



INTERNATIONAL TECHNICAL
RESCUE ASSOCIATION

International Technical Rescue Association

994 Old Eagle School Rd. Ste 1019

Wayne, PA 19087, USA

<https://itra.international/>

info@itra.international

Rope Rescue Syllabus

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Purpose and Scope

The purpose of this document is to provide guidance and outline minimum standards for the ITRA Rope Rescue levels. Techniques, procedures, styles, and components vary from course to course and differ from instructor to instructor. The rope discipline strives not to dictate exactly how something needs to be done but more so sets a baseline standard of expectations for knowledge and skills at each level.

Course Information

- Name: ITRA Rope Rescue Level 1
- Typical Length: 3-5 days

- Name: ITRA Rope Rescue Level 2
- Typical Length: 4-6 days

- Name: ITRA Rope Rescue Level 3
- Typical Length: 4-7 days

Level Descriptions

Level 1 technicians are expected to be able to perform as part of a team on sloped terrain, with a non-ambulatory, litter-bound patient at a beginner level. The focus is on basic personal high-angle skills with team-based slope rescue skills.

Level 2 technicians are expected to be able to perform as part of a team in a vertical environment with a non-ambulatory, litter-bound patient at an intermediate level. The focus is on advanced personal high-angle skills and team-based vertical rescue skills.

Level 3 technicians are responsible for a litter-bound patient moving in horizontal or diagonal directions in free hanging space at an advanced level. The focus is on greater situational awareness, supervision of complex rope rescue techniques, and the dynamic nature of technical rope rescue.

PSC Overview

Performance: The required task that must be performed.

Standard: The expectations of how that task should be performed.

Conditions: The various criteria to perform the task.

Comments: Additional information relating to the task.

Definitions for document terms in bold text can be found in the ITRA Rope Rescue Terms and Definitions Document:

[Rope Rescue Terms & Definitions](#)
(Link to Proposed Working Document)

[Rope Rescue Safety Standards](#)
(Link to Proposed Safety Standards Document)

Assessor Guidance

Information on assessments can be found in the ITRA Assessment Charter and ITRA Rope Rescue Sub-Charter.

Mountain Rescue Assessment

In order to obtain a mountain designation with qualification, this condition must be met. May also have specific or general comments for performing this task.

Level 1

Rope Rescue Level 1 Syllabus

General Knowledge

100	General	Introduction to ITRA
101	General	Introduction to Local Incident Command System
102	General	Introduction to local rescue and safety laws
103	General	Introduction to local response frameworks and protocols
107	General	Basic command tactics and zoning for technical rescue
108	General	Knowledge of managing night/poor visibility operations for tech rescue
255	General	Introducing Standard Operating Procedures or Best Practice Guidelines
256	General	Technical equipment inventories and maintenance procedures
174	General	Rescue communications (radios)

Rope Knowledge

111	Rope	Basic equipment for rope rescue
175	Rope	Rescue communications (whistles and hand signals) on rope
254	Rope	Rope rescue hazard identification and management
257	Rope	Safety systems and protocols for rope rescue
294	Rope	Rope rescue medical considerations (suspension trauma, vertigo etc.)

Rope Skills

110	Rope	Rescue Knots
113	Rope	Mechanical Advantage Rigging
220	Rope	Independent Belay
258	Rope	Protection of Rope Systems
259	Rope	Single-Point Anchors
260	Rope	Multi-Point Anchors
261	Rope	Edge lines
262	Rope	On-Rope Ascending
263	Rope	On-Rope Descending
273	Rope	On-Rope Change Over: Ascending to Descending
272	Rope	On-Rope Change Over: Descending to Ascending
264	Rope	On-Rope Self-Rescue
269	Rope	Patient Packaging
270	Rope	Litter Rigging: Inclined Slope
284	Rope	Litter Attendant Rigging: Inclined Slope
265	Rope	Lowering System: Inclined Slope
266	Rope	Raising System: Inclined Slope

#110 Rescue Knots

Performance:

Correctly tie a knot from each of 6 categories.

Standard:

Tie one from each of the following categories.

1. End of rope **Terminating Knot**.
2. **Bend** joining two ropes together.
3. **Midloop** Knot in the middle of the rope.
4. **Friction Hitch** attached to another rope.
5. **Variable Friction Hitch** attached to a carabiner.
6. Tensionless Hitch.

Knots must be:

- Properly tied, dressed, and set.
- If required, tied with a tail of approximately 10 cm (4 inches).
- If required, tied with a **safety knot**. Knots requiring a safety knot include the Bowline and Sheet Bend.

Recognized knots include:

1. Figure 8, Bowline, Scaffold.
2. Double Fisherman, Flemish/Figure 8 Bend
3. Alpine Butterfly, In-Line Figure 8
4. 3-Wrap Prusik, Klemheist, Valdotain Tresse (VT), VT Max/Schwabisch Hitch , Distel Hitch
5. Munter/Italian Hitch
6. Tensionless Hitch

Conditions:

Mtn Rescue Assessment:

May be assessed in a manmade environment/indoors.

Comments:

For the purposes of assessment, the knots listed are limited for safety reasons and to ensure commonly utilized knots are used.

Additional knots may be used with prior arrangement.

#113 Mechanical Advantage Rigging

Performance:

Rig commonly used simple mechanical advantage systems.

- 2:1
- 3:1
- 4:1
- 5:1

Standard:

Systems must be:

- Rigged as a mechanical advantage and not a change of direction.
- Integrate a properly functioning progress capture ability.

Candidate must:

- Demonstrate the ability to tie or lock off the system if left unattended.

Conditions:

May be assessed in conjunction with other task items.

Assessor Guidance:

A **suitable** anchor point to rig off of and a cache of appropriate equipment and rigging material will be available.

