

XII. MINIMUM STANDARDS FOR TECHNICAL RESCUE APPRENTICE CERTIFICATION

This program is designed to provide specialty certification and training for Volunteer Firefighters, Volunteer Search & Rescue Technicians, Volunteer Emergency Medical Technicians and others as the Board may determine.

Technical Search & Rescue Personnel who have received training prior to passage of this program may, upon providing proof to a Board member and receiving approval, apply the training hours for certification. Any training hours earned prior to July 1, 2008 must be approved by the Board.

A. Reference Materials

The jurisdictional entity in which the Technical Rescue Personnel serves must have access to the following reference materials:

NFPA

NFPA 1006: Standard for Technical Rescuer Professional Qualifications, ed. 2008

NFPA 1670: Standard on Operations and Training for Technical Search and Rescue Incidents, ed. 2004

IFSTA

Fire Service Search and Rescue, 7th Ed. (2005)

Principles of Vehicle Extrication, 2nd Ed. (2000)

Technical Rescue for Structural Collapse, North American Version, 1st Ed. (2003)

Other

Jurisdictionally developed codes and protocols

B. Prior to beginning this course of instruction, trainee shall complete the following FEMA courses:

1. IS-100.a – Introduction to ICS
2. IS-200.a – ICS for Single Resources and Initial Action Incidents
3. IS-700 or 700.a – Introduction to NIMS
4. IS-800 – Introduction to National Response Framework
5. IS-5.a – An Introduction to Hazardous Materials

C. Applicants must successfully pass:

1. all psycho-motor skill demonstrations; and
2. a comprehensive final examination

D. Upon meeting all requirements, an application should be completed, signed by the applicant, Certification Coordinator, and Fire Chief, and sent to the Austin office, accompanied by the twenty dollar (\$20.00) application processing fee.

E. Upon review the Austin office will issue the appropriate certificate and, upon request, a shoulder patch. A permanent record of the certification will be maintained in the Austin office.

F. Training Requirements

SECTION	SUBJECT	HOURS
1	Site Operations (includes Technical Rescue Apprentice)	10
2	Victim Management (includes First Aid)	12
3	Maintenance	2
4	Ropes and Rigging	16
TOTAL RECOMMENDED HOURS		40

* The recommended hours for skills evaluation is based on 12 students. Actual hours needed depends on the number of students, the number of examiners, availability of equipment, and the student skill level

E. Curriculum for Technical Rescue Apprentice

SECTION 1 SITE OPERATIONS – 10 HOURS

- 1-01** Trainee shall correctly establish a Landing Zone with no more than one instructor assist.
- 1-02** Trainee shall correctly demonstrate use of marshaling signals to guide a helicopter, while using proper PPE, in landing and taking off with no more than one instructor assist.
- 1-03** Trainee shall correctly identify the necessary elements of a successful site survey associated with incidents involving different rescue environments to include PPE, scene control barriers and equipment.
- 1-04** Trainee shall correctly identify the factors that rescuers must know to effectively perform a scene size-up associated with incidents involving the different rescue environments.
- 1-05** Trainee shall correctly identify the types of hazards and their consequences for rescuers that must be included in Hazard Assessment associated with incidents involving the different rescue environments.
- 1-06** Trainee shall correctly identify the necessary elements for implementing an On-Scene Operational Plan or Incident Action Plan (IAP).

- 1-07 Trainee shall correctly identify the responsibilities of command and the primary functions of command associated with incidents involving the different rescue environments.
- 1-08 Trainee shall correctly identify the requirements for safe support and use of helicopters in rescue incidents.
- 1-09 Trainee shall correctly identify the criteria for packaging a patient for aero-medical transport.
- 1-10 Trainee shall correctly identify the criteria for tracking equipment, identify lighting sources and shelters, thermal protection, rehab areas and personnel rotations.
- 1-11 Trainee shall correctly demonstrate using technical references, gathering and relaying information and using information gathering systems in a simulated rescue incident, with no more than two instructor assists.
- 1-12 Trainee shall correctly identify the criteria for entering into, maneuvering in, and exiting from a search/rescue environment and how to perform self escape/rescue.
- 1-13 Trainee shall correctly identify the criteria for terminating a search/rescue incident.

