Utah Fire Service Certification System

TECHNICAL RESCUE

ROPE RESCUE

CERTIFICATION STANDARD

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Rope Rescue Technical Committee

The Certification Council would like to recognize and extend a voice of appreciation to the following fire service professionals for their work on the Rope Rescue certification standard. These individuals devoted many hours to reviewing the National Fire Protection Association (NFPA) 1006 standard, certification test banks, and curriculum textbooks to develop the wording for the skills for each discipline within this standard.

Thank You.

Rope Rescue Committee

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INTRODUCTION

The Utah Fire and Rescue Academy (UFRA) has evolved into a dynamic organization that provides fire and emergency service–related training, professional accredited certification, and resource assistance. The Utah Fire Service Certification System (UFSCS) has been administered by UFRA since the system's inception in the early 1980s. The governing body for the firefighter certification system in the state of Utah is the Utah Fire Service Certification Council (UFSCC). The members of the council represent various areas of the state as well as a variety of department types.

The entire system is based on international professional job performance standards from NFPA and NWCG. Fire service training must be utilized to its maximum potential. Any overlap, fragmentation, and lack of basic structure must be eliminated. Standardization is the natural complement and necessity. Through these national standards and certification, firefighters and fire departments have a tool to measure specific levels of skills, abilities, and knowledge. Testing takes place all over the state of Utah and is usually scheduled by fire department training officers for members of one or more local agencies to test at their own facilities using their own equipment.

The Utah Fire Service Certification System creates uniformity through certification. Certification allows a fire service professional to be a part of the National Registry (Pro Board and IFSAC), which verifies that a person has been trained at a national standard. Firefighters, hazardous materials responders, and rescue personnel can earn various certifications. Volunteer, part-time, and career firefighters must all meet the same standard to certify. Most fire departments in Utah have certified personnel even though there is no law requiring it.

> "Certification from an accredited entity is a statement of success, an indisputable mark of performance belonging to individual fire service professionals. Each successful candidate for certification from an accredited entity knows that he or she has been measured against peers and meets rigorous national standards. Certification affords the individual a uniformity and portability of qualifications. In addition, the creditability of an organization is enhanced by having members certified to national consensus standards."
>
> —theproboard.org
>
> IFSAC "provides accreditation to entities that certify the competency of and issue certificates to individuals who pass examinations based on National Fire Protection Association (NFPA) fire service professional qualifications and other standards approved by the Assembly."
>
> —ifsac.org

The following certification requirements are based on the objectives listed in Chapter 5, "Rope Rescue," in NFPA 1006, *Standard for Technical Rescue Personnel Professional Qualifications* (National Fire Protection Association, 2021), as verified and adopted by the Utah Fire Service Certification Council (UFSCC).

TECHNICAL RESCUE CERTIFICATION REQUIREMENTS

Entrance Requirements

Certification at the Technical Rescue – Rope Rescue; Awareness, Operations, and Technician levels is a unique process. Because of the method and manner in which NFPA has established to become certified, candidates must complete the prerequisites and/or requirements for any of the specialty areas as set forth in Chapter 5 of NFPA 1006 (2021). In order to certify at the Technical Rescue levels, candidates must fulfill the following requirements:

1. Complete entrance requirements.
2. Set up and maintain department records.
3. Train on the required written and practical objectives in the specialty areas outlined in Chapter 5, "Rope Rescue."
4. Pass an in-house practical skills examination for each specialty area.
5. Meet any other training requirements/prerequisites as defined by the Certification Council.
6. Pass both written and practical skills examinations administered by the Certification Council.
7. Request Technical Rescue Certification for each specialty area completed.
8. Request recertification at the end of each 3-year certification period.

Physical Fitness Requirements

The UFSCC acknowledges the importance of and need for physical fitness requirements as listed in NFPA 1006. Many agencies and departments have existing policies, regulations, etc. already in place regarding these requirements. The handling of physical fitness requirements is a **LOCAL MATTER**, outside the authority and jurisdiction of the UFSCC. The Council will not check, test, evaluate, or determine how individual agencies meet these requirements. Some departments have found it necessary to waive any type of physical fitness requirements due to their own special needs. As a local decision, this is permitted. However, due to the amount of physical, mental, and emotional stress inherent in this profession, **the Utah Fire Service Certification Council strongly recommends careful evaluation before altering or doing away with any existing physical fitness requirements.**

"All technical rescue activities should be carried out in the safest possible manner, including the consideration that all risks taken are to benefit the operation. Technical rescue skills require a high degree of physical activity, coordination, operational planning, and a strong knowledge of all applicable protocols" (NFPA 1006, 1.3.9).

Here are the entrance requirements outlined in NFPA 1006 (1.3.9, A.1.3.9):

1. Meet the minimum educational requirements established by the authority having jurisdiction.
2. The Utah Fire Service Certification Council Policy 11.3 requires that a candidate must be at least 18 years of age to test and be certified.
3. Meet the medical requirements of NFPA 1582, *Standard on Comprehensive Occupational Medical Program for Fire Departments, (*2022*),* as determined by the medical authority of the AHJ.
4. Technical rescue operations involve activities that pose great physical and mental challenges requiring the rescuer to perform challenging physical activities in a high-stress environment. Physical fitness requirements for entry-level personnel should be developed and validated by the authority having jurisdiction. Physical fitness requirements should be in compliance with applicable Equal Employment Opportunity regulations and other legal requirements.
5. Prior to beginning training as technical rescue personnel, a minimum medical training requirement should be met.

6. People having the potential for encountering hazardous materials on an incident scene should be trained to recognize the hazard and to implement exposure and control methods.

Department Training Officers

For a department to enroll in the certification process, it is necessary for the department to assign training officers. Departments who **do not** have certified personnel to act as training officers for certification training should contact the Utah Fire & Rescue Academy at (801) 863-7709 for assistance in setting up and monitoring certification training.

Department training instructors shall be certified at the level they are teaching. In addition, the Certification Council strongly recommends that training officers and instructors be state certified at the Instructor I level.

Department training officers or instructors will be responsible for certification training. Their primary responsibility will be to teach, evaluate, and In-House test department personnel on the skill and evolution requirements for each level of certification training.

The final entrance requirement is to complete the **Intent to Participate** form provided in Appendix C and return it to the Certification Council. Remember, participation in the certification process is **VOLUNTARY**. Once you have enrolled, you can withdraw if desired.

If a department is already participating in the Utah Fire Service Certification System, it will not be necessary to file another Intent to Participate form.

DEPARTMENT TRAINING

The position of a Rope Rescuer is one that requires a high level of skill and knowledge. The training that is given to and received by the candidate should be of the highest quality and degree. All training received must meet the requirements of NFPA 1006 (2021), including the sections regarding technical specialty areas in Chapter 5, and the skills as approved by the UFSCC contained within the Utah Standard. All training received must be documented and recorded in the Training Record. All testing for Rope Rescue will be conducted following the Policies and Procedures of the UFSCC.

Training for Technical Rescue can be obtained by completing one of the following training courses or methods to qualify to take the state certification examination.

1. A Rope Rescue course which meets the requirements of NFPA 1006 (2021), Chapter 5. A Training Record, as provided in this standard, must be completed for each person.

2. **Department-Based Training**. Departments can create their own Rope Rescue course which meets the requirements as outlined in the "Rope Rescue" sections of Chapter 5 in NFPA 1006 (2021). A Training Record, provided in this standard, must be completed for each person involved in the department-based training.

To prepare the candidate to successfully pass the state certification examination, the course material should be based on NFPA 1006 (2021) and the *Rope Rescue* textbook published by Jones and Bartlett.

Written Objectives

Written objectives for Rope Rescue are covered in:

- Chapter 5, "Rope Rescue," in NFPA 1006 (2021)
- Loui McCurley, Tom Vines, *Rope Rescue*, 5th edition (Jones & Bartlett Learning, 2023)

This textbook is available from various fire service bookstores or on the Internet. A current list of resources are available online at UVU.edu/UFRA.

There are numerous methods departments have used to help prepare their personnel for the written examination. Considering the high level of skill and knowledge that is required of a Rope Rescuer, the Council recommends that the candidate participate in a comprehensive class and receive instruction on both skills and written requirements.

Skill Objectives

Each candidate **must** be trained and evaluated in the performance of **all** skills as found in this Utah certification standard. Each of the skill objectives shall be completed swiftly, safely and with competence as defined below:

- **Swiftly.** Each skill objective must be completed within the allotted time.
- **Safely.** Each skill objective must be completed safely. Conduct that could injure an individual or damage equipment is unacceptable. Equipment should be checked prior to skill testing or training to see that it is safe and functional.
- **With Competence.** Each skill objective must be performed in accordance with this Utah certification standard. This includes performing the proper steps in sequence. Competence will be measured in accordance with the UFSCS skill objectives.

Department Training Records

Each candidate shall have a current, accurate, and complete Training Record on file with the department which indicates that they have been trained on all skill objectives**. The Training Record must be completed in its entirety in order to test.** Training Records may be completed on a computer or by hand. Departments may set up their own Training Records, use the one provided in this standard, or use the fillable Training Record found online on UFRA's website. If a department chooses to set up their own Training Record it must meet the following requirements:

1. Indicate the certification level and its corresponding NFPA standard number and edition.
2. Include a signature line for the candidate, which attests that all skills have been trained on and a complete in-house comprehensive exam was administered and passed.
3. Include a signature line for the Chief/Training Officer, which attests that the candidate has been trained on all skills and a complete in-house comprehensive exam was administered and passed.
4. Include a line to record the date the Training Record was completed.
5. List all the skills from this Utah certification standard for this level. Include columns indicating the date of trainings, training instructors, the date of exams, exam instructors, and whether the candidate passed each exam (see the Training Record on page 15 in this standard).

Department In-House Skills Examination

At the completion of the department's skills training, the department is required to hold an in-house skills examination for the level being trained. This is a comprehensive in-house skills examination conducted by the department training officers. This test is to ensure that skill mastery has been maintained from the beginning to the end of the training process, and to prepare candidates for the state examination. Training officers may utilize other personnel to assist in administering the exam; however, they must be certified at the level they are In-House testing.

Proctor instructions for the examination are in Appendix B in this standard. In-house testers shall follow the proctor instruction sheet to provide for uniformity and fairness during the exam. It is recommended that candidates be given two attempts at any skill. **If they fail on the second try, then they have failed the evaluation and are required to go through additional training by the department trainer.** No training, teaching, or coaching is allowed during the test. After the evaluation, using the test to teach and train is recommended.

If skill weaknesses are evident, the department should conduct additional training and hold a new department in-house skills examination to ensure their personnel have fully mastered all required skills. Only those candidates who successfully pass the department's skills test will be allowed to participate in the Certification Council's skill spot check examination. Department training records must show that all candidates have successfully passed the in-house exam.

CERTIFICATION EXAMINATIONS

After completion of the training process, the chief/administrator can request testing for the candidate using the Examination Request form in Appendix C. The candidate will then have three attempts to pass the written examination. A separate request must be sent to the Certification Office for each attempt. Request forms must reach the Certification Office no later than 30 days prior to the examination date. The entire examination process must be completed within one year of the first written exam date.

Written Examinations

The written examination is a randomly generated test covering the written objectives of the Technical Rescue standard of NFPA 1006 (2021).