Mtn Rescue Assessment:

May be assessed in a manmade environment/indoors.

Comments:

#220 Independent belay

Performance:

Rig and operate an independent belay.

Standard:

System must:

- Be able to arrest the fall of a **standard load**.

Candidate must:

- Operate the independent belay system during a lower or a raise for at least 5m.
- Maintain less than 1 meter of slack in the system.
- Demonstrate the ability to rest the load, tie, or lock off the system.
 - continue operation of the components after it has been at rest.

A minor discrepancy will be awarded for the following:

- More than 1 meter but less than 2 meters of rope slack in the rope system.

A major discrepancy will be awarded for the following:

- More than 2 meters of slack in the rope system.
- Failure to be able to resume belaying if the belay is loaded unintentionally.

Conditions:

- Can be assessed in conjunction with other task items.
- May be performed on a flat ground, an **inclined slope**, or **vertical** environment.
- The independent belay line may be tensioned or un-tensioned.

Assessor Guidance:

A suitable anchor point to rig off of and a cache of appropriate equipment and rigging material will be available.

Techniques for facilitating this task can include:

1. The assessor or other volunteer rappelling on a single fixed line, while the candidate operates an independent belay line.
2. The assessor lowers a suspended mass, while the candidate operates a belay line attached to that same mass.

Mtn Rescue Assessment:

- May be assessed in a manmade environment/indoors.
- Mechanical force-limiting devices are not allowed.

Comments:

The intention of this task is to have the candidate demonstrate the ability to properly belay a **standard load or rescue load** not using a mirrored or twin-tensioned system. This way the candidate has the skills necessary if a device breaks or goes missing if they normally rely on a mirrored or twin-tensioned typed system(s).

#258 Protection of Rope Systems

Performance:

Properly protect rope(s) at an edge in a **vertical** environment from potential hazards.

Standard:

Candidate must:

- Mitigate risks and protect the rope(s) from hazards.
 - Use rope protection material(s)
 - Properly tether protection materials to prevent unintended movement.

Conditions:

Appropriate rope protection material will be provided.

Rope protection must remain in position once set and not shift to a position where protection is no longer afforded.

Assessor Guidance:

May have students perform this task in conjunction with other tasks that are not pre-rigged. The assessor may also rig a rope rescue system for them to protect such as a fixed line, lowering system, or hauling system.

Hazard examples: Sharp edges, and high-friction points that may cause failure of equipment/materials.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**.

Comments:

May be performed in conjunction with other tasks.

#259 Single-Point Anchors

Performance:

Build a single-point anchor off a fixed object.

Standard:

Candidate must:

- Ensure the anchor, choice of hardware, and anchor-tying material can support a **rescue load**.
- Create a **master point** extended approximately 1 meter away from the fixed object.

Conditions:

An anchor location and material will be provided. Anchors, choice of hardware, and specific anchor-tying material (such as rope, cordage, webbing, and pre-sewn slings) may depend on local protocols.

If items such as cams, nuts, ice screws, or pickets are used for this task, the candidate must still make a master point away from the fixed object. For example, the placement of a single camming device does not suffice for the completion of this task.

Assessor Guidance:

May have students perform this task in conjunction with other tasks that are not pre-rigged. Anchors, choice of hardware, and anchor-tying material may depend on local protocols.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

#260 Multi-Point Anchors

Performance:

Rig a multi-point anchor off fixed objects.

Standard:

Candidate must:

- Ensure the anchor, choice of hardware, and anchor-tying material can support a **rescue load**.
- Demonstrate the ability to create a **master point** in a specific location specified by the assessor.
- Make a reasonable attempt to equalize the legs of the anchor.

Anchor system must:

- Not be lost if one leg of the system were to fail.
- Have no extension if one leg of the system were to fail.
- Be correctly focused on the expected direction of the load.
- Must be stronger or equal in strength to the weakest leg of the anchor.

Conditions:

An anchor location and material will be provided. A combination of equipment & gear may be used as available.

Assessor Guidance:

May have students perform this task in conjunction with other tasks that are not pre-rigged. Anchors, choice of hardware, and anchor-tying material may depend on local protocols.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

#261 Edge lines

Performance:

Rig an edge line in an area or terrain that has a fall zone in a **vertical** environment.

Standard:

Candidate must:

- Protect their line/system with rope protection as necessary
- Must accomplish the following
 - Fall Prevention
 - Travel Restraint
- Allow for unhindered movement within the safe working area.
- Create a system that properly positions the edge attendant in a fall zone but does not allow them to fall over the edge.

System must:

- Be **suitably strong** and capable of restraining any anticipated force it may see.

Conditions:

An anchor location and material will be provided. A combination of equipment & gear may be used as available.

No more than 1 meter of slack may be introduced into the rope(s)/system while attached in a fall zone.

Assessor Guidance:

May have students perform this task in conjunction with other tasks that are not pre-rigged. Anchors, choice of hardware, and anchor-tying material may depend on local protocols.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

#262 On-Rope Ascending

Performance:

Ascend a fixed rope in a **vertical** environment.

Standard:

Candidate must:

- Safely rig an ascending system onto a fixed rope.
- Perform a function test to ensure the **ascent device** is rigged properly.
- Ascend a minimum of 5 meters in a controlled manner.
- Descend back down the same rope 1 meter without removing or changing equipment.

Conditions:

- A fixed rope system will be made available. This rope system must be in a **vertical** environment.
- Add catastrophe knots if required by local protocols/expectations.
- Not required to be in a free-hanging environment but can be.
- The movement of 1 meter back down on the ascending device(s) must be performed without removing any equipment from the rope during the maneuver.

