

DHI SPRING TECHNICAL SCHOOL

April 8-15, 2018
NATIONAL CONFERENCE CENTER
LANSDOWNE, VA

DHI technical and business practice education delivered in a traditional classroom format.

COURSE REGISTRATION FORMS



FLEXIBLE • CONVENIENT • AFFORDABLE

DHI 2018

SPRING TECHNICAL SCHOOL

APRIL 8-15, 2018 • NATIONAL CONFERENCE CENTER • LANSDOWNE, VA

IMPORTANT PRICING INFORMATION

DHI strives to make its education available to its members at the most affordable costs. Course prices are established based upon DHI's cost to develop the curriculum and student materials, to provide qualified instructors to conduct the course, and the value and technical sophistication of the content. We provide volume discount incentives for students to maximize the cost of travel to the school and take advantage of attending the most number of classes at each school, as well as volume discounts to encourage multiple students attending from the same company.

- **Course Learning Unit Discount (LU)**

Course Learning Unit (LU) Discount – for 40 or more LUs per school, apply a 5% discount to the course tuition.

Course Learning Unit Discount – for 64 or more LUs per school, apply a 10% discount to the course tuition.

- **Company Discount (CD)**

Company Discount – for 3 or more students from the same company per school, apply a 5% discount to the course tuition.

- **Facilities Fee (FF)**

This fee covers the cost of food and beverage for meals and breaks and other ancillary costs of the facility DHI contracts to conduct the classes, and will vary from school to school depending on the property selected. It is a pass through cost of conducting the school and is in addition to the courses fees. Therefore it is a mandatory daily fee paid by each student regardless of whether they stay at the property. The Facilities Fee is not subject to the Course or Company discount.

For the Spring 2018 Technical School in Lansdowne, VA, the mandatory Facilities Fee will be \$70 per day for those staying onsite at the National Conference Center (includes all meals and 2 breaks). For students staying offsite, the mandatory FF is \$55 per day (includes lunch and 2 breaks).

DHI 2018 SPRING TECHNICAL SCHOOL COURSE REGISTRATION FORMS

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TAKE ADVANTAGE OF DISCOUNTS!

Experience face-to-face learning from the finest line-up of nationally recognized, highly-credentialed instructors! *See below for details.*

Hotel reservations can be made at

www.dhi.org/springschool

COURSE NUMBERS, TITLES AND LEARNING UNITS (LU)	DURATION	DATES	MEMBER	NON-MEMBER	COLUMN A: COURSE TUITION	COLUMN B: ONSITE FACILITIES FEE	COLUMN C: OFFSITE FACILITIES FEE	COLUMN D: TOTAL A + B OR C
COR117 Door, Frame, and Architectural Hardware Applications (32 LU)	4 days	Apr 12-15	\$1360	\$1835		\$280	\$220	
COR125 Takeoff and Estimating (16 LU)	2 days	Apr 9-10	\$680	\$920		\$140	\$110	
COR133 Electrified Architectural Hardware (40 LU)	5 days	Apr 8-12	\$1875	\$2530		\$350	\$275	
COR140 Using Codes & Standards (24 LU)	3 days	Apr 9-11	\$1125	\$1520		\$210	\$165	
COR147 Introduction to Specification Writing (24 LU)	3 days	Apr 9-11	\$1125	\$1520		\$210	\$165	
COR153 Installation Coordination and Project Management (16 LU)	2 days	Apr 9-10	\$750	\$1015		\$140	\$110	
COR160 Material Purchasing Concepts (8 LU)	1 day	Apr 11	\$330	\$445		\$70	\$55	
AHC200 Masterkeying (8 LU)	1 day	Apr 15	\$375	\$505		\$70	\$55	
AHC205 Detailing Hardware (24 LU)	3 days	Apr 12-14	\$1125	\$1520		\$210	\$165	
AHC207 Advanced Detailing Hardware (40LU)	5 days	Apr 11-15	\$1650	\$2225		\$350	\$275	
AHC215 Writing Hardware Specifications (40LU)	5 days	Apr 11-15	\$1650	\$2225		\$350	\$275	
AHC220 AHC Exam Prep (24 LU)	3 days	Apr 11-13	\$1245	\$1680		\$210	\$165	
CDC300 Using Door & Frame Standards (8 LU)	1 day	Apr 9	\$340	\$460		\$70	\$55	
CDC305 Detailing Doors & Frames (16LU)	2 days	Apr 10-11	\$750	\$1015		\$140	\$110	
CDC310 Writing Door & Frame Specifications (24 LU)	3 days	Apr 12-14	\$1185	\$1600		\$210	\$165	
DAI600 Fire and Egress Door Assembly Inspection -NO EXAM ONSITE @ SCHOOL (24LU)	3 days	April 12-14	\$1950	\$2450		\$210	\$165	
DAI600 Fire and Egress Door Assembly Inspection -EXAM ONSITE @ SCHOOL (24LU)	4 days	Apr 12-15	\$1950	\$2450		\$280	\$220	
EHC400 Electrified Hardware Applications and Documentation (24 LU)	3 days	Apr 13-15	\$1185	\$1600		\$210	\$165	
EHC405 Access Control and Electrified Hardware Systems (24 LU)	3 days	Apr 8-10	\$1185	\$1600		\$210	\$165	
EHC410 Installing and Troubleshooting Electrified Hardware Devices and Access Control Systems (24 LU)	3 days	Apr 11-13	\$1185	\$1600		\$210	\$165	
EHC420 EHC Exam Prep (16 LU)	2 days	Apr 14-15	\$830	\$1120		\$140	\$110	