Chapter 5 Certification Level	**# of Questions**
Rope Rescue - Awareness	50
Rope Rescue - Operations	50
Rope Rescue - Technician	50

A minimum score of 70% is required to pass the certification exam. Firefighters failing the first attempt of the written exam will be permitted to retest no sooner than 30 days from the date of the last exam. Three attempts are allowed to pass the exam. If a candidate fails the written examination three times, they failed the certification process and must wait one year from the date of the last failed exam before reentering testing. Exam results are forwarded to the Chief/Administrator within 30 days following the receipt of the completed exam.

Skills Spot Check Examinations

This is a two-step examination. The first step is a department records check and the second is the skills spot check examination. A Certification Tester appointed by the Utah Fire Service Certification Council conducts the examination.

Training records are checked. If records are inadequate, corrective action must be taken before proceeding to the next step. The records must meet minimum requirements and are checked for the following:

1. Candidate has been trained in each skill and evolution for the level being evaluated.
2. A department training officer has signed off each skill and evolution.
3. Each candidate has passed a department In-House skills and evolution examination.

The skills spot check examination is graded on a 100% pass/fail basis. The test is graded in the following three areas:

- **Swiftly.** Each skill objective must be completed within the allotted time.
- **Safely.** Each skill objective must be completed safely. Conduct that could injure an individual or damage equipment is unacceptable. Equipment should be checked prior to skill testing or training to see that it is safe and functional.
- **With Competence.** Each skill objective must be performed in accordance with this Utah certification standard. This includes performing the proper steps in sequence. Competence will be measured in accordance with the UFSCS skill objectives.

Evolution Examinations: Candidates are spot checked on one Evolution Examination for each level (Awareness, Operations, Technician), or three skills for that level (chosen randomly). This is a 100% pass/fail test. If a candidate fails any portion of the skill, then they have failed the evolution/skill and must retest the entire evolution/skill. Candidates who fail the second attempt must wait **30 days** before the third and final attempt. **No training, teaching, or coaching is allowed during this state test.**

- Rope Rescue Awareness: one Evolution Examination, or three skills for that level
- Rope Rescue Operations: one **Team** Evolution Examination, or three skills for that level
- Rope Rescue Technician: one **Team** Evolution Examination, or three skills for that level

The skills will be from NFPA 1006 (2021), Chapter 5. Candidates are given two attempts to perform each skill/evolution. If they fail on the second attempt, the applicants must wait 30 days before the third and final attempt. Candidates taking third attempts will test on the skill/evolution they missed and one additional skill.

Candidates who have failed the third attempt of the written examination or the skills examination have failed the certification process and must wait o**ne year** from the date of the failed third attempt to reenter state testing. The candidate will begin testing with a new **first attempt** of the written examination, following a request for examination. If a candidate wishes to enter a new course, the candidate may petition the Certification Office to reenter the certification examination process no sooner than 120 days after their **third attempt** failure. In the petition, candidates must explain the reason(s) behind their request to reenter the process.

TECHNICAL RESCUE CERTIFICATION

When all requirements for certification have been met, applicants are eligible to be certified. The chief/administrator may apply to the Utah Fire Service Certification Council for certification for those candidates who have successfully completed the certification training/testing process. Requests for state certification must be submitted to the Certification Office using the Certification/Recertification Request

form provided in Appendix C. The names are then checked against the official state records to ensure that each individual listed has met all requirements and prerequisites.

Effective January 1, 2025, the fee structure for first, second, and third attempts on exams has changed. All exam attempts are $75, except for Firefighter I and II, Hazardous Materials Awareness and Operations. (See Appendix C for more details.)

Candidates who have met the requirements for certification will continue to have access to their wallet ID card and certificate online via the UFRA Certification and Training Lookup System at https://uvu.edu/ufra/lookup/. Patches are included with each certification (if available for that level). Additional patches are $10. New printed certificates with an original seal attached may be requested from the Certification Department for a fee of $20 per certificate. A hard wallet ID card is $20.

The new fee structure applies to Utah fire departments only. All other Utah agencies will be assessed a $90 fee per attempt for each level. Reciprocity is $200 per application (for all levels), but it must include Pro Board or IFSAC certificates (with an IFSAC seal).

Prerequisites for Technical Rescue Certification

To qualify to train on the NFPA 1006 section listed in the left column, candidates must have completed the prerequisite training indicated in the right column.

Training	**Prerequisites**
Rope Rescue - Awareness (5.1)	
Rope Rescue - Operations (5.2)	5.1
Rope Rescue - Technician (5.3)	5.1, 5.2

Recertification

Certifications are valid for a three-year period. Each certified Technical Rescuer may renew certification by having the Chief/Administrator of the participating agency submit a Certification/Recertification Request (provided in Appendix C of this standard).

Certified candidates should participate in at least 36 hours of structured class and skill training per year to maintain competency and stay current on their skills. This 36 hours is for all certified levels combined, not 36 hours for each individual level. A total of 108 hours of training is required for the previous three-year certification period.

Recertification for Technician Levels Only

Because of the high level of skills required of a Rope Rescue Technician, the Certification Council requires that candidates complete an in-house comprehensive examination evolution—that allows them to demonstrate the technician-level skills contained in this standard—as part of their recertification process. An original copy of a candidate's Technician Training Record for the previous three-year period must accompany each technician recertification request, verifying the candidate is qualified in all technician level skills.

For more information on Utah firefighter certification, contact the:

Utah Fire Service Certification Council
Utah Fire & Rescue Academy
3131 Mike Jense Parkway
Provo, UT 84601
1-801-863-7709
www.uvu.edu/ufra

TECHNICAL RESCUE CERTIFICATION CHECKLIST

ENTRANCE REQUIREMENTS:

- ❑ Each candidate has met the requirements listed in NFPA 1006, 2021 edition.
- ❑ Each candidate has trained on the Technical Rescue level written objectives.

DEPARTMENT TRAINING RECORDS:

- ❑ Each candidate has a training record on file with the department that shows:
  1. A learning experience in each skill objective
  2. Dates of training
  3. Initials of instructors
- ❑ Each candidate has trained on the Technical Rescue level written objectives.

DEPARTMENT IN-HOUSE SKILLS EXAMINATION:

- ❑ Each candidate has successfully completed an In-House skills and evolution examination.
- ❑ Results of exam are documented in department training records.

CERTIFICATION EXAMINATIONS:

- ❑ Each candidate has passed the UFSCC written examination.
- ❑ Each candidate has passed the UFSCC skills and evolution examination.
- ❑ A Spot Check examination was administered by an approved UFRA Certification Tester(s).

TECHNICAL RESCUE CERTIFICATION:

- ❑ The Chief/Administrator has requested certification for candidates using the Certification/Recertification Request.

SECTION I
ROPE RESCUE - AWARENESS

ROPE RESCUE – AWARENESS SKILL OBJECTIVES

To complete the skills contained in this chapter, the AHJ must be able to provide a safe testing environment for the candidates and accept all liability for candidate safety. The AHJ must have the capacity to provide a safe training/testing location for the incident.

1. **a. Conduct a scene size up/site survey for a rope rescue incident. (Including search parameters, risk benefit analysis, etc.)**

   REFERENCE: NFPA 1006, 2021 edition, 5.1.2, 5.1.5

   CONDITION: Given the graphic of the scene or training location (AHJ approved training location), perform an effective scene size-up for a rope rescue incident (See Appendix A)

   COMPETENCE:

   - Identify location of the incident
   - Describe the nature/scope of the incident (what happened?)
   - Identify the number of victims
   - Identify victim(s) point last seen
   - Identify witnesses and reporting party
   - Assess resources needed following and applying operational protocols, AHJ guidelines, and preplan information
   - Identify appropriate resources based on incident type
   - Identify, gather, and collect information for the incident action plan (IAP)
   - Use reference materials
   - Determine search parameters, identify search measures (rescue/recovery)
   - Relay and report information to incident command/dispatch - AHJ approved

   TIME: 10 minutes

   b. Conduct a witness interview.

   REFERENCE: NFPA 1006, 2021 edition, 5.1.2

   CONDITION: Given witnesses and checklists as provided by the AHJ.

   COMPETENCE:

   - Identify and determine potential witnesses
   - Identify and/or describe the safe area to perform interview
   - Attempt to determine the following information at a minimum
     - Victim Point Last Seen (PLS)
     - Number of victims
     - Victim information (name/age/clothing/activity/medication)
     - Secure witness(es) (keep on scene and/or record contact information)
     - Document valuable witness information
   - Determine value and/or priority of information received
   - Effectively communicate valuable witness information to command
   - Evaluate support and resource requirements based on witness information as required

   TIME: 15 minutes

2. a. Recognize rope rescue incident hazards and describe the corrective action and/or isolation procedures on how to mitigate (including risk management and resources).

REFERENCE: NFPA 1006, 2021 edition, 5.1.3, 5.1.4

CONDITION: Identify or describe at least eight (8) rope rescue hazards and the corrective action for each.

COMPETENCE: 1. Conduct a hazard/risk assessment. Identify and describe the corrective action on how to mitigate at least eight (8) of the following rope rescue hazards including, but not limited to:

	Hazards:	**Corrective Actions:**
a)	Dropped objects	Wear a helmet, secure loose objects
b)	Falls from height	Always maintain adequate fall protection
c)	Lack of awareness of hazards	Perform operational briefing, hazard awareness
d)	Ineffective communication	Brief in person, maintain communications with all personnel
e)	Failure to protect sharp edges	Deploy edge protection
f)	Improperly tied rigging and knots	Repeatedly examine rigging during rescue operation
g)	Crossgate forces on carabiners	Rig correctly and recheck rigging frequently
h)	Carabiner gates unlocked	Visually check rigging frequently
i)	Loose prusiks	Inspect Prusiks visually and tactilely
j)	Primary/alternate access and egress route for vehicles & equipment.	Verify access to public and private roads
k)	Number of people/bystanders	Identify isolation procedures (zones) (page 55) • Hot = 100 feet for critical function • Warm = 200 feet for support functions • Cold = 300 feet for command and control *OR* AHJ approved isolation procedures
l)	Environmental injuries	Wear appropriate hand, eye, and body protection
m)	Weather conditions	Continually monitor for changing weather conditions
n)	Manmade features	Identify and evaluate the situation appropriately
o)	Complacency	Speak up when observing a safety deficiency
p)	Rescuer fatigue	Change out the belayer, rehydrate often
Jones & Bartlett, p. 38		
Complete skill in allotted time		

TIME: 8 minutes

2. b. List the three levels of situational awareness as it pertains to a real life rope rescue.

REFERENCE: NFPA 1006, 2021 edition, 5.1.3, 5.1.4

CONDITION: List the three levels of situational awareness as it pertains to a real life rope rescue.

COMPETENCE:

- Accurately recognize all the moving parts
- Understand the moving parts in the current situation

- Understand how the moving parts will shift during the situation and anticipate how to address the changes

TIME: 3 minutes

3. Recognize and respond to the need for technical rescue support and resources at an operations or technician level incident.

REFERENCE: NFPA 1006, 2021 edition, 5.1.3, 5.1.4

CONDITION: Given AHJ tactical worksheets, forms, preplans, types of historical incident data, the graphic of the scene or training location (AHJ approved training location), (See Appendix A)

COMPETENCE:

- Identify the need/type(s) of additional and appropriate resources. (PPE, personnel, equipment, etc.)
- Follow and apply operational protocols, AHJ guidelines, tactical worksheets, and preplan information.
- Identify and isolate hot, warm, and cold zones to ensure proper scene safety measures remain intact
- Ensure rescue time constraints are considered
- Operate control and mitigation equipment
- Secure the scene using AHJ site control methods. (Hot, warm, cold zones) Apply safety measures.
- Identify any existing or potential hazards; conditions, weather, etc.
- Verify appropriate response is initiated.