Assessor Guidance:

May have students perform this task in conjunction with other tasks such as #273 (Change over on-rope ascent to descent), #272 (Change over on-rope descent to ascent), and #263 (Personal Descending).

Anchors, choice of hardware, and materials may depend on local protocols.

Mtn Rescue Assessment:

May be assessed in a manmade environment/indoors.

Comments:

This may be performed in conjunction with other tasks.

#263 On-Rope Descending

Performance:

Descend a fixed rope in a **vertical** environment.

Standard:

Candidate must:

- Safely rig a descent device onto a fixed-line.
- Perform a function test to ensure the device is rigged properly.
- Descend a minimum of 5 meters in a controlled manner.
- Demonstrate stopping, locking/tying off the device they are using, and temporarily go hands-free.

Conditions:

- A fixed rope system will be made available. This rope system must be in a **vertical** environment.
- Add catastrophe knots if required by local protocols/expectations.
- Not required to be in a free-hanging environment but can be.

Assessor Guidance:

May have students perform this task in conjunction with other tasks such as #273 (On-Rope Change Over Ascent to Descent), #272 (On-Rope Change Over Descent to Ascent), and #262 (Personal Ascending).

Anchors, choice of hardware, and materials may depend on local protocols.

Mtn Rescue Assessment:

May be assessed in a manmade environment/indoors.

Comments:

May be performed in conjunction with other tasks.

#273 On-Rope Change Over: Ascend to Descend

Performance:

Change over from ascend mode to descend mode while on a fixed line in a **vertical** environment.

Standard:

Candidate must:

- Start from a suspended position on a rope system connected with an appropriate **ascent device**.
- Change to an appropriate descending system.
- Add catastrophe knots if required by local protocols/expectations.
- Maintain two points of attachment onto the rope(s) at all times during the changeover until a function test of the **descent device** is performed.

Conditions:

- A fixed rope system will be made available. This rope system must be in a **vertical** environment.
- Not required to be in a free-hanging environment but can be.

Assessor Guidance:

May have students perform this task in conjunction with other tasks such as #262 (Personal ascending), #272 (On-Rope Change Over Descent to Ascent), and #263 (Personal Descending).

Anchors, choice of hardware, and materials may depend on local protocols.

Mtn Rescue Assessment:

May be assessed in a manmade environment/indoors.

Comments:

May be performed in conjunction with other tasks.

#272 On-Rope Change Over: Descend to Ascend

Performance:

Change over from descending mode to ascend mode while on a fixed line in a **vertical** environment.

Standard:

Candidate must:

- Start from a suspended position on a rope system connected with an appropriate **descent device**.
- Change to an appropriate **ascent device**.
- Ascend a minimum of 1 meter.
- Add catastrophe knots if required by local protocols/expectations.
- Maintain two points of attachment onto the rope(s) at all times during the changeover until a function test of the **ascent device** is performed.

Conditions:

- A fixed rope system will be made available. This rope system must be in a **vertical** environment.
- Not required to be in a free-hanging environment but can be.

Assessor Guidance:

May have students perform this task in conjunction with other tasks such as #273 (On-Rope Change Over Ascent to Descent), #263 (Personal Descending), and #262 (Personal Ascending).

Anchors, choice of hardware, and materials may depend on local protocols.

Mtn Rescue Assessment:

May be assessed in a manmade environment/indoors.

Comments:

May be performed in conjunction with other tasks.

#264 On-Rope Self-Rescue

Performance:

Perform a self-rescue from an inoperable **descent device**.

Standard:

Candidate must:

- Descend a fixed rope into a knot while remaining suspended off the ground.
- Free the jammed **descent device** to allow removal of the knot.
- Remove the knot and continue descending.
- Maintain two points of attachment during the maneuver until the device is cleared and a function test of the **descent device** is performed.

Conditions:

- A fixed rope system will be made available. This rope system must be in a **vertical** environment.
- Not required to be in a free-hanging environment but can be.

Assessor Guidance:

May have students perform this task in conjunction with other tasks such as #263 (Personal Descending).

Anchors, choice of hardware, and materials may depend on local protocols.

Mtn Rescue Assessment:

May be assessed in a manmade environment/indoors.

Comments:

May be performed in conjunction with other tasks.

#269 Patient Packaging

Performance:

Package a patient into a litter.

Standard:

Candidate must:

- Not cause additional injury as a result of their packaging techniques.
- Patient must be packaged in a manner where there is no possibility of sliding out of the litter regardless of orientation.
- Minimize unwanted movement in the litter.

Conditions:

- A live patient, manikin, or similar humanoid-shaped object may be used.
- An appropriate litter and packaging material will be provided.
- Manufactured and improvised rigging systems may be used.

Assessor Guidance:

The choice of litter and materials may depend on local protocols.

If there are questions about appropriate packaging the manufacturer's documentation should be consulted as a minimum recommendation.

Mtn Rescue Assessment:

May be assessed in a manmade environment/indoors.

Comments:

May be performed in conjunction with other tasks.

#270 Litter Rigging: Inclined Slope

Performance:

Rig and attach a litter to a rope rescue system for use on an **inclined slope**.

Standard:

Candidate must:

- Appropriately connect the litter to the rope system.

Conditions:

- A cache of appropriate equipment and rigging material will be available.
- May be rigged on flat ground to demonstrate competency

Assessor Guidance:

The choice of litter and materials may depend on local protocols.

Mtn Rescue Assessment:

May be assessed in a manmade environment/indoors.

Comments:

May be performed in conjunction with other tasks.

#284 Litter Attendant Rigging: Inclined Slope

Performance:

Rig attendant attachment points for use with a litter on an **inclined slope**.

Standard:

Candidate must:

- Rig secure attachment points for a minimum of 3 attendants.
- Rig attachment points in a manner that each rescuer can safely go hands-free.
- Allow attendants to control excess movement to the litter.