*NOTE: DAI600 is a 3 day course; however, there is an optional 4th day (1/2 day) for the exam to be given onsite at the school. For further details please refer to page 12 in this form, under the course description.

TOTAL A + B OR C

DISCOUNTS

Apply a 10% discount for 64 or more CUMULATIVE learning units (LU) of Course Tuition ONLY.

For 3 or more students from the same company, contact the DHI Education Dept. for Company Discount (CD).

Facilities Fee (FF) of \$70 per day per student for on-site (includes all meals plus 2 breaks) or \$55 per day for off-site (includes lunch and 2 breaks) is required.

Please refer to Course Descriptions to see any recommended prerequisites and/or reference materials that may be required.

Class sizes are limited. Course offerings subject to change without notice.

CONTINUE TO NEXT PAGE TO COMPLETE COURSE REGISTRATION.

DHI 2018 SPRING TECHNICAL SCHOOL COURSE REGISTRATION FORMS

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REGISTER ONLINE AT www.dhi.org/springschool

NAME		NAME FOR BADGE	
TITLE		MEMBERSHIP STATUS <input type="checkbox"/> DHI Member ID Number _____ <input type="checkbox"/> Non-Member	
COMPANY		ADDRESS	APT/SUITE NO.
CITY		STATE/PROVINCE	ZIP/POSTAL CODE
TELEPHONE	FAX	EMAIL REQUIRED (All registration confirmations AND exam results are sent via email.)	
PAYMENT INFORMATION			
PAYMENT METHOD <input type="checkbox"/> Check enclosed, payable in U.S. dollars to DHI <input type="checkbox"/> Please charge my: <input type="checkbox"/> Visa <input type="checkbox"/> MasterCard <input type="checkbox"/> AMEX			
CARD NUMBER	EXPIRATION DATE	CW/SECURITY CODE	TOTAL DUE (COLUMN C FROM PAGE 3)
CARD HOLDER'S NAME (Print name as it reads on card)		SIGNATURE	
CREDIT CARD BILLING ADDRESS <input type="checkbox"/> CHECK IF THE CREDIT CARD BILLING ADDRESS IS THE SAME ADDRESS LISTED FOR STUDENT ABOVE. IF DIFFERENT, PLEASE NOTE CREDIT CARD BILLING ADDRESS BELOW:			
ADDRESS			APT/SUITE NO.
CITY	STATE/PROVINCE	ZIP/POSTAL CODE	

PLEASE BE ADVISED

- All courses begin at 8:00 am and end at 5:30 pm. Punctual and complete attendance is mandatory.
- See page 5 for more details and tuition policies.
- Tuition fees do not include hotel accommodations and facilities fee. Book your hotel by March 16 at www.dhi.org/springschool

PLEASE COMPLETE PAGES 3 & 4 OF THIS FORM AND RETURN TO:

DHI14150 Newbrook Drive, Suite 200
Chantilly, VA 20151
Phone: 703.222.2010 • Fax: 703.222.2410
or
Register online at www.dhi.org

ACCOUNTING USE ONLY.

I understand and acknowledge that during my attendance at DHI's Technical School ("School"), I may be photographed, videoed or otherwise recorded by the Door and Hardware Institute ("DHI") and/or those designated by DHI. As a condition of my attendance at the School, I agree to irrevocably grant to DHI, its assigns, licensees and successors the right to photograph, publish, record, broadcast, exhibit, digitize, display, copyright, license, transfer, reproduce, translate, modify, edit or otherwise use perpetually throughout the world, in all media now and hereafter known or devised, in whole or in part, my image, likeness, name, biographical information, actions, performance, voice, conversations, quotes and material spoken or otherwise provided by me (collectively, the "Material") during my attendance at the School. I also agree that DHI shall be the sole owner throughout the universe and in perpetuity of any and all rights in and to any and all works containing the Material, in whole or in part, for all purposes whatsoever and in any manner or media including, without limitation, printed works, videocassette, DVD, and computer online services. I shall have no rights or interest thereunder whatsoever.