TIME: 5 minutes

4. Identify type of PPE and equipment for an awareness level rope rescue incident.

REFERENCE: NFPA 1006, 2021 edition, 5.1.3

CONDITION: Given a rope rescue incident describe required types of PPE.

COMPETENCE:

- Identify (All) and describe the type(s) of PPE used in a rope rescue:
    - Harness (Class type)
    - Helmet
    - Gloves
    - Appropriate footwear
    - Appropriate task specific clothing
    - Eye protection

- Identify at least three (3) potentially used equipment in a rope rescue:
    - Head lamp
    - Breathing Apparatus (SCBA,SAR)
    - Lighting equipment
    - Personal alert safety system (PASS)
    - Life safety rope and system components
    - Communication equipment

TIME: 3 minutes

5. Assist a team in operation of the haul line of a rope mechanical advantage system raising operation. Ability to recognize operational commands and safety concerns.

REFERENCE: NFPA 1006, 2021 edition, 5.1.1, 5.1.5

CONDITION: Given rescue personnel, an established rope rescue system, a load to be moved and an anchor system.

COMPETENCE:

- Identify and wear appropriate PPE
- Follow and apply operational protocols and commands
- Maintain sensitivity to the feel of the haul rope
- Constantly monitor and communicate potential safety concerns

TIME: 2 minutes (setup is not part of the time)

Rope Rescue - Awareness Evolution

To create a more realistic testing environment, the individual skills have been assembled into this Examination Evolution. Candidates must train and complete in-house skills and evolution examinations. The evolution will be graded on a 100% pass/fail basis.

REFERENCE: NFPA 1006, 2021 edition, 5.1.1-5.1.5

SKILL EXAM EVOLUTION: Establish command, perform an appropriate scene size-up, establish scene safety, and function within an incident management system for a rope rescue scenario.

CONDITION: Given a scenario of a rope rescue incident, note pad and pencil and graphics or AHJ approved training location of the incident, detail the issues that should be addressed in the Incident Action Plan (using any AHJ, SOP's or tactical worksheets).

COMPETENCE:

1. Establish command
2. Identify location of the incident
3. Describe the nature/scope of the incident (what happened?)
4. Identify the number of victims
5. Identify victim(s) point last seen
6. Identify and interview witnesses and reporting party
7. Conduct a risk benefit analysis and determine rescue or recovery operation.
8. Identify and mitigate immediate hazards and establish scene control.
9. Identify the appropriate PPE (Clothing, footwear, helmet, gloves, eye protection).
10. Identify and determine whether operations or technician level resources are needed, following, and applying operational protocols, AHJ guidelines, and preplan information
11. Identify, gather, and collect information for the incident action plan (IAP)
12. Use reference materials
13. Determine search parameters, identify search measures (rescue/recovery)
14. Relay and report information to incident command/dispatch - AHJ approved
15. Maintain situational awareness and rescue time constraints
16. Secure the scene using AHJ site control methods (Hot, warm, cold zones) Apply safety measures
17. Verify appropriate response is initiated.
18. Follow and apply operational protocols and commands during raising operations:
    i. Maintain sensitivity to the feel of the haul rope
    ii. Constantly monitor and communicate potential safety concerns
19. Function within an incident management system, implement an incident action plan, and follow ICS and AHJ operational protocols

TIME: 20 minutes

UTAH FIRE SERVICE CERTIFICATION SYSTEM
ROPE RESCUE - AWARENESS

NFPA 1006, 2021 edition
5.1.1-5.1.5

ROPE RESCUE - AWARENESS
TRAINING RECORD / IN-HOUSE COMPREHENSIVE FORM

Candidate Name:	**Department:**
Candidate Signature:	**Date of Completion:**
Chief/Training Officer:	**Chief/Training Officer Signature:**

This form may be completed on a computer but must be printed out for the Certification Tester to verify on test day. Date of completion and signatures of Chief/Training Officer and Candidate must be original signatures. Signatures attest that all skills have been trained on and a complete In-House Comprehensive Exam was administered and passed. Falsification of signatures or any component of this document may result in the revocation, suspension, or denial of certification.

SECTION	TRAINING RECORD		IN-HOUSE COMPREHENSIVE EXAMS			SKILL OBJECTIVES & EVOLUTION
	DATE	INSTRUCTOR	DATE	INSTRUCTOR	PASS	
5.1.2, 5.1.5 Chapter 2						1. a. Conduct a scene size up/site survey for a rope rescue incident. (Including search parameters, risk benefit analysis, etc.)
5.1.2 Chapter 2						b. Conduct a witness interview.
5.1.3, 5.1.4 Chapter 3						2. a. Recognize rope rescue incident hazards and describe the corrective action and/or isolation procedures on how to mitigate (including risk management and resources)
5.1.3, 5.1.4 Chapter 3						b. List the three levels of situational awareness as it pertains to a real life rope rescue.
5.1.3 Chapter 4						3. Recognize and respond to the need for technical rescue support and resources at an operations or technician level incident.
5.1.3 Chapter 5						4. Identify type of PPE and equipment for an awareness level rope rescue incident.
5.1.1, 5.1.5 Chapter 4						5. Assist a team in operation of the haul line of a rope mechanical advantage system raising operation. Ability to recognize operational commands and safety concerns.
Certification Examination Evolution						**Establish command, perform an appropriate scene size-up and create a corresponding Incident Action Plan for a rope rescue scenario.**

SECTION II
ROPE RESCUE - OPERATIONS

ROPE RESCUE – OPERATIONS SKILL OBJECTIVES

***** Rope Rescue Safety Requirements:***
The AHJ must have the capacity and be able to provide a safe testing environment and location for all candidates and accept all liability for candidate safety.

The following minimum is required to perform Rope Rescue testing:
** Two points of contact shall be maintained throughout the skill for both the victim and rescuer(s). (Belay lines shall NOT be removed at any time.) One additional safety officer must be qualified at the level being tested to verify overall safety.*

1. a. Conduct a scene size-up/site survey for a Rope Rescue incident. (Including search parameters, risk benefit analysis, etc.)

REFERENCE: NFPA 1006, 2021 edition, 5.2.1

CONDITION: Given the graphic of the scene or training location (AHJ approved training location), perform an effective scene size-up for a rope rescue incident. (See Appendix A)

COMPETENCE:

- Identify location of the incident
- Describe the nature/scope of the incident (what happened?)
- Identify the number of victims
- Identify victim(s) point last seen
- Identify witnesses and reporting party
- Assess resources needed following and applying operational protocols, AHJ guidelines, and preplan information
- Identify appropriate resources based on incident type
- Identify, gather, and collect information for the incident action plan (IAP)
- Use reference materials
- Determine search parameters, identify search measures (rescue/recovery)
- Relay and report information to incident command/dispatch - AHJ approved

TIME: 10 minutes

b. Conduct a witness interview.

REFERENCE: NFPA 1006, 2021 edition, 5.2.1

CONDITION: Given witnesses and checklists as provided by the AHJ

COMPETENCE:

- Identify and determine potential witnesses
- Identify and/or describe the safe area to perform interview
- Attempt to determine the following information at a minimum:
    - Victim Point Last Seen (PLS)

    - Number of victims
    - Victim information (name/age/clothing/skill level/ activity)
    - Secure witness(es) (keep on scene and/or record contact information)
    - Document valuable witness information
- Determine value and/or priority of information received
- Effectively communicate valuable witness information to command
- Evaluate support and resource requirements based on witness information as required

TIME: 15 minutes

2. Identify and describe how to inspect and maintain rescue equipment and personal protective clothing for an operations level rope rescue.

REFERENCE: NFPA 1006, 2021 edition, 5.2.2, 5.2.3, 5.2.7

CONDITION: Given rescue hardware and soft goods (i.e., a carabiner, pulley, rope, harness, helmet, etc.), PPE, identify and describe how to inspect for damages, properly maintain each item, and document records (manufacturer's guidelines as needed for equipment)

COMPETENCE:

- Inspect PPE and equipment to identify any defects or damage needing repair
- Identify at least five (5) signs of damage to hardware (carabiners, descenders, pulleys, etc.):
    - Alignment – not aligned
    - Cracks – visible hairline cracks
    - Action – does it function as intended
    - Deformation – deformities in the body
    - Edges – sharp or excessively worn
    - Missing – subcomponents missing or loose
    - Corrosion – at the joints?
- Identify at least five (5) signs of damage to soft goods (rope, harnesses, slings, etc.):
    - Thermal – glazed, charred, hardened fabric
    - Contamination – discoloration, stiff, odor
    - History – usage log inspection
    - Age – Fibers deteriorating with age
    - Physical damage – cuts, tears, abrasions
    - Soiling – dirty and contaminated
- Perform preventative maintenance: select and use correct maintenance tools, following the manufacturer’s/department SOP recommendations for cleaning/maintenance, and return to operational readiness
- Remove PPE and equipment from service if needed following department SOP
- Complete an appropriate maintenance log, document all maintenance performed on equipment/PPE logs/records. Report all deficiencies to supervisor (AHJ)

TIME: 10 minutes

3. Identify five (5) rope/knot tying terminology (See Appendix A)

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given a graphic picture, identify knot tying terminology

COMPETENCE:

- Identify the following: Bight, loop, running end, standing part, turn, working end.

TIME: 1 minute

4. a. Demonstrate tying the following knot: Simple Overhand Knot

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given a length of rope. Tie correct knot, so knots are dressed, recognizable and backed up as required per AHJ SOP *Gloves are not required (AHJ requirements not included in time).

COMPETENCE:

- Form a bight and bring the working end under itself
- Bring the working end back into the bight and under itself
- Pull the working end and the standing part to tighten
- Tie correct knot

TIME: 30 Seconds

b. Demonstrate tying the following knot: Figure 8 (Stopper Knot)

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given a length of rope. Tie correct knot, so knots are dressed, recognizable and backed up as required per AHJ SOP *Gloves are not required. (AHJ requirements not included in time).

COMPETENCE:

- Form a bight with the working end over the working part of the rope
- Bring the working end under the working part (which will form a second bight) and into the first bight
- Pull the working end and working part in opposite directions to create the “8”
- Tie correct knot

TIME: 30 Seconds

c. Demonstrate tying the following knot: Figure 8 on a Bight

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given a length of rope. Tie correct knot, so knots are dressed, recognizable and backed up as required per AHJ SOP *Gloves are not required. (AHJ requirements not included in time).

COMPETENCE:

- Form a bight. Visualize the closed end of the rope as the working end
- Bring the bight across the standing part of the rope to form a loop
- Bring the bight into and through the loop
- Pull the working end and working part opposite direction to create the "8"
- Tie correct knot

TIME: 30 Seconds

d. Demonstrate tying the following knot: Figure 8 Follow-Through Knot

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given a length of rope. Tie correct knot, so knots are dressed, recognizable and backed up as required per AHJ SOP *Gloves are not required. (AHJ requirements not included in time).

COMPETENCE:

- Begin by typing a loose figure 8 knot. Leave a few feet of tail at the working end of the rope
- Bring the working end around the attachment point and back to the loose figure 8
- Retrace the working end completely through the loose figure 8
- Pull the knot tight and dress it to assure that all the rope strands are compact and do not cross one another
- Tie correct knot

TIME: 30 Seconds

e. Demonstrate tying the following knot: Double Figure 8 Loop

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given a length of rope. Tie correct knot, so knots are dressed, recognizable and backed up as required per AHJ SOP *Gloves are not required. (AHJ requirements not included in time).

