
		9.5	Select an appropriate plan of action for a given incident	Is it time critical? What is the water energy and consequence?
		9.6	Apply different roles that may be allocated at a water incident	Team leader, rescuer(s), evacuation, resources, rescuer, medic, communication. Downstream backup. Upstream spotters. The importance of clear leadership. Consider that roles may need to be reassigned in an evolving rescue
		9.7	Apply a simple structure and centralised command, in order to brief and manage a team	Designating roles. Ensuring two-way communication
		9.8	Identify how and when to contact the emergency services in the event of an incident	Emergency service contact details, 112 Europe-wide emergency number, rescue capability of relevant bodies, phone access, mobile signal, radios
10	Medical considerations	10.1	Identify signs/symptoms and treatment for common medical issues found in a water environment	Hypothermia, hyperthermia, drowning, infection eg Leptospirosis and hepatitis, trauma, cold water shock
		10.2	Identify individuals at risk for common medical issues found in a water environment, and control measures to minimize this	All group members. Control measures - PPE, training, decontamination, group welfare
		10.3	Recall the importance of decontamination procedures	On-river washing/ decontamination facilities
		10.4	Recall procedures for protecting the spine when trauma is suspected	History of incident, past medical history, spinal management
		10.5	Identify bank hazards, and suitable control measures to prevent slips, trips and falls	Rescue site risk assessment, appropriate footwear, site zoning, safety briefing



	Skill sheet element		Learning outcome	Key teaching points
11	Night/poor visibility considerations	11.1	Identify hazards associated with night/poor visibility on the river, and suitable control measures	Hazards: visibility and communication difficulties, weather and environmental concerns, keeping track of each other. Control measures: Lighting, increased use of audible communication, considerations for setting up camp an hour before dark eg on a multi-day river trip
12	Communications	12.1	Recognise hand signals that can be used on a river trip	Ok, help, stop, direction, medical assistance, eddy in, eddy out, other locally used signals
		12.2	Recognise whistle signals that can be used in a water environment	Stop, upstream, downstream, emergency
		12.3	Identify other methods of communication in a water environment, and their limitations	Radios, mobile telephones, satellite phones, satellite text machines, battery life, water resistance, signal strength. Communication considerations for if boats get separated
13	Strainer considerations	13.1	Understand the importance of avoiding strainers and not going underneath them	Natural and man-made strainers. Entrapment, injury. Force of water



	Skill sheet element		Learning outcome	Key teaching points
14	Whitewater swimming techniques	14.1	Identify hazards and suitable control measures when entering and exiting a whitewater environment	Steep banks, slippery surface, difficulty of access and egress, slips, trips and falls. Appropriate PPE/footwear, site assessment, site zoning, safety briefing
		14.2	Demonstrate correct water entry to and exit from a whitewater environment	Appropriate entry and exit point, depth, in-water physical hazards, flat (non-sub-surface) entry
		14.3	Demonstrate the defensive swimming position	When and why, body positioning, lateral movement, breaking out of the flow. Push off obstacles
		14.4	Demonstrate the aggressive swimming position	When and why, body positioning, lateral movement, breaking out of the flow
		14.5	Transition between the defensive and aggressive swimming positions	Rolling techniques, entrapment issues, increased risk of impact on in-water features
		14.6	Adjust body angle relative to the current vector	Ferry angles, methods of adjusting body angle
		14.7	Apply swimming techniques, angle control and momentum to perform a variety of tasks	Defensive swimming, aggressive swimming, transition from defensive to aggressive, ferry gliding, eddy line techniques, slalom course, breathing techniques, river-reading skills. Increasing and decreasing momentum



	Skill sheet element		Learning outcome	Key teaching points
15	Conditional rescues – throwbags	15.1	Identify conditional rescue options and the limitations of conditional rescues	Talk. Reach. Throw. Victim/casualty participation required. Static and mobile rescues. Hazards of rope in the water. Use of clean rope principle
		15.2	Identify, check and prepare suitable equipment for performing a conditional rescue	Talk. Reach - pole/stick, paddle, throwbag. Throw - buoyant object
		15.3	Identify appropriate sites where conditional rescues can be performed	River features, appropriate eddies, downstream backup, upstream spotter, in-water physical hazards
		15.4	Demonstrate the correct method for receiving a throwbag	Stay on back, make target/body as large as possible, keep line of sight with rescuer, listen to instructions. When being pulled in, don't wrap rope around body, rope over correct shoulder, stay on back when being recovered. Don't let go of rope until safely on bank
		15.5	Perform a variety of conditional rescues	Talk rescues. Reach rescue - reach tool, throwbag. Throwbag techniques including underhand, overhand and rethrows using split coils. Pendulum rescue considerations
		15.6	Identify methods of managing force directed on rescuer and victim/casualty during a reach rescue as water speed increases	Rescuer/belayer moving downstream, paying out of line, appropriate site choice, appropriate eddies for recovery
16	Introduction to shallow water techniques	16.1	Identify the variables and hazards that will directly affect shallow water techniques	Water speed, depth, channel bed morphology, personnel, equipment
		16.2	Perform single and team-based shallow water techniques	Individual, line astern, wedge, use of wading pole/paddle, tethered wade
		16.3	Explain how the addition of a casualty would affect shallow water techniques	Appropriate team-based techniques, appropriate improvised stretcher/transport method, protection of victim/casualty from flow, downstream hazards



	Skill sheet element		Learning outcome	Key teaching points
17	Foot/body entrapments	17.1	Identify the hazards and consequences of foot and body entrapments, and control measures to reduce likelihood	River bed morphology, snag hazards, submersion, trauma. Defensive swimming position. Training
		17.2	Identify extrication methods of an entrapped casualty	Hands-on methods, wading, single bank access, twin bank access
		17.3	Identify risks to the rescuers of an entrapped casualty	Access difficulties, river bed morphology, snag hazards, river depth, upstream vs. downstream access, access to both banks, hands-on techniques, wading vs access from bank, timescales involved in performing a rescue
		17.4	Demonstrate use of stabilisation line and extrication methods from one and two banks	Dry land single and twin bank entrapment techniques
		17.5	Compare the merits and hazards of using hands-on techniques, when approaching from upstream and downstream	Speed of access, lack of need for rope management, ability to create an eddy. Hazards - entrapment risk, number of rescuers needed
18	Introduction to knots and anchor systems	18.1	Be able to identify, tie and check appropriate knots for whitewater rescue	Eg Overhand. Figure of 8. Figure of 8 on a bight. No knot (tensionless hitch). Tape /water knot. 3-wrap Prusik. Appropriate dressing of knot
		18.2	Recall factors affecting knot choice for whitewater rescue applications	Ability to release under load. Ease of tying. Appropriate for task
		18.3	Identify use of basic anchor systems in whitewater rescue	Diagonals/zip lines. Wrapped boats. Unquestionably sound (bombproof) anchor
		18.4	Be able to select an appropriate single anchor point, and create an attachment point	Use of open and closed slings. Basket hitch. Unquestionably sound (bombproof) anchor
		18.5	Tie load-sharing and load-distributing anchor systems	Use of slings and ropes to create multi-point load-sharing and load-distributing anchors. Boatman's anchor. Differences between load-sharing and load-distributing anchors



	Skill sheet element		Learning outcome	Key teaching points
19	Introduction to mechanical advantage	19.1	Identify the need for mechanical advantage systems within whitewater rescue	Tensioned diagonals, boat and equipment unwrapping
		19.2	Identify why external mechanical advantage systems are applied	Ability to use and move external mechanical advantage system to other areas of the rescue scene, equipment shortage
		19.3	Build and check simple mechanical advantage systems for use within whitewater rescue	Simple internal 2:1, 3:1 systems that can be reset and have progress capture. Correct and safe use by personnel. Line failure considerations whilst under tension
20	Tethered rescues	20.1	Identify the hazards and control measures associated with a tethered swim in a whitewater environment	In-water debris, bank access, rope management, victim/casualty behaviour, use of buoyant aids, team backup
		20.2	Set-up and demonstrate an in-water emergency release using the quick release harness on a buoyancy aid	Attach a floating line to quick release harness with V- or Y-lower. Demonstrate in- water release
		20.3	Identify how water speed and distance will affect timing of a tethered swim	Site choice, timing of water entry, forces acting on the belayer, water speed
		20.4	Demonstrate a true rescue using a tethered swim	In-water victim/casualty. Demonstrate long swim to victim/casualty in low grade water. Wade then swim. Demonstrate different water entry - flat water entry, short swim, with close recovery eddy. Clean line principle
		20.5	Demonstrate correct rope management when performing a tethered rescue	Rope management for rescuer - Rope management for belayer - allow for rescuer's dynamic water entry, prevent drag whilst swimming, prevent entanglement with rescuer, recovery into designated eddy. Clean line principle
		20.6	Identify other uses of quick release harnesses for kayakers and canoeists, their hazards and control measures.	Entrapments and pins. Towing boats and equipment



	Skill sheet element		Learning outcome	Key teaching points
21	Line crossing methods	21.1	Identify the variables that would influence methods for crossing a line over a channel	Span, weather conditions, overhead obstructions, availability of bridge, water conditions, equipment, personnel, in-channel hazards
		21.2	Identify appropriate methods of crossing a line over a channel	Walk (eg bridge). Throw/launch. Shallow water techniques. Tethered swim. Kayak/other craft
		21.3	Demonstrate a variety of methods of crossing a line over a channel	Some/all of walk, throw/launch, shallow water techniques, tethered swim, kayak/other craft
22	Handheld diagonals/zip lines	22.1	Explain why it is important for a handheld diagonal/zip line to be hand-tight and at the correct angle to the current vector	Correct angle/handheld tension to ensure object or person on line isn't held mid-stream
		22.2	Identify why the downstream end of a diagonal/zip line must be releasable	If person or object becomes held mid-stream, releasing downstream side allows pendulum into bank
		22.3	Demonstrate appropriate use of a diagonal/zip line	Anchors, knots. Use of body belay. Correct angle. Releasable, sling recovery system if applicable. Distance limitations. Advantages of keeping rope out of water
		22.4	Demonstrate appropriate methods for joining ropes for use in a diagonal/zip line	Use of overhand knot and HMS karabiner



