



## New Updates for Apprentices Training

New in 2023 you will see some exciting changes designed to improve the training experience for apprentice and employer, while strengthening AFSA's apprenticeship training model.

### All Textbooks Updated

From the Core to Level 4, all (5) textbooks in AFSA's apprenticeship training series are updated. The (4) Sprinkler Fitting texts are correlated to the 2019 and 2022 eds. of NFPA 13 and include all new art in collaboration with AFSA industry partners.

#### Level I | 155 Hours

Core Curriculum, 6<sup>th</sup> edition

Features expanded coverage of math, construction drawings, and the latest hand and power tools. Content has been reorganized to ensure a progressive understanding of concepts.

Sprinkler Fitting, Level 1 [based on NFPA 13, 2019 Ed.], 4<sup>th</sup> edition

Expanded sprinkler industry overview and terminology, new section added on understanding code, added introductory coverage of thermal sensitivity, hydrostatic testing, tees and fittings, and more

#### Level II | 152.5 Hours

Sprinkler Fitting, Level 2 [based on NFPA 13, 2019 Ed.], 4<sup>th</sup> edition

Enhanced math content to reflect practical scenarios, added coverage for NFPA requirements for seismic bracing, silica safety, wet system riser assemblies, and more

#### Level III | 150 Hours

Sprinkler Fitting, Level 3 [based on NFPA 13, 2022 Ed.], 4<sup>th</sup> edition

New sprinkler obstructions calculator developed to calculate required installation parameters based on sprinkler type, hazard area, and obstruction type

#### Level IV | 145 Hours

Sprinkler Fitting, Level 4 [based on NFPA 13, 2022 Ed.], 4<sup>th</sup> edition

Expansion of inspection, testing and maintenance topics; new module on crew leadership; improved and concise coverage of special extinguishing systems

### Fewer Exams

AFSA's new curriculum features updated, and fewer, exams. Instead of 24-25 tests per level, apprentices will see approximately 1 exam per module, with larger modules having 2 exams.

### New Testing Platform canvas

As apprentices advance from 3<sup>rd</sup> to the new 4<sup>th</sup> edition of Sprinkler Fitting, they will move into a new Learning Management System to take exams. This will mean a new student account and new login credentials, all of which will be provided to the Training Coordinator as part of processing your new course orders.



### Virtually Proctored Exams Integrity Advocate

To ensure the integrity of apprenticeship testing, the new series' exams will include remote proctoring. This software is designed to monitor the apprentice during exams, taking the responsibility off of the employer or company proctor.

### No More Retake Codes

This applies to those enrolling in the newly updated 4<sup>th</sup> edition Sprinkler Fitting. Your course purchase includes (5) reattempts at failed exams for the given level. A fee of \$20 will be assessed for each reattempt needed after the included (5) are used.

### Sunset Dates for 3<sup>rd</sup> Edition

For those currently enrolled in the 3<sup>rd</sup> edition of Sprinkler Fitting, please refer to the table below for sunset dates by which apprentices must have their 3<sup>rd</sup> edition course testing completed. Upon completion of Levels 1, 2, or 3 of the 3<sup>rd</sup> edition Sprinkler Fitting, apprentices will be enrolled in the new 4<sup>th</sup> edition of the next level with the next course purchase.

	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
<b>3E RELEASE</b>	8/1/14	9/1/14	9/1/14	11/1/14
<b>4E RELEASE</b>	1/1/23	1/1/23	1/1/23	5/15/23
<b>3E SUNSET</b>	6/30/24	6/30/24	6/30/24	6/30/24

### Virtual Instruction Program (VIP)

For those interested in delegating more of your apprentice instruction to AFSA, this "VIP" course is for you! The next Level 1 VIP class launches Fall 2023. The first Level 2 class will launch Winter 2024.

To learn more, go to <https://www.firesprinkler.org/sprinkler-apprentice-training/>

Questions?

[www.firesprinkler.org/FAQ](https://www.firesprinkler.org/FAQ)

[training@firesprinkler.org](mailto:training@firesprinkler.org)

(214) 349-5965



# Apprenticeship Training for Fire Sprinkler Fitters

Each module has a single assessment unless otherwise noted.

