Allegion
AIA Continuing Education

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Codes and Life Safety

1 vs.100 2021 Electrical Code Update
CEU Credit: 1 HSW
Course Number: CDG21012

The topic of this class is the 2021 code requirements pertaining to door openings, and the class will be taught in a 1 vs. 100 game show format - with the presenter as the "1" and the attendees as the "100" (AKA "the mob"). Questions are progressively more difficult as the game/presentation continues. Each question is shown, answered by the mob using colored tent cards, and then the correct answer is discussed by the presenter.

Course Objectives:

Upon successful completion of this course participants will be able to:
- differentiate between fail safe and fail secure electrified hardware
- learn how the 2021 IBC affects the use of automatic operators on accessible public entrances, including requirements related to touchless switches and stand-by power
- understand the difference between "special locking arrangements" and "normal locking arrangements"
- become familiar with recent code change related to electrified hardware, including controlled egress, delayed egress, stairwell reentry, and electromagnetic locks

1 vs.100 2021 Mechanical Code Update
CEU Credit: 1 HSW
Course Number: CDG21011

The topic of this class is the 2021 code requirements pertaining to door openings, and the class will be taught in a 1 vs. 100 game show format - with the presenter as the "1" and the attendees as the "100" (AKA "the mob"). Questions are progressively more difficult as the game/presentation continues. Each question is shown, answered by the mob using colored tent cards, and then the correct answer is discussed by the presenter.

Course Objectives:

Upon successful completion of this course participants will be able to:
- become familiar with model code changes related to operable hardware such as unlatching motion and operable force
- learn how the 2021 IBC allows exterior spaces to be locked for security when the egress path passes through the interior of the building
- understand recent code changes related to fire doors, for example, labeling requirements, terminated stops, and job-site preparations
- apply the IBC requirements for panic hardware on rooms housing electrical equipment and refrigeration machinery rooms

1 vs.100 Accessibility
CEU Credit: 1 HSW
Course Number: CDG22005A

The topic of this class is accessibility code requirements pertaining to door openings, and the class will be taught in a 1 vs. 100 game show format - with the presenter as the "1" and the attendees as the "100" (AKA "the mob"). Questions are progressively more difficult as the game/presentation continues. Each question is shown, answered by the mob using colored tent cards, and then the correct answer is discussed by the presenter.

Course Objectives:

Upon successful completion of this course participants will be able to:
- find requirements in the applicable standards – either the 2010 Americans with Disabilities Act guidelines, or ICC A117.1 – Accessible and Usable Buildings and Facilities
- express the intent of the ADA requirements and where to apply them
- describe the basic accessibility requirements that apply to door openings, including clear opening width, opening force, closing speed, and operating hardware requirements
- list new requirements such as battery back-up for automatic operators, minimum bottom rail height, and operational force limitations

1 vs. 100 Decoded Edition
CEU Credit: 1 HSW
Course Number: CDG22005B

The topic of this class is accessibility code requirements pertaining to door openings and the class will be taught in a 1 vs. 100 game show format - with the presenter as the "1" and the attendees as the "100" (AKA "the mob"). Questions are progressively more difficult as the game/presentation continues. Each question is shown, answered by the mob using colored tent cards, and then the correct answer is discussed by the presenter.

Course Objectives:

Upon successful completion of this course participants will be able to:
- apply the requirements of the Americans with Disabilities Act guidelines and ICC A117.1 standard to door openings in new and existing buildings
- list the basic requirements for fire door assemblies, including the NFPA 80 criteria for annual fire door assembly inspection
- convey the intent of the door-related egress requirements, including the International Building Code and NFPA 101 – The Life Safety Code
- identify the sections of the code related to electrified hardware, including delayed egress locks, stairwell reentry, and electromagnetic locks

1 vs.100 Electrified Hardware
CEU Credit: 1 HSW
Course Number: CDG22005C

This course covers code requirements for electrified hardware and how they pertain to and influence opening hardware. The class will be taught in a 1 vs. 100 game show format - with the presenter as the "1" and the attendees as the "100" (AKA "the mob"). Questions are progressively more difficult as the game/presentation continues. Each question is shown, answered by the mob using colored tent cards, and then the correct answer is discussed by the presenter.

Course Objectives:

Upon successful completion of this course participants will be able to:
- find requirements in the applicable codes and standards – either the International Building Code or NFPA 101 – The Life Safety Code
- express the intent of the requirements and where to apply them
- describe the basic requirements that apply to electrified hardware – including fail safe vs. fail secure terminology, and requirements for access control, delayed egress, and stairwell reentry
- list new requirements such as electromagnetic locks, elevator lobby egress, and hospital unit lockdown

1 vs. 100 Fire and Life Safety
CEU Credit: 1 HSW
Course Number: CDG22005D

The topic of this class is fire and life safety code requirements pertaining to door openings, and the class will be taught in a 1 vs. 100 game show format - with the presenter as the "1" and the attendees as the "100" (AKA "the mob"). Questions are progressively more difficult as the game/presentation continues. Each question is shown, answered by the mob using colored tent cards, and then the correct answer is discussed by the presenter.

Course Objectives:

Upon successful completion of this course participants will be able to:
- find requirements in the applicable codes and standards – either NFPA 80 – Standard for Fire Doors and Other Opening Protectives, the International Building Code, or NFPA 101 – The Life Safety Code
- express the intent of the requirements and where to apply them
- describe the basic fire and life safety requirements that apply to door openings - including closing, latching, and clearance requirements for fire doors, and single operation egress
- list new requirements such as fire door inspection, panic hardware occupant loads, impact-resistant glazing, tornado shelters, and smoke gasketing

2021 Model Code Update
CEU Credit: 1.5 HSW
Course Number: CDI21009 / CDD21101 (Distance Learning)

The International Building Code (IBC) has been adopted in most U.S. states, and NFPA 101 – Life Safety Code is enforced by many AHJs as well. Depending on where a project is located, various editions of these model codes—along with state modifications—may be used, and a new edition could be adopted at any time. Many important changes affecting doors and hardware have been introduced in the last few editions of the IBC and NFPA 101.

 Familiarity with codes is crucial for anyone specifying, supplying, or installing doors and hardware, and mistakes can be costly. Learn what's new, compare the changes from one edition to the next and get comfortable with the intent of each of the requirements.