Conditions:

- A cache of appropriate equipment and rigging material will be available.
- May be rigged on flat ground to demonstrate competency.
- Litter attachment points must be able to withstand a minimum force of 6 kN.
- Railings on metal basket litters (stokes litters) shall be considered structural elements for the purposes of attachment points.

Assessor Guidance:

- The choice of litter and materials may depend on local protocols.

Mtn Rescue Assessment:

May be assessed in a manmade environment/indoors.

Comments:

May be performed in conjunction with other tasks.

#265 Lowering System: Inclined Slope

Performance:

Rig and operate a rope system to lower a **standard load** in an **inclined sloped** environment.

Standard:

Candidate must:

- Properly Rig a system to lower the load
- Demonstrate the ability to control a load, consisting of a litter with attendant(s), during a lower on an **inclined slope** for at least 5 meters.
- Demonstrate the ability to safely go hands-free with the **descent device**.
- If performed as part of a team exercise, the candidate must be the one physically controlling the speed of the lowering.

System Must:

- Be able to arrest the fall of a **standard load** in instances such as failure of a mainline, a slip, fall, and/or unexpected/undesired movement of the rope.

Conditions:

- The task must be conducted by lowering a litter with attendant(s).
- Depending on the technique and rope system used, assistance may be granted to manage part of the rope rescue system.
- A cache of appropriate equipment and rigging material will be available.

Assessor Guidance:

The choice of equipment and materials may depend on local protocols.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

#266 Raising System: Inclined Slope

Performance:

Rig and operate a rope system to raise a **standard load** in an **inclined sloped** environment.

Standard:

Candidate must:

- Properly Rig a mechanical advantage system to raise the load
- Demonstrate the ability to control a load, consisting of a litter with attendant(s), during a raise on an **inclined slope** of at least 5 meters.
- Demonstrate the ability to safely go hands-free with whatever device/system they are using.
- If performed as part of a team exercise, the candidate must be the one controlling the speed of the raising.

System Must:

- Be able to arrest the fall of a **standard load** in case of an **undesired event**.

Conditions:

- The task must be conducted by raising a litter with attendant(s).
- Depending on the technique and rope system used, assistance may be granted to manage part of the rope rescue system.
- A cache of appropriate equipment and rigging material will be available.

Assessor Guidance:

The choice of equipment and materials may depend on local protocols.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

Level 2

Rope Rescue Level 2 Syllabus

Rope Knowledge

289	Rope	Rope rescue physics - vector forces, fall factors, slope loading, T method
290	Rope	Rope rescue - system analysis
379	Rope	Rig For Rescue
311	Rope	Vehicle Anchor
315	Rope	Load Release Hitches
313	Rope	Knowledge of Dead Man anchors
501	Rope	Knowledge of picket/ground anchor systems

Rope Skills

267	Rope	Lowering System: Vertical Environment
268	Rope	Raising System: Vertical Environment
271	Rope	Litter Rigging: Vertical Environment
274	Rope	On-Rope Ascending: Knot Pass
275	Rope	On-Rope Descending: Knot Pass
277	Rope	Raising System: Knot Pass
278	Rope	Lowering System: Knot Pass
281	Rope	Artificial High Directional: Basic
285	Rope	Litter Attendant Rigging: Vertical Environment
286	Rope	Lowering to Raising System
287	Rope	Raising to Lowering System
291	Rope	Pick-Off Rescue: Unsuspended Patient
300	Rope	Litter Edge Transition
316	Rope	Improvised Harness
295	Rope	Retrievable system
293	Rope	Difficult Edge: Descending
280	Rope	Difficult Edge: Ascending
380	Rope	Team-based Pick-Off: Suspended

#267 Lowering System: Vertical Environment

Performance:

Rig and operate a system to lower a **standard load** in a **vertical** environment.

Standard:

Candidate must:

- Properly select and Rig a system to lower the load
- Demonstrate the ability to control the load in a litter during a lowering in a **vertical** environment at least 5 meters.
- Demonstrate the ability to safely go hands-free with the **descent device**.
- If performed as part of a team exercise, the candidate must be the one physically controlling the speed of the lowering.

System Must:

- Be able to arrest the fall of a **rescue load** in instances of an **undesired event**.

Conditions:

- The task may be conducted by lowering another individual/candidate, litter, or other suitable weight. The use of a rescue litter is not required.
- Depending on the technique and rope system used, assistance may be granted to manage part of the rope rescue system.
- A single-rope or two-rope rescue system, such as single main and belay or twin tension, may be used depending on local protocols, expectations, and insurance.
- A cache of appropriate equipment and rigging material will be available.
- A high directional may be used.
- This task must be performed in a **vertical** environment

Assessor Guidance:

The choice of equipment and materials may depend on local protocols.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

This task does not supersede the Level 1 task #265.

#268 Raising System: Vertical Environment

Performance:

Rig and operate a system to raise a **standard load** in a **vertical** environment.

Standard:

Candidate must:

- Properly select and Rig a mechanical advantage system to raise the load
- Demonstrate the ability to raise the load in a **vertical** environment at least 5 meters.
- Physically raise the load without additional assistance beyond the mechanical advantage system.
- Demonstrate the ability to safely go hands-free with whatever device/system they are using.
- If performed as part of a team exercise, the candidate must be the one controlling the speed of the raising.

System Must:

- Be able to arrest the fall of a **rescue load** in instances of an **undesired event**.