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COURSE CURRICULUM							
SUN 4/8	MON 4/9	TUES 4/10	WED 4/11	THURS 4/12	FRI 4/13	SAT 4/14	SUN 4/15
	COR125 Takeoff and Estimating		COR160 Mat Purch Con	COR117 Door, Frame, and Architectural Hardware Applications			
	COR147 Introduction to Specification Writing			AHC205 Detailing Hardware			AHC200 Masterkeying
	COR140 Using Codes & Standards			DAI600 Fire and Egress Door Assembly Inspectio			DAI600 Exam Option
	Legacy Cert Exam Sessions		AHC220 AHC Exam Prep				
	COR153 Installation Coord & Proj Mgmt		AHC207 Advanced Detailing Hardware				
	AHC215 Writing Hardware Specifications						
	CDC300 Using Dr & Fr Stds	CDC305 Detailing Doors & Frames		CDC310 Writing Door & Frame Specification			
COR133 Electrified Architectural Hardware				EHC400 Electrified Hardware Applications & Documentation			
EHC405 Access Control & Electrified Hdw Systems			EHC410 Installing & Troubleshooting Electrified Hdw Devices & Access Control Systems			EHC420 EHC Exam Prep	

TECHNICAL SCHOOL POLICIES & PROCEDURES

RECOMMENDED PREREQUISITES

Refer to the *Education Resource Guide* for further details as to the recommended prerequisites for classes, posted at www.dhi.org.

TUITION STRUCTURE

Member tuition applies to any DHI individual member or any employee of a corporate member. Tuition includes all student materials except for a few select reference guides as noted in the *Education Resource Guide* (<https://www.dhi.org/Forms/Education/2017-Education-Resource-Guide.pdf>).

CLASS SIZE

Registrations are entered in the order they are received. Should a course sell out, registrants are placed on a waitlist upon receipt of a completed application. Those with full tuition payment are waitlisted first, followed by those with an application only. If waitlisted registrants with paid tuition, are not placed in their first class choice, they may opt to transfer to another current course, or future course with full credit or receive a full refund. (if applicable)

TUITION POLICIES

Registration

- Tuition payment must be received with registration to ensure a place in a course. Confirmation of registration after receipt of payment will be provided.

Cancellations and Administration Fee

- For cancellations received up until 4 weeks prior to the start of the Spring Technical School, March 11, 2018, either a 95% refund or a 100% credit for future courses is available.
- For cancellations received within 4 weeks of the start of the Spring Technical School, March 12, 2018, a 90% credit only will be applied to a future course.

Refunds

- No refunds will be given to any missed sessions.
- No refunds will be given to any non-completion of course(s).
- Once a Technical School begins, no refunds nor credit will be given for missed or non-completed courses. Special circumstances such as a significant medical issue, death in family, etc. may allow for a partial or full credit of tuition fees only, not including facility fees, to be issued for a future course. Proof of special circumstance may be required.

HOTEL ACCOMMODATIONS

Students are responsible for making their own hotel reservations. To take advantage of DHI's rates please be sure to book by March 16. Complete education housing information is available online at www.dhi.org/springschool.

PHOTOGRAPHY DISCLAIMER

I understand and acknowledge that during my attendance at the DHI Spring Technical School, I may be photographed, videoed or otherwise recorded by the Door and Hardware Institute ("DHI") and/or those designated by DHI. As a condition of my attendance at the DHI Spring Technical School, I agree to irrevocably grant to DHI, its assigns, licensees and successors the right to photograph, publish, record, broadcast, exhibit, digitize, display, copyright, license, transfer, reproduce, translate, modify, edit or otherwise use perpetually throughout the world, in all media now and hereafter known or devised, in whole or in part, my image, likeness, name, biographical information, actions, performance, voice, conversations, quotes and material spoken or otherwise provided by me (collectively, the "Material") during my attendance at the DHI Spring Technical School. I also agree that DHI shall be the sole owner throughout the universe and in perpetuity of any and all rights in and to any and all works containing the Material, in whole or in part, for all purposes whatsoever and in any manner or media including, without limitation, printed works, videocassette, DVD, and computer online services. I shall have no rights or interest thereunder whatsoever.

COURSE DESCRIPTIONS

COR117 DOOR, FRAME, AND ARCHITECTURAL HARDWARE APPLICATIONS

(4 days) (96 CEP Points) (32 Learning Units)

Today's construction projects use some of the most advanced materials and products ever made. Fire-rated and means of egress door openings have specific requirements they must meet to be able to function correctly. This course teaches you about the doors and frames (e.g., hollow metal, wood, and aluminum) in use today. Many hardware items can be employed in more than one application, and knowing which application is correct for a particular opening will make you indispensable to your customers and clients. An assortment of product samples are used in this course to help you identify many of the hardware items in use today.

You will learn how to:

- Read door and frame details
- Determine wall/partition construction
- Select frame types and anchors
- Explain different types of door and frame construction
- Use door accessories (e.g., lite kits, louvers)
- Size special-purpose hinges (e.g., wide-throw)
- Learn the application of raised-barrel hinges and swing-clear hinges
- Select proper strike plates
- Size push/pull bars
- Resolve closer/overhead stop/holder conflicts
- Size thresholds and saddles

COR125 TAKEOFF AND ESTIMATING

(2 Days) (48 CEP Points) (16 Learning Units)

RECOMMENDED PREREQUISITES:

COR103 – Understanding and Using Construction Documents
COR117 – Door, Frame, and Architectural Hardware Applications

Profitability of a company often hinges on the accuracy and efficiency of the bids that estimators turn out. Overprice, and your bid will not be considered; underprice, and you will have more work than you need, and you will consistently lose money with each project.