 This session will serve as an update on the requirements of the IBC and NFPA 101 regarding opening protectives and swinging doors in a means of egress. It will cover door-related changes made in the 2018 and 2021 editions of the model codes.

Course Objectives:
Upon successful completion of this course participants should be able to:
- Become familiar with model code changes related to operable hardware such as unlatching motion and operable force.
- Learn how the 2021 IBC allows exterior spaces to be locked for security when the egress path passes through the interior of the building.
- Understand where automatic operators are required for public entrances in certain types of buildings.
- Differentiate between "special locking arrangements" and "normal locking arrangements" and how the model codes address these types of access control systems.

ADA Entrance Accessibility
CEU Credit: 1 HSW
Course Number: CDI22009 / CDD22105 (Distance Learning)

This course focuses on accessibility; the ability for occupants of all abilities to enter and move around a building with ease. We will examine hardware options that enable the opening to meet clear width and maneuvering clearances; threshold and latch requirements; opening force and closing speed requirements.

Course Objectives:
Upon successful completion of this course participants should be able to:
- identify requirements for accessible openings according to the ADA
- state opening dimensions, clear width and maneuvering clearances of accessible openings according to the ADA
- describe ADA latch requirement and list opening force and closing speeds for auto operated doors
- specify hardware that will meet accessibility requirements and the owner's needs

Architectural Hardware Codes
CEU Credit: 1.5 HSW
Course Number: CDI20019

When specifying hardware, codes play a large part in your choices. In this course, we will cover how to determine which code you need to reference when designing an opening and discuss opening needs for passing fire door inspections. We will also cover electrified hardware requirements and the new requirements for panic hardware, luminous egress path markings and the ADA.

Course Objectives:
Upon successful completion of this course participants will be able to:
- describe the basics of code development and how to determine which code to reference
- discuss fire door inspection and smoke gasketing code requirements
- appropriately specify electrified hardware including delayed egress locks, electromagnetic locks, and stairwell reentry according to code requirements
- list requirements for panic hardware, luminous egress path markings, and the ADA

Code Changes Affecting Classroom Doors
CEU Credit: 1 HSW
Course Number: CDI20005 / CDD20050 (Distance Learning)

The 2018 editions of the International Building Code, International Fire Code, and NFPA 101 – Life Safety Code, all include changes specific to classroom doors. A Tentative Interim Amendment was approved in 2019, which further modifies the 2018 edition of NFPA 101. This course will cover the requirements of the model codes and the ADA Standards for Accessible Design that apply to classroom doors.

Course Objectives:
Upon successful completion of this course participants will be able to:
- list the requirements of the model codes and accessibility standards that apply to classroom doors
- describe how recent code changes and state legislation impact the types of security devices allowed for classrooms
- explain the various risks faced by school districts, and the benefits of the all-hazards approach to security
- suggest options school districts should consider for securing classroom doors and talk about the retrofit security methods that may have unintended consequences

Code Jeopardy
CEU Credit: 1 HSW
Course Number: CDG22002

One of our most popular programs, this course is delivered in an interactive game format. It discusses ADA requirements, occupancy classification codes, Fire and Life Safety codes and the hardware that can provide for the needs of an owner while also complying with applicable codes.

Course Objectives:
Upon successful completion of this course participants will be able to:
- identify requirements for accessible openings according to the ADA
- explain code requirements for means of egress
- specify opening products that meet fire code requirements
- discuss code requirements for electrical hardware products

Code Jeopardy 2
CEU Credit: 1 HSW
Course Number: CDG22008

This course is delivered in an interactive game format which engages participants in discussion centered on ADA requirements, occupancy classification codes, Fire and Life Safety codes and hardware that can provide for the needs of an owner while also complying with applicable codes.

Course Objectives:
Upon successful completion of this course participants will be able to:
- identify requirements for accessible openings according to the ADA
- explain code requirements for means of egress
- specify opening products that meet fire code requirements
- discuss code requirements for electrical hardware products

Codes and Egress
CEU Credit: 1 HSW
Course Number: CDI20020 / CDD20052 (Distance Learning)

This course focuses on codes that would affect a specifier's choice of hardware as it applies to egress openings.

Course Objectives:
Upon successful completion of this course participants will be able to:
- discuss code requirements applicable to openings along the path of egress
- understand building codes that affect hardware choices for egress doors
- describe the difference between panic and fire hardware and list needs to consider when specifying these products
- identify access control products for egress doors that meet code requirements

Creating a Path to Safety
CEU Credit: 1 HSW
Course Number: CDI22007 / CDD22104 (Distance Learning)

Getting people out of a building in emergency situations is critical. To help ensure that everyone is protected on the way out, there are specific code requirements for pathways and openings in an exit path. This course will examine the components that make up means of egress and discuss the hardware necessary to meet those code requirements while ensuring ease of building use.

Course Objectives:

Upon successful completion of this course participants will be able to:

- define and describe exit access, exit, and exit discharge
- list the code requirements that affect hardware choices for each of the three parts of an exit route
- specify hardware for exit openings that will meet building codes and provide ease of building use
- discuss the important hardware choices for egress openings and provide examples of when and where each should be used

Decoded 1 – Codes and Accessibility Requirements
CEU Credit: 1 HSW
Course Number: CDI22018 / CDD20061 (Distance Learning)

This is the first class of a 4-part series. You don't need to attend all to get CEU credit.
It gives an introduction to the codes and standards used by the door and hardware industry, and an overview of the accessibility standards for door openings. Accessibility requirements which impact the selection of doors and hardware include clear opening width, opening force, closing speed, the operation of door hardware, and requirements for automatic doors.

Course Objectives:

Upon successful completion of this course participants should be able to:

- identify the various codes and standards affecting door openings, and when to reference each one
- identify which code or standard applies to your project
- understand the accessibility requirements that apply to door openings, including door size, opening force, closing speed, thresholds, and operable hardware
- differentiate between the requirements which apply to manual doors vs. the requirements for automatic doors, including the referenced standards

Decoded 2 – Fire Door Assemblies
CEU Credit: 1 HSW
Course Number: CDI22019 / CDD20068 (Distance Learning)

This is the second class of this 4-part webinar series. You don't need to attend all to get CEU credit.
It covers the requirements of the codes and standards that apply to fire door assemblies, including NFPA 80 – Standard for Fire Doors and Other Opening Protectives.

