



# DHI CANADA SPRING 2016 TECHNICAL SCHOOL

May 30 - June 3, 2016

Holiday Inn Montreal Airport Hotel  
6500 Cote de Liesse, Montreal, PQ H4T 1E3

## Spring school heads back to Montreal and brings with it ...

- **AHC207 – Advanced Detailing Hardware** ... in a 5-day in-class format for the first time. We tried 3-day in-class; we tried 4-day in-class – now we have the right formula for a successful in-class delivery.
- **The Most Extensive Curriculum Ever Offered** ... with 8 unique learning tracks, we've covered all bases.
- **Multiple Training Day Discount and Multiple Registration Discount** ... we value your support and we show it in the best possible way!

**DHI Canada – bringing education home!**

**To register online, go to:**

**[www.dhicanada.ca/EDUCATION/TechnicalProgram.asp](http://www.dhicanada.ca/EDUCATION/TechnicalProgram.asp)**

## COURSE CURRICULUM

Track / Course Options	Monday May 30	Tuesday May 31	Wednesday June 1	Thursday June 2	Friday June 3
5-Day CORE	Door & Frame Applications (COR120)	Door & Frame Applications (COR120)	Architectural Hardware & Applications (COR113)	Architectural Hardware & Applications (COR113)	Architectural Hardware & Applications (COR113)
5-Day CORE	Understanding & Using Construction Documents (COR103)	Masterkeying (AHC200)	Electrified Hardware Applications & Documentation (EHC400)	Electrified Hardware Applications & Documentation (EHC400)	Electrified Hardware Applications & Documentation (EHC400)
5-Day CORE	Electrified Architectural Hardware (COR133)	Electrified Architectural Hardware (COR133)	Electrified Architectural Hardware (COR133)	Electrified Architectural Hardware (COR133)	Electrified Architectural Hardware (COR133)
3-Day CORE	Detailing Hardware (AHC205)	Detailing Hardware (AHC205)	Detailing Hardware (AHC205)		
5-Day CORE	Introduction to Specification Writing (COR147)	Introduction to Specification Writing (COR147)	Introduction to Specification Writing (COR147)	Installation Coordination & Project Management (COR153)	Installation Coordination & Project Management (COR153)
5-Day CORE	Takeoff and Estimating (COR125)	Takeoff and Estimating (COR125)	Using Codes & Standards (COR140)	Using Codes & Standards (COR140)	Using Codes & Standards (COR140)
5-Day AHC	Advanced Detailing Hardware (AHC207)	Advanced Detailing Hardware (AHC207)	Advanced Detailing Hardware (AHC207)	Advanced Detailing Hardware (AHC207)	Advanced Detailing Hardware (AHC207)
3-Day AHC			AHC Exam Prep (AHC220)	AHC Exam Prep (AHC220)	AHC Exam Prep (AHC220)

## IMPORTANT INFORMATION

### What is a Track?

- A “track” is a series of two or more classes that are arranged in a sequence that provides the most educationally beneficial learning experience to the student.

### Prerequisites

- Some courses have recommended prerequisites as detailed in the descriptions provided.
- Reference the DHI Education Resource Guide for complete information – [www.dhi.org/education](http://www.dhi.org/education).
- DHI recommends to new students, and those with minimum field experience, that they follow the suggested education path when registering for classes.

### Registration Fee Policies

- Member fee applies to all DHI individual members or any employee of a corporate member.
- Registration fee includes tuition, course material, breakfast, lunch and refreshment breaks.

### Challenge Exams

- DHI offers a series of exams allowing students to earn credit for courses using knowledge gained through DHI education, industry training and on-the-job training. Passing an exam gives you credit for that course in the DHI Credentialing Program. To apply for a challenge exam, please visit [www.dhi.org/education](http://www.dhi.org/education) to download the application.

### Class Size

- Registrations are processed in the order they are received.
- In cases where a class is sold out, registrants are placed on a waitlist.

