



DEPARTMENT OF FINANCIAL SERVICES

Division of State Fire Marshal
Bureau of Fire Standards and Training

Title: RN3271 FLUSAR Rope Rescue Technician

Effective Date: May 01, 2016

Revision Date: July 09, 2019

Section I - Course Information

Course Title: FLUSAR Rope Rescue Technician

Course Number(s): RN3271

Class Days/Time: If being taught at the Florida State Fire College Campus 11655 NW Gainesville Road, Ocala, FL 34482 Bldg. C – Classrooms – Monday - Friday 8 a.m.- 5 p.m.

Section II - Points of Contact

Training Supervisor:

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Section III – Course Description

Rope Rescue Technician covers the requirements of NFPA 1670 for the Rope Rescue Technician level. Student shall demonstrate the proper use of standard rope rescue techniques within the high-angle/low-angle environment, including:

- Constructing single-and-multiple-point anchor systems
- Deploying a fixed rope system, incorporating proper belay devices
- Descending a fixed rope system for purposes of victim rescue
- Conducting Stokes Basket Operations
- Demonstrating proper pick-off techniques
- Moving a victim in a high-angle or vertical environment, utilizing victim transfer devices and specialized equipment necessary for the environment
- Demonstrating proper procedure for knot passing through a rope system
- Operation of both compound and simple rope mechanical advantage systems

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Section IV - Course Materials, Grading, and Attendance

Recommended Book: Copy of NFPA 1670 and Florida Rope Rescue Operations Task Book (DFS-K4-2151)

Prerequisite(s): RN3268 FLUSAR Rope Rescue Operations

Contact Hours: This class has 40 contact hours.

Continuing Educations Units (CEU's): None

Pre-Course Assignment: None

Required Materials: A complete materials list can be obtained by going to the provided hyper link at: <http://www.flrules.org/Gateway/reference.asp?No=Ref-07242>

NOTE: Students must bring gloves, hardhat and proper attire for rope rescue operation exercises.

Grading: Students must achieve a minimum cumulative score of 70% to pass this course. Course grades are determined from assignments and activities including, but not limited to homework, projects, quizzes, exams, presentations and practical skills. The instructor also has the discretion to award (**but not deduct**) points based on course participation. Below is the breakdown of the final accumulative grading:

- Homework 20 points
- Final Written Exam 40 points
- Final Practical Exam 40 points

Attendance: Students are required to attend all sessions of the course.

- Excused absences - Students are permitted excused absences totaling no more than 10% of class (4 hours maximum); the instructor shall be the sole determining authority in the determination of an excused absence and may assign supplemental work to make up for missed class time.
- Unexcused absences - The instructor shall be the sole determining authority in the determination of an unexcused absence (i.e. "no call, no show"). The instructor has no obligation to offer the student an opportunity to make up assignments, including quizzes and/or exams, but may do so at his/her discretion.

Section V - Instructor Qualifications

As per Chapter 69A-37.065, Florida Administrative Codes, *Programs of Study and Vocational Courses*, instructors must meet the following qualifications to be authorized to teach this course:

F.A.C. 69A-37.065(7)(d)(3) Instructor Qualifications: An instructor providing training under this paragraph (d), must be qualified by the Bureau of Fire Standards and Training within the Division.

Qualified instructors are:

3. Instructor Qualifications. An instructor providing training under this section must be qualified by the Bureau. All instructors shall submit an Instructor Approval Request Form DFS-K4-2168 at this link: https://floridastatefirecollege.org/provider/pr_instructor_app.asp, which is incorporated by reference in subsection 69A-37.039(2), F.A.C., and can be obtained where indicated in subsection 69A-37.039(1), F.A.C., and be approved by the Bureau prior to the first day of the course. Qualified instructors are:

- a. Instructors with requisite faculty credentials for the academic institution that is registered in the Florida Department of Education Statewide Course Numbering System to teach the course; or
- b. Instructors with requisite faculty credentials as determined by the United States Fire Administration – National Fire Academy; or
- c. Instructors with requisite faculty credentials as determined by the respective regionally accredited or nationally accredited university or college; or
- d. Instructors who hold an active Single Course Exemption Certification issued by the Division as outlined in subsection 69A-37.059(4), F.A.C.; or
- e. Florida Instructor I, II, or III, as defined in rule 69A-37.059, F.A.C, who has completed the required courses under this paragraph (7)(d), which is recorded in the Bureau’s database. These instructors are known as Adjunct Instructors and are approved to teach courses under the supervision of a Lead Instructor; or
- f. Florida Instructor I, II, or III, as defined in rule 69A-37.059, F.A.C, who has completed the required courses under this paragraph (7)(d), and has previously taught this course as an Adjunct Instructor which was recorded in the Bureau’s database. These instructors are known as Lead Instructors.

Section VI – Job Performance Requirements Applicable Fire and Life Safety Initiatives

Given information from discussion and reading materials, the student will satisfy the Job Performance Requirements (JPR) of the applicable National Fire Protection Association (NFPA) standards, as well as any applicable skill sheets.