Course Objectives:

Upon successful completion of this course participants will be able to:

- discuss the standard for fire door assemblies – NFPA 80, and the sections which apply to swinging doors
- state when and where fire rated assemblies would be used, and describe the purpose of fire doors
- list basic rules for fire doors which ensure that fire doors will be closed and latched if there is a fire, with minimal smoke infiltration
- review the requirements for annual inspection of fire doors, including inspection criteria and procedures

Decoded 3 – Egress and Life Safety
CEU Credit: 1 HSW
Course Number: CDI22020 / CDD20076 (Distance Learning)

This is the third class of a 4-part series. You don't need to attend all to get CEU credit. This course addresses the egress requirements of NFPA 101 – The Life Safety Code and the International Building Code. Codes impacting egress door assemblies include the means of unlatching the door to allow egress, clear opening width and opening force, luminous egress path markings, and impact-resistance requirements for glazing.

Course Objectives:

Upon successful completion of this course participants will be able to:

- identify the occupancy classification or use group for a project and understand how that classification affects code requirements
- describe basic life safety concepts including the 3 parts of a means of egress, travel distance, common path of travel, area of refuge, clear width, door swing, and dead-end corridors
- apply the means of egress requirements to door openings, to select the proper locking/latching hardware
- state additional requirements for egress doors, relative to clear width, opening force, and automatic operators

Decoded 4 – Codes for Electrified Hardware
CEU Credit: 1 HSW
Course Number: CDI22021 / CDD20074 (Distance Learning)

This is the fourth class of a 4-part series. You don't need to attend all to get CEU credit. This course discusses how to select the appropriate hardware for various door openings and learn about the code requirements for each. The seven basic sets of codes for electrified hardware are discussed: access control/free egress, delayed egress, controlled egress (I-2), elevator lobby egress, electromagnetic locks released by a sensor, electromagnetic locks released by door-mounted hardware, and stairwell reentry.

Course Objectives:

Upon successful completion of this course participants will be able to:

- describe the concepts of "fail safe" and "fail secure", which types of electrified hardware are available with each function, and when to specify them
- properly apply code requirements for fire door assemblies and positive latching to applications with electrified hardware
- differentiate between the two code sections relative to electromagnetic locks, and which release devices are required for each application
- identify delayed egress locks and the applications where doors may be locked in the direction of egress for additional security
- apply the stairwell reentry requirements to doors serving egress stairs, including the various options allowed by NFPA 101 – The Life Safety Code and the International Building Code

Decoded – Delayed Egress vs Controlled Egress
CEU Credit: 1 HSW
Course Number: CDI20021 / CDD20085 (Distance Learning)

The possibility of elopement or theft often motivates the use of locking systems that deter passage through egress doors, but building, fire, and life safety code requirements must be met. This course will cover two types of systems used to deter egress, and the code requirements that apply to each. Understanding these systems can help to ensure that the correct components are specified and installed, and that the system will be code-compliant

Course Objectives:

Upon successful completion of this course participants will be able to:
- distinguish between the locations where a delayed egress
- properly apply code requirements for fire door assemblies and positive latching to applications with electrified hardware
- differentiate between the two code sections relative to electromagnetic locks, and which release devices are required for each application
- identify delayed egress locks and the applications where doors may be locked in the direction of egress for additional security
- apply the stairwell reentry requirements to doors serving egress stairs, including the various options allowed by NFPA 101 – The Life Safety Code and the International Building Code

Finish Hardware for ADA Compliance
CEU Credit: 1 HSW
Course Number: CDG20009

Hardware plays an important role in helping facilities meet the accessibility requirements prescribed by the Americans with Disabilities Act (ADA). Test your knowledge and have fun learning about those ADA requirements as they relate to doors and door hardware in this interactive course.

Course Objectives:

Upon successful completion of this course participants will be able to:
- specify hardware that meets the requirements of accessible openings according to ADA
- identify openings that would benefit the building inhabitants by adding automatic operators
- determine opening dimensions and clearances needed for accessible openings according to the ADA
- discuss the use of hardware that can create a smooth, uninterrupted door surface to prevent a trap or hazardous condition for wheelchairs and walking aids

Fire Door Hardware
CEU Credit: 1 HSW
Course Number: CDI21007

This course, reviews fire ratings, fire rating requirements for different door opening classifications, and the hardware, glass, and auxiliary items that can be used on fire rated openings.

Course Objectives:

Upon successful completion of this course participants will be able to:
- describe how fire ratings for hardware are determined
- list the fire door classifications
- properly specify hardware components that can be used on a fire rated opening
- list the requirements of glass in a fire rated door

Panic Hardware – When, Where, and Why?
CEU Credit: 1 HSW
Course Number: CDI20010 / CDW20006 (Distance Learning)

When panic hardware is required by code, there are additional mandates that must be followed regarding the operation of the hardware. Fire doors add yet another layer of requirements for this hardware, and there are also exceptions that apply in some locations. This instructor led course will explain when and where panic hardware is required, why it is used, and what other code requirements and exceptions need to be considered when selecting these devices.

Course Objectives:

Upon successful completion of this course participants will be able to:
- Describe the purpose of panic hardware in facilitating emergency egress
- List the locations where panic hardware is required by the model codes and standards, based on occupancy type and calculated occupant load
- Talk about the code requirements that apply to panic hardware, including requirements for fire doors, touchpad length, operable force, and required listings
- Explain the code requirements for electrified panic hardware options, including delayed egress, controlled egress, and panic hardware used in conjunction with electromagnetic locks

Preparing for Fire Door Inspection
CEU Credit: 6 HSW
Course Number: LS201V2020

Heard about the fire door inspection requirements as prescribed by NFPA80, 2016 Edition? Know what you need to do when the requirement is adopted by your local building code? If you would like a little help in getting ready, join us for this class. Focusing on swinging doors and their corresponding fire door hardware, this class will assist you as your facility plans for how it will comply with these important fire life safety requirements.

