

AFAA Course Catalog

Most training courses are now available in an online, live delivery format. Please call with any questions you may have, so we can assist you in finding the course to match your needs.

Phone: (844) 438-2322

E-mail: training@afaa.org



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Most classes are offered in-person for a full day or can be split into two half-days for online delivery. All training seminars are ICC and NICET approved for professional development / continuing education.

**Indicates that portions of these classes also include preparatory material for the NICET certification exams, Level I and II.*

***Indicates that portions of these classes also include preparatory material for the NICET certification exams, Level III and IV.*

A User's Guide to Simplifying NFPA 72 and the NEC

Versions: NFPA 72-2019 and NEC 2020 | NFPA 72-2016 and NEC 2014

Course Description: This interactive one-day course will provide a better understanding of how to use NFPA 72, The National Fire Alarm and Signaling Code and includes the fire alarm wiring requirements of NFPA 70, The National Electrical Code.

This information will not only be helpful to designers, installers and service personnel, but also those preparing to take a NICET test for Fire Alarm Systems.

This course will include a quiz to help the attendee locate and use the information in NFPA 72.

This course consists of 7 Contact Hours for continuing education. The Attendee must attend the entire seminar to receive credit.

Course Materials:

- Attendee workbook (provided electronically)
- Attendee must bring their copy of the NFPA 72 and the NEC based on the course, or your locally adopted editions.

Course Outline:

- Pre-quiz
- Layout of NFPA 72
 - How to locate information quickly
 - Discussion of key sections of NFPA 72
- Fire Alarm requirements of the NEC
- Class exam

Fire Alarm Fundamentals

Versions: NFPA 72-2025 | NFPA 72-2022 | NFPA 72-2019 | NFPA 72-2016

Course Description: This Fire Alarm Fundamentals is an application course beneficial for new installers, sales personnel, service technicians, plus building and fire inspectors involved in acceptance testing and/or plans review. This course is also useful as a refresher for anyone involved with fire alarms.

This seminar reviews fire alarm system fundamentals; their components; and the proper methods used to satisfy the requirements of NFPA 72, National Fire Alarm and Signaling Code and NFPA 70, National Electrical Code.

This course consists of 7 Contact Hours for continuing education. The Attendee must attend the entire seminar to receive credit.

Course Materials:

- Attendee workbook (provided electronically)
- Attendee should bring the respective editions of NFPA-72 or your locally adopted version.

Course Outline:

- Part 1 – Fundamentals - Control panels, power supplies, circuits, signals, initiating devices, notification appliances, fire safety control functions, two-way emergency communications systems; battery-set calculations and voltage-drop calculations.
- Part 2 – Initiating Devices - Review the proper application of manual fire alarm boxes, heat detectors, smoke detectors, flame detectors, waterflow switches, supervisory signal-initiating devices.
- Part 3 – Notification Appliances - Review the proper application of horns, bells, buzzers, chimes, speakers, strobes, and annunciators. Discuss sound transmission in the built environment.
- Part 4 - Fire Safety Control Functions - A review of control functions such as smoke door release, elevator recall, HVAC fan shutdown, smoke control/management systems, high-rise applications, and atriums.
- Part 5 – Carbon Monoxide Detection (2025 version)
- Part 6 – Class exam

Fire Alarm Plan Development, Submittal and Review

Formerly known as *Fire Alarm Plan Review*

Versions: 2024 IBC & NFPA 72-2022 | 2021 IBC & NFPA 72 2019

Course Description:

This application course describes the common problems associated with the plan development, submittal and review process. The class offers suggestions for improvement identifying the challenges faced by all parties, discusses using plan review and acceptance test checklists, spreadsheets to determine battery and voltage drop calculations, exercises to determine proper spacing of smoke detectors, exercises to determine proper audibility of fire alarm notification appliances and proper sizing and placement of visible notification appliances.

This seminar is intended for fire alarm designers, project managers, authorities having jurisdiction, and electrical contractors providing.

This course consists of 7 Contact Hours for continuing education. The Attendee must attend the entire seminar to receive credit.

Course Materials:

- Attendee course book and handout workbook (provided electronically)
- Attendee should bring the respective editions of NFPA 72, or their locally adopted versions.

Course Outline:

- Part 1 – Common Plan Review Issues
- Part 2 – Submittal Requirements: Discuss the plan submittal requirements for plan review and submittals based on the International Building Code and NFPA 72
 - Review of pre-plan and plan review checklists examples
- Part 3 – Understanding and Reviewing Calculations
 - Group exercise for secondary power supply requirements including battery-set calculations, and voltage-drop calculations
- Part 4 Initiating Device spacing requirements and exercises
- Part 5 Notification Appliances spacing requirements and exercises
- Part 6 – Off-site monitoring
- Part 7 – Plan review tips and checklists
- Part 8 – Class exam

Fire Alarm Inspection and Testing

(NICET Preparation Course)

NFPA 72-2025, NFPA 72-2022, NFPA 72-2019

Course Description: This basic application examines the scope and purpose of inspection, testing and maintenance of fire alarm systems for new and existing systems. This also includes the importance of developing a test plan and review of the inspection and testing table frequencies and methods.