	Skill sheet element		Learning outcome	Key teaching points
23	Simple boat wraps/pins	23.1	Identify methods to minimise the likelihood of a wrapped boat	Training, practice, experience, judgement. River-reading skills, weight distribution, site choice
		23.2	Recall the priorities during a boat wrap	Self > team > victim. Other river users
		23.3	Recall importance of stabilising the scene	Head count, all crew accounted for with heads up. Rescue options for head down victims
		23.4	Identify methods for evacuation of crew if applicable	True and conditional options. Throwbags, zip lines, other boats
		23.5	Recall options for unwrapping a raft	Simple methods. Weight distribution. Current direction. Changing the shape of the boat. Vector pulls, anchors, angles, mechanical advantage. Upstream spotters, downstream backup. Considerations for catastrophic failure of any tensioned lines
		23.6	Compare wraps of kayaks/canoes and rafts	Friction, attachment points, possible post-incident damage. Crew or individual rescue. Access from bank
24	Victim/casualty management	24.1	Identify hazards and control measures associated with victim/casualty management in a whitewater environment	Weather, water temperature, water speed, river access, bank conditions, in-water features, panicking casualty
		24.2	State the effects that panic and counter-panic can have on victims/casualties	Panic: Eg stressed flailing of arms making rescue difficult. Counter-panic: Casualty/victim may give up hope and not participate in own rescue
		24.3	Identify priorities for managing casualties' common medical issues	Airway, breathing, circulation (ABC), spinal management, trauma injuries
		24.4	Demonstrate techniques for managing casualties' common medical issues, including airway	Airway, breathing, circulation (ABC)
		24.5	Demonstrate use of improvised stretchers.	Eg paddles, rope, group shelter/tarp. Considerations for steep, slippery banks. Access to casualty and egress for team and casualty
25	Scenarios	25.1	Complete river rescue scenario(s)	Examples include: Group river crossing using diagonal/zip line. Entrapment scenario





Whitewater Rescue Technician - Professional (WRT-PRO)

Course overview and target audience

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	Accredited by Rescue 3 Europe

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
- 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	Key teaching points
1	Rescue 3 philosophy	1.1	Recall the steps required in order to develop judgement	Training. Practice. Experience. Judgement
		1.2	Explain the order of priorities at a water rescue scene	Self > team > victim
		1.3	Explain the benefits of applying a simple rescue solution	Quick set-up, ability level of team members
		1.4	Explain considerations for self-limitations	Everyone has strengths and weaknesses; know what you can do well and what others can do well
2	Training standards	2.1	Recognise the different training courses within the Rescue 3 scheme	Recreational and emergency service rescue courses. WRT vs SRT
		2.2	Recall the remit and role of an individual trained to this level	Whitewater Rescue Technician – Pro (WRT-PRO) remit and role: Professional river users who require a rescue capability in a whitewater environment, eg raft guides, safety kayakers. Comparison with WRT-REC. Elements of WRT-PRO training take place in grade 3-4 whitewater
3	Best practice guidelines	3.1	Apply the Rescue 3 Best Practice Guidelines to produce safer practice in a whitewater environment	Best practice guidelines (formerly known as the 15 Absolutes)

WRT-PRO



	Skill sheet element		Learning outcome	Key teaching points
4	River hydrology and hazards	4.1	Identify the effect that volume, gradient and obstacles have on water	Volume - increase in energy. Gradient - increase in speed. Obstacles - creation of retentive water features, impact risk, siphon/strainer risk
		4.2	Identify river features	Laminar flow, helical flow, current vector, eddies, holes/stoppers, waves, undercuts, strainers, siphons, standing waves, hydraulics, weirs/low head dams
		4.3	Describe the impact that water features would have on individuals in the river	Force of water, river grading system, entrapments
		4.4	Identify water hazards in a river environment, and suitable control measures	Depth, temperature, weather, volume, gradient, undercuts, strainers, siphons, hydraulics, weirs/low head dams, bridge pillars, entrapments
		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	Retentive nature, closed ends, anti-scour lips, in-water debris, entrapment risks
		4.6	Identify weir rescue options	Weir rescue techniques - throwbags, reach tools, tethered boats, boat on a highline, tethered buoyant objects, helicopter
		4.7	Identify river bank hazards and their control measures.	Slippery ground, steep ground. Appropriate PPE and footwear. Use of lines as hand rails



	Skill sheet element		Learning outcome	Key teaching points
5	Personal equipment	5.1	Identify personal protective equipment (PPE) for operating and performing rescues in a river environment	Helmet, buoyancy aid with quick release chest harness, drysuit, wetsuit, footwear, insulation, knives, throwbags, gloves, waist belts, cowstails, lighting, whistle, eye protection/sunglasses, spray decks
		5.2	Select appropriate equipment for performing rescues in a river environment, perform pre-use checks, and donning	CE standards, PPE inspection
		5.3	Select appropriate clothing for use in a whitewater river environment, based on weather conditions and geographical location.	Drysuits, wetsuits, thermal underlayer
		5.4	Recall post-use care and inspection procedures for personal equipment	PPE inspection, drying, storage and care
6	Technical and group equipment	6.1	Identify technical and group equipment for operating in and performing rescues in water	Contents and transportation of rescue kits. Karabiners, slings (closed loop), tapes (3-5m open), canyon lines, pulleys, Prusiks, natural rock pro/camming devices, pruning saws. Group shelter, first aid kits, spare PPE. Communication equipment – phones, satellite phones, radios etc
		6.2	Recall post-use care and inspection procedures for technical and group equipment	Equipment inspection, drying, storage, transportation
7	River running considerations	7.1	Recall techniques to river-run safely and/or protect a group on the river	Use of CLAP (Communication, Line of sight, Avoidance, Position of maximum usefulness) whilst river-running or protecting a group on the river
8	Assessing risk	8.1	Perform a dynamic risk assessment of a rescue site	Identify the hazards, decide who might be harmed and how, evaluate the risks and decide on precautions, record your findings and implement them, review your assessment and update if necessary. Dynamic risk assessment is an ongoing process - it is important to continually reassess as the situation develops, eg changing water levels



	Skill sheet element		Learning outcome	Key teaching points
9	Managing an incident	9.1	Explain the phases of a successful rescue	LAST (Locate. Access. Stabilise. Transport)
		9.2	List rescue options	Talk, reach, row, throw, go, tow, helo. Not a hierarchy of risk
		9.3	Explain the importance of undertaking a simple rescue option.	Quick to set-up and effect a rescue. Ability of group. Consideration of simplest rescue option appropriate to the complexity of the rescue scenario
		9.4	Explain the difference between true and conditional rescues	Ability of victim/casualty to participate
		9.5	Select an appropriate plan of action for a given incident	Is it time critical? What is the water energy and consequence?
		9.6	Based on hazard recognition, apply appropriate control measures to protect your team, clients and other river users at a rescue scene	Site zoning, chain of command, team roles
		9.7	Apply different roles that may be allocated at a water incident	Team leader, rescuer(s), evacuation, resources, medic, communication. Downstream backup. Upstream spotters. The importance of clear leadership. Consider that roles may need to be reassigned in an evolving rescue
		9.8	Apply a simple structure and centralised command, in order to brief and manage a team	Designating roles. Ensuring two-way communication
		9.9	Identify how and when to contact the emergency services in the event of an incident	Emergency service contact details, 112 Europe-wide emergency number; rescue capability of relevant bodies, phone access, mobile signal, radios



	Skill sheet element		Learning outcome	Key teaching points
10	Medical considerations	10.1	Identify signs/symptoms and treatment for common medical issues found in a water environment	Hypothermia, hyperthermia, drowning, infection eg Leptospirosis and hepatitis, trauma, cold water shock. Considerations of effects of stress and adrenaline whilst performing a medical assessment of a casualty
		10.2	Identify individuals at risk for common medical issues found in a water environment, and control measures to minimize this	Clients, river professionals/ guides. Control measures - PPE, training, decontamination, group welfare
		10.3	Recall the importance of decontamination procedures	On-river washing/ decontamination facilities
		10.4	Recall procedures for protecting the spine when trauma is suspected	History of incident, past medical history, spinal management
		10.5	Identify bank hazards, and suitable control measures to prevent slips, trips and falls	Rescue site risk assessment, appropriate footwear, site zoning, safety briefing
11	Night/poor visibility considerations	11.1	Identify hazards associated with night/poor visibility operations, and suitable control measures	Hazards: visibility and communication difficulties, weather and environmental concerns, keeping track of each other. Control measures: Lighting, head torches, glowsticks, more powerful handheld torches. Increased use of audible communication. Considerations for setting up camp an hour before dark eg on a multi-day river trip



	Skill sheet element		Learning outcome	Key teaching points
12	Introduction to searching rivers	12.1	Identify the roles in a river-based search	Identifying hotspots, downstream backup, upstream spotter, team leader. Primary and secondary search
		12.2	Identify relevant information that should be passed on to a team leader/emergency services	Identification of missing person - name, physical description, clothing, PPE worn, point last seen, time last seen, relevant site-specific information, contact details, next of kin. Considerations for description creating incorrect mental model, and being counter-productive to search team
		12.3	Explain the importance of establishing a point last seen, time last seen and search area	Missing persons data informing search radius, and hotspots
		12.4	Identify variables that affect the search area	Topography, weather, water levels, water speed, PPE worn, time last seen
		12.5	Identify appropriate search models	Koester's bike wheel analogy - axle, hub, spokes, rim, reflectors
		12.6	State what tasks a team member would carry out during a river-based primary search	Reconnaissance including identifying hazards, fast moving between hotspots, identifying locations for secondary search. Reporting
		12.7	State what tasks a team member would carry out during a river-based secondary search	Thorough searching of identified hotspots. Considerations for contacting emergency services
		12.8	Recall considerations before a downstream boat search can be undertaken	Time of day, experience of boaters, communication options, grade of river, suitable backup
13	Communications	13.1	Recognise hand signals that can be used on a river trip	Ok, help, stop, direction, medical assistance, eddy in, eddy out, other locally used signals
		13.2	Recognise whistle signals that can be used in a water environment	Stop, upstream, downstream, emergency
		13.3	Identify other methods of communication in a water environment, and their limitations	Radios, mobile telephones, satellite phones, satellite text machines, battery life, water resistance, signal strength. Communication considerations for if boats get separated



	Skill sheet element		Learning outcome	Key teaching points
14	Whitewater swimming techniques	14.1	Identify hazards and suitable control measures when entering and exiting a whitewater environment	Steep banks, slippery surface, difficulty of access and egress, slips, trips and falls. Appropriate PPE/footwear, site assessment, site zoning, safety briefing
		14.2	Demonstrate correct water entry to and exit from a whitewater environment	Appropriate entry and exit point, depth, in-water physical hazards, flat (non-sub-surface) entry
		14.3	Demonstrate the defensive swimming position in a whitewater environment	When and why, body positioning, lateral movement, breaking out of the flow. Push off obstacles
		14.4	Demonstrate the aggressive swimming position in a whitewater environment	When and why, body positioning, lateral movement, breaking out of the flow
		14.5	Transition between the defensive and aggressive swimming positions in a whitewater environment	Rolling techniques, entrapment issues, increased risk of impact on in-water features
		14.6	Adjust body angle relative to the current vector in a whitewater environment	Ferry angles, methods of adjusting body angle
		14.7	Apply swimming techniques, angle control and momentum to perform a variety of tasks	Defensive swimming, aggressive swimming, transition from defensive to aggressive, ferry gliding, eddy line techniques, slalom course, breathing techniques, river-reading skills. Increasing and decreasing momentum. Progression of swimming level above WRT-Rec level. WRT-Pro to choose appropriate techniques for water conditions without direction