COMPETENCE:

- Begin with a figure 8 on a bight knot with the bight positioned at the tope of the knot. This bight should be fairly large
- Bring the bight into the tope part of the double 8
- Continue threading this bight through so that you have twin ears at the top
- Bring the bight upward and over the twin ears
- Bring the bight down and under the main knot

- Tighten the ears
- Clip a carabiner into each ear
- Tie correct knot

TIME: 30 Seconds

f. Demonstrate tying the following knot: High-Strength Bowline

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given a length of rope. Tie correct knot, so knots are dressed, recognizable and backed up as required per AHJ SOP *Gloves are not required. (AHJ requirements not included in time).

COMPETENCE:

- Create two loops of equal size. Leave plenty of tail in the working end
- Thread the working end back through the two loops from below, around the standing part of the rope and then back into the two loops from above
- Tighten the elements of the rope and dress the knot
- Tie correct knot

TIME: 30 Seconds

g. Demonstrate tying the following knot: Interlocking Long-Tail Bowline

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given a length of rope. Tie correct knot, so knots are dressed, recognizable and backed up as required per AHJ SOP *Gloves are not required. (AHJ requirements not included in time).

COMPETENCE:

- Tie a basic bowling with a small loop, leaving a long tail in the working end to attach to the litter and litter tender
- Thread the second rope up through the small loop of the first bowline and make a second loop
- Create the second basic bowline with a longtail in the working end, making certain that both loops interlock
- Clip a large locking carabiner across the loops of both bowlines
- Tie correct knot

TIME: 30 Seconds

h. Demonstrate tying the following knot: Inline Figure 8

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given a length of rope. Tie correct knot, so knots are dressed, recognizable and backed up as required per AHJ SOP *Gloves are not required. (AHJ requirements not included in time).

COMPETENCE:

- Make a loop in the rope and bring the loop under the

standing part of the rope
- Pull the loop to make it slightly larger and then bring it under and through the original loop
- Pull it tight, making sure that there are no loose elements in the knot
- Attach a carabiner. Make certain that the knot is loaded in the correct direction
- Tie correct knot

TIME: 30 Seconds

i. Demonstrate tying the following knot: Butterfly knot

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given a length of rope. Tie correct knot, so knots are dressed, recognizable and backed up as required per AHJ SOP *Gloves are not required. (AHJ requirements not included in time).

COMPETENCE:

- Hold your plam facing you
- Bring the working end of the rope around the back of the hand
- Bring the working end around the hand again with the second wrap above the first wrap
- Bring the working end around a third time with the third wrap above the second wrap. The strand nearest to the fingers should be brought over just one strand to become the new middle strand
- From the third wrap, pull slack and form a shallow bight. Pull this bight down and below the first two wraps
- Pull the bight under the first two wraps
- Pull the bight above the first two wraps
- Tighten by pulling both sides of the rope, making sure the knot holds its shape
- Check the rope to make certain it is compact and there are no loose elements inside it
- Tie correct knot

TIME: 30 Seconds

j. Demonstrate tying the following knot: Figure 8 Bend Knot

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given a length of rope. Tie correct knot, so knots are dressed, recognizable and backed up as required per AHJ SOP *Gloves are not required. (AHJ requirements not included in time).

COMPETENCE:

- Begin by tying a loose figure 8 knot on one rope. Take a second rope and follow a reverse path with the other rope
- Make certain that the second rope stays parallel to and does not cross the first rope
- Pull the two ropes together. Make certain that the two ropes

tighten parallel and symmetrically. (While not required, some rope professionals choose to add a safety back up to each end of the lines as they exit the figure 8 bend)
- Tie correct knot

TIME: 30 Seconds

k. Demonstrate tying the following knot: Grapevine Bend/Double Fisherman

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given a length of rope. Tie correct knot, so knots are dressed, recognizable and backed up as required per AHJ SOP *Gloves are not required. (AHJ requirements not included in time).

COMPETENCE:

- Lay the two rope ends parallel to one another. Wrap the end of one rope around both ropes two full turns in a clockwise manner then thread it back through the inside of the two turns.
- Wrap the end of the second rope two full turns around both ropes in the opposite direction in a counterclockwise manner and thread it back through both turns. Pull both ropes tight and dress the knot.
- When tied correctly, the two turns from each half of the knot should lie parallel and flat against one another on one face of the knot. They should appear as a double "X" on the opposite face. The tail of each rope, when tied correctly, should end up on the side of the knot, opposite the side it ended.
- Tie correct knot

TIME: 30 Seconds

l. Demonstrate tying the following knot: Ring Bend/Water Knot

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given two lengths of webbing. Tie correct knot, so knots are dressed, recognizable and backed up as required per AHJ SOP *Gloves are not required. (AHJ requirements not included in time).

COMPETENCE:

- At about 6 inches from the end of the webbing, tie a loose overhand knot
- Take the second end of webbing and follow a reverse path through the first overhand knot
- Make certain that the second rope webbing stays parallel to and does not cross the first webbing
- Leave about 6 inches of webbing on the opposite end
- Pull both pieces of webbing tight, making certain the knot is symmetrical
- If slip is a concern an overhand knot may be tied on each side of the ring bend as a safety (Optional)

- Tie correct knot

TIME: 30 Seconds

m. Demonstrate tying the following knot: Prusik Hitch

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given a prusik loop of accessory cord. *Gloves are not required. (AHJ requirements not included in time).

COMPETENCE:

- Anchor a kernmantle rope vertically. Make a continuous sling of smaller diameter cord. Make a bight in the sling in the loop (make this away from the connecting knot to prevent it from interfering with the prusik hitch) Place this bight behind the main rope. Bring the larger side of the loop around the mainline rope toward you and pull it through the bight.
- Bring the larger side of the loop around the side of the rope opposite you. It should look like the beginning of a girth hitch
- Bring the loop around the side of the rope nearest you and bring it into the loop. Make certain that the remainder of the cord goes inside the bight
- If you are making a two-wrap prusik hitch, pull the sling tight, making certain that the hitch is contoured evenly
- If you are making a three-wrap prusik, repeat step 3. Tighten and contour the hitch
- Tie correct knot

TIME: 30 Seconds

n. Demonstrate tying the following knot: Clove hitch around a closed object.

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given a length of rope. Tie correct knot, so knots are dressed, recognizable and backed up as required per AHJ SOP *Gloves are not required. (AHJ requirements not included in time).

COMPETENCE:

- Wrap the running end of the rope around a round object
- Bring the running end over itself and around the object again
- Bring the rope under itself
- Tighten the hitch, making certain that it is symmetrical and compact
- Tie correct knot

TIME: 30 Seconds

o. Demonstrate tying the following knot: Munter Hitch

REFERENCE: NFPA 1006, 2021 edition, 5.2.4

CONDITION: Given a length of rope and carabiner. *Gloves are not required. (AHJ requirements not included in time).

COMPETENCE:

- Prepare a strong rope and locking carabiner
- Create the first loop (from a loop in the middle of the rope and clip it into the carabiner. Position this load-bearing strand next to the spine of the carabiner to maximize safety)
- Create the second loop in the opposite direction (Make another loop in the rope, opposite the first loop, and clip it through the same carabiner. At this stage, you have two loops crossing in opposite direction inside the carabiner)
- Optional: Enhance safety with variations (Tie a slip knot with the braking strand and finish with a half hitch to lock off the Munter Hitch)
- Tie correct knot

TIME: 30 Seconds

5. Conduct a system safety check to ensure proper rigging prior to life-loading the system.

REFERENCE: NFPA 1006, 2021 edition, 5.2.7

CONDITION: Given a rope rescue system, and two rescue personnel, and PPE

COMPETENCE:

- Identify and don appropriate PPE (gloves, helmet, footwear, harness, eye protection)
- Perform a system safety check: Include ALL
    - Appropriate anchorage(s) correctly rigged
    - Proper use of equipment, in accordance with manufacturer's recommendations
    - Rigging appropriate to anticipated direction of pull (preload to verify)
    - All knots properly tied
    - Edges protected
    - System sufficient to perform the desired function
    - Proper safety factor
    - Operation commands understood among participants
    - Appropriate redundancy
    - All loose items secured
    - All personnel wearing appropriate PPE
    - Everyone at the edge protected by a belay or fall arrest system

TIME: 3 minutes

6. Explain the three levels of Situational Awareness

REFERENCE: NFPA 1006, 2021 edition, 5.2.7

CONDITION: List the three levels of situational awareness in operations as it

pertains to a real life rope rescue.

COMPETENCE:

- Accurately recognize all the moving parts
- Understand the moving parts in the current situation
- Understand how the moving parts will shift during the situation and anticipate how to address the changes

TIME: 3 minutes

7. Securely place edge protection.

REFERENCE: NFPA 1006, 2021 edition, 5.2.8

CONDITION: Given life safety rope or webbing, a sharp abrasive edge, edge protection, PPE, and other auxiliary rope rescue equipment.

COMPETENCE:

- Wear appropriate PPE and life safety harness
- Evaluate surroundings for potential hazards
- Properly attach self to pre-rigged edge restraint
- Evaluate travel path (fall line) for sharp or abrasive edges
- Select proper edge protection based on potential hazards
- Secure edge protection properly
- Securely place ropes or webbing on the edge protection

TIME: 20 minutes

8. Construct a single-point anchor using a tensionless hitch, so that the chosen anchor fits the incident needs.

REFERENCE: NFPA 1006, 2021 edition, 5.2.5

CONDITION: Given a scenario, a life safety rope, carabiner, object to place hitch around. Anchor with a single attachment point, direction (fall line) of expected load, additional equipment as needed to complete the assignment, construct a single point anchor system that will accommodate a load specific to the incident need. *Gloves are not required.

COMPETENCE:

- Wear appropriate PPE
- Determine incident needs
- Select correct equipment
- Calculate expected loads, including safety factor, for system
- Determine and select anchor point
- Tie correctly (minimum three wraps)
- Inspect equipment being used for system
- Use and secure edge protection, as necessary
- Use appropriate fall protection, as necessary

- Perform system safety check and evaluate system for integrity

TIME: 2 minutes

9. Construct a single-point anchor so that the chosen anchor fits the incident needs.

REFERENCE: NFPA 1006, 2021 edition, 5.2.5

CONDITION: Given a scenario, webbing/anchor strap, carabiner, object to place anchor around. Anchor with a single attachment point, direction (fall line) of expected load, additional equipment as needed to complete the assignment, construct a single point anchor system that will accommodate a load specific to the incident need. *Gloves are not required.

COMPETENCE:

- Wear appropriate PPE
- Determine incident needs
- Select correct equipment
- Calculate expected loads, including safety factor, for system
- Determine and select anchor point
- Determine and select appropriate knot
- Inspect equipment being used for system
- Use and secure edge protection, as necessary
- Use appropriate fall protection, as necessary
- Perform system safety check and evaluate system for integrity

TIME: 6 minutes

10. a. Construct a multiple-point (minimum of 2 points) anchor system so that the chosen anchor system fits the incident needs (even or uneven anchor points): Load Sharing System

REFERENCE: NFPA 1006, 2021 edition, 5.2.7

CONDITION: Given an assignment, life safety rope, anchor with multiple attachment points, direction (fall line) of expected load, additional equipment as needed to complete the assignment, construct a load sharing anchor system that will accommodate a load.