Course Objectives:

Upon successful completion of this course participants will be able to:
- identify what a fire door assembly is, its purpose, the components of a fire door assembly (Swinging Fire Door with Builders Hardware) and the purpose those components serve
- explain the importance of maintaining and inspecting fire doors
- describe the requirements to inspect fire doors as defined by NFPA 80 2016
- identify the estimated adoption date of the standard by your state building code
- using an excerpt from NFPA 80, cite the 11 items the standard says should be verified on swinging fire doors with builder's hardware
- list some possible ways in which to correct common code violations
- given a series of photos or videos, identify code violations
- given your facility's current fire door inspection program (or lack of), describe potential ways to improve (or establish) a fire door inspection program

Touchless Solutions for Healthy Environments
CEU Credit: 1 HSW
Course Number: CDI20015 / CDD20083 (Distance Learning)

With the increased focus on how to limit the spread of germs, many facility managers are considering their options for touchless operation of doors. This class will cover code requirements related to automatic operators and contactless access control, as well as accessibility considerations for new hands-free door pull designs. There will be time for Q&A at the end of the class.

Upon successful completion of this course participants will be able to:
- identify the appropriate codes and standards that apply to various types of hands-free hardware and automatic operators
- list the function of the different touchless solutions, including mechanical hardware, electrified hardware, and automatic operators
- discuss how the requirements for fire door assemblies may impact retrofit solutions
- state the requirements of BHMA A156.19 and A156.10 that apply to doors with automatic operators

Understanding Fire Door Inspection Requirements
CEU Credit: 3 HSW
Course Number: LS21001

Do you know that since 2007 annual fire door inspections have been required? This course will provide an introduction of the basic fire door requirements within NFPA 80. Focusing on fire doors and their corresponding fire door hardware, this class will assist participants with understanding the fire door inspection checklist.

Upon successful completion of this course participants will be able to:

- Describe the requirements to inspect fire doors as defined by NFPA 80.
- Identify what a Fire Door Assembly is, its purpose, the components of a Fire Door Assembly, and the purpose those components serve.
- Explain the importance of maintaining and inspecting fire doors.
- Using content from NFPA 80, cite the required items the standard says should be verified on swinging fire doors with builder's hardware.
- List some possible ways in which to correct common code violations.

What's in a Name? The Importance of Understanding Industry Terms
CEU Credit: 1 HSW
Course Number: CDI20011 / CDD20078 (Distance Learning)

When studying building code and life safety, have you come across multiple terms that seem to represent the same concept, opening, or safety measure? Terms that, at first glance appear interchangeable, but closer examination reveals their application or use differences. Understanding and specifying the correct hardware is paramount in assuring the safety and ease of use for building occupants. Mistaking similar terms places that safety in jeopardy and affects how openings function. The focus of this module will be on comparing sets of terms that seem to be identical building code descriptions but are very different; both in classification and code requirements.

Course Objectives:

Upon successful completion of this course participants will be able to:

- Identify common industry hardware terms that seem exchangeable for one another but are different regarding code requirements and use
- Discuss the code requirements for each hardware term and why it is critical for life safety that one not be substituted for the other
- Specify hardware that will provide needed security and life safety for building inhabitants while still maintaining code requirements
- Explain some of the security and life safety consequences of specifying the wrong hardware

Access Control

ABC's of Access Control
CEU Credit: 1 HSW
Course Number: PEI22013 / PED22108 (Distance Learning)

Since electronic access control is common even in small facilities, understanding the system components and component options is imperative to specifying the right products for your client's facility. Access control system can offer a variety of tools and benefits often overlooked. In this course we'll explore electronic access control; from its benefits to the owner and building occupants, to fire and life safety needs.

Course Objectives:

Upon successful completion of this course participants will be able to:
- describe the components needed to create access control systems
- list available options for system components
- provide additional security and access control ideas that your client may not have known or thought about
- describe options for system set up with typical head end software

Access Control: Meeting Your Client's Needs
CEU Credit: 1 HSW
Course Number: PEI004 / PED20065 (Distance Learning)

This course on electronic access control products that will satisfy codes and meet your clients' needs. We will discuss how to address your clients' safety concerns through the use of both hard wired and wireless products while still maintaining design needs and code requirements on egress openings.

Course Objectives:

Upon successful completion of this course participants will be able to:
- state the life safety benefits of electronic access control vs. mechanical access control
- list code and client criteria to use when specifying access control products
- explain common electronic locking functions and how they can be applied to satisfy code and client requirements
- describe openings where access control is commonly used and hardware options that will best fit the need of that space

Access Control: Where to Start, What to Ask, How to Design
CEU Credit: 1 HSW
Course Number: PEI22017 / PED23100 (Distance Learning)

Access control can consist of anything from a key that manually unlocks a door, to a highly integrated security system. Finding the right balance of client needs, wants and available products can be a difficult task. We'll discuss how to satisfy your clients by specifying electronic solutions that fulfill code requirements and meet life safety needs.

Course Objectives:

Upon successful completion of this course participants will be able to:
- identify the codes that affect access control choices
- ask appropriate and effective questions to help understand and define the customer's security, life safety, and access needs
- list options that are available in access control products and software that help fulfill the needs of the system while still meeting accessibility and life safety codes
- write a correct description of operations for an access control system that will enable all products to operate within code as specified

Electrified Hardware Basics
CEU Credit: 1 HSW
Course Number: PEI20017 / PED20059 (Distance Learning)

This course covers the operation, features and functionality of electrified access control products and the correct use and documentation of electrical access control products to meet state code requirements.

Course Objectives:
Upon successful completion of this course participants will be able to:
- describe hardware components that are used to create a complete electrical circuit
- list the 7 basic code categories for electrified hardware used to control access or egress
- reference the appropriate code and section for each type of controlled opening
- create the proper documentation that will provide a code compliant, working opening

Electrified Hardware Facts and Myths
CEU Credit: 1 HSW
Course Number: PEG21002

Do you look at all the choices in electrified hardware and wonder what to choose? Electrified door hardware can be the answer to many opening needs, but what do you need to know to properly specify that hardware for the opening? This fun and interactive course covers the operation, features, and functionality of popular electrified products, codes that affect your choices and factors to consider before hardware decisions are made.