- If students are not able to attend the course of their choice, they may opt to transfer to another course, or another DHI Canada class session, or seek a refund.
- Classes may be cancelled if a minimum number of students is not achieved.

### Refund Policy

- A \$200.00 administration fee will be applied to cancellations received until April 22, 2016.
- After April 22, 2016, no refunds will be allowed.
- Substitutions are allowed at any time.

### Required References and Technical Catalogues

- For courses requiring reference materials and/or product catalogues, we recommend students ship them directly to the hotel, to be held in their name, in sufficient time for arrival before classes start.
- Students can also bring their laptop into class to access these resource materials online.**

### Hotel Accommodation

- DHI Canada is pleased to offer members the special rate of \$114 per night (single or double occupancy)
- Accommodation must be booked with the Holiday Inn Airport Montreal by calling 1-877-660-8550, and mention Block code: DHI.
- Reservations must be booked by April 20, 2016 to guarantee this rate. **BE SURE TO IDENTIFY YOURSELF AS BEING WITH DOOR & HARDWARE INSTITUTE CANADA.**

## CORE PROGRAM

### MONDAY, MAY 30

#### **COR103 - Understanding and Using Construction Documents**

(8 Hours) (24 CEP points)

Understanding how construction projects are organized and designed requires a thorough knowledge of the construction documents that administrate, illustrate, detail and describe them. (Estimators, detailers and project managers need to understand the purpose and use of specifications and drawings as they perform their duties. Knowing where to find specific information in the specifications, and on the drawings, and understanding how that information applies to our trade can make the difference between a profitable or unprofitable job.) This program provides estimators, detailers and project managers with the essential knowledge needed to sort through these documents to find the information they need.

You will learn how to:

- Read architectural drawings
- Use an architectural scale
- Determine the scope of work
- Use addenda
- Request change orders
- Find specific information in specifications and drawings
- Determine what materials are required on a project
- Identify conflicts between specifications and drawings
- Coordinate your work with related trades

### WEDNESDAY, JUNE 1 - FRIDAY, JUNE 3

#### **COR113 - Architectural Hardware & Applications**

(24 Hours) (72 CEP points)

To be successful in our industry you need to have a well-rounded, general knowledge of the multitude of items used every day. 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. Assortments of samples are utilized in this course to help you identify and describe many of the hardware items in use today. This course will also give you an understanding of proper applications and use of architectural hardware items that will be an important step in your development as a professional in the architectural openings industry.

You will learn how to:

- Size special-purpose hinges (e.g., wide throw)
- Use raised-barrel hinges
- Use swing-clear hinges
- Select proper strike plates
- Size push/pull bars
- Resolve closer/overhead stop/holder conflicts
- Size thresholds and saddles

NOTE: Students are required to bring a calculator

### MONDAY, MAY 30 - TUESDAY, MAY 31

#### **COR120 - Door and Frame Applications**

(16 Hours) (48 CEP points)

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.

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)

NOTE: Students are required to bring a calculator.

### MONDAY, MAY 30 - TUESDAY, MAY 31

#### **COR125 - Takeoff & Estimating**

(16 Hours) (48 CEP points)

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, under price 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

NOTE: Students are required to bring a calculator.

**Recommended Prerequisites:** COR103 - Understanding and Using Construction Documents; COR113 - Architectural Hardware and Applications; COR120 - Door and Frame Applications

### MONDAY, MAY 30 - FRIDAY JUNE 3

#### **COR133 - Electrified Architectural Hardware**

(40 Hours) (120 CEP points)

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 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. Also, students will receive a digital multimeter as well as a copy of Wiring Diagrams, by John Schum as part of their class materials.