COMPETENCE:

- Wear appropriate PPE
- Determine incident needs
- Calculate expected loads for system
- Determine critical angle (90-degree maximum) for assignment
- Determine and select anchor points
- Determine and select appropriate knots
- Inspect equipment being used for system
- Create anchor points with given equipment, ensuring they don't interfere with rescue operations

- Use edge protection, as necessary
- Perform system safety check and evaluate system for integrity

TIME: 6 minutes

b. Construct a multiple-point (minimum of 2 points) anchor system so that the chosen anchor system fits the incident needs (even or uneven anchor points): Self-Equalizing Anchor System

REFERENCE: NFPA 1006, 2021 edition, 5.2.6

CONDITION: Given an assignment, life safety rope, anchor with multiple attachment points, direction (fall line) of expected load, additional equipment as needed to complete the assignment. Construct a self-equalizing anchor system that will accommodate a heavy load.

COMPETENCE:

- Wear appropriate PPE
- Determine incident needs
- Calculate expected loads for system
- Determine critical angle (90-degree maximum) for assignment
- Determine and select anchor points
- Determine and select appropriate knot
- Inspect equipment being used for system
- Create anchor points with given equipment, ensuring they don't interfere with rescue operations
- Use edge protection, as necessary
- Perform system safety check and evaluate system for integrity.

TIME: 6 minutes

11. Construct and operate a belay system capable of arresting a fall.

REFERENCE: NFPA 1006, 2021 edition, 5.2.9, 5.2.10

CONDITION: Given an assignment, an anchor system, 300 pound load, life safety rope, belay device and/or appropriate auxiliary rope rescue equipment, hauling/lowering system with qualified team.

COMPETENCE:

- Wear appropriate PPE
- Select appropriate belay system
- Tie appropriate knots as needed
- Calculate expected loads, including safety factor, for system
- Properly attach belay line to belay device
- Belayer is not rigged into the equipment components of the system
- Belay system is not loaded unless actuated
- Perform system safety check and evaluate system for integrity

- Belay the load 10 feet using appropriate belay commands
- Assess system effectiveness. (i.e., minimize slack in belay line, monitor load's position)

TIME: 10 minutes

12. Belay a falling load in a high-angle.

REFERENCE: NFPA 1006, 2021 edition, 5.2.11

CONDITION: Given an assignment, a belay system with no more than 18 inches of slack and a main line with a 40 pound load to be dropped, appropriate PPE.

COMPETENCE:

- Wear appropriate PPE
- Inspect and verbalize safety check of all rigging (i.e., damaged rope, carabiners locked, correct knots)
- Belay system is not loaded unless actuated
- Belayer is not rigged into the equipment components of the system
- Recognize and successfully arrest a falling load
- Use appropriate verbal commands to communicate belay status

TIME: 5 minutes

13. Construct a fixed rope system for ascending or descending.

REFERENCE: NFPA 1006, 2021 edition, 5.2.12

CONDITION: Given an assignment, anchor system, appropriate auxiliary equipment.

COMPETENCE:

- Calculate expected loads, including safety factor, for system
- Determine incident needs
- Evaluate surroundings for potential hazards
- Determine and select anchor points
- Determine and use appropriate knots
- Construct a fixed rope system for ascending or descending
- Evaluate the system to ensure it doesn't interfere with rescue operations
- Conduct system safety check
- Determine fixed rope system is safe and capable for use

TIME: 10 minutes

14. Construct a lowering system in a low-angle environment.

REFERENCE: NFPA 1006, 2021 edition, 5.2.13

CONDITION: Given an anchor system, life safety rope, descent control device, and auxiliary rope rescue equipment to accommodate the load.

COMPETENCE:

- Wear appropriate PPE
- Determine incident needs and select rescue system to meet incident needs
- Calculate expected loads, including safety factor, for system components
- Select appropriate anchor point
- Secure belay device to anchor using appropriate methods
- Reeve a rope through belay device
- Connect belay line to rescuer
- Ensure the constructed lowering system, with belay, using appropriate descent control device and other rigging is correct
- Conduct system safety check. (Carabiners locked, etc.)

TIME: 10 minutes

15. Direct a lowering system in a high-angle environment

REFERENCE: NFPA 1006, 2021 edition, 5.2.14

CONDITION: Given an assignment, a qualified belayer and belay system, established lowering system, a rescue team, and a load to be moved.

COMPETENCE:

- Wear appropriate PPE
- Determine incident needs and safety concerns
- Calculate expected loads, including safety factor, for system components
- Analyze system efficiency
- Conduct system safety check. (Carabiners locked, etc.)
- Direct the movement of the load (10 feet) utilizing appropriate operational commands
- Monitor system for potential problems
- Communicate problems or needs as identified

TIME: 10 minutes

16. Construct a simple rope mechanical advantage raising system so that the system constructed can accommodate the load, is efficient, and is connected to an anchor system and load.

REFERENCE: NFPA 1006, 2021 edition, 5.2.15

CONDITION: Given an anchor system, life safety rope, carabiners, pulleys, rope grab devices, and auxiliary rope rescue equipment, as needed to construct a mechanical advantage system.

COMPETENCE:

- Wear appropriate PPE
- Determine incident needs and safety concerns
- Select rescue system to meet incident needs
- Calculate expected loads, including safety factor, for system components
- Construct mechanical advantage system using appropriate knots, hardware, and anchor points
- Analyze system efficiency
- Conduct system safety check. (Carabiners, knots, rigging, etc.)

TIME: 10 minutes

17. Direct a team in the operation of an established simple rope mechanical advantage raising system so that the movement is controlled, a reset is accomplished, and the load can be held in place, without stressing the system.

REFERENCE: NFPA 1006, 2021 edition, 5.2.16

CONDITION: Given rescue personnel, established rope rescue system incorporating a simple rope mechanical advantage system, move load 10 feet.

SAFETY: Two points of contact shall be maintained throughout the skill for both the victim and rescuer. (Belay lines shall NOT be removed at any time)

COMPETENCE:

- Wear appropriate PPE
- Direct personnel effectively, using operational commands
- Analyze system efficiency
- Conduct system safety check. (Carabiners, knots, rigging, etc.)
- Move load and verify operation of progress capture device
- Conduct the raise without stressing the system to the point of failure
- Move load 10 feet
- Perform a reset
- Monitor system for potential problems
- Communicate problems or needs as identified

TIME: 10 minutes

18. Construct a compound rope mechanical advantage system so that the system constructed can accommodate the load efficiently, reduces the force required to lift the load, and is connected to an anchor system and load.

REFERENCE: NFPA 1006, 2021 edition, 5.2.17

CONDITION: Given an anchor system, life safety rope, carabiners, pulleys, rope grab devices, and auxiliary rope rescue equipment, as needed to construct a compound rope mechanical advantage

system.

COMPETENCE:

- Wear appropriate PPE
- Determine incident needs and safety concerns
- Select rescue system to meet incident needs
- Calculate expected loads, including safety factor, for system components
- Construct mechanical advantage system using appropriate knots, hardware, and anchor points
- Analyze system efficiency
- Conduct system safety check. (Carabiners, knots, rigging, etc.)
- Evaluate system components for compromised integrity

TIME: 10 minutes

19. Direct a team in the operation of an established compound rope mechanical advantage raising system so that the movement is controlled, a reset is accomplished, and the load can be held in place, without stressing the system.

REFERENCE: NFPA 1006, 2021 edition, 5.2.18

CONDITION: Given rescue personnel, established rope rescue system incorporating a compound rope mechanical advantage system, move load 10 feet.

SAFETY: Two points of contact shall be maintained throughout the skill for both the victim and rescuer. (Belay lines shall NOT be removed at any time)

COMPETENCE:

- Wear appropriate PPE
- Determine incident needs
- Direct personnel effectively, using operational commands
- Analyze system efficiency and address any interference concerns
- Conduct system safety check. (Carabiners, knots, rigging, etc.)
- Move load and verify operation of progress capture device.
- Conduct the raise without stressing the system to the point of failure
- Move load 10 feet
- Perform a reset
- Monitor system for potential problems
- Communicate problems or needs as identified

TIME: 10 minutes

20. Negotiate an edge while attached to a rope rescue system during a high-angle lowering and raising operation

REFERENCE: NFPA 1006, 2021 edition, 5.2.19

CONDITION: Given rope rescue system, life safety harnesses, an edge to negotiate during the lower and raise, 10 feet of distance, and specialized equipment.

SAFETY: Two points of contact shall be maintained throughout the skill for both the victim and rescuer. (Belay lines shall NOT be removed at any time)

COMPETENCE:

- Select and don appropriate PPE
- Attach life safety harness to the rope rescue system
- Maneuver across existing projections and an edge along the travel path (fall line) – 10 ft. minimum
- Look around area and determine hazards (Trip hazards, edge of cliff, etc.)
- Evaluate surroundings for potential hazards
- Communicate lowering/raising speed with Rescue Officer

TIME: 10 minutes

21. Prepare for transfer of victim(s) to EMS.

REFERENCE: NFPA 1006, 2021 edition, 5.2.20

CONDITION: Given diagnostic and packaging equipment and an actual or simulated EMS agency, so that rescuers and victims are protected from hazards.

COMPETENCE:

- Don BSI protective equipment
- Evaluate scene safety- determine and identify hazards (edge of cliff, trip hazards, etc.)
- Immobilize, package, and treat victims appropriate to situation (Package victim per AHJ and treat life threatening injuries)
- Transfer victim to EMS
- Communicate victim injuries and history to EMS provider
- Report victims' condition and history to EMS provider
- Complete written incident reports as required by AHJ

TIME: 10 minutes

22. Direct a team in the operation of litter-lowering and litter-raising in a low-angle environment so that the movement is controlled, and the litter can be held in place, without stressing the system to the point of failure.

REFERENCE: NFPA 1006, 2021 edition, 5.2.21

CONDITION: Given rescue personnel, litter tender(s), an established lowering/mechanical advantage and belay system, prepackaged victim, move (lower/raise) the litter 10 feet.

SAFETY: Two points of contact shall be maintained throughout the skill for both the victim and rescuer. (Belay lines shall NOT be removed at any time)

COMPETENCE:

- Wear appropriate PPE
- Determine incident needs
- Direct personnel effectively, using operational commands
- Analyze system efficiency and address any interference concerns
- Conduct system safety check. (Carabiners, knots, rigging, etc.)
- Manage the movement of the litter 10 feet in a low-angle environment (lower/raise)
- Identify safety concerns during litter operations
- Conduct the lower and raise without stressing the system to the point of failure
- Monitor system for potential problems
- Communicate problems or needs as identified

TIME: 10 minutes

23. Perform as a litter attendant in a low-angle environment (lower or raise).

REFERENCE: NFPA 1006, 2021 edition, 5.2.22

CONDITION: Given a rope rescue system, a life safety harness, litter, bridle, and specialized equipment necessary for the environment, transport device, capable of moving the litter tenders at least 10 feet, and four (4) member team. (Qualified haul/lowering team and belayer – not being tested)

SAFETY: Two points of contact shall be maintained throughout the skill for both the victim and rescuer. (Belay lines shall NOT be removed at any time)

COMPETENCE:

- Select and don rescuer harness and appropriate PPE
- Attach the life safety harness to the rope rescue system and litter
    - Attach rope rescue system to litter
    - Attach life safety harness to litter
- Manage the litter while suspended from the rope rescue system
- Evaluate surroundings and identify potential hazards to avoid (trip hazards, ground and soil conditions, etc.)
- Negotiate terrain while attached to system, minimizing risks

TIME: 20 minutes

24. a. Direct a team in the operation of litter-lowering in a high-angle environment so that the movement is controlled, and the litter can be held in place, without stressing the system to the point of failure.