Course Objectives:
Upon successful completion of this course participants will be able to:
- locate the IBC & NFPA101 model code requirements that affect electrified hardware product choices
- list factors that need to be considered before choosing electrified hardware products
- ask informed questions to help determine the best electrified products for the opening
- specify compatible electrified hardware products to create a well-functioning opening

Electrified Hardware for Access Control Systems & Security
CEU Credit: 1 HSW
Course Number: PEI21003 / PED20055 (Distance Learning)

Electrified locks, whether offline, networked, hardwired or wireless, along with other access control components offer unique features and benefits that can enhance the security and safety of a facility. This course will help you understand your options when specifying products for an access-controlled system and the questions you need to ask to be sure that it will do what is needed, now and in the future.

Course Objectives:
Upon successful completion of this course participants will be able to:
- ask appropriate questions to establish the access control and security needs of your client
- list electronic locking hardware components that are commonly used in access control systems to provide safety and security
- determine the type of door monitoring needed for openings
- specify the appropriate hardware for an access control system that will best fit the security and safety requirements of your client, now and as their needs grow

Electrified Hardware Jeopardy
CEU Credit: 1 HSW
Course Number: PEI21005

Electrified hardware is used every day on openings found in all types of buildings. This fun, interactive course will cover topics pertaining to commonly used electrified hardware products and how they can be specified to meet customer needs while still satisfying code requirements.

Course Objectives:

Upon successful completion of this course participants will be able to:
- define electrical terms as they apply to electrified hardware
- specify electrified products that satisfy code requirements and customer needs
- discuss the difference between a fail safe electrified hardware product and one that is fail secure
- list electronic locking hardware components that are commonly used in access control systems to provide safety and security

Essentials of Access Control
CEU Credit: 1 HSW
Course Number: PEI20014 / PED20053 (Distance Learning)

This course explores electronic access control, its components, its security and safety capabilities and benefits, and how it can also provide more than just security solutions for building openings.

Course Objectives:

Upon successful completion of this course participants will be able to:
- list benefits to health, safety, and welfare provided by access control
- discuss the strengths and weaknesses of each type of credential used in access-controlled systems
- identify site and code conditions that determine hardware choices
- select appropriate hardware to meet code, owner, and public conditions for specific applications

Introduction to the Code Requirements for Electrified Hardware
CEU Credit: 1 HSW
Course Number: PEI20013/ PED20079 (Distance Learning)

The model codes that are widely used in the U.S. include sections addressing various applications for electrified hardware and access control systems. The code requirements differ depending on the type of system and the adopted code. This webinar will be the first in a series related to electrified hardware, covering the types of hardware and how the codes may affect them.

Course Objectives:

Upon successful completion of this course participants will be able to:
- Identify the types of electromechanical and electromagnetic hardware, and how they are used to create safe and secure openings
- Discuss which code sections apply to the various electrified hardware applications.
- Distinguish between the types of access systems that require fail safe and fail secure hardware.
- Describe the applicable listings and referenced standards that must be applied when using access control and electrified hardware products to ensure all openings are compliant and provide a safe environment for building occupants.

Specifying Opening Hardware That Works Like Magic
CEU Credit: 1 HSW
Course Number: PEG21006

Specifying the appropriate hardware for openings isn't magic, but it can be confusing when you are trying to match owner wants and location needs to code requirements. If you think you need a magic wand for components to come together and work seamlessly, join us for this interactive class that discusses fire and life safety hardware, electrified hardware, access control, ADA opening requirements, and egress needs.

Course Objectives:

Upon successful completion of this course participants will be able to:

- identify which category access control hardware falls into, and refer to the applicable section when specifying
- discuss the difference between panic hardware and fire exit hardware
- specify hardware options that will lengthen the life of opening hardware while staying compliant with codes
- choose the appropriate electrified hardware products that best meet your client's security needs while also satisfying code mandates

Touchless Openings; When, Where, and Code Considerations
CEU Credit: 1 HSW
Course Number: PEI20016 / PED20084 (Distance Learning)

Growing concerns about the spread of bacteria and viruses have resulted in a desire for more touchless environment in our daily lives and the facilities we use. But understanding how to incorporate those solutions and still maintain the safety, health and welfare of building occupants must be a foremost consideration when making any changes to openings. In this instructor led course, we'll discuss code requirements that affect your touchless hardware choices and available hardware to help create a more hands-free environment.

Course Objectives:

Upon successful completion of this course participants will be able to:

- identify openings that would benefit from touchless solutions in daily use
- discuss different touchless products basics, and how opening type can affect your choices
- specify components that would help create a more touchless opening
- put it all together to create an opening that will allow occupants to move seamlessly throughout a building with less contact, while still meeting code requirements

Door and Hardware

A Lean Operation: Strategies for Space-Efficient and Accessible Interiors with Sliding Door Systems
CEU Credit: 1 HSW
Course Number: PMI21008 / PMD21102 (Distance Learning)

From maximizing the existing footprint in retrofits to reducing the spread of infection and supporting the flex needs of the hybrid workspace, this course will cover how interior sliding doors serve as versatile solutions meeting on-the-rise design trends while addressing ongoing space-efficiency and sound attenuation needs. Learn how interior sliding doors can help optimize occupant comfort through the use of daylighting and enhanced acoustic performance. Then, find out how to mitigate the spread of infection through sliding doors systems with touchless technology. Additionally, explore how space saving efficiencies can improve useability, address occupant accessibility challenges and facilitate healthy movement.

Course Objectives:
Upon successful completion of this course participants should be able to:
- Illustrate the role design plays in creating sliding door systems that improve usability and meet modern aesthetic standards
- Gain a better understanding of how interior sliding doors can improve occupant comfort through enhanced acoustic performance and access to daylight
- Understand sliding door's touchless technology and the role it plays in mitigating the spread of infection while encouraging healthy motion
- Demonstrate the ways in which today's interior sliding door systems use hardware compliance and space-saving efficiencies to meet the required ADA Standards and improve accessibility

Automatic Entrance Systems Overview
CEU Credit: 1 HSW
Course Number: PMI22022

This course provides an overview of automatic door systems typically designed, specified, and installed in commercial and industrial applications with a primary focus on the most common applications with swinging and sliding doors.

Course Objectives:
Upon successful completion of this course participants will have developed a basic understanding of:
- the function of automatic door systems and components including activation and safety systems
- how to layout automatic entrance systems considering traffic patterns and safety requirements
- the design of automatic entrances including critical coordination issues encountered with other trades
- code requirements for safety, accessibility, and egress

Basic Hardware Jeopardy
CEU Credit: 1 HSW
Course Number: PMG21013

Learning doesn't have to come in the form of a lecture!
This course is delivered in a fun interactive game format. It discusses the basic hardware requirements for specifying door hardware along with some of the code requirements that determine what hardware must be specified to comply with building and fire and life safety code.