Conditions:

- The task may be conducted by raising another individual/candidate, litter, or other suitable weight. The use of a rescue litter is not required.
- Depending on the technique and rope system used, assistance may be granted to manage part of the rope rescue system.
- A single-rope or two-rope rescue system, such as single main and belay or twin tension, may be used depending on local protocols, expectations, and insurance.
- A cache of appropriate equipment and rigging material will be available.
- A high directional may be used.
- This task must be performed in a **vertical** environment

Assessor Guidance:

The choice of equipment and materials may depend on local protocols.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

This task does not supersede the Level 1 task #266.

#271 Litter Rigging: Vertical Environment

Performance:

Rig/Attach a litter into a rope rescue system for use in a **vertical** environment.

Standard:

Candidate must:

- Appropriately connect the litter to the rope system.

Conditions:

- Rigging orientation will be determined by the assessor.
- A cache of appropriate equipment and rigging material will be available.
- May be rigged on flat ground to demonstrate competency
- A single-rope or two-rope rescue system, such as single main and belay or twin tension, may be used depending on local protocols, expectations, and insurance.

Assessor Guidance:

- Assessor shall notify the candidate of the preferred orientation, vertical or horizontal, before the assessment of the task begins.
- The choice of litter and materials may depend on local protocols.

Mtn Rescue Assessment:

May be assessed in a manmade environment/indoors.

Comments:

May be performed in conjunction with other tasks.

This task supersedes the Level 1 task #270. If a candidate is testing for a Level 2 or 3 qualification but also needs to complete Level 1 tasks, they may skip #270 and perform #271 to prove competency.

#274 On-Rope Ascending: Knot Pass

Performance:

Pass a knot while ascending a fixed rope in a **vertical** environment.

Standard:

Candidate must:

- Safely rig an ascending system onto a fixed rope.
- Perform a function test to ensure the **ascent device** is rigged properly.
- Maintain two points of attachment onto the rope(s) at all times during the changeover until a function test of the ascent device is performed.
- Ascend a minimum of 5 meters in a controlled manner.
 - Pass a knot that is at least 4 meters above the ground
- Remain suspended off the ground, solely supported by the ropes while passing the knot

Conditions:

- A fixed rope system will be made available.
- The rope system must be in a **vertical** environment.
- Not required to be in a free-hanging environment but can be.

Assessor Guidance:

- May have students perform this task in conjunction with other on-rope skills.
- Anchors, choice of hardware, and materials may depend on local protocols.

Mtn Rescue Assessment:

May be assessed in a manmade environment/indoors.

Comments:

This may be performed in conjunction with other tasks.

#275 On-Rope Descending: Knot Pass

Performance:

Pass a knot while descending a fixed rope in a **vertical** environment.

Standard:

Candidate must:

- Safely rig a **descent device** onto a fixed rope.
- Perform a function test to ensure the **descent device** is rigged properly.
- Maintain two points of attachment onto the rope(s) at all times during the changeover until a function test of the **descent device** is performed.
- Descend a minimum of 5 meters in a controlled manner.
 - Pass a knot during their descent before they reach the ground.
- Remain suspended off the ground, solely supported by the ropes while passing the knot

Conditions:

- A fixed rope system will be made available.
- The rope system must be in a **vertical** environment.
- Not required to be in a free-hanging environment but can be.

Assessor Guidance:

- May have students perform this task in conjunction with other on-rope skills.
- Anchors, choice of hardware, and materials may depend on local protocols.

Mtn Rescue Assessment:

May be assessed in a manmade environment/indoors.

Comments:

May be performed in conjunction with other tasks.

#277 Raising System: Knot Pass

Performance:

Pass a knot through a rope rescue system while raising a **standard load**.

Standard:

Candidate must:

- Demonstrate the ability to pass a knot through a rope rescue system that is being used to raise a load.
- Maintain no more than 1m of slack in the ropes during the knot pass.
- Maintain a **standard load** suspended solely by the ropes for the duration of this task.
- Ensure no sudden drops or slips greater than 25cm during the knot pass.
- Be the only one physically controlling the ropes.

System Must:

- Be able to arrest the fall of a **rescue load** in instances of an **undesired event**.

Conditions:

- Single-rope or two-rope rescue systems may be used (such as a single main + belay or TTRS).
- Knots will be at least 0.5m away from the device(s) but no more than 3m away from the device (s) to start the task.
- If a two-rope system is used, knots must be passed through both ropes.
- If a two-rope system is used, knots may be parallel to each other while under tension.

Assessor Guidance:

The system will already be built for this task by the assessor or it can be performed in conjunction with other tasks such as #267 & #268.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

#278 Lowering System: Knot Pass

Performance:

Pass a knot through a rope rescue system while lowering a **standard load**.

Standard:

Candidate must:

- Demonstrate the ability to pass a knot through a rope rescue system that is being used to lower a load.
- Maintain no more than 1m of slack in the ropes during the knot pass.
- Maintain a **standard load** suspended solely by the ropes for the duration of this task.
- Ensure no sudden drops or slips greater than 25cm during the knot pass.
- Be the only one physically controlling the ropes.

System Must:

- Be able to arrest the fall of a rescue load in instances of an **undesired event**.

Conditions:

- A single-rope or two-rope rescue system, such as single main and belay or twin tension, may be used depending on local protocols, expectations, and insurance.
- Knots will be at least 0.5m away from the device(s) but no more than 3m away from the device (s) to start the task.
- If a two-rope system is used, knots must be passed through both ropes.
- If a two-rope system is used, knots may be parallel to each other while under tension.

Assessor Guidance:

The system will already be built for this task by the assessor or it can be performed in conjunction with other tasks such as #267 & #268.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

#281 Artificial High Directional: Basic

Performance:

Rig a three-leg (tripod) or four-leg (quadpod) Artificial High Directional (AHD).

Standard:

Candidate must:

- Properly rig a tripod or quadpod over a given location.
- Have their final resultant inside the footprint of the AHD
- Attach rope(s) for a raising or lowering system.