REFERENCE: NFPA 1006, 2021 edition, 5.2.23

CONDITION: Given rescue personnel, litter tender(s), an established lowering/mechanical advantage and belay system, empty litter, litter tender, lower the litter 10 feet, providing a means for negotiating edges and projections along the fall line. Tag lines as needed.

SAFETY: Two points of contact shall be maintained throughout the skill for both the victim and rescuer. (Belay lines shall NOT be removed at any time)

COMPETENCE:

- Wear appropriate PPE
- Determine incident needs
- Direct personnel effectively, using operational commands
- Analyze system efficiency and address any interference concerns
- Conduct system safety check. (Carabiners, knots, rigging, etc.)
- Manage the movement of the litter 10 feet in a high-angle environment (lower)
- Identify safety concerns of high-angle environment during litter operations
- Conduct the lower without stressing the system to the point of failure
- Monitor system for potential problems
- Communicate problems or needs as identified

TIME: 30 minutes

b. Direct a team in the operation of a litter-raising in a high-angle environment so that the movement is controlled, and the litter can be held in place, without stressing the system to the point of failure.

REFERENCE: NFPA 1006, 2021 edition, 5.2.23

CONDITION: Given rescue personnel, litter tender(s), an established raising mechanical advantage and belay system, prepackaged victim in litter (simulated victim), litter tender, raise the litter 10 feet, providing a means for negotiating edges and projections along the fall line. Tag lines as needed per AHJ SOP.

SAFETY: Two points of contact shall be maintained throughout the skill for both the victim and rescuer. (Belay lines shall NOT be removed at any time)

COMPETENCE:

- Wear appropriate PPE
- Determine incident needs
- Direct personnel effectively, using operational commands
- Analyze system efficiency and address any interference concerns
- Conduct system safety check. (Carabiners, knots, rigging, etc.)
- Manage the movement of the litter 10 feet in a high-angle environment (raising)

- Identify safety concerns of high-angle environment during litter operations
- Conduct the lower without stressing the system to the point of failure
- Monitor system for potential problems
- Communicate problems or needs as identified

TIME: 30 minutes

25. Describe procedures for terminating a rope rescue incident.

REFERENCE: NFPA 1006, 2021 edition, 5.2.24

CONDITION: Given a scenario, verbalize the procedures for terminating a rope rescue incident, using AHJ approved policies and procedures.

COMPETENCE:

- Ensure all rescuers and victim(s) are out of the hazard area
- Recognize hazards/ risk analysis (edges, fall line, objects, etc.)
- Maintain scene security
- Account for and secure all PPE and equipment.
- Identify need to rehab/decontaminate any PPE, equipment, and personnel.
- Ensure all proper notifications have been made, i.e., medical examiner, law enforcement, etc. (AHJ)
- Ensure all documentation, personnel accountability, data collection and management systems are completed
- Identify any potential need for critical incident stress management
- Perform a post incident debriefing and analysis.
- All personnel and resources are returned to a state of readiness
- Custody is transferred to responsible party
- Terminate command

TIME: 10 minutes

Rope Rescue - Operations Evolution

To create a more realistic testing environment, the individual skills have been assembled into this Examination Evolution. Candidates must train and complete In-House skills and evolution examinations. The evolution will be graded on a 100% pass/fail basis.

***** Rope Rescue Safety Requirements:***
The AHJ must have the capacity and be able to provide a safe testing environment and location for all candidates and accept all liability for candidate safety.

The following minimum is required to perform Rope Rescue testing:
** Two points of contact shall be maintained throughout the skill for both the victim and rescuer(s). (Belay lines shall NOT be removed at any time.) One additional safety officer must be qualified at the level being tested to verify overall safety. No live simulated victims.*

REFERENCE: NFPA 1006, 2021 edition, 5.2

SKILL EXAM EVOLUTION: Working as a member of a 10-12 member team, perform a low-angle rescue operation.

CONDITION: Given a scenario of a rope rescue incident, AHJ approved training location, appropriate rope rescue equipment and PPE, simulated victim - rescue/hose dummy, 10-12 member team with assigned team roles, using any AHJ, SOP's, tactical worksheets, and technical reference material.

SAFETY: Two points of contact shall be maintained throughout the skill for both the victim and rescuer(s) (Belay lines shall NOT be removed at any time). One additional safety officer must be qualified at the level being tested to verify overall safety.

NOTES: Assigned team roles should include but are not limited to the following: incident commander, one safety officer, rescue officer, rigging team, haul team, belay team, and litter attendants, and other AHJ protocols.

COMPETENCE:

1. Conduct a scene size-up/site survey and establish command (See skill 1a)
2. Identify and determine potential witnesses. Conduct a witness interview (See skill 1b)
3. Identify and don appropriate PPE
4. Securely place edge protection – as needed (See skill 7)
5. Construct a multiple-point (minimum of 2 points) anchor system so that the chosen anchor system fits the incident needs: Load Sharing System or Self-Equalizing Anchor System (See skill 10a or 10b)
6. Construct and operate a belay system capable of arresting a fall (See skill 11)

7. Construct a lowering system in a low angle environment, for litter operations (See skill 14)
8. Conduct a system safety check to ensure proper rigging prior to lowering operation (See skill 5)
9. As a team, perform a litter-lowering operation, lowering 3-4 litter attendants (See skill 22 and 23)
10. Immobilize, package, and treat victim appropriate to situation (See skill 21)
11. Construct a rope mechanical advantage raising system (See skill 16 or 18)
12. Conduct a system safety check to ensure proper rigging prior to raising operation. (See skill 5)
13. As a team, perform a litter-raising operation, raising 3-4 litter attendants and victim (See skill 22, 17 or 19)
14. Prepare for transfer of victim to EMS. (See skill 21)
15. Describe procedures for terminating a rope rescue incident. (See skill 25)

TIME: 2 hours

UTAH FIRE SERVICE CERTIFICATION SYSTEM
ROPE RESCUE - OPERATIONS

NFPA 1006, 2021 edition
5.2.1-5.2.25

ROPE RESCUE - OPERATIONS
TRAINING RECORD / IN-HOUSE COMPREHENSIVE FORM

Candidate Name:	**Department:**
Candidate Signature:	**Date of Completion:**
Chief/Training Officer:	**Chief/Training Officer Signature:**

This form may be completed on a computer but must be printed out for the Certification Tester to verify on test day. Date of completion and signatures of Chief/Training Officer and Candidate must be original signatures. Signatures attest that all skills have been trained on and a complete In-House Comprehensive Exam was administered and passed. Falsification of signatures or any component of this document may result in the revocation, suspension, or denial of certification. ** ***See Rope Rescue Safety Requirements***

SECTION	TRAINING RECORD		IN-HOUSE COMPREHENSIVE EXAMS			SKILL
	DATE	INSTRUCTOR	DATE	INSTRUCTOR	PASS	
Prerequisites						***Rope prerequisites have been met prior to Rope Rescue Operations.***
5.2.1 Chapter 6						1. a. Conduct a scene size-up/site survey for a Rope Rescue incident. (Including search parameters, risk benefit analysis, etc.)
5.2.1						b. Conduct a witness interview.
5.2.2, 5.2.3, 5.2.7 Chapter 7,8						2. Inspect and maintain rescue equipment and personal protective clothing for an operations level rope rescue.
5.2.4 Chapter 9						3. Identify five (5) rope/knot tying terminology
5.2.4 Chapter 9						4. (a-o). Demonstrate tying each of the following knots: Overhand Knot, Figure 8 (Stopper Knot), Figure 8 on a Bight, Figure 8 Follow-Through Knot, Double Figure 8 Loop, High-Strength Bowline, Interlocking Long-Tail Bowline, Inline Figure 8, Butterfly Knot, Figure 8 Bend Knot, Grapevine Bend/Double Fisherman, Ring Bend/Water Knot, Prusik Hitch, Clove Hitch around a closed object, and Munter Hitch.
5.2.7 Chapter 10						5. Conduct a system safety check to ensure proper rigging prior to life-loading the system.
5.2.7 Chapter 3						6. Explain the three levels of Situational Awareness.
5.2.8 Chapter 10						7. Securely place edge protection.
5.2.5 Chapter 11						8. Construct a **single-point anchor** using a **tensionless hitch**, so that the chosen anchor fits the incident needs.

5.2.5 Chapter 11						9. Construct a **single-point anchor** so that the chosen anchor fits the incident needs.
5.2.7 Chapter 11						10. a. Construct a multiple-point (minimum of 2 points) anchor system so that the chosen anchor system fits the incident needs (even or uneven anchor points): **Load Sharing System**
5.2.6 Chapter 11						b. Construct a multiple-point (minimum of 2 points) anchor system so that the chosen anchor system fits the incident needs (even or uneven anchor points): **Self-Equalizing Anchor System**
5.2.9, 5.2.10 Chapter 10,12						11. Construct and operate a belay system capable of arresting a fall.
5.2.11						12. Belay a falling load in a high angle.
5.2.12 Chapter 14, 16						13. Construct a fixed rope system for ascending or descending.
5.2.13 Chapter 14, 16						14. Construct a lowering system in a low angle environment.
5.2.14 Chapter 14, 16						15. Direct a lowering system in a high-angle environment.
5.2.15 Chapter 15						16. Construct a simple rope mechanical advantage raising system so that the system constructed can accommodate the load, is efficient, and is connected to an anchor system and load.
5.2.16 Chapter 15						17. Direct a team in the operation of an established simple rope mechanical advantage raising system so that the movement is controlled, a reset is accomplished, and the load can be held in place, without stressing the system.
5.2.17 Chapter 15						18. Construct a compound rope mechanical advantage system so that the system constructed can accommodate the load efficiently, reduces the force required to lift the load, and is connected to an anchor system and load.
5.2.18 Chapter 15						19. Direct a team in the operation of an established compound rope mechanical advantage raising system so that the movement is controlled, a reset is accomplished, and the load can be held in place, without stressing the system.
5.2.19						20. Negotiate an edge while attached to a rope rescue system during a high angle lowering and raising operation.
5.2.20 Chapter 13						21. Prepare for transfer of victim(s) to EMS.
5.2.21 Chapter 14, 16						22. Direct a team in the operation of **litter-lowering and litter-raising** in a low angle environment so that the movement is controlled, the litter can be held in place, without stressing the system to the point of failure.
5.2.22 Chapter 13,14,16						23. Perform as a litter attendant in a low-angle environment (lower or raise).
5.2.23 Chapter 14, 16						24. a. Direct a team in the operation of a **litter-lowering** in a high-angle environment so that the movement is controlled, and the litter can be held in place, without stressing the system to the point of failure.
5.2.23 Chapter 14, 16						b. Direct a team in the operation of a **litter-raising** in a high-angle environment so that the movement is controlled, and the litter can be held in place, without stressing the system to the point of failure.

5.2.24 Chapter 4,5,6						25. Describe procedures for terminating a rope rescue incident.
Certification Examination Evolution						Working as a member of a 10-12 member team, perform a low-angle rescue operation.

SECTION III
ROPE RESCUE - TECHNICIAN

ROPE RESCUE – TECHNICIAN SKILL OBJECTIVES

***** Rope Rescue Safety Requirements:***
The AHJ must have the capacity and be able to provide a safe testing environment and location for all candidates and accept all liability for candidate safety.