	Skill sheet element		Learning outcome	Key teaching points
15	Strainer swim	15.1	Identify strainers and the hazards they pose to groups members in a the water	Entrapment, injury
		15.2	Understand that strainers should be avoided	Strainers should be avoided
		15.3	Understand the consequences of going underneath a strainer	Subsurface hazards are unknown: blockages and entrapments are highly likely
		15.4	Identify rescue options for a casualty in a strainer	Considerations based on training of rescuers. Eg team wade, tethered boat, V-lower
		15.5	Using a strainer simulator, demonstrate and compare aggressive and defensive approaches to the simulator.	Defensive: can fend off with feet and work along to the end. More potential to be swept underneath the strainer, but greater protection from impacts. Protection of face on impact with the strainer. Aggressive: speed of approach and timing. More likely to get up and over the strainer, but also more open to injury



	Skill sheet element		Learning outcome	Key teaching points
16	Conditional rescues – throwbags	16.1	Identify conditional rescue options and the limitations of conditional rescues	Talk. Reach. Throw. Victim/casualty participation required. Static and mobile rescues. Hazards of rope in the water. Use of clean rope principle
		16.2	Identify, check and prepare suitable equipment for performing a conditional rescue in an advanced/higher grade river environment	Talk. Reach - pole/stick, paddle, throwbag. Throw - buoyant object.
		16.3	Identify appropriate sites where conditional rescues can be performed in an advanced/higher grade river environment	River features, appropriate eddies, downstream backup, upstream spotter, in-water physical hazards
		16.4	Demonstrate the correct method for receiving a throwbag in a river environment	Stay on back, make target/body as large as possible, keep line of sight with rescuer, listen to instructions. When being pulled in, don't wrap rope around body, rope over correct shoulder, stay on back when being recovered. Don't let go of rope until safely on bank
		16.5	Perform a variety of conditional rescues in a river environment	Talk rescues. Reach rescue - reach tool, throwbag. Throwbag techniques including underhand, overhand and rethrows using split coils. Pendulum rescue considerations
		16.6	Identify methods of managing force directed on rescuer and victim/casualty during a reach rescue as water speed increases	Rescuer/belayer moving downstream, paying out of line, appropriate site choice, appropriate eddies for recovery
17	Shallow water techniques	17.1	Identify the variables and hazards that will directly affect shallow water techniques	Water speed, depth, channel bed morphology, personnel, equipment
		17.2	Perform single and team-based shallow water techniques	Individual, line astern, wedge, use of wading pole/paddle, tethered wade
		17.3	Explain how the addition of a casualty would affect shallow water techniques	Appropriate team-based techniques, appropriate improvised stretcher/transport method, protection of victim/casualty from flow, downstream hazards



	Skill sheet element		Learning outcome	Key teaching points
18	Foot/body entrapments	18.1	Identify the hazards and consequences of foot and body entrapments, and control measures to reduce likelihood	River bed morphology, snag hazards, submersion, trauma. Defensive swimming position. Training
		18.2	Identify extrication methods of an entrapped casualty	Hands-on methods, wading, single bank access, twin bank access
		18.3	Identify risks to the rescuers of an entrapped casualty	Access difficulties, river bed morphology, snag hazards, river depth, upstream vs. downstream access, access to both banks, hands-on techniques, wading vs access from bank, timescales involved in performing a rescue
		18.4	Demonstrate use of stabilisation line and extrication methods from one and two banks	Dry land and river-based single and twin bank entrapment techniques. Methods to sink rope underneath victim/casualty
		18.5	Compare the merits and hazards of using hands-on techniques, when approaching from upstream and downstream	Speed of access, lack of need for rope management, ability to create an eddy. Hazards - entrapment risk, number of rescuers needed in hot zone
19	Knots and anchor systems	19.1	Be able to identify, tie and check appropriate knots for whitewater rescue	Eg Overhand. Figure of 8. Figure of 8 on a bight. No knot (tensionless hitch). Tape/water knot. Double fisherman's. Italian hitch/Münter hitch. Clove hitch. Alpine butterfly. Prusiks – 3-wrap, klemheist and French. Appropriate dressing of knot
		19.2	Recall factors affecting knot choice for whitewater rescue applications	Ability to release under load. Ease of tying. Appropriate for task
		19.3	Identify use of anchor systems in whitewater rescue	Tensioned diagonals. Tethered boats. Unquestionably sound (bombproof) anchor. Load-sharing. Load-distributing
		19.4	Be able to select an appropriate single anchor point, and create an attachment point	Use of open and closed slings. Basket hitch. Wrap three pull two. Unquestionably sound (bombproof) anchor
		19.5	Tie load-sharing and load-distributing anchor systems	Use of slings and ropes to create multi-point load-sharing and load-distributing anchors. Boatman's anchor. Differences between load-sharing and load-distributing anchors



	Skill sheet element		Learning outcome	Key teaching points
20	Tensioning systems and mechanical advantage	20.1	Identify the need for mechanical advantage systems within whitewater rescue	Tensioned diagonals, boat and equipment unwrapping
		20.2	Identify why external mechanical advantage systems are applied	Ability to use and move external mechanical advantage system to other areas of the rescue scene, equipment shortage
		20.3	Build and check appropriate internal and external mechanical advantage systems for use within whitewater rescue	Simple internal 3:1 and 5:1 and compound internal 9:1 systems that can be reset and have progress capture. External system, eg 3:1 or 4:1. Correct and safe use by personnel. Line failure considerations whilst under tension. Differences between simple, compound and complex mechanical advantage systems
21	Tethered rescues	21.1	Identify the hazards and control measures associated with a tethered swim in a whitewater environment	In-water debris, bank access, rope management, victim/casualty behaviour, use of buoyant aids, team backup
		21.2	Set-up and demonstrate an in-water emergency release using the quick release harness on a buoyancy aid	Attach a floating line to quick release harness with V- or Y-lower. Demonstrate in- water release
		21.3	Identify how water speed and distance will affect timing of a tethered swim	Site choice, timing of water entry, forces acting on the belayer, water speed
		21.4	Demonstrate a true rescue using a tethered swim	In-water victim/casualty. Demonstrate long swim to victim/casualty in low grade water. Wade then swim. Demonstrate different water entry - flat water entry, short swim, with close recovery eddy. Clean line principle
		21.5	Demonstrate correct rope management when performing a tethered rescue	Rope management for rescuer. Rope management for belayer - allow for rescuer's dynamic water entry, prevent drag whilst swimming, prevent entanglement with rescuer, recovery into designated eddy. Clean line principle
		21.6	Identify other uses of quick release harnesses for kayakers and canoeists, their hazards and control measures.	Entrapments and pins. V- and Y-lowers. Towing boats and equipment



	Skill sheet element		Learning outcome	Key teaching points
22	Line crossing methods	22.1	Identify the variables that would influence methods for crossing a line over a channel	Span, weather conditions, overhead obstructions, availability of bridge, water conditions, equipment, personnel, in-channel hazards
		22.2	Identify appropriate methods of crossing a line over a channel	Walk (eg bridge). Throw/launch. Shallow water techniques. Tethered swim. Kayak/other craft
		22.3	Demonstrate a variety of methods of crossing a line over a channel	Some/all of walk, throw/launch, shallow water techniques, tethered swim, kayak/other craft
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	Correct tension to ensure angle is maintained. Correct angle to ensure object or person on line isn't held mid-stream
		23.2	Identify advantages of a releasable tensioned diagonal/zip line	If person or object becomes held mid-stream, releasing downstream side allows pendulum into bank
		23.3	Demonstrate appropriate use of a tensioned diagonal/zip line	Anchors, knots. Use of body belay. Use of mechanical advantage system. Correct angle dependent on technique used to tension (body belay vs mechanical advantage). Releasable, sling recovery system if applicable
		23.4	Demonstrate appropriate methods for joining ropes for use in a diagonal/zip line	Use of overhand knot and HMS karabiner



	Skill sheet element		Learning outcome	Key teaching points
24	Flips, rights and crew/client recovery (optional)	24.1	Identify steps to minimise the likelihood of a flip/capsize occurring (optional)	Experience. River-reading skills, weight distribution, site choice
		24.2	Recall options once a kayak/canoe capsizes (optional)	Self-rescue, personal safety, recover swimmer first, recovery of equipment. Identification of downstream hazards to swimmer and rescuer. Paddle throws into eddies. Pushing or towing of boats. Rescuers not becoming part of the problem and adding another person to the problem
		24.3	Demonstrate a rescue of a kayak/canoe, paddler and paddle (optional)	Individual and team recovery techniques to shore. Individual re-entry, group-based/assisted re-entry. Use of swim tails on kayaks and swim lines on canoes
		24.4	Recall options and priorities for a raft flip (optional)	Decision for guide to recover all clients on to upturned boat and paddle to shore, or to reflip midstream and recover clients. Pros and cons of both decisions. Transferring people to other boats. Downstream containment. Bow to stern lines on bottom of boat – pros and cons. Type of river (eg pool drop, continuous rapid), river depth, crew ability, ability to paddle upturned boat to shore, time/distance to downstream hazards, safety kayakers, other boats on trip
		24.5	Perform a raft re-flip and recovery (optional)	Demonstrate flat water flip and recovery of raft and individual/crew to shore