Course Objectives:
Upon successful completion of this course participants should be able to:
- describe locking hardware that can be used to secure an opening that will meet the owner's needs while still complying with codes
- define "knowing act" switches, when/where they can be used, and list code requirements that pertain to them
- describe door protection hardware and how code requirements affect your choices
- specify opening hardware that best fits the use of the opening, while remaining code compliant

Door Hardware Collaboration – A Consultative Approach
CEU Credit: 1 HSW
Course Number: SPI22006 / SPD22103 (Distance Learning)

Collaborating on Door Hardware doesn't need to be hard, but it does take time. Our goal is to take the HARD out of Hardware by helping you understand the information a door hardware consultant needs in order to provide a quality door hardware specification. By improving coordination with the related specification sections, you can help avoid problems with door hardware that are often seen during construction.

Join us for a discussion of the steps needed to produce clear and accurate door opening data. We will focus on how to best meet your client's needs, the importance of keeping these sections updated, and the negative impact of ambiguous designs and poor communication.

Course Objectives:

Upon successful completion of this course participants should be able to:

- learn how to avoid costly errors in your plans and door data
- discuss the importance of determining hardware preferences before the specification is written
- include all information needed for door hardware specifications: code information, documents, complete door schedule and more
- provide effective documentation to enable your opening hardware specification to meet code and operate correctly
- improve communication and collaboration early in the contract document phase to help prevent errors, time delays, code infractions and cost overruns

Door Hardware Specifications: The Who, What, & I Don't Knows for Creating a Hardware Specification
CEU Credit: 1 HSW
Course Number: SPI20012 / SPD20071 (Distance Learning)

This course will give you the information needed to properly develop hardware sets and the door hardware specification. It will explain why a door hardware set is needed and/or how it's used, and who needs to be involved in the process to make sure all information is provided and coordinated. You will gain the knowledge to allow you to proactively prepare early for door hardware and know what you're getting in your specification.

Course Objectives:

Upon successful completion of this course participants will be able to:

- include the necessary people in appropriate meetings to help minimize issues with code compliance, ordering, and installation that occur when involved parties are not communicating
- incorporate specific details in documentation provided for the creation of a hardware specification to ensure an opening functions properly, provides security and easy passage, and meets code
- identify the "I don't knows" before a specification is written so specified hardware is safe and appropriate for the opening
- use a process to ensure the people involved in creating the hardware specification and establishing the access control for the project all have the correct code information, opening details, security requirements, and owner needs in an appropriate time frame

Door Punch List – Creating a Better Experience
CEU Credit: 1 HSW
Course Number: SPI20007

Project changes happen all the time, so maintaining records of those changes is critical to your project running smoothly. With multiple pieces of hardware on each of the many openings in a building there's a lot to check to be sure each opening's hardware is correct and is operating appropriately. In this course we will discuss what to look for during a project to help you keep your punch list to a minimum. We will give examples of common hardware issues that get overlooked and talk about specific items to look for on fire rated and access-controlled openings. We will also review what to look for when you are near the end of the project and create your punch list.

Course Objectives:
Upon successful completion of this course participants will be able to:
- list codes and project information that is critical to getting hardware right the first time
- describe frame, door, and hardware factors that should be checked on fire rated openings
- assess the operation of an access-controlled opening for proper function
- generate an all-inclusive hardware punch list to ensure proper aesthetics, function, and code compliance of each opening

Form, Function, and Fire Rated Glass & Frames
CEU Credit: 1 HSW
Course Number: PMD20077 (Distance Learning)

Every minute, a structural fire starts in the United States, causing more than 23 billion dollars and over 3,500 deaths, 15,000 injuries. Advancements in building products are providing more options for design yet keeping up with all that is available can prove challenging. This course will give you a better understanding of the advancements made in fire rated glass, new trends, active vs passive glazing system testing, and what to look for when specifying fire rated glass to ensure you meet code without compromising aesthetics and sustainable design requirements.

Course Objectives:
Upon successful completion of this course participants will be able to:
- describe the different categories of fire-rated glazing materials and their role in fire protection
- list the code requirements for fire rated glass products
- ask the right questions to ensure that the proper product is specified and installed
- use fire rated glass products to achieve the desired aesthetics of a project

Gasketing, Door Bottoms, & Thresholds
CEU Credit: 1 HSW
Course Number: PMI22015

Participants attending this presentation will gain insight into how gasketing, door bottoms, and thresholds function at an opening, various options available for these products, and how they help ensure the opening can meet code requirements while maintaining ease of use for occupants.

Course Objectives:
Upon successful completion of this course participants will be able to:
- explain the common functions of gasketing, door bottoms, and thresholds on an opening
- define smoke infiltration requirements in NFPA101 and IBC and list general guidelines for fire door assemblies as they apply to gasketing, door bottoms, and thresholds
- list code mandates, accessibility requirements, and other conditions that would affect gasketing, door bottom, and threshold choices
- choose the appropriate gasketing, door bottom, and threshold material that would best meet code requirements and conditions at the opening

Hardware Fundamentals
CEU Credit: 1 HSW
Course Number: PMI21004 / PMD20057 (Distance Learning)

This course discusses the fundamentals of opening hardware. We'll discuss the function and application of opening hardware and how to correctly apply that hardware for specific applications such as fire doors, egress doors, and ADA compliant openings.

Course Objectives:
Upon successful completion of this course participants will be able to:
- specify opening hardware that best fits the use of the opening, while remaining code compliant
- discuss the best applications for cylindrical locks, mortise locks, and auxiliary hardware
- recognize appropriate applications for panic & fire exit hardware
- describe the importance of key systems to occupant safety and owner needs

Privacy is Not Dead
CEU Credit: 1 HSW
Course Number: PMI21015 / PMD22100 (Distance Learning)

With technology and social media so prevalent in our lives it appears that privacy is long gone. However, we still need and expect to have privacy in our built environments especially in spaces such as healthcare, schools, and offices where laws require privacy or where personal information is being discussed. Noise pollution can be a problem too. In this course we will discuss specialty doors and show case studies where those doors are used to help meet code and our privacy and noise reduction needs.