The following minimum is required to perform Rope Rescue testing:
** Two points of contact shall be maintained throughout the skill for both the victim and rescuer(s). (Belay lines shall NOT be removed at any time.) One additional safety officer must be qualified at the level being tested to verify overall safety.*

1. **As a member of a team, construct and direct the operation of a highline system so that personnel assignments are made and clearly communicated.**

   REFERENCE: NFPA 1006, 2021 edition, 5.3.5, 5.3.6

   CONDITION: Given an assignment, PPE, life safety rope, rope rescue equipment, minimum 20 ft. span, minimum 40 lb. load, and 4-6 member team.

   SAFETY: Two points of contact shall be maintained throughout the skill for both the victim and rescuer. (Belay lines shall NOT be removed at any time)

   COMPETENCE:
   - Wear appropriate PPE
   - Calculate expected loads, including safety factor, for system
   - Determine incident needs
   - Determine and select anchor points
   - Construct highline system using appropriate knots, hardware, and equipment
     - Establish anchor system for track line
     - Tension track line
     - Establish taglines
     - Attach a rescuer to line with pulley and lanyard
   - Analyze system efficiency and address any interference concerns
   - Monitor and adjust tension, as appropriate
   - Conduct system safety check
   - Move load to center, hold for 10 seconds, and return to starting position
   - Move load around an obstacle
   - Operate system by giving operational commands
   - Monitor system for potential problems
   - Communicate problems or needs as identified

   TIME: 40 minutes

2. **Ascend a fixed rope system (minimum 20 feet) ascend, complete a changeover, and then descend the same fixed rope system.**

REFERENCE: NFPA 1006, 2021 edition, 5.3.9, 5.3.10

CONDITION: Given a preconstructed fixed rope system, appropriate auxiliary equipment, life-safety harness, a belay system and qualified belayer, appropriate PPE.

SAFETY: Two points of contact shall be maintained throughout the skill for both the victim and rescuer. (Belay lines shall NOT be removed at any time) ** Contingency releasable rigging at the anchor is highly recommended.

COMPETENCE:

- Wear appropriate PPE
- Evaluate surroundings for potential hazards.
- Conduct system safety check and determine fixed rope system is safe and capable for use.
- Select and use appropriate rescuer harness and ascending/descending devices
- Attach ascending devices to system.
- Ascend rope system, minimum 20 feet.
- Conduct personal safety check
- Maneuver around existing environment and system specific obstacles (ascending/descending)
- Convert ascending system to a descending system while suspended on the fixed rope.
    - Place full weight on primary ascender
    - Remove rappel device from equipment sling and attach to seat harness
    - Remove all slack in the main line between descender and primary ascender and lock
    - Remove weight from seat harness ascender using dominate leg ascender
    - Remove seat harness ascender
    - Transfer weight to repel device
    - Remove remaining ascender from rope
    - Secure ascender slings and proceed with descent
- Descend rope system, minimum 20 feet.

TIME: 10 minutes

3. While suspended on a fixed rope in a high angle environment, demonstrate a self-rescue, escaping from a simulated jammed or malfunctioning descent control device.

REFERENCE: NFPA 1006, 2021 edition, 5.3.11

CONDITION: Given a preconstructed fixed rope system, a belay line, life safety harness, descent control device and/or ascending device, appropriate auxiliary equipment and appropriate PPE, and qualified belay personnel.

SAFETY: Two points of contact shall be maintained throughout the skill for both the victim and rescuer. (Belay lines shall NOT be

removed at any time)
** Contingency releasable rigging at the anchor is highly recommended.

COMPETENCE:

- Wear appropriate PPE
- Evaluate surroundings for potential hazards
- Conduct system safety check and determine fixed rope system is safe and capable for use
    - Ensure carabiners are locked
    - Ensure anchor systems are secure
- Select and use rescuer harness
- Select and attach descending device
- Attach belay line to harness
- Conduct personal safety check (Carabiners locked)
- Descend about halfway and stop
- Use appropriate tie-off technique for descent device being used per AHJ
- Perform self-rescue procedures – escape
    - Lock off rappel device
    - Place ascender on rope above rappel device
    - Attach ascender to front attachment of set harness
    - Place second ascender above the first ascender
    - Attach foot loop to the second ascender and push up rope
    - Use the step ascender to step up 8 to 12 inches to take tension off descender
    - Remove obstruction from descender
    - Replace descender on rope and lock off ensuring there is no slack
    - Step up into step ascender to remove weight from primary ascender
    - Remove the primary ascender from the rope
    - Shift weight back onto descender
    - Remove foot ascender from the rope
- Safely release tie-off
- Continue descent to ground

TIME: 10 minutes

4. **Construct and direct the operation of a rope rescue system, as a member of a 6-8 member team, using a descending pick-off technique to remove an emotionally distressed victim suspended from a rope or webbing in a high angle environment, and move them safely to a stable surface (minimum 20 feet).**

    REFERENCE: NFPA 1006, 2021 edition, 5.3.2, 5.3.3, 5.3.8

    CONDITION: Given an approved AHJ training location, rope rescue equipment to construct a fixed rope system, appropriate auxiliary equipment, life-safety harness, a belay system and qualified belayer, PPE, a suspended victim in a harness - attached to a static fixed rope and belay line for victim, (6-8

member team).

SAFETY: Two points of contact shall be maintained throughout the skill **for both** the victim and rescuer – qualified belayers required. (Belay lines shall NOT be removed at any time)
** Contingency releasable rigging at the anchor is highly recommended.

NOTES: Assigned team roles should include but are not limited to the following: incident commander, one safety officer, rescue officer, rigging team, haul team, belay team, and other AHJ protocols.

COMPETENCE:

- Wear appropriate PPE
- Evaluate surroundings for potential hazards
- Select and construct a system for rapid removal of victim
    - Select appropriate anchor point for stationary rope
    - Select secondary anchor point for belay line
    - Anchor stationary rope to anchor point per AHJ
    - Anchor belay line to secondary anchor
- Direct and manage operation of the selected system using appropriate operational commands
- Select and use rescuer harness
- Choose appropriate victim transfer system
- Select and attach descending device
- Attach belay line
- Conduct system safety check and determine fixed rope system is safe and capable for use
- Apply methods of approach that minimize the risk to the rescuer and victim
- Descend to victim
- Communicate and interact with the victim, without escalating the incident
- Apply interview techniques of the victim to understand state of mind and condition
- Transfer the victim from static line to the descending system, utilizing victim pick-off system
- Conduct safety check for the victim
- Safely control descent/ascent to a stable surface
- Transfer victim to EMS

TIME: 45 minutes

5. **Construct and direct the operation of a rope rescue system, as a member of a 6-8 member team, using a descending pick-off technique to remove an emotionally distressed victim clinging to a rock or manmade feature in a high angle environment. Apply life safety harness to the victim and move them safely to a stable surface (move victim minimum 20 feet).**

REFERENCE: NFPA 1006, 2021 edition, 5.3.1

CONDITION: Given an approved AHJ training location, rope rescue equipment to construct a fixed rope system, appropriate

auxiliary equipment, life-safety harness, a belay system and qualified belayer, PPE, a stranded victim, belay line for victim, (6-8 member team).

SAFETY: Victim clinging to feature, must be in a harness tied off, or safe area for testing. Two points of contact shall be maintained throughout the skill for both the victim and rescuer – qualified belayers required. (Belay lines shall NOT be removed at any time)
** Contingency releasable rigging at the anchor is highly recommended.

NOTES: Assigned team roles should include but are not limited to the following: incident commander, one safety officer, rescue officer, rigging team, haul team, belay team, and other AHJ protocols.

COMPETENCE:

- Wear appropriate PPE
- Evaluate surroundings for potential hazards.
- Select and construct a system for rapid removal of victim.
    - Select appropriate anchor point for stationary rope
    - Select secondary anchor point for belay line
    - Anchor stationary rope to anchor point per AHJ
    - Anchor belay line to secondary anchor
- Direct and manage operation of the selected system using appropriate operational commands
- Select and use rescuer harness
- Choose appropriate victim transfer system
- Select and attach descending device
- Attach belay line
- Conduct system safety check and determine fixed rope system is safe and capable for use
- Apply methods of approach that minimize the risk to the rescuer and victim.
- Descend to victim.
- Communicate and interact with the victim, without escalating the incident
- Apply interview techniques of the victim to understand state of mind and condition
- Apply life safety (seat and chest) harness to the victim
- Transfer the victim to the rope rescue system, utilizing victim pick-off system.
- Conduct safety check for the victim
- Safely control descent/ascent to a stable surface
- Transfer victim to EMS

TIME: 45 minutes

6. **Perform the activities of a litter tender in a high angle lowering or raising operation, in a rope rescue system so that risks to victim and rescuers are minimized.**

REFERENCE: NFPA 1006, 2021 edition, 5.3.4

CONDITION: Given a preconstructed rope rescue lowering/raising system capable of lowering/raising the load at least 20 feet above starting point, qualified haul team and belayer, life-safety harnesses, litter, bridle, and specialized equipment necessary for the environments, appropriate PPE.

SAFETY: Two points of contact shall be maintained throughout the skill for the rescuer. (Belay lines shall NOT be removed at any time) Victim not required.

COMPETENCE:

- Select and use appropriate harness and PPE for the environment
- Understand limitations and hazards associated with working while suspended from a litter.
- Identify hazards associated with current environment in which rescue system is being employed.
- Attach to the life safety rope and belay using appropriate rescue knots
- Communicate to team and victim appropriately
- Manage the litter while attached to the rope rescue system, minimizing risks to persons and equipment (i.e., rescuer moves litter past obstacles and structural features)

TIME: 20 minutes

7. Given a scenario, demonstrate the ability to climb vertically or near vertical paths using the surfaces or climbing aids.

REFERENCE: NFPA 1006, 2021 edition, 5.3.7

CONDITION: Given a life-safety harness, appropriate PPE, positioning equipment, and/or specialized equipment necessary for the environment (AHJ). AHJ approved location.

SAFETY: Two points of contact shall be maintained throughout the skill for the rescuer.

COMPETENCE:

- Select and use appropriate harness and PPE for the environment
- Select appropriate climbing aids, as situation requires, positioning equipment, or fall protection systems to prevent the fall or unwanted movement of the rescuer.
    - Choose appropriate ascender
    - Attach ascender to rope
    - Attach a second ascender to rope above the first
    - Attach webbing to the ascender to form loops per AHJ
- Understand personal limitations, hazards associated with the

current environment

- Conduct system safety check and determine selected protection system will support the weight of the rescuer, and is safe and capable for use
    - Ensure equipment is attached properly and carabiners are locked
- Demonstrate climbing vertically
- Complete assigned task

TIME: 10 minutes

Rope Rescue - Technician Evolution

To create a more realistic testing environment, the individual skills have been assembled into this Examination Evolution. Candidates must train and complete In-House skills and evolution examinations. The evolution will be graded on a 100% pass/fail basis.

***** Rope Rescue Safety Requirements:***
The AHJ must have the capacity and be able to provide a safe testing environment and location for all candidates and accept all liability for candidate safety.

