



# Pennsylvania State Fire Academy

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## Minimum Standard for Accreditation (MSA)

Revised April 2010  
Revised March 2012

**Course Title:** Advanced Line Systems Rescue (PA Fish & Boat Commission)

**Course Code:** ALSR (previously FCLS)

**Length of Course:** 16 hours

**Lecture/Lab Breakdown:** 6 hrs / 10 hrs

**Prerequisites:** WRER (Water Rescue & Emergency Response) *or* Water Rescue & Emergency Response – Phase I (FCWR)

**Referenced Texts:** Advanced Line Systems Rescue Instructor Manual

**Course Goal:** Students to become proficient in setting up complex line systems, how to use a type II rescue vest.

**Description of Course:** To have students become aware how to set up and utilize various line systems for water rescue and to proficiently don and use a type V rescue vest.

**Description of Methodology:** Audiovisual presentation, lecture, demonstration & practical exercises

**Student Equipment/Supply Needs:** Pen/Pencil, notebook, USCG approved personal flotation device (pfd), properly outfitted water rescue helmet, & proper PPE. (a type II vest if possible)

**Equipment/Audiovisual/Supply requirements:** Classroom, screen, VCR digital projector.

**Special Notes & Conditions:** The training site shall be moving water with sufficient depth and width, reasonably free and clear of dangerous obstructions and hazards to allow the students to practice, as required, the maneuvers outlined in the lecture. The site will be inspected and approved by the instructors prior to the start of the class

**Enrollment/Instructor Requirements:**

Two (2) instructors shall be present for each 16 students in a class. (i.e 1-16 students = 2 instructors; 17-24 students = 3 instructors; 25-32 students = 4 instructor)

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*Advanced Line Systems Rescue (FCLS) (PA Fish & Boat Commission)*

April 2010

**COURSE OUTLINE**

	<b><u>Topic</u></b>	<b><u>Time</u></b>
Unit 1:	Overview	30 mins
Unit 2:	Line and hardware equipment	1 ½ hrs
Unit 3	Knots	1 ½ hr
Unit 4:	Advanced line systems techniques	2 ½ hrs
Unit 5:	Practical skills practice	3 ½ hrs
Unit 6:	Outdoor practical session	6 ½ hrs
	Total time	16 hrs

**Note: (minimum of 14 hours)****Competency Evaluation Mechanism:**

Complete all three legal forms, attend all course components, participate in and demonstrate all skills as detailed on the Advanced Line Systems Rescue Skill Sheet and score of 80% of the written exam.

**Learning Outcomes (Behavioral Objectives):**

1. Cite three dangers associated with advanced line system & rescue.
2. Identify why Kernmantle rope construction is used in rescue applications.
3. Cite four ways rope can be damaged.
4. List the hardware necessary for advanced line systems rescue.
5. Inspect rope and hardware for damage.
6. Tie and recognize the following knots:
  - Overhand
  - Figure 8 on a bight
  - Double fisherman's
  - Water knot
7. Form a three-wrap prusik hitch on a line:
8. Develop a 3-1 (z-drag) mechanical advantage system.
9. Cite three factors to consider when selecting an anchor point.
10. Establish a static line across a waterway.
11. Demonstrate the dynamic ferry technique.
12. Use a zip-line to cross moving water.
13. Develop and run a moveable control point.
14. Tear down advance line systems.
15. Use a rescue vest:
  - \* Properly don and secure the best
  - \* Enter water & release tether
  - \* Enter water and make a direct contact rescue & pendulum to shore by tenders line

Questions/Comments: Contact the Pennsylvania Fish and Boat Commission