	Skill sheet element		Learning outcome	Key teaching points
25	Boat pins and wraps	25.1	Identify methods to minimise the likelihood of a wrapped or pinned boat	Training, practice, experience, judgement. River-reading skills, weight distribution, site choice
		25.2	Recall the priorities during a boat wrap/boat pin	Self > team > victim. Other river users
		25.3	Recall importance of stabilising the scene	Head count, all crew accounted for with heads up. Rescue options for head down victims
		25.4	Identify methods for evacuation of crew if applicable	True and conditional options. Throwbags, zip lines, other boats
		25.5	Recall options for unwrapping a raft	Simple methods. Weight distribution. Current direction. Changing the shape of the boat. Vector pulls, anchors, angles, mechanical advantage. Upstream spotters, downstream backup. Considerations for catastrophic failure of tensioned lines
		25.6	Compare wraps and pins of kayaks/canoes and rafts	Friction, attachment points, possible post-incident damage. Crew or individual rescue. Access from bank
26	Tethered boat techniques	26.1	Compare the application and limitations of single-, 2- and 4-point tethered systems	Single point tether. 2- and 4-point boat techniques
		26.2	Relate river flow, intended use and catastrophic failure consequences to anchor selection and belay methods for tethered boats	River volume, water speed, bank access and terrain, upstream and downstream hazards, appropriate belay techniques, site choice
		26.3	Use a tethered boat for transportation and mid-stream access	Set up 2- or 4-point boat system



	Skill sheet element		Learning outcome	Key teaching points
27	Victim/casualty management	27.1	Identify hazards and control measures associated with victim/casualty management in a whitewater environment	Weather, water temperature, water speed, river access, bank conditions, in-water features, panicking casualty
		27.2	State the effects that panic and counter-panic can have on victims/casualties	Panic: Eg stressed flailing of arms making rescue difficult. Counter-panic: Casualty/victim may give up hope and not participate in own rescue
		27.3	Identify priorities for managing casualties' common medical issues	Airway, breathing, circulation (ABC), spinal management, trauma injuries
		27.4	Demonstrate techniques for managing casualties' common medical issues, including airway	Airway, breathing, circulation (ABC)
		27.5	Demonstrate use of improvised stretchers.	Eg paddles, rope, group shelter/tarp. Considerations for steep, slippery banks. Access to casualty and egress for team and casualty
28	Belay systems	28.1	Demonstrate appropriate use and application of friction-based belay	Italian hitch/Münter hitch. Personnel belay on steep banks, use in tethered boat operations. Reeve, pay out, take in, tie off
		28.2	Identify considerations for choosing a belay	Water speed, load, ability to release
29	Boat on a highline (optional)	29.1	Identify the limitations of hand-controlled tethers for boats (optional)	Water speed, load, craft, bank access, consequences of catastrophic failure
		29.2	Construct tethered boat solutions that increase the system's ability to deal with force and increase redundancy (optional)	Eg single point tether from a tree, appropriate belay techniques and equipment
		29.3	Build and operate a boat on a highline (optional)	Build boat on a highline, including slipping clutch eg Prusik or untied off I'D. Choice of reeving option
		29.4	Compare boat on a highline reeving options and variables that would affect their application (optional)	English reeve, Norwegian reeve. Pros and cons
30	Scenarios	30.1	Complete river rescue scenario(s)	Examples include: Team-based river crossing using tensioned diagonal (rope). Victim rescue from middle of river. Night/poor visibility river search exercise





Whitewater Rescue Technician Advanced (WRTA)

Course overview and target audience

The Whitewater Rescue Technician Advanced course follows on from the Whitewater Rescue Technician - Professional course and is designed for outdoor professionals working in challenging environments, such as grade 4/5 water, unsupported expeditions or in gorges/canyons where vertical access/egress may be required. As with the WRT-PRO, the focus is on solutions to common rescue situations, and effective use of river rescue kit.

Contact hours 24 hours (4 days)	Prerequisites Whitewater Rescue Technician - Professional (WRT-PRO) Minimum age: 18.
Qualification valid for 3 years	Accredited by Rescue 3 Europe

Taught by

- Whitewater Rescue Technician Advanced Instructor (WRTAI)

Assessment

The assessed elements of this course are:

Foundation knowledge

- Throwbags
- Knots and anchor systems
- Tensioning systems and mechanical advantage



Whitewater Rescue Technician Advanced (WRTA) skill sheet contents

Theory	
1.	Rescue 3 philosophy
2.	Training standards
3.	Rescue planning and incident management
4.	Incident size-up
5.	PPE and specialist equipment
6.	Loads and forces
7.	System safety check
Practical - water	
8.	High energy water - swimming
9.	High energy water - throwbags and tethered swims
10.	Boat on a highline
11.	In-water rescues at night
Practical - rope	
12.	Knots and anchors
13.	Belay systems
14.	Steep ground access/egress
15.	Basic ascending and descending
16.	Mechanical advantage systems
17.	Rope-based raising and lowering systems
18.	Passing a knot through a system
Other skills	
19.	Search operations and management
20.	Casualty care and packaging
21.	Improvised harness
22.	Improvised stretcher
23.	Low angle casualty evacuation



Whitewater Rescue Technician Advanced (WRTA) learning outcomes and key teaching points

WRTA

	Skill sheet element		Learning outcome	Key teaching points
1	Rescue 3 philosophy	1.1	Recall the steps required in order to develop judgement	Training. Practice. Experience. Judgement
		1.2	Explain the order of priorities at a water rescue scene	Self > team > victim
2	Training standards	2.1	Recognise the different training courses within the Rescue 3 scheme	Industry-level courses. Water rescue courses. Boat rescue courses. Rope rescue courses. Confined space rescue courses
		2.2	Understand the remit and role of an individual trained to this level, and that to operate safely in advanced environments a technician requires increased personal and technical capability.	Whitewater Rescue Technician Advanced (WRTA) remit and role. Exposure to high energy water, difficult bank access and complex hydrology will increase experience and judgement. With both a water and rope capability, a Technician has a greater range of solutions for complex rescues
		2.3	State how the Rescue 3 scheme fits within national and international standards	Rescue 3 scheme, Defra, NFPA, applicable local standards
		2.4	State how the Rescue 3 scheme fits within agency policy and agency standard operating guidelines	Agency policy and agency standard operating guidelines
3	Rescue planning and incident management	3.1	Identify the elements of an effective dynamic risk assessment	Identify the hazards throughout the rescue site. Decide who might be harmed and how, evaluate the risks and decide on control measures to minimise or eliminate risk, implement your findings, review your assessment and update if necessary
		3.2	Perform a dynamic risk assessment of a complex rescue site	Identify the hazards throughout the rescue site, decide who might be harmed and how, evaluate the risks and decide on control measures to minimise or eliminate risk, implement your findings, review your assessment and update if necessary. Complexity added through nature of water, time pressures through casualty condition, number of personnel
		3.3	Present a structured team briefing and allocate roles	G-SMEAC



	Skill sheet element		Learning outcome	Key teaching points
4	Incident size-up	4.1	Perform an on-site safety brief based on risk assessments	Highlight relevant hazards that will affect the rescue
		4.2	Select an appropriate plan of action for a given complex incident	Decision-making models, such as TEMPOE. Complexity added through nature of water, time pressures through casualty condition, number of personnel
5	PPE and specialist equipment	5.1	Identify difficulties of water and rope PPE being worn together.	Un-clean profile of a harness if transitioning into water. Water helmet vs height helmet if ropes are used for access. Harness fit over buoyancy aid
		5.2	Identify the greatest risk in an environment and prioritise PPE appropriate to that risk.	The most severe and most likely hazard in an environment should guide choices of PPE



	Skill sheet element		Learning outcome	Key teaching points
6	Loads and forces	6.1	Differentiate between mass and force	Force = mass x acceleration
		6.2	Identify SI base units and derived units used in rope rescue	Metre (length), second (time), kilogram (mass), Newton (force), metre per second per second (acceleration)
		6.3	Describe the differences between static and dynamic forces	Static = non-moving, eg being held in space. Dynamic = moving, eg an uncontrolled event
		6.4	Recall the permissible maximum arrest force (MAF)	15kN, as defined by BCCTR
		6.5	Recall the parameters of a worst case event (WCE)	As defined by BCCTR: attendant and stretcher falling 1m with 3m of rope in service. Fall factor of 0.33
		6.6	Apply the worst case event and maximum arrest force to minimum breaking strength of equipment and system design	Awareness of equipment strength rating
		6.7	Calculate the effect of a change of direction on system force	Vector analysis, relate to system safety factors
		6.8	Recall appropriate system safety factors	2kN static rescue load, 20kN is 10 x factor. This accommodates 15kN WCE
		6.9	Recall the difference between ideal, theoretical and actual mechanical advantage	Ideal - velocity ratio. Doesn't account for frictional loss, heat loss, rope stretch, slippage. Theoretical - takes frictional loss into consideration, as far as is possible. Actual - the mechanical advantage in the real world, involving frictional loss, heat loss, rope stretch and slippage
		6.10	Calculate the ideal mechanical advantage of a system	T-method



	Skill sheet element		Learning outcome	Key teaching points
7	System safety checks	7.1	Identify the components of a system safety check	Redundancy, hands-free test (aka whistle test), safety factor check. Integrity of anchors, karabiner alignment, rope leg alignment, anchor leg angle. Critical point analysis – should a single component fail, the load would hit the ground
		7.2	Perform a system safety check	Redundancy, hands-free test (aka whistle test), safety factor check. Integrity of anchors, karabiner alignment, rope leg alignment, anchor leg angle
8	High energy water - swimming	8.1	Select swimming techniques, angle control and momentum to perform a variety of tasks in moving water	Progression of swimming level above technician level. Advanced technicians to choose appropriate techniques for water conditions without direction
9	High energy water - throwbags and tethered swims	9.1	Work as a team to perform multiple and complex throwbag and tethered swim rescues.	Set scenarios in high energy water with difficult bank access. Throwbag techniques where thrower and belayer are separate High friction options for belaying tethered swimmers
10	Boat on a highline	10.1	Identify the limitations of hand-controlled tethers for boats	Water speed, load, craft, bank access, consequences of catastrophic failure
		10.2	Construct tethered boat solutions that increase the system's ability to deal with force and increase redundancy	Eg single point tether from a tree, appropriate belay techniques and equipment
		10.3	Build and operate a boat on a highline	Build boat on a highline, including slipping clutch eg Prusik or untied off I'D. Choice of reeving option
		10.4	Compare boat on a highline reeving options and variables that would affect their application	English reeve, Norwegian reeve, 1:1 with a change of direction