This course introduces you to material takeoff techniques and estimating skills that will help you become a more accurate and efficient estimator.

You will learn how to:

- Perform material takeoffs
- Prepare Requests for Information (RFI)
- Prepare Requests for Substitutions
- Calculate overhead costs
- Apply mark-ups
- Prepare estimates

COR133 ELECTRIFIED ARCHITECTURAL HARDWARE

(5 Days) (120 CEP Points) (40 Learning Units)

RECOMMENDED PREREQUISITES:

COR117 – Door, Frame, and Architectural Hardware Applications

Electrified hardware items are used on virtually all new building projects. You need to understand how these products are properly used and what their capabilities are if you are going to advance in this industry. This course provides you with the principles of low-voltage electricity through hands-on class exercises. In addition, this course is focused on teaching you how separate electrified architectural hardware components are used to create single-opening systems. Learn how to design low-voltage circuits and to hook up these components through the hands-on labs.

You will learn how to:

- Coordinate voltage and amperage requirements
- Draw elevation, logic, and point-to-point wiring diagrams
- Write operational descriptions
- Troubleshoot circuits

NOTE: STUDENTS ARE REQUIRED TO BRING A CALCULATOR TO THIS CLASS.

COR140 USING CODES AND STANDARDS

(3 Days) (72 CEP Points) (24 Learning Units)

RECOMMENDED PREREQUISITES:

COR117 – Door, Frame, and Architectural Hardware Applications

Knowledge of the many industry-related codes and standards differentiates our industry from numerous other distributor chain-driven industries. Staying current and up-to-date on the ever-changing codes and standards requires both professional and personal commitment. This course covers NFPA 80, Standard for Fire Doors and Other Opening Protectives (2013 edition), NFPA 101, Life Safety Code (2012), ICC/ANSI A117.1, Usable and Accessible Buildings and Facilities (2009 edition), and International Building Code (2012 edition).

You will learn how to:

- Tell the difference between codes and standards
- Look up information
- Interpret codes and standards
- Determine requirements for fire-rated openings
- Determine requirements for means of egress openings

STUDENTS TO PROVIDE ADDITIONAL REFERENCE MATERIALS:

- ✓ NFPA 80, Standard for Fire Doors and Other Opening Protectives (2013 edition)
- ✓ NFPA101, Life Safety Code (2012 edition)
- ✓ ICC/ANSI A117.1, Accessible and Usable Buildings and Facilities (2009 edition)
- ✓ IBC, International Building Code (2012 edition)

Electronic copies are allowed, however, we recommend you download the material on your computer.

COURSE DESCRIPTIONS

COR147 INTRODUCTION TO SPECIFICATION WRITING

(3 Days) (72 CEP Points) (24 Learning Units)

If you are pursuing the Architectural Hardware Consultant (AHC), Certified Door Consultant (CDC), Electrified Hardware Consultant (EHC), or Door + Hardware Specification Consultant (DHSC), you need to master the basic principles of writing architectural specifications. Specification writing skills are an essential element of becoming a professional consultant in today's construction industry. Architects will expect you to have mastered these skills when you work with them.

"Practice makes perfect," as the saying goes, and this course teaches students how to practice writing door, frame, and hardware specifications. Nearly two days of practical exercises are included in this course.

You will learn how to:

- Follow CSI SectionFormat™
- Use proper specification terminology and language
- Properly reference DIVISION 1 GENERAL sections
- Write clear, concise, correct, and complete specifications
- Identify methods of specification writing (e.g., descriptive, performance, proprietary, reference)

STUDENTS TO PROVIDE ADDITIONAL REFERENCE MATERIALS:

- ✓ **Catalogs or electronic files with technical information for hinges, mortise locks, door closers, fire exit hardware, panic hardware, protection plates, electrified hardware, hollow metal doors and frames, and flush wood doors**

Electronic copies are allowed, however, we recommend you download the material on your computer.

COR153 INSTALLATION COORDINATION AND PROJECT MANAGEMENT

(2 Days) (48 CEP Points) (16 Learning Units)

RECOMMENDED PREREQUISITES:

COR103 – Understanding and Using Construction Documents

COR117 – Door, Frame, and Architectural Hardware Applications

Project management requires effectively working with contractors, installers, owners, and architects. Coordination of the installation of doors, frames, and architectural hardware is an essential element of a project manager's responsibilities. Pre-installation meetings with the installers increase their productivity, reduce installation errors, and ensure that the door assemblies will operate reliably for many years. Project managers must also be able to read and interpret contract documents, oversee projects with fast-track schedules, and maintain profitability—all of which requires disciplined attention to detail. This course teaches you how to coordinate installations and provides you with techniques to help you succeed as a project manager.