**Recommended Prerequisites:** COR113 - Architectural Hardware and Applications; COR120 - Door and Frame Applications

### WEDNESDAY, JUNE 1 - FRIDAY, JUNE 3

#### **COR140 - Using Codes & Standards**

(24 Hours) (72 CEP points)

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, *Standards for Fire Doors and Other Opening Protectives* (2013 edition), NFPA 101, *Life Safety Code* (2012), ANSI A117.1, *Usable and Accessible Buildings and Facilities* (2009 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

**Recommended Prerequisites:** COR113 - Architectural Hardware & Applications; COR120 - Door and Frame Applications

**Required Class Materials:**

1. NFPA 80, *Standard for Fire Doors and Other Opening Protectives* (2013 edition)
2. NFPA101, *Life Safety Code* (2012 edition)
3. ANSI A117.1, *Accessible and Usable Buildings and Facilities* (2009 edition)

### MONDAY, MAY 30 - WEDNESDAY, JUNE 1

#### COR147 - Introduction to Specification Writing

(16 Hours) (48 CEP points)

Whether you are pursuing the designation of Architectural Hardware Consultant (AHC), Certified Door Consultant (CDC), or Electrified Hardware Consultant (EHC), 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 and engineers 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)

#### Required Class Materials:

1. Technical information for hinges, mortise locks, door closers
  2. Fire exit hardware and panic hardware, protection plates
  3. Electrified hardware
  4. Hollow metal doors and frames, flush wood doors
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### THURSDAY, JUNE 2 - FRIDAY, JUNE 3

#### COR153 - Installation Coordination and Project Management

(16 Hours) (48 CEP points)

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 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 call backs 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

NOTE: Students are required to bring a calculator. Students also receive a copy of the DHI Handbook, *Installation Guide for Doors and Hardware*, as part of their class materials.

**Recommended Prerequisites:** COR103 - Understanding and Using Construction Documents; COR113 - Architectural Hardware and Applications; COR120 - Door and Frame Applications

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## AHC PROGRAM

### TUESDAY, MAY 31

#### AHC200 - Masterkeying

(8 Hours) (24 CEP points)

A solid knowledge base of master key systems is essential to all estimators, detailers, project managers and consultants. This program covers all 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
- Use high-security cylinders and keyways
- Organize and conduct a keying meeting
- Identify existing key systems and their expansion potential
- Communicate the owner's keying requirements to the factory

**Note:** Students will receive a copy of the DHI Handbook, Keying Systems and Nomenclature, as part of their class materials.

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### MONDAY, MAY 30 - WEDNESDAY, JUNE 1

#### AHC205 - Detailing Hardware

(24 Hours) (72 CEP Points)

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 hardware with doors and frames

#### REQUIRED CLASS MATERIALS:

Please bring product catalogs for all four of the following courses: AHC205 - Detailing Hardware, AHC207 - Advanced Detailing Hardware, AHC215 - Writing Hardware Specifications, and AHC220 - AHC Exam Prep:

1. Hinges, pivots, continuous hinges, and concealed-in-the-floor door closers
2. Door bolts, coordinators, overhead stops and holders, and removable mullions
3. Bored and mortise locks and latches
4. Auxiliary locks
5. Panic hardware and fire exit hardware devices
6. Surface-mounted and overhead concealed door closers
7. Low-energy door operators
8. Door pulls, push bars, and protection plates
9. Gasketing and thresholds
10. Door stops and miscellaneous hardware
11. Electrified hardware products (e.g., power supplies, card readers, key pads, motion detectors, power transfer devices, etc.)
12. NFPA 80, *Standard for Fire Doors and Other Opening Protectives* (2007 edition)
13. NFPA 101, *Life Safety Code* (2006 edition)
14. ICC/ANSI A117.1, *Accessible and Usable Buildings and Facilities* (2003 edition)

**Recommended Prerequisites:** COR113 - Architectural Hardware and Applications; COR140 - Using Codes and Standards

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### MONDAY, MAY 30 - FRIDAY, JUNE 3

#### AHC207 - Advanced Detailing Hardware

(40 Hours) (120 CEP points)

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) 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 door openings
- Select hardware products
- Create detailed hardware sets
- Include elevation diagrams for openings with electrified hardware
- Create a cover page, template list, abbreviations and symbols list, etc.