System must:

- Be **suitably strong** to support a **rescue load**.
- Be properly secured/back tied to prevent collapse of the AHD (if needed).
- Remain stable when a load is raised or lowered.

Conditions:

- A single-rope or two-rope rescue system, such as single main and belay or twin tension, may be used depending on local protocols, expectations, and insurance.
- #368 may be used as a substitute for this task.
- For assessment purposes, a purpose-built manufactured AHD must be used.

Assessor Guidance:

The choice of AHD design must be communicated with the team/candidates prior to the start of the assessment.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

#285 Litter Attendant Rigging: Vertical Environment

Performance:

Rig attendant attachment points for use with a litter in a **vertical** environment.

Standard:

Candidate must:

- remain connected to the rope system during a raise or lower in a **vertical** environment.
- be able to maneuver the litter around any expected obstacles.
- be able to go hands-free safely.

Conditions:

- Rigging orientation will be determined by the assessor.
- A cache of appropriate litter and rigging material will be available.
- May be rigged on flat ground to demonstrate competency

Assessor Guidance:

- Assessor shall notify the candidate of the preferred orientation, vertical or horizontal, before the learning objective assessment begins.
- The choice of litter and materials may depend on local protocols.
- A single-rope or two-rope rescue system, such as single main and belay or twin tension, may be used depending on local protocols, expectations, and insurance.

Mtn criteria:

May be assessed in a manmade environment/indoors.

Comments:

May be performed in conjunction with other tasks.

#286 Lowering to Raising System

Performance:

Demonstrate the ability to change a rope system from lowering to raising.

Standard:

Candidate must:

- Convert a rope rescue system configured to perform lowering to a raising system.
- Maintain a **standard load** suspended solely by the ropes for the duration of this task.
- Maintain no more than 1m of slack in the system during the duration of the task.
- Ensure no sudden drops or slips greater than 25cm

System Must:

- Be able to arrest the fall of a **rescue load** in instances of an **undesired event**.

Conditions:

- One assistant may be provided to help with hauling or operating the independent belay system as directed by the candidate.
- A single-rope or two-rope rescue system, such as single main and belay or twin tension, may be used depending on local protocols, expectations, and insurance.

Assessor Guidance:

- This task may be performed in conjunction with other tasks.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

#287 Raising to Lowering System

Performance:

Demonstrate the ability to change a rope system from raising to lowering.

Standard:

Candidate must:

- Convert a rope rescue system configured to perform a raising to a lowering system.
- Maintain a **standard load** suspended solely by the ropes for the duration of this task.
- Maintain no more than 1m of slack in the system during the duration of the task.
- Ensure no sudden drops or slips greater than 25cm

System Must:

- Be able to arrest the fall of a **rescue load** in instances of an **undesired event**.

Conditions:

- One assistant may be provided to help with hauling or operating the independent belay system as directed by the candidate.
- A single-rope or two-rope rescue system, such as single main and belay or twin tension, may be used depending on local protocols, expectations, and insurance.

Assessor Guidance:

- This task may be performed in conjunction with other tasks.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

#291 Pick-Off Rescue: Unsuspended Patient

Performance:

Perform a rescuer-based pickoff of an unsuspended and unsecured Patient.

Standard:

Candidate must:

- Approach a patient on a ledge or simulated ledge by ascending or descending in a **vertical** environment
- Attach the unsecured Patient to the rope rescue system.
- Finishing the task by descending with the patient simultaneously to the ground.

Patient criteria:

- Weight of a **standard load**
- May have a harness or attachment point pre-rigged and may be secured to a rope system for safety.

Conditions:

- The Patient may be on a ledge between two **vertical** environments or secured mid-wall of a **vertical** environment.
- The lower must be a distance of at least 5m in a **vertical** environment from the pick-off point to the ground
- Candidates may not lower the Patient independently from themselves, they must go to the ground together.
- A single-rope or two-rope rescue system, such as single main and belay or twin tension, may be used depending on local protocols, expectations, and insurance.

Assessor Guidance:

- This task is to simulate an unsecured Patient in a fall zone.
- If the patient is initially secured, this should be done with a pre-rigged releasable system which shall be released after the candidate secures the patient.
- A harness may be worn by the patient at the beginning of the assessment based on local guidelines, SOPS, and insurance requirements.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

#300 Litter Edge Transition

Performance:

Negotiate a litter over an edge as part of a rope rescue operation in a **vertical** environment.

Standard:

Candidate must:

- Be connected to the rope rescue system.
- Control the litter so the patient remains protected from impact with equipment, obstacles, or the edge.
- Ensure excess movement of the litter is controlled.
- The candidate being assessed shall be in control of the transition

Conditions:

- This task must be performed in a **vertical** environment.
- The weight of the litter must be equivalent to a **standard load**.
- May be during a lower or a raise.
- The use of a mechanical device, such as a powered haul or winch is acceptable.
- Use of a high directional is recommended.
- A single-rope or two-rope rescue system, such as single main and belay or twin tension, may be used depending on local protocols, expectations, and insurance.

Assessor Guidance:

A difficult edge is not required in order to streamline the assessment process although performing a litter transition over a difficult edge is a recommended skill for students to learn.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

#316 Improvised Harness

Performance:

Rig an improvised seat and chest or full-body harness.

Standard:

Candidate must:

- Rig an improvised harness using cordage or webbing.
- Secure the harness so it cannot slip off with a shift in body position
- Explain the expected use/situations in which an improvised harness would be used.

Conditions:

- The harness must not create an immediate medical issue such as compressing the diaphragm or neck.
- The harness may be tied on either themselves, another candidate, or on a manikin.
- Tubular webbing, sewn webbing/slings, or cordage may be used for this task.