	Skill sheet element		Learning outcome	Key teaching points
11	In-water rescues at night	11.1	Identify hazards associated with night/poor visibility operations, and apply suitable control measures	Hazards: visibility and communication difficulties, affecting timescales, tracking of equipment and personnel. Control measures: Lighting, increased use of audible communication, working in pairs and numbering off / roll call to keep track of personnel
		11.2	Perform a risk assessment and operate at night/in poor visibility	Perform appropriate site choice for swim session and rescue scenario- eg compare with daytime, or use easier venue. Appropriate lighting for all personnel and equipment
12	Knots and anchors	12.1	Identify, tie and check appropriate knots for whitewater and rope rescue	Overhand, figure of 8, alpine butterfly, no knot, Italian hitch, Clove hitch, double fisherman's. Knots are appropriately dressed
		12.2	Recall factors affecting knot choice for whitewater and rope rescue	The distinction between where a system should be releasable and where it should not be, when moving between water and rope rescue, should be explicit
		12.3	Select appropriate anchor points and/or systems for task	Anchor strength, alignment and redundancy requirements. The difference in application between a load sharing and distributing anchor should be overt
13	Belay systems	13.1	Select appropriate belay method for task	Strength and alignment of belay point. Appropriate amount of friction based on load, consequence and amount of taking in/paying out required
14	Steep ground access/ egress	14.1	Distinguish between terrain where simple hand rails and belays are needed, and where full working at height systems are required.	Hand rails. Consequence and likelihood of a slip, fall or loss of control
15	Basic ascending and descending	15.1	Identify hazards and control measures associated with ascending and descending	Redundancy, edge management. Control measures: PPE, training
		15.2	Demonstrate personal ascending in a variety of twin line systems	With auto-locking descender, handled ascender and auto-locking backup device
		15.3	Demonstrate personal descending in a variety of twin line systems	With auto-locking descender device and auto-locking backup device



	Skill sheet element		Learning outcome	Key teaching points
16	Mechanical advantage systems	16.1	Select, build and check appropriate mechanical advantage systems for use within advanced whitewater rescue	Build a variety of and compare simple, compound and complex mechanical advantage systems
17	Rope-based raising and lowering systems	17.1	Explain the importance of working with twin lines	Redundancy, vulnerability of tensioned ropes
		17.2	Identify when team rope-based raising and lowering systems would be used, their merits and limitations	Rope rescue operations (as opposed to emergency situations without access to rope rescue team). Task distribution, greater inherent safety, greater capability
		17.3	Identify the importance of using an auto-locking lowering device with team rope-based raising and lowering systems	Local legislative requirements, best practice
		17.4	Rig and check team rope-based raising and lowering systems	Rope alignment, anchor selection, focal point positioning, consideration of hazards, selection of mechanical advantage
		17.5	Convert a lowering system to a raising system whilst unloaded	Consideration of the amount of mechanical advantage required, edge friction, working space
		17.6	Convert a lowering system to a raising system whilst loaded	Parity of raising system with lowering system, changeover without loss of height, maintenance of redundancy
		17.7	Identify the advantages of a dual capable two tension rope system (DCTTRS) over 'designated main, designated belay'.	Linked to BCCTR research. Based upon risk, hand tight safety during edge transition but consideration of secondary edges, plumb line and other hazards when considering switching to mirrored system. Merits: pre-loaded safety line, reducing elongation in the event of a mainline failure. During raising, MA on both lines enhances flexibility and efficiency. Limitations: judgement-based, slightly more complex to rig, extra command and control considerations
		17.8	Rig, check and use a dual capable two tension rope system (DCTTRS)	Perform a changeover from hand-tight to load-sharing on the safety line



	Skill sheet element		Learning outcome	Key teaching points
18	Passing a knot through a system	18.1	Identify when a knot would be passed through a system, its merits and limitations	Isolating a damaged part of a rope, when two lines are joined
		18.2	Pass knots through systems	Perform a knot bypass whilst maintaining control and integrity during the changeover
19	Search operations and management	19.1	Demonstrate use of appropriate search models	Application of Koester's bike wheel model
		19.2	Collate information gathered in the primary phase of a water search	Point last seen, time last seen. Missing persons data informing search radius, and hotspots
		19.3	Calculate a search area based on a given scenario	Point last seen, time last seen. Missing persons data informing search radius. Consideration of historic data, and statistical outliers
		19.4	Assign tasks to individuals during a river-based search	Primary search - reconnaissance, fast moving between hotspots, identifying locations for secondary search. Reporting. Secondary search - searching identified hotspots. Use of specialised assets, eg sub-surface dive team, tethered boats, bathyscopes
		19.5	Perform a primary search	Reconnaissance, fast moving between hotspots, identifying locations for secondary search. Reporting
		19.6	Segment a search area, based on information gathered	Use of maps to segment a search area from an initial planning point (IPP)
		19.7	Redeploy to perform a secondary search	Searching identified hotspots. Use of specialised assets, eg tethered boats, bathyscopes
20	Casualty care and packaging	20.1	Identify medical issues that may require casualties to be transported by stretcher	Illness, injury. Package casualty to maximise comfort and reduce heat loss
21	Improvised harness	21.1	Reproduce an improvised harness. Identify limitations.	Improvised harnesses constructed as standalone systems or that can be incorporated into belay loops on specialist buoyancy aids
22	Improvised stretcher	22.1	Reproduce an improvised stretcher. Identify limitations.	Build with a variety of materials that are appropriate and likely to be carried by the group



	Skill sheet element		Learning outcome	Key teaching points
23	Low angle casualty evacuation	23.1	Employ techniques to protect personnel when moving a stretcher over rough or steep terrain	Safety lines, caterpillar, talus belay, mechanical advantage



Water Safety for Expedition Leaders (WSEL)

Course overview and target audience

The Water Safety for Expedition Leaders course is designed for both professional and recreational expedition leaders & team members who lead or work with groups on expeditions where hazards are presented by water. Hazards include but are not limited to rivers, lakes, floods, canals, hot pools.

Contact hours 12 hours (2 days)	Prerequisites Confident swimmer. Minimum age: 18.
Qualification valid for 3 years	Accredited by Rescue 3 Europe

Contact hours

12 hours (2 days)

Prerequisites

Confident swimmer.
Minimum age: 18.

Qualification valid for

3 years

Taught by

- Water Safety for Expedition Leaders Instructor (WSELI)

Assessment

The assessed elements of this course are:

- Dynamic risk assessment
- Conditional rescues
- Moving water swimming techniques



Water Safety for Expedition Leaders (WSEL) skill sheet contents

Theory	
1.	Rescue 3 philosophy
2.	Training standards and legislation
3.	Best practice guidelines
4.	Hydrology and water hazards
5.	Personal and group equipment
6.	Water safety pre-planning for expeditions
7.	Risk assessments
8.	Managing a group in and around water
9.	Managing an incident
10.	Medical and decontamination considerations
11.	Introduction to night/poor visibility operations
12.	Communications
Practical	
13.	Moving water swimming techniques
14.	Conditional rescues
15.	Shallow water techniques
16.	Foot and body entrapments
17.	Strainer swim
18.	Improvised techniques
19.	Casualty management



Water Safety for Expedition Leaders (WSEL) learning outcomes and key teaching points

	Skill sheet element		Learning outcome	Key teaching points
1	Rescue 3 philosophy	1.1	Recall the steps required in order to develop judgement	Training. Practice. Experience. Judgement
		1.2	Explain the order of priorities at a water rescue scene	Self > team > victim
		1.3	Explain the benefits of applying a simple rescue solution	Quick set-up, ability level of team members
		1.4	Explain considerations for self-limitations	Everyone has strengths and weaknesses; know what you can do well and what others can do well
2	Training standards	2.1	Recognise the different training courses within the Rescue 3 scheme	Recreational and emergency service rescue courses. Consideration for additional Rescue 3 courses an expedition leader may require, eg WRT-PRO, ORM
		2.2	Recall the remit and role of an individual trained to this level	Water Safety for Expedition Leaders (WSEL) remit and role. Recreational or non-recreational expedition leaders who need to plan for, recognise, avoid and/or manage water hazards, as well as perform simple rescue techniques
3	Best practice guidelines	3.1	Apply the Rescue 3 Best Practice Guidelines to produce safer practice in a water environment	Best practice guidelines (formerly known as the 15 Absolutes)

WSEL



	Skill sheet element		Learning outcome	Key teaching points
4	Hydrology and water hazards	4.1	Identify the effect that volume, gradient and obstacles have on water	Volume - increase in energy. Gradient - increase in speed. Obstacles - creation of retentive water features, impact risk, siphon/strainer risk
		4.2	Identify river features	Laminar flow, helical flow, current vector, eddies, holes/stoppers, waves, undercuts, strainers, siphons, standing waves, hydraulics, weirs/low head dams
		4.3	Describe the impact that water features would have on individuals in the river	Force of water, river grading system, entrapments
		4.4	Differentiate between intentional and unintentional exposure to water hazards.	Change of focus in pre-planning, dynamic risk assessments, client/team ability/training etc
		4.5	Identify water hazards in a river environment, and suitable control measures	Depth, temperature, weather, volume, gradient, undercuts, strainers, siphons, hydraulics, weirs/low head dams, bridge pillars, entrapments
		4.6	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	Retentive nature, closed ends, anti-scour lips, in-water debris, entrapment risks
		4.7	Identify weir rescue options	Weir rescue techniques - throwbags, reach tools, tethered buoyant objects. Awareness of additional techniques beyond the remit of someone qualified to this level
		4.8	Identify river bank hazards and their control measures.	Slippery ground, steep ground. Appropriate PPE and footwear. Use of lines as hand rails
		4.9	Identify hazards and control measures associated with common types of water fauna and flora.	Use of region-specific risk assessment. Considerations for venomous animals, bites, stings, toxic/poisonous/irritant plants. Avoidance, PPE, training, access to medical/emergency services



	Skill sheet element		Learning outcome	Key teaching points
5	Personal and group equipment	5.1	Identify personal protective equipment (PPE) for operating and performing rescues in a river environment	Helmet, buoyancy aid, drysuit, wetsuit, footwear, insulation, knives, throwbags, gloves, lighting, whistle, eye protection/sunglasses
		5.2	Select appropriate equipment for performing rescues in a river environment, perform pre-use checks, and donning	CE standards, PPE inspection
		5.3	Select appropriate clothing for use in a whitewater river environment, based on weather conditions and geographical location.	Drysuits, wetsuits, thermal underlayer
		5.4	Recall post-use care and inspection procedures for personal equipment	PPE inspection, drying, storage and care
		5.5	Identify group equipment for operating in and performing rescues in water	Contents and transportation of rescue kits. Karabiners, slings (closed loop), tapes (3-5m open), canyon lines, pulleys, Prusiks, natural rock pro/camming devices, pruning saws. Group shelter, first aid kits, spare PPE. Communication equipment – phones, satellite phones, radios etc
		5.6	Recall post-use care and inspection procedures for technical and group equipment	Equipment inspection, drying, storage, transportation
		5.7	Compare best practice personal and group equipment with likely expedition and group equipment, and the subsequent limitations on an expedition.	Eg, remote expedition may limit the PPE/equipment that can be taken. However, this lack of equipment will also limit the activities/ environments in which groups can safely operate/perform rescues
		5.8	Identify safe improvised equipment and methods suitable for use in an emergency situation on an expedition	Eg drybags or waterproof rucksacks filled with air as emergency improvised flotation device. Considerations for individual and group flotation (eg drybags wrapped in a tarp). Considerations for less capable/injured swimmers. To be used as emergency resolution to unforeseen problem, not a resolution to a foreseen issue