Course Objectives:
Upon successful completion of this course participants will be able to:
- list the key laws that govern privacy and what impacts they have on facility design
- discuss research findings showing why quiet spaces are essential to occupant well-being in hospitals, schools and offices
- articulate the amount of sound attenuation needed to ensure private conversations
- describe door options that ensure acoustic privacy while meeting your design vision

Safe, Stylish, & Accessible - Solving Design Challenges with Interior Sliding Doors
CEU Credit: 1 HSW
Course Number: PMI22016 / PMD22109 (Distance Learning)

This course discusses how once basic interior sliding door systems have evolved into a sophisticated solution for a range of commercial spaces with their ability to attenuate sound, improve wayfinding, comply with ADA requirements and defend against fire. It will explore new acoustic perimeter door sealing methods, accessibility operating systems and fire-protective offerings. Additionally, it will address how to solve common wayfinding, privacy and clearance challenges in commercial spaces without compromising aesthetics.

Course Objectives:
Upon successful completion of this course participants will be able to:
- analyze how interior sliding door systems have progressed over the past two decades
- describe the main innovation in interior sliding door systems and their role in providing privacy, accessibility, and fire and life safety
- explain how the latest privacy laws and standards, ADA door guidelines, and fire-rated requirements impact design
- specify opening solutions to common fire-safety, daylighting, and occupant accessibility challenges

Specifying Door Hardware
CEU Credit: 1 HSW
Course Number: PMI21014 / PMD20069 (Distance Learning)

This course reviews hardware specified for door openings in the order it is specified in a hardware schedule. We will discuss the codes that affect door hardware, and the situational factors that need to be considered when door hardware is specified.

Course Objectives:

Upon successful completion of this course participants will be able to:

- list codes that influence door hardware
- state how those codes affect hardware choices
- describe situational factors that need to be considered when specifying door hardware
- specify the correct door hardware for the application that will also provide ADA compliant access and life safety

Sustainability, Transparency, & Door Hardware
CEU Credit: 1 HSW
Course Number: SPI22011 / SPD22107 (Distance Learning)

Whether you're designing a LEED certified building or not, every building created today includes sustainable features. Door & hardware products are not the ones that contribute the most to sustainability, but they do have an impact. This training will explain the new LEED v4.1 requirements, transparency requirements, such as EPDs and HPDs, and discuss how doors and hardware can contribute to LEED, as well as affect other sustainable areas within the building.

Course Objectives:

Upon successful completion of this course participants should be able to:

- define transparency, as it relates to sustainability, and understand some of the main initiatives, such as EPDs, HPDs and the Living Building Challenge
- state the new requirements for LEED v4.1
- explain how door hardware contributes to LEED v4.1
- describe how door hardware can affect other areas of sustainability, such as energy savings

Tune In To Specialty Doors
CEU Credit: 1 HSW
Course Number: PMG20008

Most of us don't think much about the doors and hardware in buildings until an opening doesn't work, but they play an important role in security and safety. In this fun and interactive course, you'll learn about openings that present security and safety special needs, such as protection from radiation, projectiles, and noise.

Course Objectives:

Upon successful completion of this course participants should be able to:

- list what characteristics to look for in severe storm doors, to ensure they will withstand strong winds and projectiles to protect the building inhabitants
- determine the correct level of bullet resistant doors for the opening type, building location and type of gun threats expected along with the hardware that is appropriate for them
- describe why opening sound ratings are important in occupied spaces and what to look for when STC door ratings in the field differ from what is expected
- list hardware requirements and restrictions for lead doors and state places other than hospitals where they should be used to prevent the transmission of radiation

Vertical Markets

Education Hardware Problems and Solutions
CEU Credit: 1 HSW
Course Number: VMI22010 / VMD22106 (Distance Learning)

Participants attending this presentation will gain insight into the opening hardware applications found in the education arena. Our discussion will highlight the various codes and standards that affect education doors as well as how to address security concerns. In addition, we highlight the tremendous usage experienced in these facilities and the importance of simple, long lasting solutions for typical problems.

Course Objectives:

Upon successful completion of this course participants will be able to:
- recognize codes and standards that affect doors found in educational facilities
- describe common opening issues found in educational facilities
- ask appropriate questions to specify opening hardware that allows the door to function as needed
- discuss classroom security issues and hardware options to solve those problems

Healthcare Hardware Jeopardy
CEU: 1 HSW
Course Number: VMG22003

This course is delivered in an interactive game format. Healthcare facilities are open 24/7, can have a large volume of foot traffic, and the openings can take a lot of abuse. If specifying opening hardware is confusing, and you aren't sure what products would work best for all the opening types found in healthcare, join us for this interactive course to learn more about healthcare opening solutions and the codes that affect your hardware choices.

Course Objectives:

Upon successful completion of this course participants will be able to:
- list codes & standards that affect doors found in healthcare facilities
- choose hardware that will protect the door, withstand the abuses of the hospital environment and still meet the hospital's opening needs
- provide electrified hardware solutions that will eliminate common healthcare opening issues
- specify opening hardware solutions for fire rated openings that will meet the needs of the hospital staff and code requirements

Hardware for Healthcare Openings
CEU Credit: 1 HSW
Course Number: VMI22004 / VMD22102 (Distance Learning)

Sometimes choosing hardware applications in the healthcare arena can be difficult. Participants attending this presentation will gain insight into the unique challenges of selecting hardware for healthcare facilities and this course will examine the importance of simple opening solutions for typical problems. The examples included represent good practice and our discussion will focus on proven application solutions that will satisfy codes, standards, and security needs while providing consideration for the realities of maintenance staff.

Course Objectives:

Upon successful completion of this course participants will be able to:
- describe hardware issues commonly found in high use public openings
- recognize distinctive product features that make a hardware product the "best" fit for both codes and the opening's needs
- list codes and standards that affect doors found in Healthcare facilities
- specify code compliant and suitable hardware products for typical openings frequently found throughout healthcare facilities

Independent Living Code and Hardware Jeopardy
CEU Credit: 1 HSW
Course Number: VMG22001

Independent living properties can present a few challenges for accessibility, code compliance, and security. Learn about hardware choices and codes that affect the common openings found in these projects in a fun interactive game format.