<b>Level 1 (155 Hours): Includes Core Curriculum &amp; Sprinkler Fitting Lvl 1</b>		
<b>Core Curriculum, 6<sup>th</sup> Ed.</b>		
Module Title	Hours	Module#
Build Your Future in Construction	2.5	00100
Basic Safety	12.5	00101
Introduction to Construction Math	10	00102
Introduction to Hand Tools	12.5	00103
Introduction to Power Tools	10	00104
Introduction to Construction Drawings	10	00105
Introduction to Basic Rigging	7.5	00106
Basic Communication Skills	7.5	00107
Basic Employability Skills	7.5	00108
Introduction to Material Handling	5	00109
<b>Level 1: Sprinkler Fitting, 4<sup>th</sup> Ed. (correlates to NFPA 13, 2019 Ed.)</b>		
Occupational Overview: The Sprinkler Industry	5	18101
Introduction to Components and Systems	10	18102
Steel Pipe and Fittings	20	18103
CPVC Pipe and Fittings	12.5	18104
Copper Tubing and Fittings	10	18105
Underground Pipe	12.5	18106
<b>Level 2 (152.5 Hours): Sprinkler Fitting, 4<sup>th</sup> Ed. (correlates to NFPA 13, 2019 Ed.)</b>		
Module Title	Hours	Module
Hangers, Supports, and Restraints	17.5	18201
General Purpose Valves	15	18202
Math for Sprinkler Fitters	20	18203
Shop Drawings	30	18204
Standard Spray Sprinklers	20	18205
Wet Pipe Sprinkler Systems	25	18206
Dry Pipe Sprinkler Systems	25	18207
<b>Level 3 (150 Hours): Sprinkler Fitting, 4<sup>th</sup> Ed. (correlates to NFPA 13, 2022 Ed.)</b>		
Module Title	Hours	Module
Water Supplies	15	18303
Fire Pump Systems		
• Exam A: Section 1 and Section 2	35	18304
• Exam B: Section 3 and Section 4		
Standpipes	25	18302
Deluge and Preaction Systems		
• Exam A: Deluge Systems (Section 1 and Section 3)	35	18301
• Exam B: Preaction Systems (Section 2 and Section 3)		
Application-Specific and Special Sprinklers		
• Exam A: Extended Coverage, Residential, and Special Sprinklers (Section 1.0.0 through 1.2.4 and Section 2)	40	18305
• Exam B: Storage Sprinklers (Section 1.3 to 1.4)		
<b>Level 4 (145 Hours): Sprinkler Fitting, 4<sup>th</sup> Ed. (correlates to NFPA 13, 2022 Ed.)</b>		
Module Title	Hours	Module
System Layout	27.5	18401
Inspection, Testing, and Maintenance	37.5	18402
Special Extinguishing Systems	27.5	18403
Fundamentals of Crew Leadership	22.5	46101
Proper Procedures and Documentation	30	18405

# AFSA LAUNCHES NEW APPRENTICESHIP TRAINING

[FIRESPRINKLER.ORG/SPRINKLER-APPRENTICE-TRAINING](https://firesprinkler.org/sprinkler-apprentice-training)

VICTORIA VALENTINE, P.E., FSFPE | AMERICAN FIRE SPRINKLER ASSOCIATION

**Y**ou may have heard the rumblings of new training for sprinkler fitter apprentices from the American Fire Sprinkler Association (AFSA) over the last year. Well, the time has come to unveil the first stage of the apprenticeship training packages. To begin there will be three different opportunities to select the training that best fits the needs of your office and apprentice(s). They are curriculum, virtual instruction program (VIP), and program support. Each of these can support the apprentices' education across the four years of their apprenticeship.

## CURRICULUM

The first training option is the curriculum. This is the option AFSA has offered for many years, so you may have already participated with this one. When a contractor purchases the course curriculum, their apprentice receives the Sprinkler Fitting book(s) that correspond to the desired level and are provided assessments in the form of online exams. These texts are produced through a partnership between AFSA and the National Center for Construction Education and Research (NCCER).

The exciting piece for this opportunity is the textbooks have just been updated. The Sprinkler Fitting books are now in their 4th edition and will be available from AFSA in 2023. This version correlates with NFPA 13, *Standard for the Installation of Sprinkler Systems*, 2019 edition. Supporting instruction for the education of apprentices remains with the employer as this option only includes the curriculum.

It also includes updated assessments via an improved platform. For Level 1 and Level 2, there will be one exam per module. For Levels 3 and 4, the number of assessments will be reduced from those corresponding to the third edition of the textbooks, but for subjects that warrant it, there may be more than one exam per module. In addition, the testing will be virtually proctored, which adds strength to the quality of the education program.

The updates to this tried-and-true method are right around the corner. Levels 1, 2, and 3 will be available in



**Beginning in January 2023, AFSA has multiple apprenticeship educational offerings—find the one that best suit your needs, including updated curriculum.**

January 2023. Level 4 will be available in the second quarter of 2023. Each level will cost \$495 per apprentice for members. Records are maintained by AFSA showing completion of levels.

## VIRTUAL INSTRUCTION PROGRAM (VIP)

New for AFSA is this training option offering a virtual instruction program (VIP) for the apprentice curriculum. The Sprinkler Fitting curriculum discussed above is the same updated subject matter, but it will be taught by AFSA.