	Skill sheet element		Learning outcome	Key teaching points
6	Water safety pre-planning for expeditions	6.1	Identify key components of an expedition pre-plan	Expedition aim. Expedition team (health, fitness, experience, commitment, numbers, age). Destination - time of year, water levels, disease, fauna and flora, access and egress to area, transport, emergency evacuation
		6.2	Identify relevant pre-trip training for leaders and team members	Specific training courses to manage hazards that could be encountered on an expedition
		6.3	Describe how consent relates to an expedition	Leader to seek informed/parental consent from the group. Exploration of the legal issues surrounding leadership
		6.4	Identify the need to have a backup plan, for both the expedition's goals and water incidents	Realistic, risk assessed, based on experience and ability of team, related to pre-plan, managing expectations
		6.5	Explain the importance of having and using operating procedures on an expedition	Company policy, including operating procedures, risk assessments, accident and near miss reporting, emergency plan, staff selection process, staff training, monitoring and reviewing
		6.6	Identify situations that could lead to unintentional exposure to water hazards and their consequences.	Pre-planning, route selection, pre-trip documentation, environmental conditions and time of year, legal issues
		6.7	Explain the importance of researching in-country support/activity providers	Methods for measuring/researching good/safe activity providers recognised international qualifications, staff training, safety policy, equipment used and equipment checks/records
		6.8	Identify likely in-country conditions at time of expedition	Research, Foreign Office, web searches, previous experience, political situation, weather conditions, eg monsoon season



	Skill sheet element		Learning outcome	Key teaching points
7	Risk assessments	7.1	Identify the elements of an effective generic or site-specific risk assessment	Identify the hazards, decide who might be harmed and how, evaluate the risks and decide on precaution, record your findings and implement them, review your assessment and update if necessary
		7.2	Identify the elements of an effective dynamic risk assessment	Identify the hazards, decide who might be harmed and how, evaluate the risks and decide on implement your findings, review your assessment and update if necessary
		7.3	Perform a dynamic risk assessment of a rescue site	Identify the hazards, decide who might be harmed and how, evaluate the risks and decide on implement your findings, review your assessment and update if necessary
8	Managing a group in and around water	8.1	Identify key considerations when managing a group in and around water	Where to wait near the water. Where to enter/cross the water. Appropriate clothing/ PPE/equipment. Hazard identification and mitigation
9	Managing an incident	9.1	Explain the phases of a successful rescue	LAST (Locate. Access. Stabilise. Transport)
		9.2	List rescue options	Talk, reach, row, throw, go, tow. Not a hierarchy of risk
		9.3	Explain the importance of undertaking a simple rescue option.	Is it time critical? What is the water energy and consequence?
		9.4	Based on hazard recognition, apply appropriate control measures to protect your team, clients and other river users at a scene	Site zoning, chain of command, team roles
		9.5	Identify how and when to contact the emergency services in the event of an incident	Emergency service contact details, 112 Europe-wide emergency number, rescue capability of relevant bodies, phone access, mobile signal, radios
		9.6	Explain the importance of establishing a point last seen, time last seen and search area	Missing persons data informing search radius, and hotspots
		9.7	Identify variables that affect the search area	Topography, weather, water levels, water speed, PPE worn, time last seen



	Skill sheet element		Learning outcome	Key teaching points
10	Medical considerations	10.1	Identify signs/symptoms and treatment for common medical issues found in a water environment	Hypothermia, hyperthermia, drowning, infection eg Leptospirosis and hepatitis, trauma, cold water shock. Considerations of effects of stress and adrenaline whilst performing a medical assessment of a casualty
		10.2	Identify individuals at risk for common medical issues found in a water environment, and control measures to minimize this	Clients, river professionals/ expedition guides. Control measures - PPE, training, decontamination, group welfare
		10.3	Recall the importance of decontamination procedures	On-river washing/ decontamination facilities
		10.4	Recall procedures for protecting the spine when trauma is suspected	History of incident, past medical history, spinal management
		10.5	Recall the effects of cold water shock	Effects of sudden or prolonged immersion in cold water
		10.6	Identify bank hazards, and suitable control measures to prevent slips, trips and falls	Rescue site risk assessment, appropriate footwear, site zoning, safety briefing
11	Introduction to night/poor visibility operations	11.1	Identify hazards associated with night/poor visibility operations, and suitable control measures	Hazards: visibility and communication difficulties, weather and environmental concerns, keeping track of each other. Control measures: Lighting, head torches, glowsticks, more powerful handheld torches. Increased use of audible communication. Considerations for setting up camp an hour before dark eg on a multi-day river trip
12	Communications	12.1	Recognise hand signals that can be used on a river trip	Ok, help, stop, direction, medical assistance, eddy in, eddy out, other locally used signals
		12.2	Recognise whistle signals that can be used in a water environment	Stop, upstream, downstream, emergency
		12.3	Identify other methods of communication in a water environment, and their limitations	Radios, mobile telephones, satellite phones, satellite text machines, battery life, water resistance, signal strength. Communication considerations for if boats get separated



	Skill sheet element		Learning outcome	Key teaching points
13	Moving water swimming techniques	13.1	Identify hazards and suitable control measures when entering and exiting a whitewater environment	Steep banks, slippery surface, difficulty of access and egress, slips, trips and falls. Appropriate PPE/footwear, site assessment, site zoning, safety briefing
		13.2	Demonstrate correct water entry to and exit from a whitewater environment	Appropriate entry and exit point, depth, in-water physical hazards, flat (non-sub-surface) entry
		13.3	Demonstrate the defensive swimming position in a whitewater environment	When and why, body positioning, lateral movement, breaking out of the flow. Push off obstacles
		13.4	Demonstrate the aggressive swimming position in a whitewater environment	When and why, body positioning, lateral movement, breaking out of the flow
		13.5	Transition between the defensive and aggressive swimming positions in a whitewater environment	Rolling techniques, entrapment issues, increased risk of impact on in-water features
		13.6	Adjust body angle relative to the current vector in a whitewater environment	Ferry angles, methods of adjusting body angle
		13.7	Apply swimming techniques, angle control and momentum to perform a variety of tasks	Defensive swimming, aggressive swimming, transition from defensive to aggressive, ferry gliding, eddy line techniques, slalom course, breathing techniques, river-reading skills. Increasing and decreasing momentum



	Skill sheet element		Learning outcome	Key teaching points
14	Conditional rescues	14.1	Identify conditional rescue options and the limitations of conditional rescues	Talk. Reach. Throw. Victim/casualty participation required. Static and mobile rescues. Hazards of rope in the water. Use of clean rope principle
		14.2	Identify, check and prepare suitable equipment for performing a conditional rescue in an advanced/higher grade river environment	Talk. Reach - pole/stick, paddle, throwbag. Throw - buoyant object
		14.3	Identify appropriate sites where conditional rescues can be performed.	River features, appropriate eddies, downstream backup, upstream spotter, in-water physical hazards
		14.4	Demonstrate the correct method for receiving a throwbag	Stay on back, make target/body as large as possible, keep line of sight with rescuer, listen to instructions. When being pulled in, don't wrap rope around body, stay on back when being recovered. Don't let go of rope until safely on bank
		14.5	Perform a variety of conditional rescues in a river environment	Talk rescues. Reach rescue - reach tool, throwbag techniques. Pendulum rescue considerations
		14.6	Identify methods of managing force directed on rescuer and victim/casualty during a reach rescue as water speed increases	Rescuer/belayer moving downstream, paying out of line, appropriate site choice, appropriate eddies for recovery
15	Shallow water techniques	15.1	Identify the variables and hazards that will directly affect shallow water techniques	Water speed, depth, channel bed morphology, personnel, equipment
		15.2	Perform single and team-based shallow water techniques	Individual, line astern, wedge, use of wading pole/paddle, tethered wade
		15.3	Explain how the addition of a casualty would affect shallow water techniques	Appropriate team-based techniques, appropriate improvised stretcher/transport method, protection of victim/casualty from flow, downstream hazards



	Skill sheet element		Learning outcome	Key teaching points
16	Foot/body entrapments	16.1	Identify the hazards and consequences of foot and body entrapments, and control measures to reduce likelihood	River bed morphology, snag hazards, submersion, trauma. Defensive swimming position. Training
		16.2	Identify extrication methods of an entrapped casualty	Hands-on methods, wading, single bank access, twin bank access
		16.3	Identify risks to the rescuers of an entrapped casualty	Access difficulties, river bed morphology, snag hazards, river depth, upstream vs. downstream access, access to both banks, hands-on techniques, wading vs access from bank, timescales involved in performing a rescue
		16.4	Demonstrate use of stabilisation line and extrication methods from one and two banks	Dry land and river-based single and twin bank entrapment techniques. Methods to sink rope underneath victim/ casualty
		16.5	Compare the merits and hazards of using hands-on techniques, when approaching from upstream and downstream	Speed of access, lack of need for rope management, ability to create an eddy. Hazards - entrapment risk, number of rescuers needed in hot zone



	Skill sheet element		Learning outcome	Key teaching points
17	Strainer swim	17.1	Identify strainers and the hazards they pose to group members in the water	Natural and man-made strainers. Entrapment, injury. Force of water
		17.2	Compare the defensive and aggressive swimming techniques when dealing with strainers	Defensive allows you to slow down speed of approach, keep head above water, absorb impact with legs, and potentially move to the end of the strainer and escape. Aggressive allows you to approach strainer with appropriate speed and timing to slide over the top
		17.3	Using a strainer simulator, demonstrate the techniques for dealing with a strainer with defensive and aggressive swimming techniques	Approach defensively, slow down rate of approach, absorb impact with legs, attempt to move along strainer. Approach aggressively, transition from defensive to aggressive in good time, approach strainer simulator head up, use of arms and legs to push up and over simulator
		17.4	Identify rescue options from a strainer.	Top of strainer, or downstream access. Head up? Head down? Time critical
		17.5	Understand the importance of avoiding strainers and not going underneath them.	Forward planning. Consequences
18	Improvised techniques	18.1	Demonstrate safe use of improvised equipment to supply buoyancy in an emergency.	Tensioned diagonals, boat and equipment unwrapping
19	Casualty management	19.1	Identify hazards and control measures associated with victim/ casualty management.	Weather, water temperature, water speed, river access, bank conditions, in-water features, panicking casualty
		19.2	State the effects that panic and counter-panic can have on victims/casualties	Panic: Eg stressed flailing of arms making rescue difficult. Counter-panic: Casualty/ victim may give up hope and not participate in own rescue
		19.3	Identify priorities for managing casualties' common medical issues	Airway, breathing, circulation (ABC), spinal management, trauma injuries
		19.4	Demonstrate use of improvised stretchers.	Eg paddles, rope, group shelter/ tarp. Considerations for steep, slippery banks. Access to casualty and egress for team and casualty



Wild Swimming Safety (WSS)

Course overview and target audience

The Wild Swimming Safety course is for people who swim in sheltered basic natural water environments, eg lakes, as opposed to commercial swimming pools.