Course Objectives:
Upon successful completion of this course participants will be able to:
- identify code requirements for fire rated openings in independent living properties
- discuss accessibility standards that apply to independent living properties
- recognize opening hardware that is best suited for independent living property needs
- specify electronic products that make independent living properties desirable, safe & accessible for residents

K-12 Designing for Layered Security
CEU Credit: 1 HSW
Course Number: VMI20023 / VMD20067 (Distance Learning)

When designing or remodeling a school, security and safety should be at the forefront of discussions and design. It's important to understand the most common types of threats in educational facilities to create layers of security with the appropriate opening hardware to mitigate those threats. We'll cover all this and code compliant ways to achieve lockdown status when needed.

Course Objectives:
Upon successful completion of this course participants will be able to:
- describe the most common types of threats in K-12 schools and how to balance security for multiple threats
- explain layered security and list the five types of layers
- specify appropriate hardware for each of the five types of layers
- discuss the various options for lockdown and concerns about barricade devices

Multifamily Code and Hardware Jeopardy
CEU Credit: 1 HSW
Course Number: VMG20018

Multifamily properties can present a few challenges for accessibility, code compliance, and security. Learn about hardware choices and codes that affect the common openings found in these projects in a fun interactive game format.

Course Objectives:
Upon successful completion of this course participants will be able to:
- identify code requirements for fire rated openings in multifamily properties
- discuss accessibility standards that apply to multifamily properties
- recognize opening hardware that is best suited for multifamily property needs
- specify electronic products that make multifamily properties desirable, safe and accessible for residents

Multifamily Security
CEU Credit: 1 HSW
Course Number: VMI20022/VMD20072 (Distance Learning)

This course discusses factors that need to be considered and planned for when designing openings and developing a security plan for a multi-family property. It will also cover the common security problems found in multi-family properties and will offer solutions for those issues.

Course Objectives:
Upon successful completion of this course participants will be able to:
- describe key elements of a secure and safe multifamily property
- specify solutions to help multifamily properties maintain security and access control
- list codes that affect multifamily property openings
- choose code compliant door hardware products best suited for multifamily properties

Multifamily Property Tech Stack Roundtable
CEU Credit: 1 HSW
Course Number: VMD21100 (Distance Learning)

This course uses a roundtable discussion format to examine the technology stack that's being used at an increasing rate in multifamily projects. It covers capabilities of current and future technology, common issues that arise with coordination between the different stakeholders, and steps that can be taken to assure owners/property managers are getting the functionality they need.

Course Objectives:
Upon successful completion of this course participants will be able to:
- Identify the different elements of a multifamily technology stack and how choice of components will contribute to the overall health and welfare of the building and its occupants
- Describe the design and coordination challenges associated with implementing a technology stack that will improve the security, safety and ease of use for tenants
- Discuss technology requirements of tenants in a multifamily property, given their focus on increased security
- Analyze the importance of technology in a multifamily project and where future tech is headed

Understanding Healthcare Door Systems
### CEU Credit: 1 HSW
Course Number: VMI22023

This course provides an overview of door systems typically designed, specified, and installed in hospitals; with a primary focus on the most common applications with automatic swinging doors and Intensive Care Unit/Critical Care Unit (ICU/CCU) manual sliding doors.

Course Objectives:
Upon successful completion of this course participants will have developed a basic understanding of:
- requirements for swinging automatic door systems in a hospital environment; including activation and safety, coordination and layout
- the various designs for ICU/CCU entrances and how selected configurations impact functionality
- code requirements for safety, accessibility, and egress
- other automatic solutions for hospitals

Allegion architectural hardware consulting services. We have more than 150 hardware consultants located across the nation and around the world who are all well-versed on local and national building codes; the unique needs of various types of facilities; and access control and egress requirements.
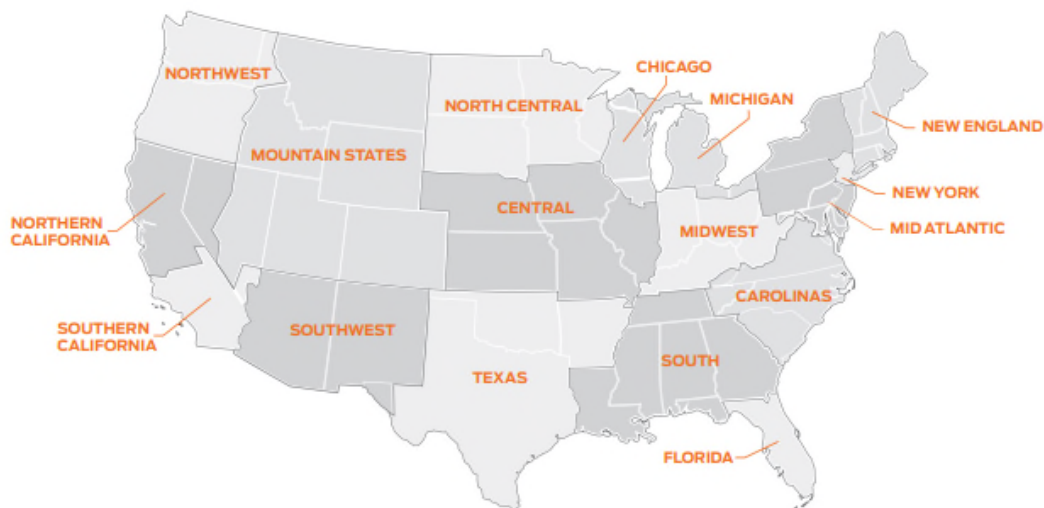
Some of the services we provide include:

- Complete hardware specifications, hardware sets and numerical door index
- Catalog cuts and wiring elevations
- Product substitution requests, application and product questions/RFIs, and the value engineering process
- Assistance with hardware submittals
- AIA-CES registered training on building codes, open architecture, electronic access control, vertical market topics and mechanical hardware
- Consulting on necessary building codes to ensure fire, life safety and accessibility requirements are met
- Review of building programming, product options and potential conflicts with security issues
- Conduct job site reviews, pre-installation meetings and post-installation inspections

For help with your next project, contact us at 888.868.9110

About Allegion™

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a $2.7 billion company, with products sold in almost 130 countries.

For more, visit www.allegion.com