Assessor Guidance:

- If an improvised harness is used during a scenario, steps must be taken to limit suspension time in order to prevent medical issues.

Mtn Rescue Assessment:

May be assessed in a manmade environment/indoors.

Comments:

For safety reasons, it is not recommended that improvised harnesses are used during the assessment of other learning objectives.

#295 Retrievable System

Performance:

Rig a fixed line(s) that can be retrieved remotely.

Standard:

Candidate must:

- Be able to retrieve all components of the system remotely.
- Explain the dangers involved with the chosen system and actions taken to mitigate the potential dangers.

System must:

- Ropes must be protected with additional components.
- Ropes must not be in direct contact with the anchor.
- If a two rope system is used, both lines must be rigged independently.

Conditions:

- Failure to account for potential dangers which can result in a premature release of the rope shall constitute a failure to perform the task.

Assessor Guidance:

N/A

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

N/A

#280 Difficult Edge: Descending

Performance:

Descend over a **difficult edge** without the use of a high anchor point.

Standard:

Candidate must:

- Transition over a difficult edge while beginning a descent.

System must:

- The rope(s) must be anchored so they lay parallel to the ground.
- No high directional, deviation, vector or other method of suspending the ropes may be used.

Conditions:

- A fixed rope system will be made available. This rope system must be in a **vertical** environment.

Assessor Guidance:

N/A

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May have students perform this task in conjunction with other tasks

#293 Difficult Edge: Ascending

Performance:

Ascend over a **difficult edge** without the use of a high anchor point.

Standard:

Candidate must:

- Transition over a difficult edge while ascending.

System must:

- The rope(s) must be anchored so they lay parallel to the ground.
- No high directional, deviation, vector or other method of suspending the ropes may be used.

Conditions:

- A fixed rope system will be made available. This rope system must be in a **vertical** environment.

Assessor Guidance:

N/A

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May have students perform this task in conjunction with other tasks

#380 Team-based Pick-Off: Suspended

Performance:

Rig a rope rescue system for a team-based pickoff of a suspended patient.

Standard:

Candidate must:

- Given a rope rescue system, rig connection points for the rescuer and patient and explain how they are used.
- Explain the procedures to be used to pick off the suspended patient.

Conditions:

- May be demonstrated on flat ground.
- The attachment end(s) of a rope system will be made available.
- A single-rope or two-rope rescue system, such as single main and belay or twin tension, may be used depending on local protocols, expectations, and insurance.

Assessor Guidance:

- This task is intended to have the candidate demonstrate the knowledge to perform as a rescuer in a team-based pick-off. For assessment purposes, the desired objective is to have the candidate understand both the system operation and rescuer procedures.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May have students perform this task in conjunction with other tasks such as #267 (Lowering System) and #268 (Raising System)

Level 3

Rope Rescue Level 3 Syllabus

Rope Knowledge

288 Rope Advanced knowledge of technical rope equipment

Rope Skills

282 Rope Highline: Transport
283 Rope Highline: English Reeve
373 Rope Highline with Norwegian Reeve
378 Rope Cross Haul
292 Rope Pick-Off Rescue: Suspended Victim
305 Rope On-Rope Line Transfer
312 Rope On-Rope Re-Anchor: Descent
338 Rope On-Rope Re-Anchor: Ascent
339 Rope Guiding Line Offset
368 Rope Artificial High Directional: Advanced
369 Rope Breaking Into A Fixed Rope

#282 Highline: Transport

Performance:

Rig a non-reeving transport highline capable of moving a **rescue load** over a horizontal distance.

Standard:

Candidate must:

- Upon completion of the rigging, explain the proper operation of the system.
- Tension the track line(s) such that appropriate precautions are taken to minimize the potential for overloading the system during use.

System Must:

- Be able to arrest the fall of the load in instances such as failure of a trackline or control line.
- The candidate must direct the highline construction and operation.

Conditions:

- May be built at ground level between two points if not selected to be operational by the assessor.

Assessor Guidance:

The choice of equipment and materials may depend on local protocols.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

#283 Highline: English Reeve

Performance:

Rig a Reeving Highline capable of raising and lowering a **rescue load**.

Standard:

Candidate must:

- Upon completion of the rigging, explain the proper operation of the system.
- Tension the track line(s) so appropriate precautions are taken to minimize the potential for overloading the system during use.

System Must:

- Allow for the raising and lowering of a load.
- Raising and lowering can be controllable from either side of the highline.

Conditions:

- May be built at ground level between two points if not selected to be operational by the assessor.
- The candidate must direct the highline construction and operation.

Assessor Guidance:

- The choice of equipment and materials may depend on local protocols.
- At least one of #282, #373, #339 or #378 must be rigged and operated a minimum of 5 meters horizontal distance and 3 meters vertical distance with a **standard load**.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

#373 Highline: Norwegian Reeve

Performance:

Rig a Reeving Highline capable of raising and lowering a **rescue load**.

Standard:

Candidate must:

- Upon completion of the rigging, explain the proper operation of the system.
- Tension the track line(s) so appropriate precautions are taken to minimize the potential for overloading the system during use.

System Must:

- Allow for the raising and lowering of a load.
- Raising and lowering must be controllable from only one side.

Conditions:

- May be built at ground level between two points if not selected to be operational by the assessor.
- The candidate must direct the highline construction and operation.

Assessor Guidance:

- The choice of equipment and materials may depend on local protocols.
- At least one of #282, #373, #339 or #378 must be rigged and operated a minimum of 5 meters horizontal distance and 3 meters vertical distance with a **standard load**.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

#378 Cross Haul

Performance:

Rig a cross haul capable of moving a rescue load.

Standard:

Candidate must:

- Upon completion of the rigging, explain the proper operation of the system.