This seminar is beneficial for installers performing acceptance or reacceptance tests of new fire alarm systems; service technicians performing periodic testing and inspection of existing fire alarm systems; building and fire inspectors witnessing acceptance and reacceptance testing; and personnel representing the owner, whom is responsible for the testing and inspection of fire alarm systems in their facilities.

This course consists of 7 Contact Hours for continuing education. The Attendee must attend the entire seminar to receive credit.

Course Materials:

- Attendee course book and handout workbook (provided electronically)
- Attendee should bring the respective editions of NFPA 72 for areas where they work

Course Outline:

- Part 1 - Provide an introduction to the NICET certification process as well as a pre-quiz
- Part 2 - Improve your understanding of NFPA documents
- Part 3 - Review the building and fire code requirements for Inspection and Testing
- Part 4 - Review the requirements of NFPA 72:
 - Chapter 14 - Inspection, Testing and Maintenance
 - Chapter 10 - Qualifications
 - Chapter 7 – Documentation
- Class exam

Understanding the Fire Alarm Requirements of the IBC

Versions: IBC 2024 | IBC 2021 | 2018 IBC

Course Description: This seminar is beneficial for designers of fire alarm systems, project managers or lead installers responsible for fire alarm system layout and authorities having jurisdiction responsible for fire alarm system plan review and acceptance testing. It is also useful for those preparing for the NICET Level III and IV computer-based test.

The program includes a thorough review of the fire alarm requirements by use group, as well as the general fire alarm requirements included in the IBC.

Also included are practical exercises used to improve the participant's knowledge of and how to use the building and fire codes in determining fire alarm requirements.

This course consists of 7 Contact Hours for continuing education. The Attendee must attend the entire seminar to receive credit.

Course Materials:

- Attendee workbook (provided electronically)
- Attendee should bring the edition of the International Building Code for the course you are attending, or your locally adopted version.

Course Outline:

- Part 1 – Introduction and discussion of Codes and Standards
- Part 2 – Review the format of the International Building Code
 - Discuss some of the significant changes between editions
- Part 3 – Specific fire alarm requirements by occupancy use group and occupant load
- Part 4 – General fire alarm requirements such as submittal document requirements
- Part 5 – Practical exercises and discussion of fire alarm system requirements

Hands-On Inspection and Testing

Versions: NFPA 72-2022

Course Description: This dynamic training program provides hands-on training of fire alarm inspection and testing in accordance with Chapter 14 of NFPA 72.

Combining a mix of lecture, demonstration of proper techniques and hands-on practice, attendees will have a better understanding of the scope and purpose of proper system inspection and testing and the importance of documentation and developing a test plan. This training program is conducted in a training lab or a complex building featuring many types of systems.

This course is beneficial for those with primary duties conducting inspection, testing and maintenance of fire alarm systems, those installing new systems that require acceptance testing, facility managers that maintain systems and authorities having jurisdiction that witness this process.

*This course consists of 7 Contact Hours for continuing education.
The Attendee must attend the entire seminar to receive credit.*

Course Materials:

- Attendee workbook (provided electronically)
- Inspection and Testing Form Worksheet

Course Outline:

- Part 1 – Review the scope and purpose of Chapter 14 in NFPA 72, as well as those chapters referenced by Chapter 14.
- Part 2 – Describe the elements of documentation and a test plan and why these are necessary elements of an inspection and testing program
- Part 3, 4 and 5 – Overview of FACU's, Initiating Devices and Notification Appliances, and conducting proper testing procedures using industry accepted methods and equipment
- Part 6 – Initiating Devices for Complex systems
- Part 7 – Emergency Control Functions
- Part 8 – Wrap-up and class assignment

Preparation for NICET Level I & Level II Fire Alarm System Certification Exams

NFPA 72-2022, NEC-2020 and IBC 2021

Course Description: In this course, participants will take an in-depth look into the codes and standards referenced by NICET for fire alarm certification.

The course is designed for anyone considering or preparing to take a certification exam or simply seeking additional knowledge of the codes and standards governing fire alarm design, installation and general work practices.

The interactive nature of the course delivery and practical exercises will improve participants knowledge of the use and application of NFPA 72, the NEC, and the building and fire code requirements for fire alarm systems.

In addition, Attendee will have the opportunity to dialogue with instructors familiar with the certification and testing process.

One or two-day course outline. Two or four half-days if offered online.

This course consists of 7 or 14 Contact Hours for continuing education. The Attendee must attend the entire seminar to receive credit.