NFPA 1670, *Standard on Operations and Training for Technical Search and Rescue Incidents*, 2014 Edition

5.1 General Requirements.

5.1.1 Organizations operating at rope rescue incidents shall meet the requirements specified in Chapter 4.

5.2 Awareness Level

5.2.1 Organizations operating at the awareness level for rope rescue incidents shall meet the requirements specified in Section 5.2

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5.2.2 Organizations operating at the awareness level for rope rescue incidents shall develop and implement procedures for the following:

- (1) Recognizing the need for a rope rescue
- (2)*Identifying resources necessary to conduct rope operations
- (3)*Carrying out the emergency response system where rope rescue is required
- (4)*Carrying out site control and scene management
- (5)*Recognizing general hazards associated with rope rescue and the procedures necessary to mitigate these hazards
- (6)*Identifying and utilizing PPE assigned for use at a rope rescue incident

5.3 Operations Level.

5.3.1 Organizations operating at the operations level for rope rescue incidents shall meet the requirements specified in Sections 5.2 and 5.3

5.3.2 Organizations operating at the operations level for rope rescue incidents shall, commensurate with the identified needs of the organization, develop and implement procedures for rescues involving movement of persons from one stable location to another, including, but not limited to, the following:

- (1) Sizing up existing and potential conditions at incidents where rope rescue operations will be performed
- (2) Assuring safety in rope rescue operations
- (3) Establishing the need for, selecting, and replacing edge protection
- (4) Selecting, using, and maintaining rope rescue equipment and rope rescue systems
- (5) Configuring all knots, bends, and hitches used by the organization
- (6) Selecting anchor points and equipment to construct anchor systems
- (7) Constructing and using single point anchor systems
- (8)*Constructing and using multiple-point anchor systems with regard to the potential increase in force that can be associated with their use
- (9) Selecting, constructing, and using a belay system
- (10) Selecting and using methods necessary to negotiate an edge or other obstacle that includes protecting all personnel working nearby from accidental fall
- (11) Ascending and descending a fixed line
- (12)*Self rescue
- (13) Selecting, constructing, and using a lowering system in both the low- and high-angle environments
- (14) Securing a patient in a litter
- (15) Attaching a litter to a rope rescue system and managing its movement
- (16) Selecting, constructing, and using rope-based mechanical advantage haul systems in both the low- and high-angle environments
- (17)*Negotiating a loaded litter over an edge during a raising and lowering operation

5.4 Technician Level

5.4.1 Organizations operating at the technician level for rope rescue incidents shall meet the requirements specified in Sections 5.2, 5.3, and 5.4.

5.4.2* Organizations operating at the technician level for rope rescue incidents shall develop and implement procedures, commensurate with the identified needs of the organization, for the following:

- (1)*Accessing a patient using techniques that require rescues to climb up or down natural or man-made structures, which can expose the climber to a significant fall hazard
- (2)*Using rope rescue systems to move a rescuer and a patient along a horizontal path above an obstacle or projection
- (3)*Performing a high-angle rope rescue of a person suspended from, or stranded on, a structure or landscape feature
- (4) Understanding and applying the principles of the physics involved in constructing rope system, including system safety factors, critical angles, and the causes and effects of force multipliers
- (5) Performing a high-angle rope rescue with a litter using tender(s) to negotiate obstacles, manipulate or position the patient, or provide medical care while being raised and lowered

Section VII –Suggested Plan of Instruction

The following is the plan of instruction used during course offerings held at the Florida State Fire College. It also serves as the suggested instructional block format for other approved training providers who use the recommended text book. All class offerings **must** satisfy the JPRs listed in *Section VI – Job Performance Requirements* regardless of textbook used.

Day/Date	Chapters	Activities
Day 1	Class Introductions and Orientation Rope Rescue Level 2 Overview Rope Rescue 1 Refresher	<ul style="list-style-type: none"> • Introductions • Practical skills • Homework
Day 2	Review of Homework Rope Theory lecture Team development practices Passing knots Changeovers Patient Packaging	<ul style="list-style-type: none"> • Practical skills • Homework
Day 3	Review of Homework Continuation of Rope Theory Stokes Basket Evolutions Litter Tender Evolutions	<ul style="list-style-type: none"> • Practical skills • Homework
Day 4	Review of Homework Continuation of Rope Theory Highline introduction Highline practices Practical Scenarios	<ul style="list-style-type: none"> • Practical skills • Homework

Day 5	Review of Homework Final Written Exam Final Practical Exam Course Completion	<ul style="list-style-type: none"> • Final written exam • Final practical exam
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Section VIII – Final Practical and Grading Rubric

Description of Assignment:

The Final Practical Skills Check-off is designed for the student to demonstrate competency of the skills identified through the following JPR's in NFPA 1670 utilizing the state task book for completion.

Format and Grading of Assignment:

Students will be given a practical skills evaluation based on those acquired skills learned under NFPA 1670 JPRs. A Pass/Fail will be applied based on the State task book assignments for the final course grade.

Section IX – Review Date and Author

May 01, 2016	Unknown
July 09, 2019	Kenneth Kurth