SECTION 2 VICTIM MANAGEMENT – 12 HOURS

- 2-01 Trainee shall correctly identify knowledge required for performing first aid to include blood-borne pathogens.
- 2-02 Trainee shall demonstrate applying splints, bandages on a simulated victim with no more than one instructor assist.
- 2-03 Trainee shall demonstrate performing CPR on a CPR adult dummy with no more than one instructor assist.
- 2-04 Trainee shall demonstrate performing CPR on a CPR child/infant dummy with no more than one instructor assist.
- 2-05 Trainee shall correctly identify types and systems of triage, methods to determine injury severity, resources and prioritization requirements and victim transfer procedures.
- 2-06 Given a simulated rescue scenario, trainee shall perform triage on a victim, using triage tags and assessing the rescue versus recovery factors, with no more than one instructor assist.
- 2-07 Trainee shall correctly identify in writing, the criteria and conditions that require rescuers to use the various lifts and carries.
- 2-08 Trainee shall correctly demonstrate stabilizing and moving a patient using the One Rescuer Incline Drag and Carry method, with no more than one instructor assist.
- 2-09 Trainee shall demonstrate executing a Blanket Drag, with no more than one instructor assist.
- 2-10 Trainee, working as a member of a team, shall correctly demonstrate executing an Extremities Lift and Carry, with no more than one instructor assist.
- 2-11 Trainee, working as a member of a team, shall correctly demonstrate executing a Chair Lift and Carry, with no more than one instructor assist.
- 2-12 Trainee, working as a member of a team, shall correctly demonstrate executing a one rescuer Cradle-in-Arms Lift and Carry, with no more than one instructor assist.
- 2-13 Trainee, working as a member of a team, shall correctly demonstrate executing a Seat Lift and Carry, with no more than one instructor assist.
- 2-14 Trainee, working as a member of a team, shall correctly demonstrate moving and securing a patient onto a long spine board or litter, with no more than instructor assist.
- 2-15 Trainee, working as a member of a team, shall correctly demonstrate moving a patient from ground level to a gurney (ambulance cot) using three rescuers, with no more than one instructor assist.
- 2-16 Trainee, working as a member of a team, shall correctly demonstrate establishing a rope system for low angle extrication, with no more than one instructor assist.
- 2-17 Trainee, working as a member of a team, shall correctly demonstrate extrication of a victim uphill in a low angle environment, with no more than one instructor assist.
- 2-18 Trainee, working as a member of a team, shall correctly demonstrate extrication of a victim downhill in a low angle environment, with no more than one instructor assist.

SECTION 3 MAINTENANCE – 2 HOURS

- 3-01 Trainee shall correctly identify the guidelines for inspecting, servicing, and maintaining PPE used for various rescue disciplines.
- 3-02 Trainee shall correctly identify by written test and demonstrate the techniques for inspecting, servicing, and maintaining rescue apparatus, equipment and tools used for various rescue disciplines.

SECTION 4 ROPES AND RIGGING – 16 HOURS

- 4-01 Trainee shall correctly identify guidelines established by NFPA and OSHA standards for the safe use of ropes, and related rope rescue equipment.
- 4-02 Trainee shall correctly describe the construction characteristics and purpose of various types of ropes used for rescue incidents.
- 4-03 Trainee, when shown a specific rescue knot, shall correctly identify the knot and explain its use in the rescue environment, with no instructor assists.
- 4-04 Trainee, when given the appropriate rope, shall demonstrate tying various knots, including an end of the line loop, a midline loop, joining rope or webbing ends together, and gripping rope, with no instructor assists.
- 4-05 Trainee, when given the appropriate equipment and rope, shall demonstrate securing a rope to a selected piece of equipment, using the most effective knot, hitch, or bend for the purpose of hoisting the equipment, with no instructor assists.
- 4-06 Trainee, when given the appropriate equipment, shall correctly demonstrate constructing various single point anchor systems used in the rescue environment with no instructor assists.
- 4-07 Trainee, when given the appropriate equipment, shall correctly demonstrate a two-point load sharing anchor system, and a two-point and three-point load distributing anchor system, with no instructor assists.
- 4-08 Trainee, when given the appropriate equipment, shall correctly demonstrate rigging a 2:1 and a 3:1 simple mechanical advantage system, with no instructor assists.
- 4-09 Trainee, when given the appropriate equipment, shall correctly demonstrate rigging a 4:1 mechanical advantage, with no instructor assists.
- 4-10 Trainee, when given the appropriate equipment, shall correctly demonstrate blanketing a victim in a litter used by the AHJ, and secure the victim into the litter by means of internal and external lashing, with no instructor assists.
- 4-11 Trainee, when given the appropriate equipment, shall correctly demonstrate conducting a low angle raise using a simple hauling system incorporating a 2:1 and 3:1 hauling operation to include a visual safety check, a pre-hauling load test of all systems with verbal confirmation acknowledged by all rescue personnel, and the use of appropriate commands, with no instructor assists.
- 4-12 Trainee, when given the appropriate equipment, shall correctly demonstrate constructing a vertical lowering system using a Stokes Basket, rescue knot, appropriate lifelines, edge protection devices, and necessary auxiliary rope rescue equipment, with no instructor assists.
- 4-13 Trainee, when given the appropriate equipment, shall correctly construct a belay system designed to arrest the fall of a load in the event of a failure of a primary lowering operation and demonstrate the safe activation of the belay system, with no instructor assists.
- 4-14 Trainee, when given the appropriate equipment, shall correctly demonstrate conducting a vertical lowering operation to include a visual safety check, a pre-lowering load test of all systems with verbal confirmation acknowledged by all rescue personnel, and the use of appropriate commands, and utilization of a belay system during the operation, with no instructor assists.