Contact hours 6 hours (1 days)	Prerequisites None
Qualification valid for 3 years	Accredited by Rescue 3 Europe

Taught by

- Wild Swimming Safety Instructor (WSSI)

Assessment

The assessed elements of this course are:

- Foundation knowledge
- Self-rescue
- Conditional rescues



Wild Swimming Safety (WSS) skill sheet contents

Theory	
1.	About Rescue 3
2.	Basic water hazards
3.	Personal and team equipment for wild swimming
4.	Weather and coastal considerations
5.	Pre-planning for wild swimming emergencies and rescue
6.	Lone swimmer considerations
7.	Dynamic risk assessments
8.	Cold water and ice considerations
9.	Medical and decontamination considerations
10.	Wild swimming group management
Practical	
11.	Basic water swimming and self-rescue
12.	Shallow water wading techniques
13.	Conditional rescues - talk, reach, throw
14.	Use of swim floats
15.	Wild swimming emergency procedures
16.	Casualty management



Wild Swimming Safety (WSS) learning outcomes and key teaching points

	Skill sheet element		Learning outcome	Key teaching points
1	About Rescue 3	1.1	Recognise the role of Rescue 3 Europe as an accrediting body.	Rescue 3 as an accrediting body. Designing safety and rescue courses – not just ‘rescue’
		1.2	Recognise the different training courses available within the Rescue 3 scheme	Courses for wild swimmers, emergency services, whitewater professionals, construction workers, environment agency personnel, production crews etc.
		1.3	Recall the remit and role of people trained to WSS level	The Wild Swimming Safety (WSS) course is designed for people who swim in sheltered basic natural water environments, eg lakes, as opposed to commercial swimming pools. Comparison with remit of Wild Swimming Safety - Moving Water (WSSM) for people swimming in moving rivers.
2	Basic water hazards	2.1	Recall the definitions of basic water, moving water, coastal water, swiftwater and whitewater	Basic water - typically still, flat water, eg lakes, ponds, canals. Moving - flowing down a gradient, eg streams, rivers, drainage channels. Coastal water - eg coastal sea, ocean, estuaries. Swiftwater - fast moving, steeper gradient, eg steep rivers, drainage channels, flash flood conditions. Whitewater - fast moving, steeper gradient, used for kayaking, rafting
		2.2	Identify water hazards in a basic water environment	Flat water hazards, entrapment hazards, muddy bottoms to lakes and canals.
		2.3	Identify water hazards in a moving water environment	The remit of WSS is sheltered basic natural water environments. However, a simple understanding of moving water can ensure people stay within remit. Fast current. Bends in the river. Undercuts. Strainers. Siphons. Stoppers. Weirs. Structures, eg scaffolding, bridge pillars etc. Identifying and understanding current vector.
		2.4	Describe the impact water features would have on individuals in water	Force of water, impact risk, retentive features, entrapments.

WSS



	Skill sheet element		Learning outcome	Key teaching points
3	Personal and group equipment for wild swimming	3.1	Identify personal protective equipment (PPE) that can be used for wild swimming	Wetsuits, boots, gloves, neoprene hat. Drysuits and thermal layers. Helmets, knives, throwbags, buoyancy aid, sunglasses/eye protection. Swim float.
		3.2	Identify group equipment for providing a rescue capability for co-swimmers	Throwbags, reach poles, floating aids, survival bags, group shelters, welfare packs, spare change of clothes.
		3.3	Recall post-use care and inspection procedures for PPE and group equipment.	Check, clean, dry. Check hardware for cracks, burrs, damage, corrosion etc. Inspect textiles for fraying, cuts, exposure to chemicals, contamination.
4	Weather and coastal considerations	4.1	Recall what effects weather can have on a wild swimmer in an inland water environment	Rising river levels due to rainfall, fallen trees due to wind, cold exposure, sunstroke, effects of wind on an exposed body of water (eg large lake) creating waves and swimming difficulties.
		4.2	Identify water hazards in a coastal water environment	Tides, coastal weather, currents, rip currents, wind against tide, on-shore and off-shore winds, tidal impact zones, sandbars/gullies, rocks/cliffs, pollution, dangerous marine life.
5	Pre-planning for wild swimming emergencies and rescue	5.1	Recall what information a wild swimmer will need to know when pre-planning for emergencies	What'll happen if a swimmer gets into difficulty? Lakes: Weather conditions, wind speed and direction, closeness to shore. Rivers: Downstream hazards, downstream exit. Who's going to rescue them/me? Alerting emergency services. Co-swimmer rescue capability, including training, pre-positioning and access to rescue tools. Cold water immersion considerations – packaging eg survival bag, change of clothes.
		5.2	Recall control measures to avoid accidents and emergencies in a water environment	Co-swimmer rescue capability, including training, prepositioning and access to rescue tools. Phone signal for alerting emergency services. Correct clothing and PPE for conditions.



	Skill sheet element		Learning outcome	Key teaching points
6	Lone swimmer considerations	6.1	Recall the hazards and control measures of swimming alone	Appropriate training and PPE, designated check-in times pre- and post-swim, access to first aid and emergency equipment eg survival bag, changeable weather conditions eg rising water levels.
7	Dynamic risk assessments	7.1	Identify the elements of an effective dynamic risk assessment	Real time process ensuring actual situational risks are identified, evaluated and managed that may not be covered by written risk assessment process. Constantly re-evaluated
		7.2	Perform a dynamic risk assessment of a wild swimming site	Real time process ensuring actual situational risks are identified, evaluated and managed that may not be covered by written risk assessment process. Constantly re-evaluated
8	Cold water and ice considerations	8.1	Recall signs and symptoms of cold water shock	Cold water shock. Reduced capability
		8.2	Recall coping strategies when faced with accidental immersion in cold water	1-10-1 rule
		8.3	Recall hazards associated with ice, and suitable control measures.	Awareness, avoidance. What to do if you find yourself on/in ice, eg 1-10-1, spreading weight, keeping low, getting out the same way you come in
9	Medical and decontamination considerations	9.1	Identify signs/symptoms and treatment for common medical issues found in a water environment.	Hypothermia (too cold), hyperthermia (too hot), drowning, infection (eg leptospirosis, hepatitis), trauma eg bank hazards (slips, trips, falls), cold water shock.
		9.2	Recall the importance of minimising exposure to the water and decontamination procedures post-exposure	Check, clean, dry. Hand wipes, face wipes, cover cuts etc.
		9.3	Identify bank hazards and suitable control measures to prevent slips trips and falls.	Wet, steep, slippery, muddy banks, overhanging branches, vegetation. Control measures: PPE and training
10	Wild swimming group management	10.1	Recall techniques for journeying on flat water safely and/or protect a group.	Use of CLAP (Communication, Line of sight, Avoidance, Position of maximum usefulness) whilst journeying on flat water. Use of guidebooks, local knowledge, marker buoys, location of weirs and other hazards. Carrying of spare clothes, emergency/welfare equipment.



	Skill sheet element		Learning outcome	Key teaching points
11	Basic water swimming and self-rescue	11.1	Demonstrate the defensive swimming position.	Defensive swimming. Practical session in basic water environment.
		11.2	Demonstrate the aggressive swimming position.	Aggressive swimming. Practical session in basic water environment..
		11.3	Transition between the defensive and aggressive swimming positions.	Transitioning between defensive and aggressive swimming. When and where you would use each to self-rescue.
		11.4	Apply swimming techniques, angle control and momentum to perform a variety of tasks.	Practical session in basic water environment.
12	Shallow water wading techniques	12.1	Identify the variables and hazards that will directly affect shallow water wading techniques.	Identifying safe areas where shallow water wading techniques can be used: Depth, water speed, lake bed morphology.
		12.2	Perform single and team-based shallow water techniques.	Single with and without wading pole, line astern, wedge. Foot placement and use of wading poles to scout for entrapment hazards. Moving as a group.
13	Conditional rescues - talk, reach, throw	13.1	Identify conditional rescue options and the limitations of conditional rescues	Conditional rescues rely on participation of the person in the water.
		13.2	Identify, check and prepare suitable equipment for performing a conditional rescue	Use of a reach pole or other reaching tools, eg branches etc. Use of throwbags.
		13.3	Identify appropriate sites where conditional rescues can be performed	Position for throw (safety of thrower, place to bring co-swimmer into safe area and onto dry land, avoiding trees and other overhead objects).
		13.4	Demonstrate the correct method for receiving a throwbag.	Practical session in basic water environment.
		13.5	Perform a variety of conditional rescues	Practical session in basic water environment. Conditional rescues rely on participation of the person in the water. This session should include talking or encouraging the victim to swim to shore. Use of a reach pole or other reaching tools, eg branches etc. Use of throwbags. Type of throw (overhand, underhand).
14	Use of swim floats	14.1	Demonstrate use of swim floats in a basic water environment	Attachment to swimmer. Inflation. Deflation. Amount of buoyancy supplied. Ability to carry equipment in swim float.



	Skill sheet element		Learning outcome	Key teaching points
15	Wild swimming emergency procedures	15.1	Recall the actions in the event of an emergency	Stop further activity. Raise the alarm. Assess the situation. Identify and implement rescue plan if within capability (or alert emergency services if beyond capability). Move casualty to safe zone and on to medical assessment and treatment. Post-incident or post-rescue documentation eg incident report necessary or not? Update of rescue plans.
16	Casualty management	16.1	Identify hazards and control measures associated with casualty management in a moving water environment	Weather, water temperature, bank access, bank conditions, in-water features, panicking casualty
		16.2	Identify priorities for managing casualties' common medical issues	Airway, breathing, circulation (ABC), spinal management, trauma injuries





Wild Swimming Safety - Moving Water (WSSM)

Course overview and target audience

The Wild Swimming Safety course is for people who swim in natural environments with moving water, eg rivers, as opposed to commercial swimming pools.