You will learn how to:

- Reduce callbacks and backcharges
- Present proper installation techniques
- Describe common installation problems
- Improve customer relationships and satisfaction
- Increase profitability on your projects
- Avoid common project management problems
- Improve customer relationships and satisfaction

STUDENTS TO PROVIDE ADDITIONAL REFERENCE MATERIALS:

- ✓ **Window and Door Manufacturers Association (WDMA) IS-1A (2013) Architectural Flush Wood Doors and IS-6A (2013) Architectural Stile and Rail Wood Doors**

COR160 MATERIAL PURCHASING CONCEPTS

(1 Day) (24 CEP Points) (8 Learning Units)

Once the shop drawings are approved and you move into the order processing stage of a project, you need to accurately and efficiently communicate the project's requirements with each of the manufacturers. Purchase orders need to be reviewed for accuracy, acknowledgements verified, and materials inspected upon receipt. In addition, everything must arrive on time and for the right price! This course teaches you how to communicate and coordinate your material purchases with the project and manufacturing schedules.

You will learn how to:

- Format purchase orders
- Confirm factory discounts
- Review acknowledgements
- Minimize freight charges
- Coordinate project and manufacturing schedule

COURSE DESCRIPTIONS

AHC200 MASTERKEYING

(1 Day) (24 CEP Points) (8 Learning Units)

A solid knowledge base of master key systems is essential to all estimators, detailers, project managers, and consultants. This program covers all of the bases: recognizing the different types and styles of cylinders and keys used in today's locks, understanding and using industry-standard key-set symbols and terminology, organizing keying meetings, and integrating mechanical cylinders and keying into access control and security systems.

You will learn how to:

- Explain capabilities and limitations of key systems
- Determine the correct keying level based on owner requirements
- Organize and conduct a keying meeting
- Identify existing key systems and their expansion potential
- Communicate the owner's keying requirements to the factory

AHC205 DETAILING HARDWARE

(3 Days) (72 CEP Points) (24 Learning Units)

RECOMMENDED PREREQUISITES:

COR117 – Door, Frame, and Architectural Hardware Applications

COR140 – Using Codes and Standards

Perhaps the most necessary skill you can develop in our industry is learning how to properly create detailed hardware schedules. Coordinating the myriad hardware products with the project's requirements can be a daunting task. This course introduces you to the sequence and format of the hardware schedule through a series of in-class exercises.

You will learn how to:

- Create proper headings for hardware sets
- List hardware items in the correct sequence and format
- Write detailed hardware sets
- Prepare hardware schedule submittals
- Coordinate with doors and frames

STUDENTS TO PROVIDE ADDITIONAL REFERENCE MATERIALS:

- ✓ Catalogs or electronic files with technical information for hinges, mortise locks, door closers, fire exit hardware, panic hardware, protection plates, electrified hardware, hollow metal doors and frames, and flush wood doors
- ✓ Catalogs or electronic files for pivots, continuous hinges, concealed in the floor closers, door bolts, coordinators, overhead stops and holders and removable mullions, bored and mortise locks and latches, auxiliary locks, surface-mounted and overhead concealed door closers, low-energy door operators, door pulls, push bars, protection plates, Gasketing and thresholds, and door stops
- ✓ Catalogs or electronic files for electrified hardware (e.g. power supplies, card readers, key pads, motion detectors, power transfer devices)

Electronic copies are allowed, however, we recommend you download the material on your computer.

AHC207 ADVANCED DETAILING HARDWARE

(5 Days) (120 CEP Points) (40 Learning Units)

RECOMMENDED PRIOR COURSES:

COR117 – Door, Frame, and Architectural Hardware Applications

COR133 – Electrified Architectural Hardware

AHC205 – Detailing Hardware

Building on the principles learned in AHC205 – Detailing Hardware, students are led through a series of challenging class exercises designed to develop their decision-making skills by selecting and detailing hardware products that meet the intended functions of door openings. Students will learn the step-by-step sequence employed by Architectural Hardware Consultants (AHCs) and Door + Hardware Specification Consultants (DHSCs) as they evaluate door openings and select hardware products to create door assemblies in accordance with applicable codes and standards.

You will learn how to:

- Identify intended functions of complex door openings
- Select hardware products for complex openings
- Create detailed hardware sets
- Include elevation diagrams for openings with electrified hardware

STUDENTS TO PROVIDE ADDITIONAL REFERENCE MATERIALS:

- ✓ Catalogs or electronic files with technical information for hinges, mortise locks, door closers, fire exit hardware, panic hardware, protection plates electrified hardware, hollow metal doors and frames, and flush wood doors
- ✓ Catalogs or electronic files for pivots, continuous hinges, concealed in the floor closers, door bolts, coordinators, overhead stops and holders and removable mullions, bored and mortise locks and latches, auxiliary locks, surface-mounted and overhead concealed door closers, low-energy door operators, door pulls, push bars, protection plates, Gasketing and thresholds, and door stops
- ✓ Catalogs or electronic files for electrified hardware (e.g. power supplies, card readers, key pads, motion detectors, power transfer devices) Steel Door Institute's SDI Fact File (Suggested electronic format)
- ✓ Steel Door Institutes SDI Fact File (Suggested Electronic Format)

Electronic copies are allowed, however, we recommend you download the material on your computer.