System Must:

- Be capable of raising, lowering, and horizontal movement from either side.

Conditions:

- May be built at ground level between two points if not selected to be operational by the assessor.
- The candidate must direct the cross-haul construction and operation.

Assessor Guidance:

- The choice of equipment and materials may depend on local protocols.
- At least one of #282, #373, #339 or #378 must be rigged and operated a minimum of 5 meters horizontal distance and 3 meters vertical distance with a **standard load**.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

#292 Pick-Off Rescue: Suspended Victim

Performance:

Perform a rescuer-based pickoff of a suspended victim.

Standard:

Candidate shall demonstrate:

- Approach the patient by ascending or descending in a **vertical** environment.
- Attach the suspended victim to the rescuer's rope system.
- Transfer the patient's weight from their system to the rescuer's system.
- Complete the task by descending with the patient simultaneously to the ground at least 5 meters from the pick-off point in a **vertical environment**.

Patient criteria:

- Shall consist of a **standard load**.
- A patient attachment point such as a harness must be pre-rigged and secured to a separate independent rope system.

Conditions:

- If the patient is attached with a releasable device, it must not be manipulated to lower the patient.
- Candidates must not lower the victim independently from themselves, they must go to the ground together.

Assessor Guidance:

- The choice of equipment and materials may depend on local protocols.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

#305 On-Rope Line Transfer

Performance:

Demonstrate the ability to perform a parallel transfer between ropes.

Standard:

Candidate must:

- Explain the method chosen to perform the maneuver and potential dangers based on the technique.
- Maintain two points of attachment with the rope system during the transfer operation until the descent device's proper function has been **proven** on the new rope.

Conditions:

- Must be in a **vertical** environment
- Ropes will be within 1.5m of each other.

Assessor Guidance:

N/A

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

#312 On-Rope Re-Anchor: Decent

Performance:

Demonstrate the ability to perform a transfer between ropes connected to a **sub-anchor**.

Standard:

Candidate must:

- Explain the method chosen to perform the maneuver and potential dangers based on the technique.
- Start from a position above the transfer point
- Maintain two points of attachment with the rope system during the transfer operation until the descent device has been proven on the new rope.

Conditions:

- Must be in a **vertical** environment
- Ropes may be rigged as independent ropes, or a small re-anchor (re-belay / J-Hang)
- Ropes and sub-anchor must not be farther than 1.5m away from one another.

Assessor Guidance:

N/A

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

#338 On-Rope Re-Anchor: Ascent

Performance:

Demonstrate the ability to perform a transfer between ropes connected to a **sub-anchor**.

Standard:

Candidate must:

- Explain the method chosen to perform the maneuver and potential dangers based on the technique.
- Start from a position below the transfer point
- Maintain two points of attachment with the rope system during the transfer operation until the descent device has been proven on the new rope.

Conditions:

- Must be in a **vertical** environment
- Ropes may be rigged as independent ropes, or a small re-anchor (re-belay / J-Hang)
- Ropes and sub-anchor must not be farther than 1.5m away from one another.

Assessor Guidance:

N/A

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

#339 Guiding Line Offset

Performance:

Demonstrate the ability to construct and operate a guiding line offset in combination with a lowering system.

Standard:

Candidate must:

- Rig a guiding line offset and system capable of lowering a **rescue load**.
- Properly apply appropriate initial tension to the guiding line (using mechanical advantage if applicable).
- Explain how the potential swing resulting from a failure of the guideline is minimized.

Conditions:

- May be built at ground level between two points if not selected to be operational by the assessor.
- At least one of #282, #373, #339 or #378 must be rigged and operated a minimum of 5 meters horizontal distance and 3 meters vertical distance with a **standard load**.
- The candidate must be the one controlling the guiding line tension.

Assessor Guidance:

The guiding line can be either handheld or tensioned off a fixed anchor point depending on location and terrain.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

May be performed in conjunction with other tasks.

#368 Artificial High Directional: Advanced

Performance:

Rig a single-leg or two-leg Artificial High Directional (AHD).

Standard:

Candidate must:

- Properly rig a single-leg (gin pole/monopod) or two-leg (A-frame/Sideways A-Frame) AHD at a **vertical** edge.
- Explain the system and how forces act on the AHD and guy lines.
- Attach rope(s) for a raising or lowering system.

System must:

- Be **suitably strong** to support a **rescue load**.
- Be properly secured/back tied to prevent collapse of the AHD (if needed).
- Have an appropriate resultant in relation to the AHD
- Remain stable when a load is raised or lowered.

Conditions:

- May superseded #281 Artificial High Directional: Basic
- For assessment purposes, a purpose-built manufactured AHD must be used.

Assessor Guidance:

The choice of AHD design must be communicated with the team/candidates prior to the start of the assessment.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

- May be performed in conjunction with other tasks.
- Appropriate resultants and guy line/back-tie angles must be in accordance with manufacturers' recommendations.

#369 Breaking Into A Fixed Rope

Performance:

Convert a fixed, tensioned rope into a raising or lowering system.

Standard:

Candidate must:

- Create slack at the end of a tensioned rope where it is connected to an anchor system.
- Demonstrate the ability to install a raising system or lowering system onto the slack section of the rope.
- Ensure no sudden drops or slips of the load.
- Limit the potential of a shock load to the system of no more than 1 meter.
- be the only one physically controlling the ropes.

Conditions:

- The system must remain weighted with a **standard load**.

Assessor Guidance:

- Assessor shall notify the candidate if they are to convert to a raising or lowering system before the assessment of the task begins.

Mtn Rescue Assessment:

Must meet **Mountain Criteria**

Comments:

The purpose of this task is for the candidate to demonstrate the ability to recover an individual on a fixed line, that is not releasable and has become stuck.