Contact hours 6 hours (1 days)	Prerequisites None
Qualification valid for 3 years	Accredited by Rescue 3 Europe

Taught by

- Wild Swimming Safety Instructor (WSSI)

Assessment

The assessed elements of this course are:

- Foundation knowledge
- Self-rescue
- Conditional rescues



Wild Swimming Safety - Moving Water (WSSM) skill sheet contents

Theory
1. About Rescue 3
2. Moving water hydrology and hazards
3. Personal and team equipment for wild swimming
4. Weather and coastal considerations
5. Pre-planning for wild swimming emergencies and rescue
6. Lone swimmer considerations
7. Dynamic risk assessments
8. Cold water and ice considerations
9. Medical and decontamination considerations
10. Wild swimming group management
Practical
11. Moving water swimming and self-rescue
12. Shallow water wading techniques
13. Conditional rescues - talk, reach, throw
14. Use of swim floats
15. Wild swimming emergency procedures
16. Casualty management



Wild Swimming Safety (WSS) learning outcomes and key teaching points

	Skill sheet element		Learning outcome	Key teaching points
1	About Rescue 3	1.1	Recognise the role of Rescue 3 Europe as an accrediting body.	Rescue 3 as an accrediting body. Designing safety and rescue courses – not just ‘rescue’
		1.2	Recognise the different training courses available within the Rescue 3 scheme	Courses for wild swimmers, emergency services, whitewater professionals, construction workers, environment agency personnel, production crews etc.
		1.3	Recall the remit and role of people trained to WSSM level	The Wild Swimming Safety - Moving Water (WSSM) course is designed for people who swim in natural environments with moving water, eg rivers, as opposed to commercial swimming pools. Comparison with Wild Swimming Safety (WSS) course, for sheltered basic water, eg lakes.
2	Moving water swimming hydrology and water hazards	2.1	Recall the definitions of basic water, moving water, coastal water, swiftwater and whitewater	Basic water - typically still, flat water, eg lakes, ponds, canals. Moving - flowing down a gradient, eg streams, rivers, drainage channels. Coastal water - eg coastal sea, ocean, estuaries. Swiftwater - fast moving, steeper gradient, eg steep rivers, drainage channels, flash flood conditions. Whitewater - fast moving, steeper gradient, used for kayaking, rafting
		2.2	Identify the effect that volume, gradient and obstacles have on water	Volume - increase in energy. Gradient - increase in speed. Obstacles - creation of retentive water features, impact risk, siphon/strainer risk
		2.3	Identify water features	River hydrology including speed, depth and width. Current vectors. Waves. Stoppers. Eddies. Eddy lines. Downstream Vs.
		2.4	Describe the impact water features would have on individuals in water	Force of water, impact risk, retentive features, entrapments.
		2.5	Identify water hazards in a basic water environment	Flat water hazards, entrapment hazards, muddy bottoms to lakes and canals.
		2.6	Identify water hazards in a moving water environment	Fast current. Bends in the river. Undercuts. Strainers. Siphons. Stoppers. Weirs. Structures, eg scaffolding, bridge pillars etc. Identifying and understanding current vector.

WSSM



	Skill sheet element		Learning outcome	Key teaching points
3	Personal and group equipment for wild swimming	3.1	Identify personal protective equipment (PPE) that can be used for wild swimming	Wetsuits, boots, gloves, neoprene hat. Drysuits and thermal layers. Helmets, knives, throwbags, buoyancy aid, sunglasses/eye protection. Swim float.
		3.2	Identify group equipment for providing a rescue capability for co-swimmers	Throwbags, reach poles, floating aids, survival bags, group shelters, welfare packs, spare change of clothes.
		3.3	Recall post-use care and inspection procedures for PPE and group equipment.	Check, clean, dry. Check hardware for cracks, burrs, damage, corrosion etc. Inspect textiles for fraying, cuts, exposure to chemicals, contamination.
4	Weather and coastal considerations	4.1	Recall what effects weather can have on a wild swimmer in an inland water environment	Rising river levels due to rainfall, fallen trees due to wind, cold exposure, sunstroke, effects of wind on an exposed body of water (eg large lake) creating waves and swimming difficulties.
		4.2	Identify water hazards in a coastal water environment	Tides, coastal weather, currents, rip currents, wind against tide, on-shore and off-shore winds, tidal impact zones, sandbars/gullies, rocks/cliffs, pollution, dangerous marine life.
5	Pre-planning for wild swimming emergencies and rescue	5.1	Recall what information a wild swimmer will need to know when pre-planning for emergencies	What'll happen if a swimmer gets into difficulty? Rivers: Downstream hazards, downstream exit. Lakes: Weather conditions, wind speed and direction, closeness to shore. Who's going to rescue them/me? Alerting emergency services. Co-swimmer rescue capability, including training, prepositioning and access to rescue tools. Cold water immersion considerations – packaging eg survival bag, change of clothes.
		5.2	Recall control measures to avoid accidents and emergencies in a water environment	Co-swimmer rescue capability, including training, prepositioning and access to rescue tools. Phone signal for alerting emergency services. Correct clothing and PPE for conditions.



	Skill sheet element		Learning outcome	Key teaching points
6	Lone swimmer considerations	6.1	Recall the hazards and control measures of swimming alone	Appropriate training and PPE, designated check-in times pre- and post-swim, access to first aid and emergency equipment eg survival bag, changeable weather conditions eg rising water levels.
7	Dynamic risk assessments	7.1	Identify the elements of an effective dynamic risk assessment	Real time process ensuring actual situational risks are identified, evaluated and managed that may not be covered by written risk assessment process. Constantly re-evaluated
		7.2	Perform a dynamic risk assessment of a wild swimming site	Real time process ensuring actual situational risks are identified, evaluated and managed that may not be covered by written risk assessment process. Constantly re-evaluated
8	Cold water and ice considerations	8.1	Recall signs and symptoms of cold water shock	Cold water shock. Reduced capability
		8.2	Recall coping strategies when faced with accidental immersion in cold water	1-10-1 rule
		8.3	Recall hazards associated with ice, and suitable control measures.	Awareness, avoidance. What to do if you find yourself on/in ice, eg 1-10-1, spreading weight, keeping low, getting out the same way you come in
9	Medical and decontamination considerations	9.1	Identify signs/symptoms and treatment for common medical issues found in a water environment.	Hypothermia (too cold), hyperthermia (too hot), drowning, infection (eg leptospirosis, hepatitis), trauma eg bank hazards (slips, trips, falls), cold water shock.
		9.2	Recall the importance of minimising exposure to the water and decontamination procedures post-exposure	Check, clean, dry. Hand wipes, face wipes, cover cuts etc.
		9.3	Identify bank hazards and suitable control measures to prevent slips trips and falls.	Wet, steep, slippery, muddy banks, overhanging branches, vegetation. Control measures: PPE and training
10	Wild swimming group management	10.1	Recall techniques for journeying on moving water safely and/or protect a group.	Use of CLAP (Communication, Line of sight, Avoidance, Position of maximum usefulness) whilst journeying on moving water. Use of guidebooks, local knowledge, marker buoys, location of weirs and other hazards. Carrying of spare clothes, emergency/welfare equipment.



	Skill sheet element		Learning outcome	Key teaching points
11	Moving water swimming and self-rescue	11.1	Demonstrate the defensive swimming position.	Defensive swimming. Practical session in moving water environment, progressing to minimum grade 2 water.
		11.2	Demonstrate the aggressive swimming position.	Aggressive swimming. Practical session in moving water environment, progressing to minimum grade 2 water.
		11.3	Transition between the defensive and aggressive swimming positions.	Transitioning between defensive and aggressive swimming. When and where you would use each to self-rescue.
		11.4	Adjust body angle relative to the current vector.	In the defensive and aggressive swimming positions.
		11.5	Apply swimming techniques, angle control and momentum to perform a variety of tasks.	Practical session in moving water environment, progressing to minimum grade 2 water.
12	Shallow water wading techniques	12.1	Identify the variables and hazards that will directly affect shallow water wading techniques.	Identifying safe areas where shallow water wading techniques can be used: Depth, water speed, river bed morphology.
		12.2	Perform single and team-based shallow water techniques.	Single with and without wading pole, line astern, wedge. Foot placement and use of wading poles to scout for entrapment hazards. Moving as a group.



	Skill sheet element		Learning outcome	Key teaching points
13	Conditional rescues - talk, reach, throw	13.1	Identify conditional rescue options and the limitations of conditional rescues	Conditional rescues rely on participation of the person in the water.
		13.2	Identify, check and prepare suitable equipment for performing a conditional rescue	Use of a reach pole or other reaching tools, eg branches etc. Use of throwbags.
		13.3	Identify appropriate sites where conditional rescues can be performed	Position for throw (safety of thrower; place to bring co-swimmer into safe area and onto dry land, avoiding trees and other overhead objects).
		13.4	Demonstrate the correct method for receiving a throwbag.	Practical session in moving water environment, progressing to minimum grade 2 water.
		13.5	Perform a variety of conditional rescues	Practical session in moving water environment, progressing to minimum grade 2 water. Conditional rescues rely on participation of the person in the water. This session should include talking or encouraging the victim to swim to shore. Use of a reach pole or other reaching tools, eg branches etc. Use of throwbags. Type of throw (overhand, underhand).
		13.6	Identify methods of managing force directed on a rescuer and victim as water speed increases.	Rescuer/belayer moving downstream, or creating strong belay position. Paying out line. Appropriate site choice. Appropriate eddies for recovery.
14	Use of swim floats	14.1	Demonstrate use of swim floats in a moving water environment	Attachment to swimmer. Inflation. Deflation. Amount of buoyancy supplied. Ability to carry equipment in swim float.
15	Wild swimming emergency procedures	15.1	Recall the actions in the event of an emergency	Stop further activity. Raise the alarm. Assess the situation. Identify and implement rescue plan if within capability (or alert emergency services if beyond capability). Move casualty to safe zone and on to medical assessment and treatment. Post-incident or post-rescue documentation eg incident report necessary or not? Update of rescue plans.



	Skill sheet element		Learning outcome	Key teaching points
16	Casualty management	16.1	Identify hazards and control measures associated with casualty management in a moving water environment	Weather, water temperature, bank access, bank conditions, in-water features, panicking casualty
		16.2	Identify priorities for managing casualties' common medical issues	Airway, breathing, circulation (ABC), spinal management, trauma injuries





Rescue 3 Europe Ltd
Llangollen
Denbighshire
Wales
United Kingdom

Tel: +44 (0) 1978 869 069
Email: info@rescue3europe.com
Website: www.rescue3europe.com

 [Facebook.com/Rescue3Europe](https://www.facebook.com/Rescue3Europe)