Each level provides 10 months of education to accompany the On-The-Job Learning (OJL) conducted by the employer. The education includes the newly updated Sprinkler Fitting textbooks, two live sessions each month, performance tasks to reinforce the modules, self-study components, and assessments.

The live lessons are instructed by AFSA staff and subject matter experts (SMEs). The sessions will run for two hours and include time for discussion. In order to accommodate multiple time zones, lessons will be delivered twice on each scheduled day. For the first class being launched this winter, times will be 11:00 a.m. to 1:00 p.m and 5:00 p.m. to 7:00

p.m. Eastern Time on Wednesdays. A calendar will be provided with registration that contains specific dates. Participants are required to attend the live sessions.

Performance tasks are the execution of items that correspond to the lesson. This reinforcement increases the learning and retention of participants. The tasks are performed by the apprentice and verified by the supervisor (employer), who is designated during registration for VIP. These tasks must be finished in order to complete the level.

During the self-study portion, the apprentice is expected to read the accompanying sections that support the lesson and review any add-on resources, such as videos or articles, that have been provided. The text provides questions with each module to help guide the apprentice and ensure key concepts are absorbed, too.

Level 1 registration is now open for the inaugural VIP, which begins with a launch on February 1, 2023. The tuition for each apprentice is \$2,000/level. There is also an enrollment fee to administratively prepare the virtual spot and onboard each apprentice. The enrollment fee for members will be \$425 per apprentice if enrolled by December 16, 2022, \$475 per apprentice if enrolled by January 20, 2023, and \$550 per apprentice from January 21, 2023, to the start of the class..

Additional levels and sessions are being planned. Check the website for updates as these develop over the next months.

## PROGRAM SUPPORT

This option will only be available to those with apprentices enrolled in AFSA's VIP. At this level, AFSA will aid in supporting your Department of Labor (DOL) program(s) using the AFSA National Guideline Standards (NGS).

The NGS is pending official DOL approval at the time this article was written. This will allow contractors seeking their own DOL apprenticeship program to have a DOL-recognized base to use. A few inputs, such as contact information and wages, and the submittal should be fast-tracked. If you have wanted your own program, but didn't know where to start, this will be a perfect opportunity.

Administrative support is also the key to this option. AFSA will administer a portal to log On-the-Job Learning (OJL) hours for the apprentices and maintain records. This can relieve your staff to focus more on the projects at hand. Other administrative features are being explored. Packages will launch later in 2023 for this option.

## ADDITIONAL RESOURCES

In most jurisdictions, apprenticeships take 8,000 hours of work, approximately 600 hours of education, and four years to complete. However, there are some areas that require an additional year with an additional 2,000 hours of work and accompanying education. Have no fear if this is your situation, AFSA has additional training material that can be used to support the education portion in that year. Planning for this phase has not yet begun, but updating existing materials and supporting this demand is on the horizon.

	Curriculum	Virtual Instruction	Program Support
4th Edition Sprinkler Fitter Books	X	X	X
Virtually Proctored Assessments	X	X	X
Live Lesson Instruction		X	X
Industry Expert Access		X	X
Performance Task Monitoring		X	X
Administrative support of program			X
Member Cost	\$495/level	\$2000/level +enrollment fee	TBD

**Table 1. What's included in AFSA's Apprenticeship Training Program.**

## RECAP

Table 1 summarizes the offerings of AFSA's apprenticeship training package. There is an option to fit everyone's needs. This training is open to all apprentices. If you have new staff that you would like to train, but do not use a DOL program, this education program is still for you. Additional details for all of the options can be found on the AFSA website.

Education is the heart of the AFSA mission. Educating your team increases performance in your business and often improves employee motivation. For more details about the AFSA's new apprentice training packages and to register, visit [firesprinkler.org/sprinkler-apprentice-training](https://firesprinkler.org/sprinkler-apprentice-training). ■

**ABOUT THE AUTHOR:** Victoria B. Valentine, P.E., FSFPE is the director of engineering & technical services. She holds a B.S. in Civil Engineering and an M.S. in Fire Protection Engineering, both from Worcester Poly-technic Institute (WPI), and is a licensed Professional Engineer (P.E.). Throughout her professional career, Valentine has written many publications and presented on fire protection systems for many audiences. She is actively involved with many organizations, including the American Society of Civil Engineers (ASCE), the International Code Council (ICC), the NFSA, and the National Fire Protection Association (NFPA), among others. Over the years, she participated at the chapter, national, and international levels within the fire protection industry. Valentine has also served in leadership roles, such as a director on the SFPE Board of Directors from 2015 to 2016, president of the SFPE New York Metropolitan Chapter (2014-2015), and continues as a trustee for the SFPE New Jersey New York Metropolitan Education Foundation (2016 to present). Valentine is a Fellow of the Society of Fire Protection Engineers (SFPE).