COURSE DESCRIPTIONS

AHC215 WRITING HARDWARE SPECIFICATIONS

(5 Days) (120 CEP Points) (40 Learning Units)

STRONGLY RECOMMENDED PREREQUISITES:

COR117 – Door, Frame, and Architectural Hardware Applications

COR133 – Electrified Architectural Hardware

COR140 – Using Codes and Standards

COR147 – Introduction to Specification Writing

AHC205 – Detailing Hardware

AHC207 – Advanced Detailing Hardware

Architectural Hardware Consultants (AHCs) are required to master the skills and techniques of writing professional construction specifications. Architects rely on professional consultants for technical expertise and expect them to be proficient in writing specifications. This course teaches you how to write clear, concise, correct, and complete hardware specifications using the Construction Specifications Institute's (CSI) MasterFormat™ as a guide.

You will learn how to:

- Organize your specifications
- Use correct specification language
- Create hardware specification sets
- Write complete hardware specifications
- Coordinate work in other sections
- Address product substitutions
- Coordinate specifications for electrified hardware and access control systems

NOTE: Students taking this course must have expert-level hardware application and code and standard knowledge.

STUDENTS TO PROVIDE ADDITIONAL REFERENCE MATERIALS:

- ✓ **Catalogs or electronic files with technical information for hinges, mortise locks, door closers, fire exit hardware, panic hardware, protection plates, electrified hardware, hollow metal doors and frames, and flush wood doors**
- ✓ **Catalogs or electronic files for pivots, continuous hinges, concealed in the floor closers, door bolts, coordinators, overhead stops and holders and removable mullions, bored and mortise locks and latches, auxiliary locks, surface-mounted and overhead concealed door closers, low-energy door operators, door pulls, push bars, protection plates, Gasketing and thresholds, and door stops**
- ✓ **Catalogs or electronic files for electrified hardware (e.g. power supplies, card readers, key pads, motion detectors, power transfer devices)**

AHC220 EXAM PREP

(3 Days) (72 CEP Points) (24 Learning Units)

Students pursuing the Architectural Hardware Consultants (AHCs) designation will complete in-class exercises designed to replicate exam conditions and better prepare them for the AHC exam. You will leave this class with a firm understanding of how to prepare for the formal AHC certification exam.

You will be required to:

- Complete timed scheduling and specification exercises
- Complete timed written exam questions

STUDENTS TO PROVIDE ADDITIONAL REFERENCE MATERIALS:

- ✓ **NFPA80, Standards for Fire Doors and Other Opening Protectives (2013 edition)**
- ✓ **NFPA101, Life Safety Code (2012 edition)**
- ✓ **ICC/ANSI A117.1, Accessible and Usable Building and Facilities (2009 edition)**
- ✓ **Catalogs or electronic files with technical information for hinges, mortise locks, door closers, fire exit hardware, panic hardware, protection plates, electrified hardware, hollow metal doors and frames, and flush wood doors**
- ✓ **Catalogs or electronic files for pivots, continuous hinges, concealed in the floor closers, door bolts, coordinators, overhead stops and holders and removable mullions, bored and mortise locks and latches, auxiliary locks, surface-mounted and overhead concealed door closers, low-energy door operators, door pulls, push bars, protection plates, Gasketing and thresholds, and door stops**
- ✓ **Catalogs or electronic files for electrified hardware (e.g. power supplies, card readers, key pads, motion detectors, power transfer devices)**

Electronic copies are allowed, however, we recommend that you download the materials on your computer.

COURSE DESCRIPTIONS

CDC300 USING DOOR AND FRAME STANDARDS

(1 Day) (24 CEP Points) (8 Learning Units)

Knowledge of the many door and frame standards is essential to properly detail these products in shop drawings. These standards contain a wealth of information and can be used to establish levels of quality for all types of buildings.

This class covers the following industry standards:

- Steel Door Institute's (SDI) A250 Series of Product Standards
- Hollow Metal Manufacturers Association (HMMA) 800 Series of Product Standards
- Window and Door Manufacturers Association (WDMA) I.S. 1-A & I.S. 6-A
- Architectural Woodwork Institute (AWI) Quality Standards, 2nd Edition, Ver. 2.0, 2014
- Builders Hardware Manufacturers Association (BHMA) A115 & A115W Series of Product Standards

STUDENTS TO PROVIDE ADDITIONAL REFERENCE MATERIALS:

- ✓ Steel Door Institute's SDI Fact File (Suggested Electronic Format)
- ✓ Hollow Metal Manufacturers Association's (HMMA) Hollow Metal Manual
- ✓ Window and Door Manufacturers Association (WDMA) IS-1A (2013) Architectural Flush Wood Doors and IS-6A (2013) Architectural Stile and Rail Wood Doors
- ✓ Architectural Woodwork Institute's (AWI) Architectural Woodwork Standards (2nd edition) 2014
- ✓ Builders Hardware Manufacturers Association's (BHMA) A115 Standard for preparations in steel doors and frames and wood doors.