The following minimum is required to perform Rope Rescue testing:
** Two points of contact shall be maintained throughout the skill for both the victim and rescuer(s). (Belay lines shall NOT be removed at any time.) One additional safety officer must be qualified at the level being tested to verify overall safety.*

REFERENCE:	NFPA 1006, 2021 edition, 5.3
SKILL EXAM EVOLUTION:	Working as a member of a 10-12 member team, perform a rope rescue operation using a high-line or track-line system to move a litter (minimum 20 feet) with simulated victim and litter attendant.
CONDITION:	Given a scenario of a rope rescue incident, AHJ approved training location, appropriate rope rescue equipment and PPE, simulated victim, 10-12 member team with assigned team roles, using any AHJ, SOP's, tactical worksheets, and technical reference material.
SAFETY:	Two points of contact shall be maintained throughout the skill for both the victim and rescuer(s). (Belay lines shall NOT be removed at any time.) One additional safety officer must be qualified at the level being tested to verify overall safety.
SCENARIO:	Your team has been called to a rope rescue incident of an injured victim in a high angle environment. Immobilize, package, and transport victim from side A (near-side) across the chasm to side B (far-side), safely.
NOTES:	Assigned team roles should include but are not limited to the following: incident commander, one safety officer, rescue officer, rigging team, haul team, belay team, litter attendants, and other AHJ protocols.
COMPETENCE:	1. Conduct a scene size-up/site survey and establish command 2. Evaluate surroundings for potential hazards. 3. Identify and determine potential witnesses. Conduct a witness interview 4. Identify and don appropriate PPE 5. Securely place edge protection – as needed

6. Construct a high-line/track-line system
7. Calculate expected loads, including safety factor, for system components (10% sag rule)
8. Immobilize, package, and treat victim appropriate to situation
9. Conduct a rope system, litter, rescuer, and victim safety check to ensure proper rigging prior to operation
10. Direct/perform operation of high-line/track-line system to move rescue load from side A to side B
11. Use appropriate operational commands and communication
12. Monitor system for potential problems.
13. Communicate problems or needs as identified.
14. Prepare for transfer of victim to EMS.
15. Describe procedures for terminating a rope rescue incident.

TIME: 2 hours

UTAH FIRE SERVICE CERTIFICATION SYSTEM
ROPE RESCUE - TECHNICIAN

NFPA 1006, 2021 edition
5.3

ROPE RESCUE - TECHNICIAN
TRAINING RECORD / IN-HOUSE COMPREHENSIVE FORM

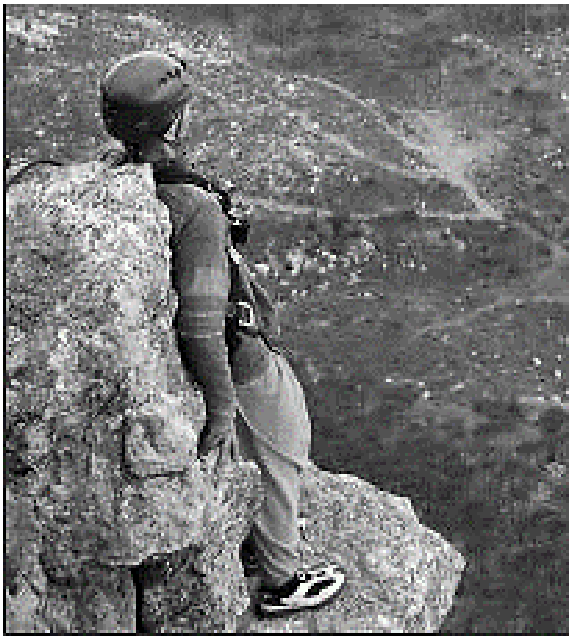
Candidate Name:	**Department:**
Candidate Signature:	**Date of Completion:**
Chief/Training Officer:	**Chief/Training Officer Signature:**

This form may be completed on a computer but must be printed out for the Certification Tester to verify on test day. Date of completion and signatures of Chief/Training Officer and Candidate must be original signatures. Signatures attest that all skills have been trained on and a complete In-House Comprehensive Exam was administered and passed. Falsification of signatures or any component of this document may result in the revocation, suspension, or denial of certification.

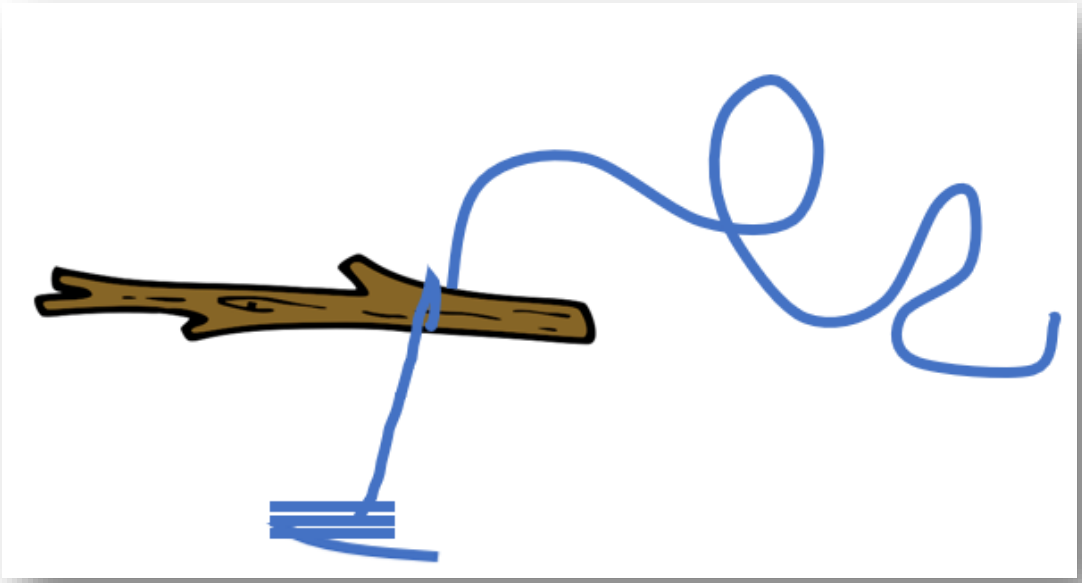
SECTION	TRAINING RECORD		IN-HOUSE COMPREHENSIVE EXAMS			SKILL OBJECTIVES & EVOLUTION
	DATE	INSTRUCTOR	DATE	INSTRUCTOR	PASS	
Prerequisites						**All prerequisites have been met prior to Rope Rescue Technician skills training/testing.**
5.3.5, 5.3.6 Chapter 17						1. As a member of a team, construct and direct the operation of a highline system so that personnel assignments are made and clearly communicated.
5.3.9, 5.3.10 Chapter 19						2. Ascend a fixed rope system (minimum 20 feet), ascend, complete a changeover, and then descend the same fixed rope system.
5.3.11 Chapter 18						3. While suspended on a fixed rope in a high angle environment, demonstrate a self-rescue, escaping from a simulated jammed or malfunctioning descent control device.
5.3.2, 5.3.3, 5.3.8 Chapter 17, 19						4. Construct and direct the operation of a rope rescue system, as a member of a 6-8 member team, using a descending pick-off technique to remove an **emotionally distressed victim suspended from a rope or webbing** in a high angle environment, and move them safely to a stable surface (minimum 20 feet).
5.3.1 Chapter 19						5. Construct and direct the operation of a rope rescue system, as a member of a 6-8 member team, using a descending pick-off technique to remove an emotionally distressed victim **clinging to a rock or manmade feature** in a high angle environment. Apply life safety harness to the victim and move them safely to a stable surface (move victim minimum 20 feet).
5.3.4 Chapter 19						6. Perform the activities of a **litter tender** in a high angle lowering or raising operation, in a rope rescue system so that risks to victim and rescuers are minimized.
5.3.7 Chapter 18						7. Given a scenario, demonstrate the ability to climb vertically or near vertical paths using the surfaces or climbing aids.
Certification Examination Evolution						Working as a member of a 10-12 member team, perform a rope rescue operation using a high-line or track-line system to move a litter (minimum 20 feet) with simulated victim and litter attendant.

APPENDIX A
Sample Photos for Rope Rescue

Rope Rescue Incident example:



Rope Rescue Operations - Skill 3:



APPENDIX B
In-House Proctor Instructions

Proctor Instructions for In-House Comprehensive Examination

As the training officers for your department, you are authorized by the Certification Council to conduct an in-house skills examination (100%) for this level of certification. You must be certified to the level that you are testing. For example, if you're FF II you can test both FF I and II, Awareness and Operations. The in-house skills examination must be completed and signed off prior to the actual certification spot check exam (administered by a UFRA certification tester).

- **Prior to conducting the test, review each candidate's training record.**
  It is important that before doing this in-house training skills test, the candidate has completed training in all areas for the level being tested.

- **Select and brief a safety officer.**
  Select a safety officer to assist you during the test. This person is there to protect the candidates from injury during the testing process, is not taking the test, and is not assisting with the testing process. The safety officer must be qualified at the level being tested.

To better evaluate the skills being tested and determine the candidate's readiness for the <u>State Spot Check exam</u>, follow these in-house exam instructions:

1. This is a TEST and there should be NO COACHING or TRAINING during the testing process. If a candidate fails to perform a skill, that skill will count as a first attempt failure and they will be given a second attempt. If they fail a second attempt, they need to be retrained on that skill and tested again. Only **qualified** candidates that have passed with **100%** should be allowed to take the State Spot Check exam.

2. Before beginning the testing process, conduct a meeting with all candidates and review the testing process. Explain that this is a test and that the same process being used for the in-house exam will be used during the state exam.

3. Designate two separate areas for students testing: One area for those who are in the testing process and one area for those who have not yet begun the testing process. If separate areas are not available, make sure someone is in the room to ensure that students do not discuss the testing material. Make sure these areas have no training manuals or other reference materials for students to look at while awaiting testing.

4. To evaluate a candidate's performance, use the following as a guide:
   a. The skill is completed in the allotted time.
   b. Competence is shown by completing all performance criteria.
   c. Safety is a priority while completing the skill.

5. At each test station, the tester will read the skill to be demonstrated, the condition to be met, and the time limit to complete each skill. This information is contained in the skill section of each standards packet. Do this with each student as they come to each testing station. Ask for any questions. As each skill is tested and completed, sign it off in the section provided on the candidate's training record.

By conducting the in-house skills examination in this manner, you will prepare your candidates to successfully pass the State Spot Check exam. This will also ensure that training records are current and that only those who are truly prepared take the Certification Examination.

APPENDIX - C

CERTIFICATION FORMS

Certification Forms are located on our website at UVU.edu/UFRA under Certification
https://www.uvu.edu/ufra/certification/certification_forms.html

Which includes the following forms:
Intent to Participate
Examination Request
Certification/Recertification Request

CERTIFICATION FEES – Effective January 1, 2025

1st Attempt	2nd Attempt	3rd Attempt	Certification Item
Certification Levels Tested (per individual)			
$ 10	$ 50	$ 75	Firefighter I
$ 10	$ 50	$ 75	Firefighter II
N/A	N/A	$ 75	Live Fire (tied with Firefighter I and II)
$ 10	$ 50	$ 75	Hazardous Materials Awareness
$ 10	$ 50	$ 75	Hazardous Materials Operations
**The skills fee will be waived on the first and second attempt if taken the same day as the written exam. Fire departments in fifith/sixth-class counties will continue to receive a free first attempt for Firefighter I, Firefighter II, Hazardous Materials Awareness, and Hazardous Materials Operations.			
$ 75	$ 75	$ 75	**All other levels**
$ 90	$ 90	$ 90	Accredited Firefighter Academies (AFAs), "non-fire department" agencies
Recertification Requests			
$ 10			All levels - For each individual (excluding Technician levels)
$ 10			All "Technician" levels (Training Record required), for each individual
Reciprocity			
$ 200			Per application (for all levels) must have Pro Board or IFSAC seals included
Other			
$ 10			Additional patches
$ 20			Printed original certificate with seal
$ 20			ID card
$ 350			Out-of-state testing/certfication: Officer I-IV (per level)