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.

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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 courses for 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.

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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 some practice quizzes 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)
- Attendee must bring their copy of the NFPA 72-Edition based on the course
- Attendee are encouraged, but not required, to bring a copy of the NEC

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
- Review of the NICET CBT process
- Post Quiz

Fire Alarm Fundamentals

Versions: NFPA 72-2022 and NEC 2020 | NFPA 72-2019 and NEC 2017

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)
- Attendee should bring the respective editions of NFPA-72 and NFPA-70 for the class

Course Outline:
- Chapter 1 – Fundamentals - Control panels, power supplies, circuits, signals, initiating devices, notification appliances, fire safety control functions; addressable, analog, and multiplex systems; emergency voice/alarm communication systems, survivability, and two-way emergency communications systems; battery-set calculations and voltage-drop calculations.
- Chapter 2 – Initiating Devices - Review the proper application of manual fire alarm boxes, heat detectors, smoke detectors, flame detectors, waterflow switches, supervisory signal-initiating devices.
- Chapter 3 – Notification Appliances - Review the proper application of horns, bells, buzzers, chimes, speakers, strobes, and annunciators. Discuss sound transmission in the built environment.
- Chapter 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. Discuss duct detector requirements and installation. Fire safety control function circuit supervision requirements.

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Fire Alarm Plan Development, Submittal and Review

Formerly known as *Fire Alarm Plan Review*

Versions: 2018 IBC & 2019 NFPA 72 | 2018 IBC & 2016 NFPA 72

Course Description:

This application course describes the common problems associated with the plan review process and offers suggestions for improvement by providing 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 authorities having jurisdiction involved in fire alarm system plan review, contractors providing submittal documentation for plan review and fire alarm system designers.

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)
- Attendee should bring the respective editions of NFPA 72, NFPA 70 and their adopted building code.

Course Outline:

- Review the Requirements for Plan Review and Submittals based on the International Building Code and NFPA 72
- Review of pre-plan and plan review checklists examples
- Review secondary power supply requirements including battery-set calculations
- Review voltage-drop limits including voltage-drop calculations
- Review smoke detector location and spacing requirements including practical exercises
- Review fire alarm audible notification requirements including practical exercises
- Review fire alarm visible notification requirements including practical exercises
- Review of pre-acceptance and acceptance testing checklist examples

Fire Alarm Inspection and Testing

Versions: NFPA 72-2019 and NEC 2017 **|** NFPA 72-2016 and NEC 2014

Course Description: This application course describes the common problems associated with the plan review process and offers suggestions for improvement by providing 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 authorities having jurisdiction involved in fire alarm system plan review, contractors providing submittal documentation for plan review and fire alarm system designers.

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)
- Attendee should bring the respective editions of NFPA 72, NFPA 70 and their adopted building code.

Course Outline:
- Review the Requirements for Plan Review and Submittals based on the International Building Code and NFPA 72
- Review of pre-plan and plan review checklists examples
- Review secondary power supply requirements including battery-set calculations
- Review voltage-drop limits including voltage-drop calculations
- Review smoke detector location and spacing requirements including practical exercises
- Review fire alarm audible notification requirements including practical exercises
- Review fire alarm visible notification requirements including practical exercises
- Review of pre-acceptance and acceptance testing checklist examples

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Understanding International Building Code Fire Alarm Requirements

Versions: IBC 2018 | (IBC 2021 coming soon)

Course Description: This seminar is beneficial for designers of fire alarm systems, project managers or lead installers responsible for fire alarm systems 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. Discussions and practical exercises are 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)
- Attendee should bring the edition of the International Building Code for the course you are attending

Course Outline:
- Introduction and discussion of Codes and Standards
- Review the format of the International Building Code
- Discuss the changes between editions
- General fire alarm requirements such as submittal document requirements
- Specific fire alarm requirements by occupancy use group and occupant load
- Practical exercises and discussion of fire alarm system requirements

Hands-On Inspection and Testing

Course Description: This dynamic training program provides hands-on training of fire alarm inspection and testing in accordance with Chapter 14 of NFPA 72. This program covers the scope and concept of acceptance as well as periodic inspection and testing, the importance of documentation and an in-depth review of fire alarm system components, including control panels, backup power, initiating devices for basic and complex systems, notification appliances, and many of the emergency control functions that you will encounter in the field. Combining a mix of lecture, demonstration of proper techniques and hands-on practice, Attendee will have a better understanding of the importance and value of proper system inspection and testing. 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.

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)

Course Outline:
- Review the scope and concept of Chapter 14 in NFPA 72 to properly inspection, test, and maintain fire alarm systems
- Describe the elements of a test plan and why this is a necessary element of an inspection and testing program
- Conduct proper testing procedures using industry accepted methods and equipment
- Understand the purpose of documentation and properly complete inspection and testing forms

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

Version: NFPA 72-2022

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)

Course Outline:
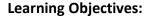**Day One:**
- NFPA 72 "pre-quiz"
- Layout of NFPA 72
- Fire alarm requirements from the NEC
- Review of the NICET CBT process
- "Post-quiz"

Day Two:
- Introduction to codes vs. standards
- Format of International Building Code
- Changes between editions
- General fire alarm requirements
- Specific fire alarm requirements
- Practical exercises

Learning Objectives:

- Understand the purpose, scope, structure, layout, and application of NFPA 72-2022, the NEC (2020 edition) and the 2021 edition of the International Building Code.
- Distinguish between codes and standards and how those differences apply to certification.
- Recall where to locate information within the codes and standards referenced by NICET.
- Recognize proper wiring methods as required by the NEC.
- Prepare simple shop drawings after assembling basic project information.

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Elevator & Fire Alarm Systems Interface

Edition: NFPA 72 2019 and IBC/IFC 2021

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 what fire alarm emergency interfaces should be provided by an owner and designer, as well as the authority having jurisdiction who must approve these important requirements. 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)

Learning Objectives:
- What types of elevators are there and how does this effect emergency interface requirements?
- What are the various Code requirements that determine elevator emergency interface requirements?
- What are the specific requirements for elevator and fire alarm system interface?

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 and handout workbook (provided)

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Don't see what you're looking for?

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

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