Electronic copies are allowed, however, we recommend that you download the materials on your computer.

CDC305 DETAILING DOORS AND FRAMES

(2 Days) (48 CEP Points) (16 Learning Units)

RECOMMENDED PREREQUISITES:

COR117 – Door, Frame, and Architectural Hardware Applications

COR140 – Using Codes and Standards

Proficiency in creating shop drawings only comes through practice and attention to detail. This course introduces students to the techniques and skills necessary to become an expert detailer.

You will learn how to:

- Create door and frame shop drawings
- Prepare door and frame submittals
- Illustrate door opening details
- Coordinate hardware templating requirements

CDC310 WRITING DOOR AND FRAME SPECIFICATIONS

(3 Days) (72 CEP Points) (24 Learning Units)

RECOMMENDED PREREQUISITES:

COR147 – Introduction to Specification Writing

CDC300 – Using Door and Frame Standards

Door and frame specifications require as much attention to detail as other specification sections. Fire-rated openings (both neutral and positive pressure tested) require particular attention to construction, labeling requirements, reinforcements, hardware preparations, glazing, and frame anchors. These specifications must be carefully coordinated with other specifications to ensure that the proper materials are provided. This course teaches you how to write clear, concise, correct, and complete door and frame specifications using the Construction Specifications Institute's MasterFormat™ as a guide.

You will learn how to:

- Organize your specifications
- Use correct specification language
- Coordinate work in other sections
- Address product substitutions

STUDENTS TO PROVIDE ADDITIONAL REFERENCE MATERIALS:

- ✓ NFPA80, Standards for Fire Doors and Other Opening Protectives (2013 edition)
- ✓ NFPA101, Life Safety Code (2012 edition)
- ✓ ICC/ANSI A117.1, Accessible and Usable Building and Facilities (2009 edition)
- ✓ Catalogs or electronic files for standard and custom hollow metal doors and frames, architectural flush and stile and rail wood doors, and aluminum doors and frames.

Electronic copies are allowed, however, we recommend that you download the materials on your computer.

COURSE DESCRIPTIONS

EHC400 ELECTRIFIED HARDWARE APPLICATIONS AND DOCUMENTATION

(3 Days) (72 CEP Points) (24 Learning Units)

RECOMMENDED PREREQUISITES:

COR117 – Door, Frame, and Architectural Hardware Applications

COR133 – Electrified Architectural Hardware

COR140 – Using Codes and Standards

AHC205 – Detailing Hardware

AHC207 – Advanced Detailing Hardware

One of the most important steps in detailing today's projects is creating the wiring drawings and diagrams and related documentation for door openings with electrified hardware. This course will teach you how to use correct industry symbols and drawing techniques to help you communicate the project's requirements more effectively with the installer.

You will learn how to:

- Create point-to-point wiring diagrams
- Create logic diagrams
- Use relays to control circuits

EHC405 ACCESS CONTROL AND ELECTRIFIED HARDWARE SYSTEMS

(3 Days) (72 CEP Points) (24 Learning Units)

RECOMMENDED PREREQUISITES:

COR117 – Door, Frame, and Architectural Hardware Applications

COR133 – Electrified Architectural Hardware

COR140 – Using Codes and Standards

AHC205 – Detailing Hardware

AHC207 – Advanced Detailing Hardware

EHC400 – Electrified Hardware Applications and Documentation

Building security is one of the most important concerns for today's projects. This class teaches you how to incorporate and integrate electrically controlled hardware items into an access controlled security system.

You will learn how to:

- Use controllers
- Interface with auxiliary systems (including CCTV)
- Communicate with electrical and alarm systems professionals
- Layout access control and electrified hardware systems

EHC410 INSTALLING AND TROUBLESHOOTING ELECTRIFIED HARDWARE SYSTEMS AND ACCESS CONTROL DEVICES

(3 Days) (72 CEP Points) (24 Learning Units)

RECOMMENDED PREREQUISITES:

COR117 – Door, Frame, and Architectural Hardware Applications

COR133 – Electrified Architectural Hardware

COR140 – Using Codes and Standards

AHC205 – Detailing Hardware

AHC207 – Advanced Detailing Hardware

EHC405 – Access Control and Electrified Hardware Systems

Proper installation of electrified hardware and access control devices is critical for the security of building occupants. Fire and life safety requirements are frequently compromised when these products are incorrectly installed. This course teaches you how to direct the installation of electrified hardware and access control devices, as well as troubleshooting circuits and systems in the field.