#### REQUIRED CLASS MATERIALS:

Please bring product catalogs for all four of the following courses: AHC205 – Detailing Hardware, AHC207 – Advanced Detailing Hardware, AHC215 – Writing Hardware Specifications, and AHC220 – AHC Exam Prep:

1. Hinges, pivots, continuous hinges, and concealed-in-the-floor door closers
2. Door bolts, coordinators, overhead stops and holders, and removable mullions
3. Bored and mortise locks and latches
4. Auxiliary locks
5. Panic hardware and fire exit hardware devices
6. Surface-mounted and overhead concealed door closers
7. Low-energy door operators
8. Door pulls, push bars, and protection plates
9. Gasketing and thresholds
10. Door stops and miscellaneous hardware
11. Electrified hardware products (e.g., power supplies, card readers, key pads, motion detectors, power transfer devices, etc.)
12. NFPA 80, *Standard for Fire Doors and Other Opening Protectives* (2007 edition)
13. NFPA 101, *Life Safety Code* (2006 edition)
14. ICC/ANSI A117.1, *Accessible and Usable Buildings and Facilities* (2003 edition)

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

**Recommended Prerequisites:** COR133 – Electrified Architectural Hardware AHC205 – Detailing Hardware

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### WEDNESDAY, JUNE 1 - FRIDAY, JUNE 3

#### AHC220 - AHC Exam Prep

(24 Hours) (72 CEP points)

Students pursuing the Architectural Hardware Consultant (AHC) 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

**Note:** Students are required to bring the following:

1. Hinges, pivots, continuous hinges, and concealed-in-the-floor door closers
2. Door bolts, coordinators, overhead stops and holders, and removable mullions
3. Bored and mortise locks and latches
4. Auxiliary locks
5. Panic hardware and fire exit hardware devices
6. Surface-mounted and overhead concealed door closers
7. Low-energy door operators
8. Door pulls, push bars, and protection plates
9. Gasketing and thresholds
10. Door stops and miscellaneous hardware
11. Electrified hardware products (e.g., power supplies, card readers, key pads, motion detectors, power transfer devices, etc.)
12. NFPA 80, *Standard for Fire Doors and Other Opening Protectives* (2007 edition)
13. NFPA 101, *Life Safety Code* (2006 edition)
14. ICC/ANSI A117.1, *Accessible and Usable Buildings and Facilities* (2003 edition)

**Prerequisites:** All courses required to sit for the exam

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## EHC PROGRAM

### WEDNESDAY, JUNE 1 - FRIDAY, JUNE 3

#### EHC400 - Electrified Hardware Applications and Documentation

(24 Hours) (72 CEP points)

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

**Recommended Prerequisite:** AHC207 – Advanced Detailing Hardware

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# 2016 SPRING TECHNICAL SCHOOL

**May 30 - June 3, 2016**

**Holiday Inn Montreal Airport**  
6500 Cote de Liesse  
Montreal, PQ H4T 1E3

## Registration Form (page 1 of 2)

Mr.  Ms.

Name \_\_\_\_\_ Nickname for badge \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Province/State \_\_\_\_\_ Postal Code/Zip \_\_\_\_\_

Telephone \_\_\_\_\_ Fax \_\_\_\_\_ \*Email \_\_\_\_\_

DHI Member # \_\_\_\_\_  Non-Member

\*Your confirmation letter and other important information will be sent by email so be sure to provide your current email address.