Course Materials:

- Attendee workbook (provided electronically)

Course Outline:

Day One:

- Part 1 – NICET Certification Information and Preparation
- Part 2 – NFPA 72 overview and fire alarm system installation
- Part 3 – Fire alarm system components
- Part 4 – Fire alarm installation and the NEC (NFPA 70)
- Part 5 – Inspection and testing
- Part 6 – Fire alarm system submittals
- Part 7 – Additional references
- Part 8 – Practice NICET Level I exam

Day Two:

- Part 1 – International Building Code: Introduction to codes vs. standards
- Part 2 – Chapter 12 of NFPA 72 – Circuits and Pathways
- Part 3 - Initiating device use and placement
- Part 4 - Notification appliance use and placement
- Part 5 – Battery calculations
- Part 6 – NEC – Conduit and junction box installation
- Part 7 – Additional study references
- Part 8 – Practice NICET II Exam

Elevator & Fire Alarm Systems Interface

Edition: NFPA 72 2022 and IBC/IFC 2024

Course Description: This intermediate level course will discuss the elevator types and the emergency interfaces that are required.

For years, fire alarm systems have been interfaced with elevators to provide control of the elevator in emergency situations. This interface, however, has often been the subject of much debate with shifting and conflicting code requirements through the years.

The applicable code requirements will be discussed in order to determine the required fire alarm emergency interfaces.

This course is beneficial for those with at least two years of experience in system design and installation, as well as inspection and testing. This is applicable for system designers, sales personnel, installation and service technicians, plus building and fire inspectors involved in acceptance testing and/or plans review.

This course consists of 3.5 Contact Hours for continuing education. The Attendee must attend the entire seminar to receive credit.

Course Materials:

- Attendee course book and handout workbook (provided)

Course Outline:

- Part 1 - What types of elevators are there and how does this effect emergency interface requirements?
- Part 2 - What are the various Code requirements that determine elevator emergency interface requirements?
- Part 3 – Special Types of Elevators
- Part 4 – What are the specific requirements for elevator and fire alarm system interface?
- Part 5 – Specific fire alarm interface design
- Part 6 – Class exam

Intermediate Detection Systems

Course Description: This training course provides an understanding of and operating principles of initiating devices beyond spot-type smoke and heat detection. This includes projected beam smoke detection, video image smoke/flame detection, air sampling smoke detection, high air movement areas, radiant energy sensing and carbon monoxide detection. Attendee will better understand the types of initiating device to use in different and unique applications and apply this knowledge to respond quickly to the hazard without nuisance alarms.

This course is beneficial for those with at least two years of experience in system design and installation; as well as inspecting and testing. This is applicable for system designers, sales personnel, installation and service technicians; plus building and fire inspectors involved in acceptance testing and/or plans review.

This course consists of 3.5 Contact Hours for continuing education. The Attendee must attend the entire seminar to receive credit.

Course Materials:

- Attendee course book provided electronically)

Course Outline

- Part 1 – Projected beam smoke detection
- Part 2 – Video image smoke/flame detection
- Part 3 – Air sampling smoke detection
- Part 4 – High air movement areas
- Part 5 – Radiant energy sensing fire detection
- Part 6 – Carbon monoxide detection
- Part 7 – Class exam

COMING SOON!!

Jump Into Fire

COMING SOON!!

Fire Alarm System Design and Layout Practices

This class is based on the 2024 IBC/IFC and 2022 edition of NFPA 72™.

Course Materials: Code books are not provided.

Attendees must bring their own printed or electronic versions of the referenced codes. You may bring editions that are adopted in your area of employment.

Sample building drawings and related exercise material are provided and completed in class.

This class is only available for in-person delivery.

Outline:

- Part 1 – Determining design criteria
- Part 2 – Occupancy classifications
- Part 3 – Finding the correct design criteria
- Part 4 – Sprinkler monitoring systems
- Part 5 – Notification appliance layout
- Part 6 – Initiating devices
- Part 7 – Carbon monoxide detection
- Part 8 – Residential and multi-family design
- Part 9 – Public versus private notification
- Part 10 to 12 – Additional design and layout exercises

Course Description: AFAA's latest training program is Fire Alarm Design and Layout Practices. This two-day in-person class provides attendees with the fundamental knowledge necessary for fire alarm design and layout practices in accordance with the International Building/Fire Code and NFPA 72. Using classroom theory, design examples and applied design exercises, attendees can combine their existing knowledge with the new skills to prepare design documents and layout systems in the field.

Target Audience:

- Fire protection or electrical engineers doing alarm design
- Fire alarm designers
- Fire alarm sales professionals
- Technicians conducting site layout and installation

This course consists of 14 Contact Hours for continuing education. Attendee must attend the entire seminar and complete the class exercises to receive credit.

Contact Us

Don't see what you're looking for?

Contact Training Manager, Tim Knisely to discuss your custom training needs.

E-mail: training@afaa.org | Phone: (844) 438-2322