You will learn how to:

- Use a multimeter to troubleshoot circuits
- Review wiring diagrams
- Read electrical blueprints
- Verify electrical connections
- Field test systems
- Coordinate with other trades

STUDENTS TO PROVIDE ADDITIONAL REFERENCE MATERIALS:

- ✓ Catalogs or electronic files for electrified hardware (e.g. power supplies, card readers, key pads, motion detectors, power transfer devices)

Electronic copies are allowed, however, we recommend that you download the materials on your computer.

EHC420 EHC EXAM PREP

(2 Days) (16 Hours) (48 CEP Points)

This course is designed to take you through the exercises required to complete the Electrified Hardware Consultant (EHC) certification exam under exam-like conditions. You will leave this class with a firm understanding of how to prepare for the EHC exam.

You will learn how to:

- Complete shop drawing exercises
- Complete written exam questions that cover topics such as access control systems, CCTV terminology, principles of low-voltage electricity, and specification writing

STUDENTS TO PROVIDE ADDITIONAL REFERENCE MATERIALS:

- ✓ NFPA80, Standards for Fire Doors and Other Opening Protectives (2013 edition)
- ✓ NFPA101, Life Safety Code (2012 edition)
- ✓ ICC/ANSI A117.1, Accessible and Usable Building and Facilities (2009 edition)
- ✓ Catalogs or electronic files for electrified hardware (e.g. power supplies, card readers, key pads, motion detectors, power transfer devices)

Electronic copies are allowed, however, we recommend that you download the materials on your computer.

COURSE DESCRIPTIONS

DAI600 FIRE AND EGRESS DOOR ASSEMBLY INSPECTION

(3 Days) (72 CEP Points) (24 Learning Units)

The DAI600 curriculum is focused on understanding the role and responsibilities of the fire and egress door inspectors as well as interacting with the building owner and the Authority Having Jurisdiction (AHJ). It is paramount to ensure that the respective parties clearly understand the inspection process and documentation and how to follow through with the necessary corrections to improve safety in their facilities.

This class will teach you how to perform and record these inspections, as well as provide tips for interacting with building owners and AHJs. It requires an intermediate level of understanding of door, frame, and hardware products and applications, and applicable code familiarity to conduct inspections.

Students of this course are recommended to have completed two specific DHI courses or have comparable knowledge or experience. The first critical course, *COR117- Door, Frame, and Architectural Hardware Applications*, is focused on products and their applications. If you have not taken this course but have significant experience in non-residential doors, frames, and hardware, a complimentary knowledge assessment exam is available to evaluate your readiness for the DAI 600 class. Because the DAI600 course is based heavily on understanding codes, which are updated every three years, we strongly suggest that the second course, *COR140 - Using Codes and Standards*, be taken prior to DAI600, and if not taken within the past three years, the DHI CEP code update classes also be taken.

You will learn how to:

- Perform visual inspections and conduct operational testing of swinging fire doors
- Authorize inspection reports for building owners and AHJ requirements
- Recommend corrective actions necessary in compliance with inspection requirements
- Interface with building owners and AHJs on inspection requirements and issues
- Understand NFPA 101 inspections, occupancy types, means of egress, special locking arrangements, capacity calculations, hazard contents, and perform egress inspections
- Provide Performance-Based option explanation and guidance
- Research manufacturers' labels and listings
- Provide instruction for the care and maintenance of components along with approved field modifications when necessary

After completing the DAI600 course, students may then register to take the FDAI certification computerized exam through Kryterion Testing Services at their convenience. Upon successful completion of DAI600 and the exam students will receive the credentials FDAI - Fire Door Assembly Inspector.

Students will receive the *Guide to Annual Inspections of Swinging Fire Doors and Field Reference Digest for Inspecting Swinging Fire Doors*, sample inspection reports, door gap gauge, and inspection magnet and mirror.

STUDENTS TO PROVIDE ADDITIONAL REFERENCE MATERIALS FOR DAI600:

- ✓ NFPA 80, Standards for Fire Doors and Other Opening Protectives (2013 edition)
- ✓ NFPA101, Life Safety Code (2012 edition)
- ✓ ICC/ANSI A117.1, Accessible and Usable Buildings and Facilities (2009 edition)

Electronic copies are allowed, however, we recommend that you download the materials on your computer.

IMPORTANT TO NOTE

At this school we are offering DAI600 with exam options:

3-DAY DAI600

By selecting the 3-day DAI600 course you will attend a 3-day educational course. You will NOT take the FDAI Credentialing Exam onsite at the Technical School. You will take the Exam once you return home on a day and time that works best for you. You will receive information following the conclusion of the Technical School with instructions on making your appointment with Kryterion Global Testing Solutions.

4-DAY DAI600

By selecting the 4-day DAI600 course you will attend a 3-day educational course and on the 4th day take the FDAI Credentialing Exam onsite (1/2 day) at the Technical School.