**NOTE: Courses run daily from 8:00 a.m. to 5:30 p.m.**  
**Registration Fee includes tuition, course material, breakfast, lunch and refreshment breaks**

COURSE SELECTION				
Course	Date(s)	Member Fee	Non Member Fee	Amount
Advanced Detailing Hardware (AHC207)	May 30 - June 3	\$2,650 <input type="radio"/>	\$3,150 <input type="radio"/>	
AHC Exam Prep (AHC220)	June 1 - 3	\$1,510 <input type="radio"/>	\$1,810 <input type="radio"/>	
Architectural Hardware & Applications (COR113)	June 1 - 3	\$1,355 <input type="radio"/>	\$1,655 <input type="radio"/>	
Detailing Hardware (AHC205)	May 30 - June 1	\$1,510 <input type="radio"/>	\$1,810 <input type="radio"/>	
Door & Frame Applications (COR120)	May 30 - 31	\$955 <input type="radio"/>	\$1,155 <input type="radio"/>	
Electrified Architectural Hardware (COR133)	May 30 - June 3	\$2,650 <input type="radio"/>	\$3,150 <input type="radio"/>	
Electrified Hardware Applications and Documentation (EHC400)	June 1 - 3	\$1,585 <input type="radio"/>	\$1,885 <input type="radio"/>	
Installation Coordination & Project Management (COR153)	June 2 - 3	\$1,010 <input type="radio"/>	\$1,210 <input type="radio"/>	
Introduction to Specification Writing (COR147)	May 30 - June 1	\$1,510 <input type="radio"/>	\$1,810 <input type="radio"/>	
Masterkeying (AHC200)	May 31	\$455 <input type="radio"/>	\$555 <input type="radio"/>	
Takeoff & Estimating (COR125)	May 30 - 31	\$955 <input type="radio"/>	\$1,155 <input type="radio"/>	
Understanding & Using Constructions Docs (COR103)	May 30	\$455 <input type="radio"/>	\$555 <input type="radio"/>	
Using Codes & Standards (COR140)	June 1 - 3	\$1,510 <input type="radio"/>	\$1,810 <input type="radio"/>	
Total Course Fees <small>(carry forward to Payment Details on page 2)</small>				\$

### Special Discounts

- **Multiple Registration Discount** - Member companies registering 5 or more employees are entitled to a special discount. Please contact DHI Canada for further details - 416-492-6502.
- **Multiple Training Day Discount** - Those registering for 4 or more training days will receive a 5% discount per training day.



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**May 30 - June 3, 2016**

**Holiday Inn Montreal Airport**  
6500 Cote de Liesse  
Montreal, PQ H4T 1E3

## Registration Form (page 2 of 2)

### PAYMENT DETAILS

If registering for 1 - 3 modules, apply the registration fee shown on page 1 of the Registration form ..... \$ \_\_\_\_\_

If registering for 4 or more modules, apply a 5% discount to all registration fees ..... \$ \_\_\_\_\_

5% GST (Quebec Residents 14.975% QST) .... \$ \_\_\_\_\_

**TOTAL AMOUNT DUE .... \$ \_\_\_\_\_**

**Multiple Registration Discount** - Member companies registering 5 or more employees are entitled to a special discount. Please contact DHI Canada for further details - 416-492-6502.

Cheque or Money Order enclosed (payable to **DHI Canada**)

  

Account No. \_\_\_\_\_

Expiry Date \_\_\_\_ / \_\_\_\_

Name on Card: \_\_\_\_\_

Signature: \_\_\_\_\_

GST/HST #12489 8890 RT0001  
QST #1222866975

## DHI Canada - bringing education home!

Please complete all sections of this registration form and return to:

**Door & Hardware Institute - Canada**

2800 14th Avenue, Suite 210, Markham, Ontario L3R 0E4 / Telephone – 416-492-6502 Fax – 416-491-1670

**OR REGISTER ONLINE AT [www.dhicanada.ca/EDUCATION/TechnicalProgram-2016-Spring.asp](http://www.dhicanada.ca/EDUCATION/TechnicalProgram-2016-Spring.asp)**